



*República de Colombia
Ministerio de Agricultura
y Desarrollo Rural*

*República de Colombia
Departamento Nacional de Planeación*

**SEMINARIO INTERNACIONAL
"POLITICA AGRICOLA HACIA EL 2020:
LA BUSQUEDA DE LA COMPETITIVIDAD,
LA SOSTENIBILIDAD Y LA EQUIDAD"**

*Santafé de Bogotá, D.C.
26 al 28 de marzo de 1996*



IFPRI
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE



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SEMINARIO INTERNACIONAL

Política agrícola hacia el 2020: la búsqueda de competitividad, sostenibilidad y equidad.

**Hotel Bogotá Royal
Santafé de Bogotá, marzo 26, 27 y 28 de 1996**

1. Presentación

En los países de la Subregión Andina de fuerte tradición agrícola, la modernización del sector es una condición necesaria para lograr un desarrollo sostenible basado en un adecuado balance macroeconómico, equidad social, democracia política y equilibrio ambiental.

Desde que comenzaron los procesos de internacionalización de las economías latinoamericanas y vinculado a esto, los procesos de apertura en el sector agroalimentario, el sector de productos básicos y de alimentos se encuentra en franca crisis, crisis que aún no ha sido superada no obstante haberse ensayado diferentes modalidades de instrumentos de política.

Esta situación se ha acentuado en particular en aquellos sectores de la producción donde se tienen claras desventajas competitivas, sectores donde se han ensayado diferentes estrategias de reconversión, con resultados aún poco favorables.

El ajuste económico y la internacionalización de las economías, con la consiguiente exposición del aparato productivo a la competencia externa, no ha significado hasta el momento en la mayoría de los países una mejora en las condiciones de productividad y competitividad en la agricultura. Una combinación de precios internacionales en baja, altas tasas de interés, revalorización de las monedas y competencia desleal por parte de los países industrializados y otros países participantes en esquemas de integración, ha tenido un impacto negativo sobre la producción agropecuaria aumentando en consecuencia los ya altos índices de pobreza rural y retrasando la posibilidad de entrar en un sendero que conduzca a que la visión 2020 se concrete.

Frente a esta crisis ya surgió en la Reunión de Ministros de Agricultura del Hemisferio en Costa Rica, la pregunta de cómo reposicionar la agricultura en este contexto, cuáles son realmente los grados de libertad existentes, qué instrumentos de apoyo están disponibles que sean financieramente factibles para los países y a la vez consistentes con los compromisos internacionales. En suma, cómo diseñar políticas que apunten a lograr una mejora de la competitividad, a tener respuestas para facilitar la reconversión de sectores no competitivos y a poder desarrollar estrategias de diversificación válidas para consolidar

2000

2001

2002

la competitividad. En una palabra: cómo hacer agricultura en esquemas de apertura de tal manera que sea competitiva, equitativa y sostenible.

Para lograr todos los propósitos aquí señalados es necesario la puesta en vigencia de políticas sectoriales activas adecuadamente diseñadas que consulten con los problemas del corto plazo, pero que también señalen una perspectiva adecuada en el mediano y largo plazo.

Esta problemática se enlaza estrechamente con el planteamiento que el Instituto Internacional de Investigación en Políticas Alimentarias (IFPRI) ha formulado en su "Visión de la Alimentación, la Agricultura y el Medio Ambiente hacia el año 2020" y que busca asegurar una alimentación adecuada a la población mundial utilizando racionalmente los recursos naturales de tal modo que puedan sustentar una producción agropecuaria compatible con los niveles de población e ingresos esperados hacia el año 2020.

El Seminario propuesto pretende ser el primero de un foro hemisférico permanente que comprometa a Instituciones Gubernamentales, Centros Académicos y Organizaciones de Agricultores, para debatir el tema de cómo hacer agricultura en la apertura y cómo hacer agricultura para conseguir la visión 2020, revisando las experiencias de varios países en los últimos 4 ó 5 años y presentando reflexiones y estudios que arrojen los elementos para un debate amplio y profundo.

Este evento cuenta con el patrocinio del IICA y el IFPRI a nivel regional e internacional respectivamente y con el concurso del Ministerio de Agricultura y Desarrollo Rural y del Departamento Nacional de Planeación de Colombia así como de la Sociedad de Agricultores de Colombia.

2. Objetivos del Seminario

El seminario se propone:

a) Conocer algunas experiencias recientes de diseño y ejecución de políticas agrícolas orientadas al desarrollo de la competitividad y a la reconversión de sectores no competitivos, con especial relevancia a sectores de producción de alimentos básicos, en particular políticas relacionadas con: precios e ingresos, comercio internacional, mercados internos, sostenibilidad medio ambiental de la agricultura, alimentación y consumidores, desarrollo rural e investigación y educación. Este ejercicio deberá permitir la elaboración de conclusiones válidas para el diseño de la política agrícola en los países del Hemisferio y la Subregión.

b) Incorporar explícitamente elementos de la visión 2020 al análisis de los temas precedentes, en especial con referencia a la interacción entre políticas agrícolas, medio ambiente y pobreza rural.

3. Programa

Martes 26 Marzo

El entorno mundial en materia de política agrícola

- | | |
|-------------|---|
| 8:00-9:00 | Inscripciones |
| 9:00-9:30 | Instalación |
| 9:30-10:00 | Receso |
| 10:00-10:30 | El Papel de la Agricultura en América Latina y el Caribe en el Marco de la Globalización. Implicaciones para las Políticas Sectoriales.

Dr. Manuel Otero.
Director Regional de IICA para el Area Andina. |
| 10:30-11:15 | Análisis de la Nueva Ley de Agricultura de los Estados Unidos.

Dr. Dale Hathaway
Director.
National Center for Food and Agricultural Policy |
| 11:15-11:30 | Preguntas y Debate |
| 11:30-12:15 | Implicaciones de la nueva Política Agrícola Común de la Unión Europea en la agricultura de los países en desarrollo.

Dr. José Ma. García.
Universidad Politécnica de Valencia. España |
| 12:15-12:30 | Preguntas y debate |
| 12:30-14:30 | Almuerzo |
| 14:30-15:30 | El Acuerdo Agrícola de la Ronda de Uruguay del GATT como marco orientador para el diseño de políticas de apoyo y protección a la agricultura.

Dr. Arnaldo Chibbaro - Dr. Fernando Morales
IICA Embajada de Chile en Bélgica |
| 15:30-16:00 | Preguntas y Debate |

- 16:00-16:30 Receso
- 16:30-17:30 Panel. Implicaciones del Gatt 94, Farm Bill Americano y la PAC de la UE en el diseño de políticas agrícolas en América Latina.
- Dr. Yesid Castro (JUNAC)
Dr. Fernando Barbieri (FUNDAGRO. Colombia)
- Moderador : Dr. Fernando Morales
Embajada de Chile en Bélgica

17:30-18:00 Debate

Miércoles 27 de marzo

La visión 2020 del IFPRI sobre Alimentación, Agricultura y Medio Ambiente.

- 9:00-10:00 La Visión Global de Proyecto 2020 y sus implicaciones de política para la Subregión
- Dr. Per Pinstруп-Andersen
Director IFPRI.
- Dr. Lucio Reca
IFPRI-LAC
- 10:00-11:00 Institucionalidad para la agricultura sostenible: evidencias para México, Colombia y Chile.
- Dr. Jesús A. Bejarano.
IICA - IFPRI
- 11:00-11:15 Receso
- 11:15-12:30 Comentarios y Debate
- 12:30-14:00 Almuerzo
- 14:00-15:00 Pobreza Rural en la Región: Situación Actual. Proyecciones e Implicaciones de Política.
- Dr. Adolfo Figueroa
IFPRI

15:00-16:30 Condiciones de política para alcanzar la competitividad, la equidad y la sostenibilidad de la agricultura en la Región. Panel y Debate.

Dr. Michel Negrin (FAO)
Dr. Gabriel Martínez (SAC)
Dr. José Leivobich (UNIANDES)
Dr. John Heath (Banco Mundial)

Moderador : Dr. Lucio Reca (IFPRI)

Jueves 28 de marzo

Situación competitiva de la producción de alimentos y políticas agrícolas: algunos casos de la Región.

8:30-9:30 Comportamiento de la agricultura durante el proceso de ajuste económico y liberalización en la Región Andina y Colombia. Implicaciones para la competitividad.

Dr. Carlos F. Espinal.
IICA-IFPRI

9:30-10:30 La competitividad de la producción de alimentos en México. Los casos del maíz y del frijol.

Dr. Jaime Matus.
Colegio de Postgrado de Chapingo. México

10:30-10:45 Receso

10:45-11:45 La transformación Agraria Mexicana y el papel de PROCAMPO.

Dr. Andrés Casco.
Secretaría de Agricultura de México.

11:45-12:30 Preguntas y debate

12:30-14:00 Almuerzo

- 14:00-15:00 La política agrícola y la producción de alimentos. El caso de Chile.
- Dra. Eugenia Muchnik.
 Universidad Católica de Chile.
- 15:00-16:00 Preguntas y debate.
- 16:00-16:30 Receso
- 16:30-17:45 Conclusiones sobre las tendencias en las políticas agrícolas mundiales y sus implicaciones en la orientación de las políticas en la región. La visión del sector privado. Mesa Redonda de Organizaciones de Productores moderada por el Ministro de Agricultura y Desarrollo Rural de Colombia.
- Dr. Juan Manuel Ospina. SAC (Colombia)
 Dr. Walter Nuñez. CAO (Bolivia)
 Dr. Hiram Gaviria. FEDEAGRO (Venezuela)
- Moderadora: Dra. Cecilia López M.
 Ministra de Agricultura y Desarrollo Rural
 Colombia.
- 17:45-18:15 Clausura



FAO REGIONAL OFFICE FOR
LATIN AMERICA AND THE CARIBBEAN

TECHNICAL DEPARTMENT FOR LATIN AMERICA
AND THE CARIBBEAN OF THE WORLD BANK



CFh

FAO/WORLD BANK WORKSHOP

**IMPLEMENTING THE URUGUAY ROUND AGREEMENT
IN LATIN AMERICA:
THE CASE OF AGRICULTURE**

- Santiago, Chile, from 28 to 30 November 1995 -

**A SYNTHESIS OF RESULTS ON THE IMPACT OF THE URUGUAY ROUND
ON THE GLOBAL AND LAC AGRICULTURE**

**Ramesh Sharma, Panos Konandreas and Jim Greenfield
Commodities and Trade Division
FAO, Rome**

**Santiago, Chile
1995**

A Synthesis of Results on the Impact of the Uruguay Round on the Global and LAC Agriculture*

**Ramesh Sharma, Panos Konandreas and Jim Greenfield
Commodities and Trade Division
FAO, Rome**

ABSTRACT

The paper presents a synthesis of results from various models that assessed the impact of the Uruguay Round (UR) on agriculture globally and that of the Latin America and the Caribbean (LAC) region, in particular. The review draws from the results of FAO's World Food Model (WFM) and assessments made by other organizations, inter alia, UNCTAD, OECD/World Bank, and GATT/WTO.

In general, the results of the various models are largely comparable, especially as regards the direction of change of some key indicators, such as world market prices, shifts in the location of production and trade flows. However, results can also vary markedly for some other indicators (e.g. aggregate welfare). Much of such differences can be ascribed to different assumptions made, such as the depth of policy reforms modelled, model structure (partial versus general equilibrium) and assumptions about economic structure (competitive versus monopolistic).

As for the LAC region, the models in general show net gains in production, trade and incomes. For example, the WFM shows production gains for most farm products, resulting in a boost of the regions' net export earnings from agricultural trade by some US\$ 2.6 billion in the year 2000 (at 1987-90 constant prices), over the value without the UR. Commodity-wise, large gains are foreseen for cereals (US\$346 million), fats and oils and oil proteins (US\$500 million), dairy products (US\$200 million), coffee (US\$212 million) and sugar (US\$720 million). However, countries within the LAC region are not expected to share equally in the overall benefits foreseen for the region as a whole. Thus, for example, net cereal importing countries of the Caribbean and Central American sub-regions may lose if their higher cereal import bills and erosion of benefits from preferential schemes are not matched by gains from higher prices and export volumes of their major exports, such as bananas, sugar and tropical beverages.

* Paper presented to a Workshop Co-sponsored by the FAO and the World Bank on *Implementing the Uruguay Round Agreement in Latin America: The Case for Agriculture*, Santiago, Chile, 28-30 November, 1995

A Synthesis of Results on the Impact of the Uruguay Round on the Global and LAC Agriculture

Ramesh Sharma, Panos Konandreas and Jim Greenfield

I. Introduction

Several individual researchers and international organizations have assessed the impact of the Uruguay Round (UR), focusing on the Agreement on Agriculture but also other quantifiable agreements. In general, the latest round of such studies are merely the "re-runs" of the earlier models as the contents of the Final Act became known in March 1994. As a result, the literature provides a wide range of impact estimates for a comparative review ranging from deeper liberalization (e.g. the Draft Final Act) to less deep ones (e.g. the Final Act). More ambitious policy reforms were also simulated prior to that starting with the study by Valdés and Zietz (1980)^{1/}.

This paper focuses on the impact of the Agreement on Agriculture, drawing from FAO's assessment based on a number of commodity models, principally the World Food Model (WFM) (FAO 1995b), and also from several other recent works on this subject. In particular, the results from the following four other models are reviewed: the Rural-Urban North-South (RUNS) model (Goldin, Knudsen and van der Mensbrugge, 1993; and Goldin and van der Mensbrugge, 1995), the Agriculture Trade Policy Simulation Model (ATPSM) of UNCTAD (Gulbrandsen 1995), a CGE model by Francois, McDonald and Nordstrom (1995), which was previously applied by the GATT (reported in GATT 1994), and the Multi-Regional Trade Model (MRT) by Harrison et al. (1995)^{2/}. The ATPSM and WFM are multi-commodity, partial equilibrium agricultural models while the other three are general equilibrium models, which also simulate the liberalization of non-agricultural sectors. Annex 1 summarizes the main features of these models.

The rest of the paper is organized as follows. The next section describes how the UR commitments were incorporated in the various models. In view of the fact that changes in world market prices are the key determinant of other effects such as production, consumption, trade and income, Section III focuses on the UR's price effects as projected by various models. This section also highlights the main differences among the models which would help to explain the differences in price effects. Section IV summarizes assessments on the impact of the UR, focusing on agricultural production, consumption, trade and income. The main conclusions are summarized in Section V.

^{1/} For a review of these earlier models, see Goldin and Knudsen (1990).

^{2/} The usual disclaimer statement prevents associating two of these models to Organizations. The results of the 1993 version of the RUNS model were published as an OECD/World Bank study (Goldin, Knudsen and van der Mensbrugge, 1993) while a disclaimer applies to its re-run with the UR simulation, discussed in this paper (Goldin and van der Mensbrugge, 1995). Similarly, the model used to assess the UR effects by the GATT in 1994 (GATT 1994) was the same CGE model by Francois, McDonald and Nordstorm (1995) reviewed here, to which a disclaimer applies. Therefore, in this paper these 1995 applications are called RUNS and FMN, without associating them with the Organizations.

II. Incorporation of the UR Commitments in the Models

The four key (and quantifiable) areas of commitments under the Agreement are on tariffication and tariff reduction, minimum access commitments, export subsidies and domestic support. These are potentially overlapping instruments, e.g. a tariff cut need not necessarily lead to an increase in imports, hence the need to add the special provision on minimum access. The incorporation of these commitments in the models, from a technical viewpoint, appeared to be a problem for all modellers, and none, and perhaps as a result of this, provide a complete story on how they were incorporated. In fact, some models simply chose to ignore one or more commitments, on the ground that they would not be binding. Table 1 shows for the five models the position as regards the incorporation of these commitments.

Models	Commitments			
	Tariff reduction	Minimum access	Export subsidy	Domestic support
WFM (FAO)	Yes, as per the UR Schedules (1986-88 base)	Yes, access ensured	Yes	No, assumed to be non-binding
ATPSM (UNCTAD)	Yes, as per the UR Schedules (1986-88 base)	Yes	Yes	Yes
RUNS model	Yes, but reductions from 1991-93 and 1982-92 bases	No information given	Yes	Yes, input subsidies based on PSEs
FMN's CGE model	No, assumed prohibitive	Yes	Yes	No, assumed to be non-binding
MRT model (Harrison et al. 1995)	Yes, reduced from recent base, as RUNS above	No information given	Yes, only value limits	Yes, as required (20% and 13%)

As regards the modelling of **tariffication and tariff reduction**, the general approach in the models reviewed (e.g. the WFM, the RUNS) was to use Producer Subsidy Equivalents (PSEs), where available, as a starting point for quantifying the base period protection level. In this approach, a PSE is divided into its three main components^{3/}, i.e.

$$\text{PSE unit} = m + d + i$$

where,

- PSE unit = aggregate PSE divided by output volume;
- m = market price support and represents the wedge between the world price and the domestic producer price (e.g. an administered price);
- d = per unit total direct payments (not subject to reduction commitments); and
- i = per unit total indirect payments such as input subsidies (subject to

^{3/} This follows an analytical approach used in measuring the components of agricultural protection. See, for example, Annex III of OECD (1995).

reduction commitments, i.e. AMS).

The WFM and RUNS take somewhat different routes to model tariffication and tariff reductions. The WFM uses information in the PSE measure to obtain a transmission equation of the world market price to the domestic price^{4/}. For countries for which PSE and tariff data were available, the transmission formula takes the following form (see FAO 1995a for details on the WFM methodology):

$$P_d = a_0 + a_1 + a_2 + T_s r_s + (1 + T_v r_v) P_w$$

where,

- a_0 is a constant reflecting "natural protection" of a country, i. e. a price wedge that is invariant to changes in world market prices;
- a_1 represents those policies that are not subject to reduction (i.e. this corresponds to the "d" component of the PSE unit);
- a_2 represents those domestic policies that are not related to changes in world market prices, such as input subsidies but subject to reduction commitments (i.e. this corresponds to the "i" component of the PSE measure);
- T_s and T_v are specific and ad valorem tariffs in the base period (1986-88) as in the country Schedules; and
- r_s and r_v are the corresponding rates^{5/} of reduction.

As only ad valorem tariffs can transmit the full effect of changes in world prices to domestic prices, the presence of the first three terms results into less than full price transmission^{6/}. For those countries where PSE and tariff data were not available, the WFM uses constant price transmission equations to relate world prices to domestic producer prices, but again the transmission elasticities were not unitary. In the latter case, the transmission equations were of the form:

$$P_d = a_3 P_w^\eta,$$

where η is the price transmission elasticity estimated or compiled from various sources.

Calibration of the WFM model for the base period yields values for the constant terms of the above transmission equations which are subsequently used in the policy simulation runs.

^{4/} Appropriately called "incentive price" as it includes incentives other than ordinary output price support.

^{5/} The tariffs and tariff reductions in the WFM were the actual ones shown in the country Schedules, weighted by domestic base period consumption of 6 digit HS commodities to form overall tariff reduction at the level of the primary product (e.g. wheat).

^{6/} To see this, write the transmission equation as $P_d = a + (1+t) P_w$, where a includes the first three terms. For $a=40$ and $t=0.2$, a change in the world price from 100 to 110 (10% increase) would cause domestic price to rise from 160 to 172 (a 6% increase). Thus, the effect of assuming perfect price transmission in the presence of other price wedges in the equation would be to overstate domestic price changes.

In the RUNS the general expression used was:

$$P_d = (\varphi P_w + (1 - \varphi) P_{cpi}) (1 + \tau)$$

where,

P_d and P_w are domestic and world prices;

P_{cpi} is a domestic price index;

φ is a pass-through coefficient that determines the relative weight of the domestic price index and world price in determining the price of the specific commodity; and τ is tariff equivalent.

For policy simulations, the φ was, however, set equal to one (perfect transmission of world prices) on the assumption that at least for a majority of developing countries following liberalization such assumption is likely to be more valid. With perfect price transmission (i.e. $\varphi = 1$), the expression above reduces to

$$P_d = P_w (1 + \tau).$$

This last expression was used to define a price wedge for the base period derived from the market price support component of the PSE, i.e., in terms of the base period prices^{2/},

$$1 + \tau_0 = 1 / (1 - k_0) \quad \text{where } k_0 = m_0 / P_{d0}$$

The base price wedges (τ_0) ranged, for example, between 0.65 for China to 3.91 for the Gulf Region for food crops. In the simulations of tariff reductions, these base wedges were reduced as required by the commodity and country specific commitments^{3/}.

The **minimum access commitments** were introduced in WFM's policy simulation on an "ad-hoc" basis in all cases where the model did not generate a sufficient volume of imports to meet national commitments. Where that happened, the additional import quantities were modelled by decreasing the production and/or increasing the demand, depending on the particular case. As another example, the FMN model incorporates minimum access commitments as tariff-quotas. Imports up to the level of current or minimum market access, whichever was higher, would benefit from lower tariffs. Imports above that level faced the MFN tariffs as stated in the country Schedules, which were assumed to be prohibitive. However, as access commitments were modelled for four aggregated agricultural products in the FMN model, increased access in certain key sectors (e.g. rice in Japan) was not captured in the simulation.

As regards **domestic support reduction commitments**, the WFM did not incorporate

^{2/} The base period varied according to runs, i.e. 1991-93 for RUNS III and 1982-93 for RUNS I.

^{3/} Thus, where the price wedge shows positive protection in the base case, this implies a reduction in import tariffs or reduction in export subsidies; where the wedge shows taxation of the sector, this implies a reduction in import subsidy or a reduction in export tax.

this provision partly because reduction commitments do not apply at the individual commodity level. Also, it was considered that the AMS reduction would not be binding in most cases, a conclusion prompted also by a recent review for the OECD countries of the AMS targets and their actual levels for recent years^{9/}. In the RUNS model, input subsidy rates were defined and computed from the third component of the PSE (i.e. the term i) as the ratio of the sum of all other payments (other than direct payments) and adjusted value of production (total value of production at world price less direct payments). As an example, for the EC, the base input subsidy rates were 36.5% for crops and 8.4% for livestock. In the simulations of policy reforms, these base rates were adjusted to reflect the reduction in the subsidy rates committed under the policy reforms.

The approach followed in the WFM to incorporate **export subsidy reduction commitments** differed according to the subsidizing country. First, for a country that used export subsidies for all its exports, a maximum was introduced exogenously on the volume of exports according to the country's export subsidy commitment for the commodity and year. In order to accommodate this reduction, it was necessary to increase domestic demand (e.g. by the feed sector) or to adjust production by lowering yields or restricting the projected cultivated area, taking into account current and expected adjustment policies and plans for the country. Second, for those exporters which subsidized only a part of their exports targeted at some countries, no such constraint was modelled, but it was still assumed that this would erode part of the exporter's competitiveness and hence influence the volume of its exports. The approach adopted here for simulating targeted export subsidy reductions was to include an additional element in the price transmission equations that would reflect the price reduction expected to prevail in the domestic market of the subsidizing exporter^{10/}. Conversely, for the targeted importing countries, the adjustment in the price transmission equations reflected the higher price that would prevail in the domestic market as a result of a reduction in subsidized imports.

The RUNS included base period export subsidies in terms of reductions in per unit export subsidy rates, defined as the ratio of the value of export subsidies to the volume of subsidized exports. These per unit subsidy rates were translated to ad valorem rates and the reduction commitments applied to them^{11/}. In the MRT model, export subsidy was incorporated as reductions only in the value of export subsidies (i.e. by the usual 36% and 24%). The authors, however, remarked that by ignoring reduction commitment on volumes, the impact of the UR would be underestimated in cases where the volume commitments became binding.

^{9/} See OECD "The Uruguay Round: A Preliminary Evaluation of the Impacts of the Agreement on Agriculture in the OECD Countries, Paris, 1994.

^{10/} Value constraints were not imposed in the WFM.

^{11/} This would have the effect of reducing domestic price and hence production. However, whether this reduction in production depends on the elasticity of supply. It is not clear from the model whether additional constraints in terms of volumes and values were imposed as per the UR commitments.

III. Assessed Impact of World Price Levels

The key variable that drives all the models is the resulting world market price. Thus the first assessment of the models discussed above is in terms of the direction and size of world price levels^{12/}. As discussed above, the world market price effect of the UR results from complex interactions among changes in tariff levels and other UR-commitments such as on minimum access and subsidized exports, and so it is impossible to associate a specific change to a specific factor. However, it is possible to indicate, in fairly general terms, the likely reasons for the broad differences in price projections by referring to technical differences among the models, their key assumptions and how they incorporated the UR commitments as discussed above. These are summarized at the end of this section.

In Table 2, both the WFM and ATPSM show positive price effects of the UR for the year 2000, typically within the range of 4 to 10%, and compare fairly closely, both for the individual products and overall, with a simple average of 6.3% for WFM versus 8.7% for ATPSM (Scenario I where the non-OECD domestic markets were not assumed to respond to changes in international prices). However, when the ATPSM assumes that non-OECD countries respond to changes in world prices (Scenario II)^{13/}, the impact is greatly muted, with prices rising by about 3.5% on the average. A priori, one would expect that the ATPSM II price effects (although smaller than ATPSM I) should have been closer to those from the WFM, since the WFM incorporates price responses of the non-OECD countries as well. Perhaps the reason for their differences can be found on the degree of price transmission of world market to domestic prices, as discussed above. The smaller price increases projected by ATPSM II suggest that essentially the effective degree of transmission in that model for non-OECD countries was somewhat higher than that of the WFM.

The similarity in projected prices breaks down further when the WFM results are compared with those from the RUNS model. The latter shows much muted price effects, even negative in some cases^{14/}. There is, however, some similarity. Both the WFM and RUNS III project similar, positive impacts on the prices of wheat, coarse grains (mainly maize) and vegetable oils, the three commodities relatively heavily protected in the OECD countries. This reasoning, however, fails for dairy products which also should have belonged to that group.

The differences between the two RUNS simulations in Table 2 are due to different assumptions about benchmark protection levels, which were used for the cuts and against which the results from the UR-scenario were compared. In RUNS III, reforms were made

^{12/} The following section, IV, then discusses how these price changes affect production and consumption, agricultural trade and aggregate incomes.

^{13/} Meaning that international prices are transmitted into domestic markets and domestic supply and demand respond to them.

^{14/} Goldin et al (1993) present several simulation results which show that price effects resulting from multi-sectoral liberalization are typically dampened compared to those from agricultural liberalization alone, in part due to shifts in consumption away from agricultural to manufacturing products, thereby causing a relative decline in the price of agricultural goods (compared to a partial liberalization scenario).

over the relatively high protection levels of recent years (1991-93) in the OECD countries

Products	WFM	ATPSM		RUNS	
		I: W/O policy response	II: With Policy response	I: 1982-93 base	III: 1991-93 base
Wheat	7	8.6	1.0	1.2	6.3
Rice	7	9.6	0.7	-1.5	0.8
Coarse grains	5	9.0	3.2	0.1	3.2
Fats and oils	4	-	-	-	-
Oilseeds	-	7.7	3.8	-	-
Veg. oils	-	5.9	2.5	-0.6	3.9
Bovine meat	8	10.1	5.3	0.2 ^z	1.4 ^z
Pigmeat	10	6.3	2.7	0.9 ^z	-0.1 ^z
Sheepmeat	10	10.2	5.5	0.2 ^z	1.4 ^z
Poultry	8	9.3	4.9	0.9 ^z	-0.1 ^z
Dairy products	7	7.9	4.5	-1.3	2.3
Sugar	-	11.3	4.5	-1.0	2.5
Coffee	-	-	-	-1.7	-1.4
Cocoa	-	-	-	-1.3	-0.6
Tea	-	-	-	-1.6	-1.2
Wool	-	-	-	-1.1	0.5
Cotton	-	-	-	-1.3	-0.3

Note: ATPSM I refers to a scenario where non-OECD countries are assumed not to respond to world price changes while ATPSM II assumes that they do. RUNS III (from Table 3 of Goldin and Mensbrugge 1995) simulates the UR reform from the 1991-93 average base protection level, while RUNS I uses 1982-93 as the base period.

^v These are year 2000 for WFM and ATPSM, and 2002 for RUNS.

^z In the RUNS, there are only two meat groups, bovine and sheep meats, and pigmeat and poultry meats.

while in RUNS I they were made over the relatively low protection levels of the 1982-93 period^{15/}. The results are intuitively in the right direction in that liberalization from a high protection base (RUNS III) caused stronger price effects^{16/}. Both RUNS results show negative price effects on beverages with the UR. This was not fully explained, but was partly alluded to the effects of the resources shifting from beverages to cereals in the major beverage producing areas (Latin America and Africa) as relative changes in prices favoured the latter, and partly to differing degrees of liberalization attained by countries of these two regions versus the OECD group^{17/}. The negative price effect on rice under RUNS I (and small effect under RUNS III) is also explained along these lines.

The price effects from the various models are bound to be somewhat different in view

^{15/} By contrast, average protection level was relatively low for most developing countries during 1991-93 and relatively high during 1982-93 period.

^{16/} The explanation for the substantial price differences between the two RUNS simulations (due to different base periods) also help explain, in part, differences in price changes between RUNS and other models as well, as will be seen below.

^{17/} By 1991-93, the degree of liberalization was much advanced in these developing regions.

of a number of factors, some of which can be identified. First, as Table 1 shows, not all models fully incorporated all the components of the UR Agreement. Although not all of these commitments were expected to be binding all the time (e.g. the AMS), ignoring some of them should make a difference. More importantly, ignoring a component in the price transmission equation (e.g. the non-price related support) would be to overstate the price transmission effect, which can not be unity as assumed by several models^{18/}.

The second, perhaps most important, factor responsible for differences in the price effects projected is the extent of tariff reduction actually simulated in these models. This is related to very common cases when base tariff rates in the country Schedules were found to differ often markedly from those that were estimated to actually prevail in the base period (the "dirty tariffication" case shown by Ingco 1995). The obvious dilemma that an analyst faced was which of the two base tariffs (actual or "dirty") should be used to apply the committed tariff cuts, or whether in fact to apply any cuts at all (i.e. when the "dirty" base tariff is well above the actual base tariff)^{19/}. The option chosen by RUNS was largely in line with the latter, that is it was assumed that countries would undertake the minimum of reform in cases where their "dirty" base tariff rates were well above their actual base tariff rates. This contrasts sharply with the approach adopted by other models (e.g. WFM) which assume that the spirit rather than the letter of the Agreement will be followed so that a reduction in actual tariff rates would effectively take place in those countries that committed to do so. An additional consideration of a more general nature is that in many countries applied tariffs were below the ceiling levels which makes any assumption on the path that would be followed even more uncertain whatever the extent of "dirty" tariffication.

Third, and of similar nature, was the dilemma with those countries and products for which bound rates did not exist in the past (most of the developing countries). These countries had the option to select a bound tariff rate for the future which often was much higher than actual unbound tariff levels in the base period, but not necessarily higher than their tariff equivalent in the base period. Again, the RUNS assumed no reform for countries and products with very high bound rates. For example, no reform was assumed for most products for India as well as for the Maghreb countries. Similarly, other models ignored those cases where the bound rates committed were higher than the applied rates. This includes the MRT model which also used the same assumptions and data base on tariffs as used in the RUNS model. At the extreme, the FMN model simply ignored any reduction in the MFN rates, assuming these to be prohibitive for trade. This assumption also implies zero price transmission.

Fourth, differences among the results can also be traced to the use of different base periods. Where the benchmark protection level was higher (RUNS Scenario III versus Scenario I), liberalization resulted also in larger world market price increases. This is expected as the same degree of liberalization (e.g. 36% cut in tariff) from a higher base implies a greater reduction in the absolute level of protection, a greater reduction in output

^{18/} On the question of price transmission, see Colman (1992). Note also that if there are very high tariffs the transmission is zero.

^{19/} Technically, under such cases even an increase in tariff rates would be possible and still not violate the letter of the Agreement.

and consequently a larger price increase. Differences in the level of protection for OECD countries are shown in Table 3. The PSEs during the 1986-88 base period (the UR base period for tariffs and that actually used by the WFM) are some 12-15% higher than the 1991-93 period (the RUNS III base period). This contributes in explaining the larger

Period	Wheat	All crops	All livestock products	All agricultural products
Average 1979-85	27	32	36	34
1986	61	62	45	51
1987	61	61	38	47
1988	47	51	37	42
1989	30	42	35	37
1990	47	48	38	42
1991	58	52	37	42
1992	43	49	38	42
1993	47	52	38	43
1994	48	50	38	43
Average 1979-94	53	58	50	52
Average 1986-88	56	58	40	47
Average 1991-93	49	51	38	42

^v Percentage PSE is defined as the total value of transfers as a percentage of the total value of production (at domestic prices), adjusted to include direct payments and to exclude levies.
Source: OECD (1995).

price increases predicted by the WFM compared to RUNS III. This reasoning also seems to be consistent with the relative similarity of the price effects from WFM and ATPSM I both of which use 1986-88 period as the base period of the benchmark protection level.

Fifth, differences also arise due to model structure. One such difference is between the partial equilibrium and the general equilibrium models. As larger adjustments take place within economy-wide models, the effects of policy changes on prices tend to be muted relative to those from partial equilibrium models. To a large extent, this shows in Table 2^{20/}.

Sixth, differences also stem from dissimilar aggregations of countries and commodities. In particular, where commodities (and countries) are grouped such that the distortions tend to cancel out, the impact would be less pronounced. Both the WFM and

^{20/} These differences appear conspicuously in the various partial and economy-wide liberalization simulations reported in Goldin et al. (1993).

ATPSM are highly disaggregated on both accounts, and the higher price effects from these models are at least consistent to this reasoning. Francois et al. (1995) make this point explicit when they say that in their aggregation of cereals for the FMN model in one group, the impact that would have been evident for rice (in Japan) was muted.

Finally, the differences in projected price changes between models are also due to the use of different elasticities for domestic demand and supply. The sensitivity of such models to elasticity values was emphasized by Zietz and Valdés (1990). However, such statistics are rarely published. There is clearly a case for reviewing differences in such parameters across the models.

IV. Production, Trade and Income Effects

4.1 Impact on Production

Selected results on the impact of production and consumption from FAO assessments (the WFM and other single commodity models) are given in Annex Table 2. The results on the whole confirm what has been now regarded as one of the robust findings of most agricultural trade liberalization studies, namely that multilateral agricultural liberalization would lead to lower production in the developed countries of those commodities which have been subject to high degree of protection, and that the output effects would be positive for the traditional non-subsidizing, low-cost countries, including on the whole the developing countries. The WFM results further show that the UR would contribute to increased production of all commodities at the global level, except for wheat and meat²⁴. For the developing country sub-group, outputs are expected to shrink only for meats and hides and skins, while the developed country sub-group would see lower outputs of cereals, meat and dairy products, with reductions, as expected, being most pronounced in Western Europe.

As for the LAC region, widespread production gains are expected for all commodities except meats and bananas. Expressed as a percentage of the aggregate production gains by the developing countries as a whole, the shares of the LAC region are indeed substantial: 43% for cereals; 58% for fats and oils and proteins; 120% of the dairy products; 43% of the beverages; and 59% of sugar. Output gains are particularly sizeable for cereals (3.3 million tons) and oils and fats (almost one million tons). Among cereals, the gains occur for both wheat and coarse grains, with Argentina leading for wheat and Brazil for the latter. Mexico also expands its production of both cereals. As regards meats, the reduction in the regional output is entirely due to bovine meat, and is largely due to changes for Brazil, where it appears that the UR-committed export subsidy restrains output. Most other countries in the region are, however, anticipated to produce more meats, especially Argentina and Uruguay, while output in Central America and the Caribbean sub-regions is likely to be little affected by the UR. Lastly, the projected fall in the output of bananas, by close to 1.3 million tons, is mainly due to reduced export demand as a result of EC's new banana regime.

²⁴ In reviewing the size of the UR impact at the global level, it is important to note that many countries did not participate in the UR and thus no UR-related policy changes were applied to them. They, however, may account for a substantial share of the global trade (e.g. about 22% for both wheat and coarse grains).

Of the other two models which report output effects, the FMN model shows for this region positive gains for cereals of about 1.1% (from the 2002 benchmark level) under its constant returns to scale/perfect competitive assumptions and about 2% under the assumptions of increasing returns to scale/monopolistic competition with endogenous capital stock (these compare closely with WFM's 2.4% change in 2000). In the 1993 simulations (Goldin et al. 1993), the RUNS model also shows a small improvement in the self-sufficiency ratio (SSR) for cereals in the region. By contrast to WFM, however, both these two CGE models show positive impact of liberalization on regional livestock production, by about the same magnitude as for cereals by the FMN model and more substantially by the RUNS (the SSR increases from 1.03 to 1.07).

Consumption in the WFM is modelled at each country level as a function of the (endogenously) solved prices of all commodities and exogenously specified income. Thus, consumption outcome is the net effect of reduced demand due to higher prices and increased demand from higher income. For the LAC region, the WFM shows reductions in consumption due to UR for all basic foodstuffs, except for oilmeals, milk and poultry meat, although such reductions are small, ranging between 0.1 to 2.2% of the base consumption levels. Since all commodity prices rise in the WFM, these reductions imply that the price effects dominate the income effect²⁷. On the whole, the results for the region show that increased production usually leads to larger exports and lower imports but not to increased domestic utilization. To the extent the exogenously determined incomes (based on OECD/World Bank estimates) for the region fall short of income that may be actually realized, the WFM results would underestimate consumption gains and overestimate export gains. In that case, increased demand would also further stimulate production. Unfortunately, the general equilibrium models, which are best suited to measure such economy-wide effects, do not report impacts on consumption.

4.3 Impact on Trade Volumes and Export Earnings

Annex Table 2 shows also the impact of the UR on the volume of agricultural trade based on FAO's assessments. On the whole, the trade effects of the UR at the global level are generally positive except for wheat and bananas. Among the products with marked trade impact include wheat (-3 million tons), coarse grains (+2 million tons), rice (+1 million tons), fats and oils and protein (+1 million tons) and banana (almost -1 million tons). While these aggregate effects are small (usually 1-3% of the baseline volumes in most cases), the impact on trade flows is often marked. For example, net exports of wheat from the developed countries (largely in the EC and the US) drop by close to 7 million tons, but they increase by over 4 million tons (both reduced imports and increased exports) for Asia and the Pacific Region, and by 3 million tons for Argentina and Australia. The changes for coarse grains are similar. These effects were largely anticipated in view of the nature of reforms undertaken by major producers/exporters.

²⁷ The WFM assumes for the LAC region a total of US\$4 billion dollars of additional income (2.3% of the global total of US\$172 billion dollar) in the year 2000 due to the UR, which translates into the regional per caput income level of US\$2541 in 2000 versus US\$2532 without the UR. In one WFM simulation, these income levels were doubled. However, the effects on production, consumption and trade were found to be relatively small.

As regards the LAC region, the major highlights are as follows. For wheat and coarse grains, Argentina is expected to boost its export of both grains, while imports into the region would fall markedly (by 2.5 million tons), mainly accounted by reduced imports by Brazil (particularly coarse grains) but also by Mexico. The increased exports from the region of one million tons of fats, oils and oilmeals would be mostly shared by Brazil (749 000 tons) and Argentina (347 000 tons). Imports into Mexico, the region's largest importer, are not expected to change. Argentina is also expected to boost its exports of dairy products considerably. The marked fall in the exports of bananas (about one million tons) is likely to be broadly shared by countries of the LAC region. No marked trade impacts are expected for beverages and meat.

The ATPSM also provides comparable results for the LAC region. For the nine commodities modelled, the ATPSM also shows trade flows changing in the same direction as the WFM. However, the volume changes are similar only for rice, dairy products and sugar. Relative to WFM, ATPSM's net export projections are considerably smaller for wheat, coarse grains and oils and fats. It also shows substantial increase in the exports of meat products, unlike those shown by the WFM. Finally, the trade effects in the ATPSM are usually magnified under the scenario when the markets in the non-OECD countries are assumed to also respond to world market prices than when they do not. This is especially so for dairy, meat and sugar, and is probably so due to higher elasticities of demand and supply for these products than, for example, for cereals.

As regards the value of trade, the LAC region as a whole is a net importer of basic foodstuffs, including cereals. The impact of the UR in the year 2000 is to raise the food import bill only slightly, by US\$0.3 billion, almost entirely on account of higher prices as import volumes are not expected to change significantly and, if anything, could be smaller than otherwise (Table 4). Including also other agricultural trade not covered by the WFM, the total additional import bill due to the UR would be close to US\$1 billion, limited largely to fats and oils, meat and dairy products (Figure 1). On the other hand, the region's export earnings due to the UR are expected to grow substantially by the year 2000. For the commodities covered in the FAO assessments, significant gains would come from most products except bananas and hides and skins. The gains are likely to be mainly captured by large exporters of the region such as Argentina, Brazil and Uruguay. Assuming the exports of other agricultural commodities not covered by the WFM to grow at the same rate, the total value of agricultural exports for the region would increase from US\$31 billion in the base period to US\$48 billion in 2000, of which US\$3.3 billion would be due to the UR, even after allowing for a loss of the potential value of preferences of around US\$0.3 billion.

Table 4: Developing countries in Latin America and the Caribbean: Projected agricultural trade balances to the year 2000

	1987-89	2000 Base Run	2000 with UR Effects	
<i>US \$ billion</i>				
Imports				
Assessed Commodities	10.4	14.9	15.7	
Other	0.1	0.1	0.2	
Total	10.5	15.0	15.9	
Exports				
Assessed Commodities	24.1	34.5	37.3	
Other	6.8	9.7	10.5	
Total	30.9	44.2	47.8	-0.3*
Balance (Exports-Imports)	+20.4	+29.2	+31.6	

* Estimated loss of the potential value of preferences provided by the major preference giving countries.

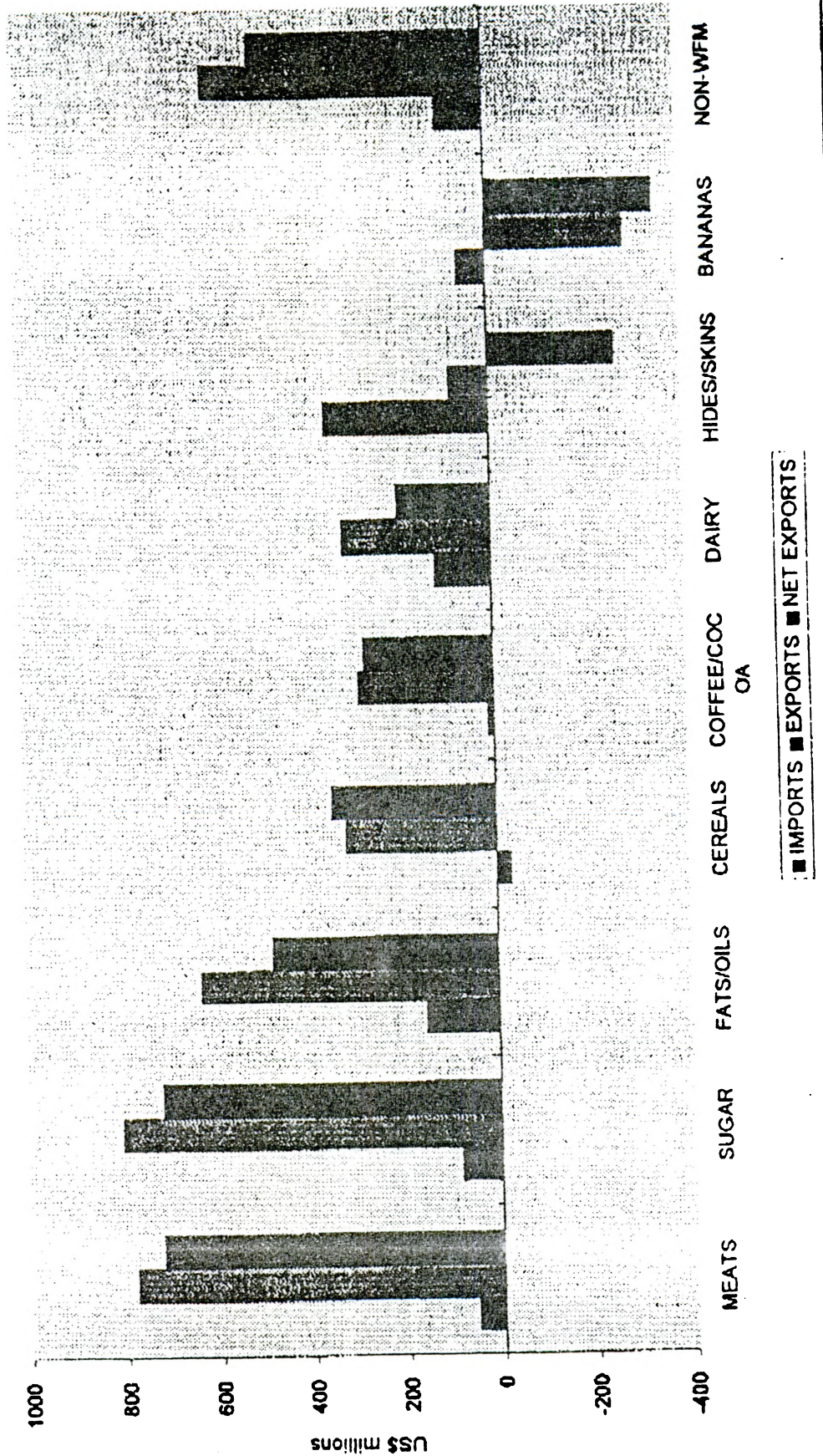
Source: FAO (1995b).

The net result of these developments is the expectation that the positive agricultural export balance of US\$20 billion that the region obtained in 1987-89 should expand to an estimated US\$32 billion in 2000, with US\$2.4 billion of the increment ascribed to the UR. Net export earnings are expected to be positive for all major product groups except hides and skins and bananas.

At the sub-regional level, South America, where most countries are significantly involved in the trade of both temperate zone and tropical products, stands to make considerable trade gains but some of the net food importers face increased food bills. Central America is an important exporter of coffee, cocoa, cotton, fruit, sugar and an importer of basic foodstuffs such as cereals, dairy products and meat. The higher import prices of these commodities may have an adverse impact on consumption. The Caribbean sub-region depends extensively on food imports, the prices of which would rise, and relies on a rather limited range of agricultural exports mainly sugar, fruit, tobacco and beverages, a significant part of which are exported under preferential arrangements, which are estimated to lose part of their value. For this sub-region, the net short-term impact of the UR would be decidedly negative.

Figure 1

IMPACT OF THE UR ON AGRI. TRADE OF THE LAC REGION
(in the year 2000, in 1987-89 real prices)



4.3 Impact on Income

A full assessment of the UR impact on overall incomes can only be obtained from general equilibrium models which also assess the liberalization of non-agricultural sectors, where textiles and clothing are particularly important. As the WFM does not measure such effects, the following review draws largely from the other models that they do, i.e. the RUNS, the MRT and the FMN. Table 5 reports the income effects. As one can anticipate, the estimates vary widely, for a variety of reasons which include the depths of the policy reforms modelled, aggregation of countries and commodities and assumptions about the underlying economic structure. At the global level, the full income effect of the UR ranges between US\$50 to 190 billion (in 1990 or 1992 prices measured at the final year of the implementation period). These income effects are rightly much lower than those measured by these very models prior to the conclusion of the UR when the liberalization package assumed was much more ambitious^{23/}. Despite the considerable differences for the global total, the results are fairly consistent in showing that most of the gains (ranging between 75 to 100%) accrue to developed countries. This is an expected outcome in view of their larger economy and, perhaps more importantly, much deeper liberalization^{24/}. The higher gains under Scenario II in both the FMN and MRT models were due to the assumptions of increasing returns to scale and dynamic effects where part of the increased incomes are saved and invested. Similarly, RUNS III shows much higher income gains compared to RUNS I, which represents a smaller degree of liberalization.

Second, the FMN and MRT models disagree sharply on the relative importance of the agricultural sector in terms of the total income generated from the UR. With agriculture's share in the total increase of global income assessed to only 2 to 9% (the FMN model and also GATT, 1994), the claim is made that agricultural liberalization was relatively a much less important component of the UR package than the reform of the textiles and clothing sector. The MRT model, on the other hand, finds agricultural reforms to generate between 40 to 67% of the overall additional benefits. On this difference, Harrison et al. (1995) state that the very large income gains from the textiles/clothing sector in the FMN model is due

^{23/} For example, the 1993 RUNS simulations showed gains ranging between \$190 billion for partial agricultural liberalization to \$450 billion for full multi-sectoral liberalization (Goldin et al. 1993).

The GATT Secretariat (GATT 1994) also showed in one simulation income gains as high as US\$510 billion in the year 2005, under assumptions of increasing returns to scale, monopolistic competition and dynamic income-investment specification. The GATT Secretariat viewed this estimate as more closely approximating the real world economy, and, in fact, stated that this level would still underestimate the full impact of the entire package of the UR. According to a subsequent comment by Harrison et al. (1995), the \$510 billion income gains were not directly solved by the model for the year 2005 but obtained by multiplying regional gains for the year 1990, which for the world totalled \$291 billion, with assumed regional scalar factors, which were derived from OECD/World Bank projections of regional income growth. In addition, Harrison et al. also state that the GATT study used very high trade elasticities, which have the effect of magnifying the benefits from trade.

^{24/} See Cline (1995) where the argument is made that the gains or losses associated with trade liberalization tend to vary almost by the square of the extent of distortions removed.

to the latter's assumptions of high tariff-equivalents for textiles/clothing^{25/}.

Table 5: Income Changes due to the UR (US\$ billion)								
	World		Developed		Developing		Latin America	
	Agri.	Total	Agri.	Total	Agri.	Total	Agri.	Total
FMN CGE								
Scenario I	4.6	51.4	4.3	38.7	-0.3	10.0	0.2	-0.1
Scenario II	5.2	218.3	1.6	85.9	3.6	112.6	1.6	9.9
MRT								
Scenario I	34.8	51.6	29.4	46.9	5.4	4.7	1.6	1.5
Scenario II	73.6	188.1	58.6	127.2	15.0	60.9	3.4	13.9
RUNS								
Scenario I		25.4		14.2		11.1		0.6
Scenario III		68.4		54.7		12.2		0.6

Sources: FMN (Francois et al. 1995); MRT (Harrison et al. 1995); RUNS (Goldin and Mensbrugge 1995, Table 4).

Note: In the FMN and MRT results, Scenario I refers to their base cases with assumptions of constant returns to scale and perfect competition while Scenario II assumes increasing returns to scale and imperfect competition (FMN) and steady state results (MRT). RUNS III simulates the UR reform from the 1991-93 average base protection level, while RUNS I uses 1982-93 as the base period.

Third, both FMN and MRT models show that income gains to the developing countries, both from agriculture and non-agriculture origins, increase substantially under assumptions of increasing returns and dynamic capital formation. In particular, the FMN model shows in Scenario II that the developing countries capture 70% of the global increase in income from agriculture, from none under Scenario I, and 52% from all sectors, from 19% under Scenario I. These effects are reported to be due to increased capital accumulation in developing countries as a result of the UR-caused higher commodity prices, while the opposite set of effects takes place for the developed countries^{26/}. As regards the RUNS estimates, the 44% share of income gains captured by the developing countries under Scenario I, versus 18% under Scenario III, is due mainly to a greater degree of liberalization for the developing countries assumed under Scenario I.

As regards the LAC region, income effects are shown markedly positive by the MRT model, which, as said above, finds agriculture to weigh heavily in the total gains, as contrasted to the FMN model where agricultural liberalization is found to be much less important. Under Scenario II, both models show positive induced income effects of increased prices and investments, originating from both agriculture and non-agriculture sectors. To conclude, it would be fair to say that in view of the projected widespread gains in export

^{25/} Based on a review of the most recent data, Harrison et al. claim that the tariff equivalents have fallen considerably from the levels used in the FMN model.

^{26/} Note that where the baseline protection level is high, as it was in the base period for most OECD countries, domestic prices could actually fall following a liberalization despite increased world prices.

earnings for this region, as noted earlier, the income projections of the MRT model seem to describe better the outcome.

4.4 Other Effects of the UR

One of the important anticipated benefits of UR is **reduction of instability in world market prices** as tariffication would lead to more markets absorbing supply or other shocks. That this is so was shown by D. Gale Johnson a long time ago and also analytically by Bale and Lutz (1979) and through counterfactual simulation by Anderson and Tyers (1990). In particular, the latter argued that liberalization of food policy would reduce the instability of price in international food markets by as much as one third on average and one half for wheat.

FAO (1995b) reports of a simulation experiment to examine this issue where the WFM was shocked by way of a generalized 5 percent decline in the output of cereals over the projected volume (and symmetrically a 5 percent increase) in the year 1999 to examine the price levels in the year 2000. The results, presented in Table 6, however, showed almost no effects on the stability of cereal

Table 6: Effects of Supply Shocks on Cereal Prices due to UR ^v					
Simulations	Wheat	Rice	Maize	Millet/sorghum	Other grains
<u>Normal crop (1987-89=100)</u>					
Baseline (2000)	97	107	103	105	98
UR (2000)	104	115	108	110	105
<u>Crop failure (% change above normal crop prices)</u>					
Baseline (2000)	+25.8	+50.5	+24.3	+29.5	+24.5
UR (2000)	+25.0	+50.4	+24.1	+29.5	+23.8
<u>Bumper crop (% change below normal crop prices)</u>					
Baseline (2000)	-19.6	-31.8	-18.4	-20.0	-18.4
UR (2000)	-19.2	-31.3	-18.5	-20.0	-18.1

^v An across the board shortfall (bumper crop) of 5% below (above) normal level is assumed for 1999 and its effect on price in year 2000 is measured.
Source: FAO (1995b).

prices. There are some good reasons to believe that this could indeed be the outcomes, i.e. reduction of stocks, shifts of production to relatively more unstable producing areas, etc.. However, the literature on models that incorporate dynamic, long-run disequilibria features consider that the price stability issue can not be addressed adequately with such models. For example, one such study finds that trade liberalization could actually increase the instability of prices during the transition to steady state equilibrium (Lord 1991). For beef, for example, it finds that liberalization would raise the world market price by 5% but it takes 30 years to reach the steady-state equilibrium and that prices would be more unstable in the interim. Another problem common to all these models is that they tend to ignore the stockholding structure (i.e. private/public stockholding activities) as well as the covariances among shocks

(i.e. the geographical location of production shocks).

Finally, one other effect of the UR is the potential loss of benefits from preferential arrangements. Only the ATPSM model and the FAO assessments provided information on possible income gains/losses due to changes in the preferential import tariffs. The ATPSM assumed that the entire quota rent, the difference between the MFN and in-quota tariffs, is captured by exporters. On this basis, it finds that in 1995, of the \$13.3 billion of the tariff revenue foregone by the OECD countries, 65% would go to OECD countries themselves, 30% to developing countries and 5% to Eastern Europe. By the year 2000, the total benefits reduce by about 15 percent of the 1995 value, as the gap falls, but the distribution pattern remains as before. Thus, the loss of preferential benefits for developing countries are about US\$600 million. This figure is very close to that reported in FAO (1995b)²⁷.

V. Concluding Remarks

The main conclusions of this review are as follows. First, not all models fully incorporated all the four specific reduction commitments, namely tariffication and tariff reduction, minimum access, export subsidies and domestic support (Table 1). A typical reason given for not doing so was that one or more of them would not be binding. Second, there were several differences among the models in the way they incorporated specific reduction commitments and as a result their assessment of the impact on world market prices varied accordingly. Such factors, discussed at the end of Section III, included the partial incorporation of commitments, different practices followed in modelling tariff reductions, the use of different base periods to apply UR reduction commitments, the model structure (e.g. partial versus economy-wide), different aggregation of countries and commodities, and differences in the demand and supply elasticities. Third, while the UR was not expected to produce large aggregate, global impact on most variables, the effects could be more significant at the level of individual regions and countries. In particular for the LAC region, the UR was expected to lead to increased production and export earnings. This also on the whole applies to overall income levels as seen from economy-wide models.

²⁷ These assessments are also made in greater detail in Yamazaki (1995).

Annex 1: Main Features of the Reviewed Models									
Models	Model structure	Sector/commodity coverage	Country/regions covered	Outputs generated				No. of scenarios simulated	
				World prices	Production	Trade	Income/welfare		
ATPSM (UNCTAD) (Gulbrandsen 1995)	Multi-commodity, partial equilibr.	12 agri. commodities	separately for 145 countries	Yes	No	Yes	Yes	2 (non-OECD responding to world price changes and non-responding)	
WFM FAO (1995)	Multi-commodity, partial equilibr.	12 agri. commodities	separately for over 130 countries and 10 country aggregates	Yes	Yes	Yes	Yes	1 (global comparative-static solution for year 2000)	
RUNS Goldin & van der Mensbrugghe (1995)	General equilibrium	15 agri. commodities	22 regions (detailed developing regions and selected countries)	Yes	1/	1/	Yes	5 (different base periods, Dunkel proposal, unemployment assump.)	
FMN CGE model Francois et al. (1995)	General equilibrium	19 sectors, 4 agri. (cereals, non-grain crops, liv. and processed food)	13 regions (all developing regions)	No	Yes	No	Yes	6 (reflecting economic structure, e.g. scale economy, dynamic effects, capital)	
MRT model (Harrison et al. 1995)	General equilibrium	22 sectors with 7 agri. (3 cereals, non-cereal crops, beverages, dairy and meat each	24 regions (all developing regions and selected countries)	No	No	No	Yes	4 (reflecting scale economy, steady state)	

1/ Provides self-sufficiency ratios for four agricultural product groups

Annex Table 2: FAO's Assessment of the Impact of the UR for Selected Regions (Volume Change in 1000 tons) ^v				
	Production	Import	Export	Consumption
WHEAT				
LATIN AMERICA	1167	-828	751	-414
TOTAL DEVELOPING	5143	-5619	1149	-1578
TOTAL DEVELOPED	-6727	2636	-4158	-203
WORLD	-1583	-2983	-3010	-1780
RICE				
LATIN AMERICA	-7	5	-6	-9
TOTAL DEVELOPING	1657	325	1243	662
TOTAL DEVELOPED	-974	879	-53	-49
WORLD	683	1203	1191	613
COARSE GRAINS				
LATIN AMERICA	2121	-1717	589	-233
TOTAL DEVELOPING	804	752	1339	-230
TOTAL DEVELOPED	2618	1199	685	2158
WORLD	3423	1956	2023	1927
OILS AND OILMEALS				
LATIN AMERICA	905	204	1097	2
TOTAL DEVELOPING	1575	1383	1888	1045
TOTAL DEVELOPED	7	-184	-670	493
WORLD	1583	1199	1218	1538
MILK + BUTTER				
LATIN AMERICA	404	-36	368	-1
TOTAL DEVELOPING	336	-829	431	-923
TOTAL DEVELOPED	-37	1201	-185	1347
WORLD	298	373	245	425
BOVINE MEAT				
LATIN AMERICA	-166	12	81	-235
TOTAL DEVELOPING	-249	-6	-61	-195
TOTAL DEVELOPED	413	432	484	362
WORLD	164	426	424	167
PIG MEAT				
LATIN AMERICA	54	-92	142	-180
TOTAL DEVELOPING	-739	-18	-165	-590
TOTAL DEVELOPED	-828	-45	20	-894
WORLD	-1567	-62	-144	-1484

OVINE MEAT				
LATIN AMERICA	5	-9	6	-10
TOTAL DEVELOPING	-25	-26	-6	-46
TOTAL DEVELOPED	-11	20	-2	10
WORLD	-36	-6	-8	-36
POULTRY MEAT				
LATIN AMERICA	22	11	-69	102
TOTAL DEVELOPING	-8	89	-23	104
TOTAL DEVELOPED	-28	-84	28	-141
WORLD	-36	4	3	-36
COFFEE				
LATIN AMERICA	32	2	26	7
TOTAL DEVELOPING	69	6	59	16
TOTAL DEVELOPED	0	53	0	53
WORLD	69	59	59	69
COCOA				
LATIN AMERICA	35	0	10	6
TOTAL DEVELOPING	82	1	52	11
TOTAL DEVELOPED	0	51	0	51
WORLD	82	52	52	62
SUGAR				
LATIN AMERICA	373	48	352	69
TOTAL DEVELOPING	629	182	72	739
TOTAL DEVELOPED	452	130	263	319
WORLD	1081	312	335	1058
BANANAS				
LATIN AMERICA	-1298	199	-1298	199
TOTAL DEVELOPING	-1034	-145	-1034	-145
TOTAL DEVELOPED	-58	-458	-58	-458
WORLD	-1092	-603	-1092	-603
Source: FAO (1995b)				
v The volume changes are for the year 2000, with the UR minus the baseline projections.				

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FAO/WORLD BANK WORKSHOP

**IMPLEMENTING THE URUGUAY ROUND AGREEMENT
IN LATIN AMERICA:
THE CASE OF AGRICULTURE**

- Santiago, Chile, from 28 to 30 November 1995 -

**THE URUGUAY ROUND (GATT) AGREEMENT:
AGRICULTURE AND THE LDCs
(Rev. 1 - 28.08.895)**

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The Uruguay Round (GATT) Agreement: Agriculture and the LDCs¹

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ABSTRACT

This article address the impacts of the Uruguay Round Agreement on agriculture in developing countries. First , the potential changes in the global trade environment in which LDCs will operate are reviewed, followed by the specific provisions of the Agreement for LDCs. The conclusion that only two areas - market access and sanitary/ phytosanitary regulations - have potentially significant consequences is reached. Then, a cross section of 11 developing countries is analyzed to see what adjustments they would have to make and to identify their policy options. The basic conclusion is that the GATT agreement on agriculture is, except in a few cases, not likely to present LDCs with major policy adjustment problems. In Latin America, unilateral reforms have proceeded farther than GATT requires. In Africa, countries that have experienced structural adjustment are liberalizing faster than GATT requires. In Asia the situation is mixed but in general agricultural trade liberalization appears to be moving more slowly especially when compared to Latin America; progress reducing the role of QRs has been slow. In Eastern Europe and the CIS, the progression and completeness of liberalization varies widely though GATT notions of tariffication and tariff bindings have strengthened the position of reformers in those countries that are members of GATT. While the short run impacts of the URA may be modest, the bringing of agriculture under the rules of GATT should help prevent reintroducing QRs in the future. However, given that much of the food imports, particularly in parts of Asia, are still conducted by parastatals, if state trading is GATT legal it is hard to anticipate how URA commitments could bring about a strong discipline on trade distorting support.

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The Uruguay Round (GATT) Agreement: Agriculture and the LDCs

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1. Introduction

For more than seven years, negotiations to "liberalize" agricultural trade held center stage in the Eighth Round of GATT negotiation - called the Uruguay Round. Major players, including the United States and the Cairns Group, insisted that bringing agricultural trade under the rules of GATT, and liberalizing it, were pre-conditions for any GATT agreement. The Uruguay Round was by far the most sweeping attempt at trade liberalization yet attempted. In addition to agriculture, contentious issues on textiles, intellectual property rights, and trade in services, as well as traditional industrial tariffs were on the table. In the end, an acrimonious dispute over agriculture, mainly between the USA and the EU, delayed the conclusion of the Round by three years.

The agreement reached in December 1993 and finally signed in Marrakesh in April 1994, contains an agricultural agreement which in everyone's view is modest compared to the sweeping expectations of "substantial sustained reductions in agricultural distortions" talked about in the late 1980s. The agricultural agreement does bring agricultural trade under GATT rules but contains precious little immediate liberalization (Hathaway and Ingco, 1995; Goldin and van der Mensbrugge, 1995; FAO, 1995; Anania, Carter and McCalla, 1994).

Most of the action in the GATT Round, and most of the analysis of its potential consequences, focused on the Developed Countries, particularly the United States (USA) and the European Union (EU). This paper attempts to address the impacts on Developing Countries (LDCs). We approach this task in four steps. First, we review the potential changes in the global trade environment in which the LDCs will operate. We then review the specific, and in many cases different, provisions of the Agreement for LDCs in areas of market access, export subsidies, domestic support and sanitary and phytosanitary regulations. Our conclusion is that only two of these areas - market access and sanitary/phytosanitary regulations - have potentially significant consequences. We then look at a cross section of 11 developing countries, in several regions, to see what adjustments they would have to make and identify their policy options. The final section of the paper draws on these country analyses to suggest

potential impacts. Overall, we conclude that while immediate impacts may be limited, in the longer run, the Uruguay Round Agreement could have significant liberalizing effects.

2. The Global Impacts and the LDCs

The impact of the Uruguay Round on LDC agriculture needs to be assessed at two levels. The first is the specific impacts on agricultural trade, world prices and the economic welfare of the sector. The second level is the macro economic impacts of the overall GATT agreement on world economic growth and international trade and the consequences of those global developments for the agricultural sector.

As a general proposition one can argue that Developed Countries subsidize their agricultural sectors by protecting them from import competition and subsidizing exports into world markets. The consequences of these policies are to increase domestic production, contract domestic consumption and therefore reduce import demand or increase excess exportable supplies thereby putting downward pressure on world prices. It would follow then that liberalization which reduced domestic distortions should put upward pressure on world prices. On the other hand, Developing Countries (and the formerly Centrally Planned Economies) tend to tax agriculture (particularly their export subsector) and often subsidize urban consumers (Schiff and Valdés, 1992). The consequences of these policies would in general be the opposite of the DCs, namely to contract domestic production and expand domestic consumption. The results would be smaller exportable surpluses and larger import demands thereby putting upward pressure on world prices. It should follow therefore that liberalization in LDCs which reduced domestic distortions would increase production and decrease consumption, therefore putting downward pressure on world prices.

These contradictory general positions in fact are borne out by global modeling efforts that have included both DCs and LDCs. Most modeling efforts that attempted to model liberalization in both DCs and LDCs produced either little price change or falls in world prices (Valdés and Zeitz, 1990; Anderson and Tyers, 1990 and Tyers and Anderson, 1992). More recent analysis -OECD, IIASA, FAPRI, RUNS, etc., which modeled mainly DC-liberalization suggests that liberalization of the sort proposed in the so-called Dunkel text⁴ would produce modest - 4 to 12% - increases in world prices for most staples such as wheat, rice, coarse grains, sugar

and dairy. These results were premised on most of the liberalization occurring in DCs.

The actual outcome of the Round as described by Anania et al (1994) was an even more modest outcome for agriculture than the Dunkel proposal with LDCs subject to even less discipline than the DCs. Post Marrakesh analysis therefore suggests even more modest increases in prices, 0 to 5%, (Goldin and van der Mensbrugghe, 1995; FAO, 1995, etc.), given that liberalization occurs mostly in the DC's.

One must distinguish between developing country exporters and importers in considering impacts and whether this may have prevented LDCs from playing a stronger role in the negotiations (however, several LDCs were active members of the Cairns Group which did have an impact). The consequences for LDC exporters therefore is modestly improved market access and prices slightly higher than the long term trend of decreasing real commodity prices that has prevailed for most of this century. For LDCs food importers, the consequences could be higher import prices which, while modest in percentage terms, could have significant balance of payments impacts where food imports are a significant part of the import bill. A further implication of the Round will likely be a reduction of stocks in developed countries which could have implications for global market stability in the case of significant supply and demand shocks. Even though the overall effect of the agreement should be to increase long term world market price stability. A second consequence of reduced stocks, coupled with aid fatigue, may be reduced availability of food aid for the poorest countries. Rising grains prices increase the opportunity cost of food aid to donors. Given that most LDCs are food importers, the global consequences of the Round for the least developed LDCs could well be more negative than positive in the short-run.

Finally, the issue of special and differential treatment of LDCs deserves comment. First, the lowering of EC and US levels of protection on an MFN basis means by definition that the margin of preference for LDCs under, for example, the Lome Convention and Caribbean Initiative are reduced.

The macro consequences of the Round for agriculture are also modest but potentially positive. Goldin and van der Mensbrugghe estimated small but positive gains in income as a result of the Round, although most of it occurs in developed countries. But on the broader front, overall global

growth enhancement resulting from the full GATT Agreement would have positive effects on LDCs as a group. The implementation by developed countries of further reductions in industrial tariffs, the abolition of the Multifiber Agreements (MFA) and the eventual opening of developed countries agricultural markets, all represent positive potential gains for LDCs. Further, the opening of markets in general should constitute to increased price stability in international food markets (FAO, 1995). In the longer run, it is the improved set of rules for agricultural trade and the overall positive impact on global growth and trade that may have more positive implications for agriculture in the LDCs than the short term agricultural liberalization per se.

3. The Specific Provisions of the Agreement for LDCs

The URA was the beginning of agricultural liberalization, establishing a new set of rules for the sector. Earlier GATT Rounds, which involved exemptions from GATT discipline, provided agricultural protection through ordinary tariffs and nontransparent quantitative restrictions (QRs). The URA changed the policy options faced by countries including those which are discouraged and those which are acceptable. Beginning in the first year of URA implementation, nearly all border protection is provided by bound tariffs (instead of QRs), and countries undertake specific commitments, subject to GATT discipline on export subsidies and domestic levels of support.

The implications of the URA for the design and implementation of domestic agricultural policies for LDCs are clear when the three major areas in which negotiations were focused are considered: import access; export competition; and domestic support (IATRC, July 1994). A separate agreement on Sanitary and Phytosanitary Measures is also an important dimension for the LDCs.

The URA established a set of new rules for agriculture:

- converting non-tariff border measures to tariffs;
- making tariffs legally binding;
- targeted reductions of tariffs; and
- the binding of domestic support (trade distorting domestic support).

Also, member countries undertake specific commitments in their schedules:

- all previous waivers are now removed

- **new types of commitments regarding export subsidies and total support are undertaken**

Market Access Commitments (LDCs as importers):

- Convert all existing NTBs (along with unbound tariffs) into bound duties, no higher than the tariff equivalent of the protection levels prevailing in the base period (1986-1988), and not introducing any new NTB measures. For ordinary tariffs not previously bound, developing countries were permitted to offer ceiling bindings (commit to maximum tariffs unrelated to previous protection levels).
- Reduce new and existing tariffs by 24% on average over 10 years, with a minimum reduction of 5% per tariff line (versus 36% average reduction and 15% minimum reduction over 6 years for DCs). However, the required unweighted average reduction in tariffs allows differential treatment of commodities (e.g., a country could meet the aggregate reduction of 24% reducing tariffs on less important products with little change in sensitive products).
- Minimum access provisions: import opportunities to be granted through tariff-quotas, for a share of the domestic market rising from 2% to 4%, to apply where NTBs have been tariffed (tariff/quota provisions), versus 3% to 5% for DCs. Low or minimal duties are to be charged on these imports.
- Special safeguard provisions for imports: additional duties can be levied (up to one-third of normal duties) if the volume of imports exceeds the average of the three preceding years. Alternatively, additional duties could be levied if import prices drop below a trigger price (3% if price drops 20% of the average cif price in 1986/1988; 9% if price drops 40%; 14% if price drops 50%; etc.).

b. The Agreement on Export Subsidies

The agreement contains the following elements:

- Ban on new export subsidies.
- Existing subsidies are allowed to continue subject to agreed reductions. LDCs need only reduce volume of subsidized exports (expenditure on subsidies) by 14% (24%) over 10 years from a 1986-1990 base [versus

volume (expenditure) reductions of 21% (36%) over six years for DCs]. The Agreement contains a list of export subsidies falling under this commitment, the most important of which are: subsidized stock exports; producer-financed export subsidies; export-specific transportation subsidies; export marketing cost subsidies, and payments in kind.

- iii. The schedules establish the level of such subsidies deemed to exist in the initial period.
- iv. Agreement should not extend to export subsidies to commodities not subsidized in the base period (Art 3.3 and Modalities paragraph 12).

Export credit and credit guarantees to be covered by a separate agreement yet to be negotiated.

c. Domestic Support Subject to Discipline

- i. The Aggregate Measure of Support (AMS), aggregated over policy instruments and commodities, measures the expenditure on domestic support and the value of market price support (against external reference prices) through administered prices provided by the policies covered under the Agreement. Certain policies which meet non-distorting criteria (the so-called green box) are not counted (see table 1).
- ii. Developing countries are committed to reductions of average distorting support by 14% in 10 years (versus 20% in six years in DCs); that is, for policies not accepted as "green box" criteria automatically become subject to reductions.
- iii. Permitted policies for LDCs, that is under Green Box criteria, include rural development programs, investment subsidies, input subsidies for poor farmers, and diversification subsidies. A de minimis provision allows countries to exclude from the calculation of AMS product-specific support if it does not exceed 10% of the value of the product (5% for developed countries).
- iv. livestock payments made on a fixed number of Direct payments are not subject to reductions if they are: (i) based on fixed area and yields; (ii) made from 85% or less of base production and head.

Table 1
DEVELOPED COUNTRIES

Amber Policies: Internal support policies that are considered to be trade-distortive and are therefore subject to reduction.	Green Policies: Policies that do not involve transfers from consumers and do not have the effect of providing price support to producers. They are exempt from reduction commitments.
<ul style="list-style-type: none"> • Price Supports • Export marketing subsidies • Export-specific transportation subsidies • Producer-financed export subsidies • Input subsidies (seed, fertilizer, irrigation, etc.) • Subsidized stock exports • Payments in kind 	<ul style="list-style-type: none"> • General services (research, pest and disease control, training, extension and advisory services, inspection, marketing and promotion, infrastructure services) • Public stock holding of commodities for food security reasons • Domestic food aid • Decoupled income support • Crop insurance and income safety-net programs • Relief from natural disasters • Structural adjustment assistance through producer reimbursement programs, resource reimbursement programs, or investment aids • Environmental or conservation programs • Regional assistance programs • Direct payments based on fixed areas and fields or based on 85% or less of the base level of production or based a fixed number of livestock

DEVELOPING COUNTRIES

Amber Policies	Green Policies
<p>Same as above except for the following which are listed under "Green Policies"</p>	<p>Same as above plus:</p> <ul style="list-style-type: none"> • Marketing and internal transport subsidies • Investment subsidies • Diversification subsidies • Agricultural input subsidies.

d. The Peace Clause

- i. What is actionable and non-actionable for purposes of countervailing duties and other GATT measures? Under the URA, policies which are included under the "green box" criteria are not actionable by the dispute (settlement procedures) for purposes of countervailing duties and other GATT challenges. Amber policies (that conform with the commitments) are subject to the imposition of countervailing duties (if they are shown to have caused injury). The other GATT challenges include *nullification and impairment* of a country's GATT obligations and *serious prejudice* to another country's interest, usually third markets. Export subsidies are exempt from most GATT challenges and are subject to countervailing duties only if they cause injury. The peace clause is in effect for nine years starting in 1995.

e. Sanitary and Phytosanitary Measures (SPS Agreement)

- i. Establishes general guidelines but does not specify which regulations would have to change.
- ii. The right for countries to set their own safety and health standards is reaffirmed, but such standards should be based on "sound scientific evidence" and use should be made of international standards where possible.
- iii. SPS does not specify any quantitative requirements and does not regulate any specific policies. Hence there is no individual country commitment to certain adjustments in their policies.
- iv. However, a country which does not comply with harmonization on SPS has to comply with certain requirements: (i) it should not discriminate between countries where similar conditions prevail, (ii) it should not apply them as disguised restrictions on trade, and (iii) domestic standards must be consistent with scientific evidence and be based on an appropriate risk assessment.

4. Challenges Beyond the Round

From our point of view, the main challenge for LDCs is to maintain the liberalized trade regime in those countries which had unilaterally liberalized before the URA, and to advance the agenda for more open agricultural trade policies in the remainder.

Under the URA, developing as well as developed countries retain considerable discretion in their agricultural trade policies. Can the new rules and the improved dispute settlement procedures prevent backsliding into protectionism? Can the new rules prevent a return to QRs?

Some possible shortcomings:

(a) Market Access

- Perhaps the major shortcoming is that the URA excluded state-trading monopolies, and there is no additional provision to enhance transparency in the behavior of state-trading agencies for either import or export activities.⁵ By being able to adjust the volume of imports at their discretion, state traders can support domestic prices above or below those that would prevail at the prevailing tariff, thus making tariffication totally ineffective. This is a more important issue for developing country importers than it is for developed country importers. Much of the food imports to LDCs are still conducted by Parastatals.
- Inflated tariff equivalents have been accepted as bases from which reductions are made for a number of LDCs. Price manipulation allowed the initial tariffs from which the reductions are made to be high, higher than the actual levels of tariff equivalents before conversion to NTBs.
- The simple unweighted averaging of tariff reductions allows much scope for continued protection to individual *sensitive* products. A country could reduce tariffs by a large percent reduction on several relatively unimportant products with low initial tariffs and reduce the tariffs of sensitive products by a very small percentage and still meet the overall 24% unweighted average.
- The Special Safeguard Provisions may be used frequently and thus make importer prices less responsive to changes in border prices. It appears that many countries have chosen tariff schedules and price triggers for safeguards which are considerably above those used for calculating tariff equivalents (higher than current international market prices). The price trigger is applied on a shipment-specific basis, which can lead to higher price differentiation.

- The Minimum Access Provisions, implemented through tariff-quotas are undertaken at relatively large aggregates of producers (e.g., meats) which leaves considerable flexibility to importers.
- The Agreement did not effectively address the long standing issue of escalating effective levels of protection which increases with the level of processing, especially of tropical products. The Agreement reads:

“TE shall generally be established for worked and/or prepared products by multiplying the specific tariff equivalent for the primary agricultural product by the proportion in value terms or in physical terms as appropriate of the primary agricultural product in the worked and/or prepared products, and take account, where necessary, of any additional elements currently providing protection to industry.”

Agricultural worked/processed goods include those that are finally used for food, i.e., wine would be an agricultural worked good while leather would be an industrial good.

(b) Export Subsidies⁶

Developing countries have few export subsidies with the exception of a few countries (such as Poland). Furthermore, commitments in rather large commodity aggregates allows shifting of the product composition of such subsidies.

(c) Domestic Support Measures

With some exceptions, domestic support measures should not impose significant restrictions for most developing countries. Both the current level of support and the 'green box' coverage for LDCs gives them considerable flexibility.

5. Market Access Commitments and Current Status of their Trade Regime: The Cases of Twelve Developing Countries

Two historic characteristics of the agricultural trade regimes have been their discretionary and selective nature and the lack of transparency. Both characteristics are largely the result of the prevailing use of quantitative restrictions (QRs), for example, quotas, licenses, and state trading. QRs are more selective and less visible than tariffs, and thus replacing QRs with tariffs has important advantages. First, tariffs are more transparent and the role of the price mechanism is enhanced. As long as the tariff levels are not prohibitively high, a great merit of tariffs is that they expand the number of global participants in the adjustment to world price changes and, as a consequence, the variability of international prices should decline. Second, tariffs generate government revenues. The latter is especially critical for some developing countries because it removes one of the obstacles to the removal of export taxes in countries where such taxes generate government revenues. The adoption of a new set of rules under the URA, in which nearly all border protection is provided by tariffs (instead of QRs), and the commitment to further reduce tariff levels thus represents a major achievement towards a more open and transparent agricultural trade and price regime.

In this section we examine the actual market access commitments and the current status regarding their trade regime for a set of eleven developing countries.

Table 2 provides the actual market access commitments under the URA for a sample of eleven countries on 14 agricultural products. The information for each country reports the base period tariff equivalents as reported to WTO (that is, the average for 1986-1988), and the bound tariff levels corresponding to those same products.

Three observations emerge: first, a sharp contrast exists between countries who bound tariffs at relatively low tariff levels versus countries that bound at excessively high levels. Observe the very high tariff bindings in Colombia and India for most products, and also the high bindings for several products in Indonesia, Poland, and Thailand. By contrast, Argentina, Estonia, and Chile opted for a more open trade regime. Second, a considerable dispersion between commodities in the bound tariffs is observed for some countries (Colombia, Hungary, Indonesia, Poland, and Thailand). Third, for several countries in the sample, URA tariff bindings are so high that they likely do not provide a constraint on

Table 2: Market Access Commitment

	Argentina (1)		Brazil		Chile		Colombia		Egypt(3)		Ghana(4)		Hungary		India		Indonesia (2)		Poland		Thailand		Uganda (5)	
	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound	Base	Bound
Chickpea			55	20	25	100	70	30	20	80	51.2	0	100	60	40	40	48	60	40	75	48	60	40	40
Cocoa			85	35	25	100	70	40	30	15	9.6	140	100	90	40	15	12	(b)	15	15	12	(b)	(b)	60
Coffee			60	35	25	100	70	15	10	30	25.5	140	100	100	40	20	15	100	20	20	15	100	90	60
Corn	5	3.8	37	35	25	277	194	5	5	40	50	20	0	70	40	0	(c)	81	(c)	(c)	(c)	81	73	
Cotton			55	55	25	110	99	10	5	0	0	40	150	30	27	0	0	5	0	0	0	5	4.5	
Meat			25	55	25	120	108	5	10	112	71.7	140	150	70	50	70	(b)	60	(b)	(b)	(b)	60	50	
Milk			70	55	25	177	159	40	30	80	51.2	100	100	50	40	160	102	46	160	102	102	46	41	
Rapeseed			37	35	25	204	143	5	5	0	0	0	100	45	40	45	27	35	45	45	27	35	30	
Rice			45	55	25	210	189	30	20	99	63.4	0	0	180	160	(d)	(d)	58	(d)	(d)	(d)	58	52	
Sorghum	5	3.8	55	55	25	147	132	15	10	0	0	0	0	70	40	10	8.2.75b/k	27	10	10	8.2.75b/k	27	27	
Soybeans					25	139	125	15	10	0	0	0	100	30	27	5	2.5	89	5	5	2.5	89	80	
Sugar			35	55	31.5	130	117	30	20	80	68	75	150	110	95	(e)	(e)	104	(e)	(e)	(e)	104	94	
Tobacco			20	18	25	100	70 LE12/K	LE9/Kg		80	51.2	(g)	100	45	40	(f)	(f)	80	(f)	(f)	(f)	80	72	
Wheat			45	55	31.5	138	124	5	5	50	20	0	100	30	27	40	25	(i)	40	40	25	(i)	27	

Explanatory Notes:

(1) All import tariffs will be consolidated at the uniform rate of 35% ad-valorem with the exceptions above. If current consolidated tariffs are lower than 35% they will be maintained without changes

(2) List of products with quota:

Milk and rice. Both will be maintained up to 2004 in the same amount.

(3) Not all bound items have been included at this stage.

(4) Range of bound ceiling is 99-125.

(5) The only bound tariffs submitted are:

Poland

-BASE

(b) 30 + Max 4740 ECU/T

(c) 20 + Max 147 ECU/T

(d) 15 + 650 ECU/T

(e) 120 + min .53 ECU/Kg.

(f) 165 min 3.39 ECU/Kg.

(g) Rs 50/Kg + 40

India

(h) 30 + 2.5B/Kg

(i) 56, 2.75B/Kg.

Thailand

BOUND

19 + Max 3034 ECU/T

9.6 + Max 416 ECU/T

9.6 + MAX 416 ECU/T

12.8 + Max 96 ECU/T

105 min 2.17 ECU/Kg.

27 + 2.25B/Kg

Source: Data originated from WTO, kindly provided by FAS/U.S. Department of Agriculture

continuing high levels of protection, in spite of the tariff reduction commitments.

The phenomenon referred to as "dirty tariffication" did occur among some developing countries, which reported tariff equivalents above the actual levels during 1986-1988 (Colombia and others, for example). The high ceiling bindings observed for example, in Colombia, India, and Indonesia, reflect the flexibility which these countries desire regarding protection levels for sensitive products. Such potentially high levels of protection imply a strong (implicit) anti-export bias, in addition to its effects as a tax on consumers.

Table 3 presents an overview of the prevalence of QRs and a description of the mechanisms of support during 1994-1995 for some of the same countries. Unfortunately, information on the current status of QRs is still incomplete for some of the sample countries (Argentina, Egypt, Poland, and Thailand).

A salient feature in Table 3 is that in several of the sample countries, particularly in Latin America, QRs on imports and exports are being relaxed. This is the case for Argentina⁷, Brazil, Chile, Estonia, and to a large extent in Colombia.⁸ Although not included in the sample, Peru is another country which has practically removed most QRs on agricultural trade (except a price stabilization scheme).

Recent experience has shown that the bold steps required to eliminate QRs are an important element in trade liberalization (Papageorgiou, Choksi, and Michaely). Overall, the significant reduction in the incidence of QRs (see table 3) in several of the sample countries is a very positive development, both for compliance with the URA rules, and from a domestic policy perspective. However, India, Indonesia, and some other LDCs would have to introduce major reforms in their trade regime for agriculture if the URA principle of tariffication is to be adopted.

The extent to which the Agreement would require substantial policy adjustments can be better understood if we focus on a few cases in more detail.

Table 3: Current Status of Agricultural Trade and Price Interventions (1993-1994)

Commodity	Argentina	Brazil	Chile	Colombia	Estonia 2/	Hungary 1/	India	Indonesia	Poland 3/
Beans		10, 13 MPS PL 10, 13	11				10, EB	20	15 20
Cocoa			11						10-20
Coffee			11	MPS		3	0	5	0
Corn	0	. 13 MPS PL	11	0,ST,PB,MPS			0, EQ		30
Cotton	12	. 13 MPS PL	11	10		EL(Pork & Sheep EL 30	140	10	5-40, ML, EL
Meat	20,(4)		11	20					10-15
Milk	28		11	65 PB		EL	STM	9,ST,ML	10
Rice		10,13 MPS PL	11	0,ST,PB,MPS		EL	STM	10,ST,ML	5+3
Sorghum	16,(4)		11	0,ST,PB,MPS		EL	STM	10,ST,ML	40min
Soybeans	16,(4)	8, 13 MPS	11	5,ST,PB,MPS				10,ST,ML	20-25, PTQ
Sugar		16, 13 EQ	11,0 PB			80	0,STME	100	
Tobacco	28, (4)		11				100,0 STM	ST,ML,PB,M	
Wheat	20	.13 IQ MPS P	11,0 PB	5,ST,PB,MPS		EL 10	100,0 STM	ST,ML,PB,M	

Note: The first number is the tariff rate and the second is the export tax

MPS = Minimum Price Support
 PLE = Trigger or call price
 EQ = Export Quota
 MQ = Import quota
 STE = State Trading in Exports
 STM = State Trading in Imports
 STEM = State Trading in both Imports and Exports

PB = Price Band
 EB = Ban on exports
 MB = Ban on imports
 EL = Export license
 ML = Import license
 PTQ = Preferential Tariff quota

- Hungary: There has been a progressive liberalization of the import licensing regime since 1984 resulting in a general authorization of imports since Dec. 1990, except for: - Fruit and vegetable preserves, canned mushrooms, fish, dairy products, tropical fruits. There are no tariffs and no QRs on imports. Imports as well as domestic products are subject to an 18% value-added tax. Except for grain imports, trading in agricultural commodities is conducted by private firms. Information on QRs for the rest of the products was not available.
- Estonia: Information on QRs for Egypt and Thailand was not available.
- Poland: There is a beef quota to Europe, administered by SAGyP. The beef quota to the US under GATT will have a similar treatment. Sorghum and soybeans have a tariff rate of 16% if they are not used as seed. Otherwise the tariff rate is 0%.
- Argentina: Tobacco: there is a minimum price system administered by the SAGyP, and funded through taxes on cigarette consumption. * Information on QRs from Egypt and Thailand were not available.

Argentina's trade liberalization program started in 1989. Currently, the maximum tariff is 20% (plus a temporary 10% "statistical tax") and the average ad valorem tariff is 10%. Argentina no longer maintains an import licensing regime, with the exception of the auto sector. Export taxes on farm exports were removed. As a member of Mercosur, Argentina is under a duty free system for imports from the other members of Mercosur.

Chile implemented tariffication in 1976, removing practically all QRs, and closing down the state agency dealing with agricultural imports. The current trade regime is quite simple; a uniform tariff of 11% applies to all importables, with the exception of wheat and sugar which have a price band scheme. There are no export taxes, licensing, or quotas. A uniform VAT of 15% applies to all imports and domestic production.

Ghana eliminated import licensing in 1989, and former state agency monopolies have been abolished. However, parastatal agencies continue to import some agricultural products although they no longer receive government subsidies to finance imports. Ad valorem import duties range from 0% to 25%, except tobacco which is subject to a 10-40% import duty.

Egypt started a price liberalization program in 1991, lifting all restrictions on foreign exchange transactions and reducing tariff levels (maximum tariff is 70%). However, Egypt has imposed new obstacles to the importing of previously banned products. For instance, import duties were raised for some products such as meat, frozen vegetables, and poultry. Furthermore, items removed from the previously banned products are now subject to quality control standards including domestic regulations on shelf-life standards which do not seem consistent with sound scientific evidence.

Since 1992, **Estonia** has adopted an open trade regime of zero tariffs for most products, with some exceptions for agriculture and automobiles. There are no import quotas and licensing requirements are not generally restrictive, applying only to products for which health and national defense considerations might apply. Imports of alcoholic beverages and tobacco are restricted. State trading enterprises have neither exclusive rights nor special privileges in their purchases or sales involving imports or exports. An 18% VAT applies to all imports as well as domestic products.

Hungary virtually liberalized all farm price controls, with the exception of milk and bread. Foreign state trading was abolished in 1990, and most QRs were removed, although Hungary introduced a scheme of tariff/quotas with a fairly discretionary administration which could result in higher protection. As a temporary measure, Hungary recently raised tariffs by eight percentage points on all imports, on balance of payments conditionality.

India started its economic reforms in 1991, introducing a substantial reduction in trade barriers for manufacturing goods. However, so far agricultural trade has remained out of these policy reforms. In addition to the very high tariff binding registered (table 2), import licenses are required for most agricultural imports and the Food Corporation of India and other parastatals have a legal monopoly on imports of most food products (grains, vegetable oils, and others).

Indonesia initiated its trade liberalization program in 1986, with tariffs ranging from five to 30%. However, although Indonesia has reduced tariffs on a number of agricultural products, imports of such products are still covered by quantitative measures. And in the case of wheat, rice, soybean, and sugar, the parastatal BULOG has a legal monopoly on imports (table 3).

6. Concluding Comments

For Latin America, a bold program of domestic trade liberalization had already occurred at the time of the URA in April of 1994, and Latin America came out of the GATT negotiations therefore, with relatively few mandated changes to policies. Moreover, some countries in the region bound tariffs at relatively low levels (Argentina, Chile, Peru, all at less than 35%); Brazil's tariff bindings ranged from 35 to 55%, in contrast with high tariff bindings for Colombia (70 to 194%). For those countries that chose to set their tariff bindings at relatively low levels, they are disciplined by a ceiling on tariff support imposed by the URA. For Colombia, beyond QRs, GATT provides no such constraints. Even for Brazil, the tariff binding is high enough to keep its current trade regime, including the possibility of placing higher tariffs on products for which import quotas were removed.

In Sub-Saharan African countries, the imperatives of structural adjustment programs and currency adjustment for CFA countries far exceeds the implications of the URA for their agricultural sectors. Moreover, although

URA rules could potentially make a difference, if state trading monopolies are GATT legal it is hard to anticipate how the URA commitments could bring about a strong discipline on trade distorting support.

Francophone West African countries recently have begun to plan for considerable domestic agricultural liberalization in the wake of the devaluation of the CFA Franc. These include Cote d'Ivoire and Senegal. However, the future will determine the degree to which the power of parastatals and state trading monopolies will be reduced.

The URA tariff bindings for Indonesia and even more so for India were set so high that significant rule changes with respect to QRs could co-exist with minimal liberalization of the major agricultural products. Therefore any domestic liberalization will have to be driven by domestic macro economic imperatives rather than URA requirements.

In the former Soviet Union and Eastern Europe, the progression and completeness of liberalization varies widely. One of the cases presented (Estonia) represents one of significant liberalization. Poland and Hungary show some liberalization while many other countries still have a considerable distance to go (Belarus, Georgia).

The basic conclusion of this paper is that the GATT agreement on agriculture is, except in a few cases, not likely to present developing countries with major policy adjustment problems. In Latin America, unilateral reforms have proceeded much farther than GATT requires, in many instances, the reforms occurred before the advent regional trading agreements. In Africa, countries that have experienced structural adjustment are liberalizing faster than GATT requires. In Eastern Europe and the CIS, overall needs for economic reform dwarf the specific requirements of GATT in agriculture though clearly GATT notions of tariffication and tariff bindings have strengthened reformers hands in those countries that are members of GATT. In Asia, the situation appears very mixed but in general agricultural trade liberalization appears to be moving much more slowly especially when compared to Latin America. In this region, progress reducing the role of quantitative restructuring (QRs) has been very difficult.

While the short run impacts may be modest, the bringing of agriculture under the rules of GATT should help guard against significant backsliding towards reintroducing agricultural protectionism, in future. One potentially contrary aspect of the agreement is the considerable latitude

given to countries in implementing the sanitary and phytosanitary agreement. This could be a new vehicle for new modes of non-tariff protection. However, most importantly, the Agreement should provide a context in which real liberalization can occur in the next Round. Clearly, expecting countries to yield on tighter rules and to submit to substantial liberalization was asking too much. Now that the rules are in place, further liberalization should receive primary attention.

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ENDNOTES

¹ Paper presented to Conference on Questões Agroalimentares e Experiencias de Integracao

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Nafta: Confronto de Experiencias. in Rio de Janeiro, Brazil on May 15 to 17, 1995.

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⁴ Proposed in 1991 as the agricultural agreement which contained much more significant

reductions in distortions than to final agreements.

⁵ State trading enterprises are allowed by the URA but cannot provide domestic support in

excess of the tariff bindings or maintain any QR. However, there is still considerable

uncertainty regarding the implementation of restrictions on the level of protection to be provided

by state agencies.

⁶ Export taxes and import subsidies were not part of the negotiations, and therefore are not banned or restricted.

⁷ We understand that this is the case for Argentina, but information on QRs for importables is still incomplete.

⁸ Although state trading appears in the column on Colombia, it is relevant to add that the parastatal's (IDEMA) legal monopoly on external and domestic trade had been removed during 1991, and IDEMA's principal role is now as a procurement agency as part of the price support scheme.



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**IMPLEMENTING THE URUGUAY ROUND AGREEMENT
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***Safeguards, Antidumping, Countervailing Duties and
Observations on Administrative and Technical
Barriers to Trade***

***Patrick Low
World Trade Organization***

**Santiago, Chile
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Safeguards, Antidumping, Countervailing Duties, and Observations on Administrative and Technical Barriers to Trade

Patrick Low*

Contingency Protection and the Implications of the Uruguay Round in Agriculture

Prior to the Uruguay Round, it could be argued that in significant ways, agriculture was outside mainstream policy disciplines enshrined in GATT. This arose in part because of special rules relating to agriculture,² and in part from a combination of *sui generis* exceptions³ and unchecked non-compliance. The Uruguay Round changed this situation in a fundamental way. First, a significant package of trade liberalization measures was introduced, comprising explicit commitments to "tariffy" non-tariff barriers to agricultural imports, the establishment of maximum tariff rates and tariff reduction commitments, new disciplines on domestic support measures, and limitations on export subsidies.⁴ Second, the new rules of the Agreement on Agriculture narrowed the circumstances in which governments could resort to non-tariff barriers to trade, and also eliminated the legal cover for agriculture-based derogations from standard trade policy disciplines.

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²GATT Article XI contemplates some circumstances specific to agriculture in which quantitative restrictions may be applied. In addition, differential rules on export subsidies, as between agricultural products and manufactures, have also long been a feature of GATT rules.

³For example, the 1955 U.S. waiver for agriculture, the Swiss Accession Protocol, and the use by the EEC of variable levies -- a policy whose GATT-consistency was never properly clarified.

⁴Some commentators have argued that the Uruguay Round did little by way of actual trade liberalization. Whatever view is taken of the quantum of liberalization achieved, a notable success of the Uruguay Round was to bring a new policy coherence and discipline to the agricultural sector -- an essential prerequisite for liberalization in the future.

Success in reducing the freedom of governments to intervene in the agricultural sector in these ways, combined with the new "bite" of trade liberalization commitments, created pressure to find alternative mechanisms to shelter domestic agriculture from import competition. Available mechanisms for this purpose are briefly reviewed below. Only those measures that can be applied to specific products are considered here, as opposed to such instruments as the balance-of-payments provisions, which are of more general application.³

The special safeguard in the Agreement on Agriculture

One such mechanism was written into the Agreement on Agriculture. This is the special safeguard provision of Article 5, which in certain circumstances permits governments to impose additional tariffs on products, over and above their established levels of bindings. This special safeguard is only available on products subject to tariffication. The safeguard may be triggered either by a surge in imports or by a drop in prices.

Antidumping actions

Article VI of GATT 1947 and the Agreement on Implementation of Article VI of GATT 1994 allows Members to impose antidumping duties when products of one country are introduced into the commerce of another at less than the "normal" value, thereby causing or threatening material injury to an industry in the importing country. The three crucial issues in antidumping cases are: i) the determination that dumping has occurred, and by how much a good has been dumped (the dumping margin); ii) that a domestic industry is suffering from, or threatened by, material injury; and iii) that the dumping is the cause of the injury.

³Article XII and Article XVIII:B allow Members to impose import restrictions when their foreign exchange reserves are in short supply. Article XVIII:B allows developing countries to impose import restrictions in order to encourage infant industries, but this provision is not discussed here because it has little relevance to agriculture.

Antidumping has become a contentious area of trade policy, on account of its more frequent use by a growing number of countries, and the perception of some that antidumping has developed into an instrument of protection, to an extent replacing or neutralizing what governments have committed to do by way of trade liberalization. On the other hand, there are those that believe antidumping, and other similar mechanisms are an essential safety valve, needed to deal with the adjustment costs that inevitably accompany trade liberalization.

The concept of dumping used in national legislation and taken to the multilateral level has been a source of some contention, at least in the academic literature. By defining dumping simply as price discrimination between segmented markets, it is likely that dumping will occur with a great deal of frequency. In many product areas, international markets are more competitive than national ones, such that producers need to charge a lower price on their exports compared to their domestic sales. This may simply be a function of the existence of a tariff against competing imports in the domestic market. In any event, the designation of price discrimination as dumping means that dumping is a regular occurrence, and the frequency of antidumping actions in most jurisdictions that use this instrument has grown in recent years. The number of countries resorting to antidumping actions has also increased. According to Table 1, seventeen countries initiated antidumping actions in the period January 1993 - June 1995. Ten years ago, Australia, Canada, the EC and the United States would have accounted for virtually all antidumping actions.

Several issues relating to definitions and the mechanics of antidumping actions have emerged in policy discussions over recent years. Mention has already been made of the use of a price discrimination concept rather than a cost-based concept to define dumping. The calculation of the margin has been a point of contention. Where a straightforward comparison cannot be made between the export price of the product and the price of the like product, in the ordinary course of trade, when destined for domestic consumption, sales in third countries, or constructed costs may be used. In addition, when the investigating authorities do not consider that adequate information has been supplied by an exporting firm, they are entitled to use the

"best information available" to assess the dumping margin. The use of constructed cost and best information available have been criticized as resulting in inflated estimates of the comparable domestic price. Another issue arising in this area relates to the averaging techniques used to compare the prices of domestic and foreign sales for the dumping margin calculations

The question of "standing" has also been discussed, as antidumping authorities have sometimes been accused of acting on petitions from only a few firms, which are not representative of the industry as a whole. Other points that have been discussed include whether the duty charged should only cover injury to the domestic industry, or the entire dumping margin (the lesser duty rule), whether antidumping actions should be subject to a sunset provision, and whether *de minimis* rules should preclude antidumping actions when dumping margins or injury levels are small. Much discussion has also taken place in regard to procedural aspects of antidumping, such as the transparency of proceedings, the rights of all interested or affected parties to be heard, and the timeliness of the relevant procedures.

An important area of discussion relating to injury is whether only producer interests should be considered, or whether consumer interests should also be taken into account. In most jurisdictions, the authorities pay little attention to consumer interests, despite the fact that it may be argued that what may be said to be injurious to domestic producers is beneficial to domestic consumers.

A number of these issues were addressed in the Uruguay Round negotiations. More detailed methodologies were specified for calculating the dumping margin, more detailed criteria were spelled out for injury criteria, *de minimis* thresholds were established, stricter time limits were imposed for investigations, and a five-year sunset clause was introduced.

Countervailing duty actions

Many of the procedural issues and issues relating to injury determination that have been discussed in the area of antidumping are similar to those raised in the field of countervailing duties. The obvious difference, of course, is that antidumping actions are triggered by allegedly injurious price discrimination by a firm, whereas countervailing duty actions are triggered by allegedly injurious subsidization by a government. In practice, the effect of a subsidy could be manifested through what seems like price discrimination on the part of a firm, especially if the subsidy in question was an export subsidy. In effect, it is probable that subsidies are sometimes dealt with under the rubric of antidumping.

One reason why governments often prefer to avoid taking countervailing action is that the action is intergovernmental in nature -- one government is perceived as acting against another government. Acting against a firm in another country is less politically charged. This consideration may explain why countervailing duty actions are initiated less frequently than antidumping actions. The statistics presented in the attached tables show that in the two and a half year period to June 1995, only 258 countervailing duty actions were initiated,⁶ compared to 1,283 antidumping actions. Moreover, while 17 countries used the antidumping instrument, only 9 countries had recourse to countervailing duty action.

As in the case of antidumping, a number of changes were made to provisions on countervailing duties. These included provisions relating to the calculation of certain subsidies, injury determinations, investigation procedures, and conditions for terminating an investigation.

⁶Of the 258 initiations, 176 of them (almost 70 percent) were attributable to the United States.

Emergency safeguards

Another commercial policy measure, or measure of contingency protection available under the WTO, is the emergency safeguard envisioned under Article XIX of GATT 1947 and the Uruguay Round Agreement on Safeguards. Safeguard measures may be applied to imports of a product into a Member's territory if it establishes that the product in question is being imported into its territory "in such increased quantities, absolute or relative to domestic production, and under such conditions as to cause or threaten to cause serious injury to the domestic industry that produces like or directly competitive products."⁷

Several notable changes were made to the safeguard provisions in the Uruguay Round, reflecting the fact that this instrument had largely fallen into disuse. This was partly because of a preference for antidumping actions, and the fact that measures such as voluntary export restraints and orderly marketing arrangements were used with greater frequency. The latter measures largely fell outside the reach of GATT disciplines and were not subject to any systematic scrutiny. The Uruguay Round Agreement requires that these so-called "grey area" measures be eliminated.

Since the Uruguay Round agreement, safeguard measures may not be introduced without a proper investigation by the competent authorities, including public notice and public hearing requirements. A time limit has been placed on safeguard measures, which may be maintained for four years, renewable for a further four years. Safeguard measures may not be reintroduced for a period of time at least as long as that during which a measure was previously in place. While the original safeguard provisions of GATT did not contemplate any possibility of the discriminatory application of measures, the new agreement allows for such discrimination in carefully controlled circumstances. Another significant change in the new agreement is that it is no longer essential to provide for compensatory measures upon the adoption of safeguard

⁷Paragraph 1, Article 2 of the Agreement on Safeguards.

measures within the first three years of a safeguard measure, provided the safeguard measure has been taken in response to an absolute increase in imports (not just a change in shares), and that the measure conforms in all respects with the provisions of the Agreement on Safeguards.

The changes in the safeguard provisions made in the Uruguay Round were an attempt to render the provisions more "user-friendly", particularly in the light of other efforts being made to eliminate voluntary export restraints and impose further discipline on the use of antidumping and countervailing duty measures. Thus, on the one hand, the agreement relaxes the provisions on discriminatory application of safeguards and on compensation to trading partners for reduced market access following a safeguard action. On the other hand, the new agreement imposes new procedural disciplines to make sure that national authorities are accountable to their trading partners, and it also imposes a time limit on safeguard measures for the first time.

What Scope for Using Contingency Protection Measures in Agriculture?

Tables 2 and 4 show that antidumping and countervailing duty actions tend to be used little in the agricultural sector. Between January 1993 and June 1995, only 78 out of 1,148 recorded actions involved agriculture and food products (Table 2). In the case of countervailing duty actions, the relevant figures are 47 initiations out of 237 in total. As for safeguards, these are so little used that there is little to say about their sectoral distribution. Only two Members -- the EEC and Korea -- have reported having any safeguard actions in place during the first year of the WTO's existence. The European Union has outstanding GATT Article XIX 1947 actions on coal, dried grapes, and preserved cherries. Korea's measures affect salt fermented shrimps and hot bean paste, and only in respect of imports from China (not a WTO member).

For reasons outlined at the beginning of this note, agriculture has not been affected a great deal by contingency measures, on account of the existence of other trade measures available in the sector. Now that these are disappearing, and to the extent that governments look for other ways of providing relief to their agriculture sectors, what are the relative merits of the

alternatives? No further reference is made to the special safeguard, on the grounds that the circumstances of its possible invocation are carefully specified, and governments will decide whether or not to use it in circumstances where the appropriate criteria are met.⁸

Variable import charges

Although no mention has been made so far of variable import charges, this is an instrument that may be available to some governments in respect of importable agricultural products. Where governments have chosen in the Uruguay Round to maintain ceiling bindings, including in the tariffication exercise, such that their applied tariff rates are lower than their bound rates, they would seem to be entitled to vary their applied rates up to the bound level. This would mean that import charges could be linked to some target variable, and altered in line with fluctuations in this variable. The world price of a commodity could, for example, provide the anchor against which to link a variable tariff component. The constraint imposed on such an approach from the WTO perspective would, of course, reside in the binding. A price band scheme can be operated in a way that emphasizes reduction in price variability over protection. Two preconditions for minimizing the protection effects of variable levies are that upward and downward price fluctuations are treated symmetrically when prices are outside the non-intervention band, and that the anchor around which a band of moving average prices is defined is a world price and not some domestic target price divorced from supply and demand conditions in the market.

Antidumping, countervailing duties and safeguards

The following arguments have been made as to the relative merits of antidumping, countervailing duty and safeguard actions as measures of contingent protection:

⁸For those governments that have relied on ceiling bindings, the special safeguard provisions are likely to be less relevant.

a) Antidumping (and countervailing duty) actions may lead to more protectionist outcomes because of the underlying assumption that these are self-defensive measures, or reactions against unfair behaviour on the part of foreign firms or governments.

Safeguards, on the other hand, are predicated on the argument that firms need help to adjust to competitive imports, and there is no presumption of unfair behaviour on the part of foreigners. This locates the pressure to adjust where it belongs.

b) The complications involved in assessing antidumping margins and subsidy levels can lead to arbitrariness. A similar risk exists with safeguards, but only in relation to the injury determination.

c) Even though a sunset clause has been introduced in respect of antidumping and countervailing duty actions, such measures can easily be reinstated, or even continued via the launching of another petition. Safeguard actions, on the other hand, are more definitively time-bound.

d) In the particular case of countervailing duty actions in agriculture, it should be noted that Article 13 of the Agreement on Agriculture contains a "peace clause", which states that permissible subsidies (in the "green" box) cannot be subject to countervailing duties, and that other ("amber") subsidies are only subject to countervailing action if applied subsidy levels exceed 1992 levels.

e) From the perspective of the beneficiaries of contingent trade measures, an advantage of safeguard actions is that they can be taken very rapidly, if critical circumstances are deemed to exist. Provisional antidumping and countervailing duties, on the other hand, can only be imposed after a preliminary investigation that provides an opportunity for all interested parties to comment, and present evidence.

Reflections on Technical Barriers to Trade

It has been long recognized in trade policy-making circles that technical standards and regulations are essential for various safety, health and other reasons. But it is just as well understood that these measures can be turned to protectionist ends, and manipulated so as to reduce or eliminate import competition. An Agreement on Technical Barriers to Trade was negotiated in the Tokyo Round. This agreement requires that standards be non-discriminatory, transparent, and no more trade restrictive than necessary.

The Agreement on Technical Barriers to Trade (standards agreement) should be distinguished from the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). While the standards agreement focuses on the *nature* of measures to which disciplines are to be applied, the SPS is concerned with the *purpose* of measures. The SPS covers measures to protect animal or plant life or health from pests and diseases, and human life or health from risks associated with additives, toxins, and disease-carrying organisms in food and beverages, and diseases carried by animals or plants. The SPS deals with risk assessment and scientific justification, as well as relying on consistency tests in respect of sanitary and phytosanitary regulations.

The standards agreement was extended and strengthened in the Uruguay Round in several ways. First, obligations relating to conformity assessment and testing were tightened in order to ensure that these procedures do not constitute unnecessary obstacles to trade. Second, a voluntary code of good practice was developed, extending the same disciplines to voluntary standards as to technical regulations. Third, the disciplines of the agreement were extended more clearly to sub-national government authorities and non-governmental bodies. Fourth, the agreement goes further than before in encouraging mutual recognition of technical regulations, standards, and conformity assessment procedures.

Several issues still require attention or clarification. One of these is the definition of a least-trade-restrictive measure. Another relates to disciplines over the use of production and process standards (PPMs) in defining standards. A third is the growing problem of duplication among standards-setting bodies. A fourth issue is how to ensure that private standard-setting activities are immune from political "capture" and protectionist abuse.

Table 1:

Anti-dumping actions by Country

January 1993 - June 1993

Action against	Initiating country													TOTAL				
	AFR	ALA	Austria	Brazil	Canada	Chile	Colombia	EEC	India	JPN	Korea	Mexico	N.Z.		Peru	Thailand	Turkey	USA
Argentina																	7	
Armenia						2			1									11
Australia																		2
Austria																	3	5
Azerbaijan																	2	6
Bangladesh																	1	2
Belarus																	1	1
Belgium																	1	6
Bolivia																	10	30
Bosnia-H.																	1	1
Brazil																		1
Bulgaria																		82
Canada																	24	2
China																	30	34
Ch. Taipei																	24	129
Chile																	21	52
Colombia																	1	1
Côte d'Ivoire																	1	8
Croatia																		2
Cuba																		2
Cyprus																		1
Czech. Rep.																		2
Denmark																		14
Dom. Rep.																		8
Ecuador																		2
EEC																		2
Egypt																		2
Estonia																		1
Ex-USSR																		1
Finland																		1
France																		10
Georgia																		30
Germany																		1
Greece																		25
																		55
																		1

Antidumping actions by Country

Active exporters	Initiating country												TOTAL						
	Arg.	ALA	Austria	Brazil	Canada	Chile	Columbia	EEC	India	JPN	Korea	Mexico		N.Z.	Peru	Thailand	Turkey	USA	
Hong Kong	1	4				2			1								1	2	11
Hungary	1					1			1										1
Iceland													1			1		6	20
India	1	3			1	1		3											21
Indonesia		13			2			3										1	4
Iran						3													2
Ireland		2																1	2
Israel		1																18	28
Italy		7				2												89	119
Japan	2	4				3			2									3	7
Kazakhstan					1			3											1
Kenya																			2
Kirguzstan									1					3	2			25	79
Korea	5	16			4	10													2
Lithuania																			3
Macedonia																			22
Malaysia	7					2												14	23
Mexico	1	2			4	1		5											2
Moldova					2				1										1
Netherlands		4																6	15
New Zealand																		1	5
Norway						4												4	8
Pakistan																			4
Paraguay					2														1
Peru																			0
Philippines		3																	5
Poland					2														10
Portugal						3													2
Romania																			1
Russia					3														12
Russian Fed.																			2
Saudi Arabia		2																	1
Serbia																			1
Singapore	1	10																	23

Action against	Initiating country														TOTAL			
	Arg.	ALA	Argentina	Brazil	Canada	Chile	Colombia	EEC	India	JPN	Korea	Mexico	N.Z.	Peru		Thailand	Turkey	USA
V																		
Slovakia	1			2	5			2										10
Slovenia								1										1
Spain	1				2							1					4	9
Sri Lanka				2	2													4
Sweden				1	3			1									13	18
S. Africa		8		1				4		2		1					2	18
Tajikistan												1					3	4
Thailand		16						5			1		4				6	33
Trin. & Tobago																	1	1
Turkey		1						4									1	6
Turkmenistan													1				1	2
Ukraine								2					1				5	13
UK		7			12			1					1				14	35
USA	2	7		16	40			3	1		3	21	1				2	98
Uzbekistan				2									1				5	5
Venezuela		1			1			2					6				5	18
Viet Nam																		1
Yugoslavia					5			1									1	7
TOTAL	54	186	4	74	184	4	13	141	14	7	18	106	28	4	3	2	447	1203

Table 2:

Antidumping actions by Product
January 1993 - June 1995

	1993	1994	1995	TOTAL
Steel	242	62	65	369
Textiles	30	15	10	55
Chemicals	74	42	5	121
Electronics	24	15		39
Misc.	180	62	25	267
Petro-chemicals	63	25		88
Glass	36	14	2	52
Ores, non-ferrous metals and minerals	48	31		79
Agriculture and food products: TOTAL	54	12	12	78
Atlantic salmon	4			
Apples (Red and Golden Delicious)				
Billet		1		
Canned bartlett pears	1			
Canned ham	3			
Canned tomatoes		1		
Canned tuna	2			
Cauliflower	1			
Coconut milk powder	5			
Edible veg. oils	4			
Fish meal		1	1	
Fresh kiwi fruit	3			
Frozen bovine meat	1			
Frozen prepared dinners	1			
Garlic		1		
Glacé cherries		2		
Maize glucose			1	
Malt beverages			1	
Ordinary starch			1	
Peaches in syrup	1			
Pistachio nuts	2			
Refined sugar	6			
Red raspberries	2			
Rice		1		
Saccharin				
Shelled coconuts	5			
Soya bean oil		1		
Sweetened condensed milk		1		
Syrup				
Sorbitol	3			
Sugar	2			
Tomato paste	5			
Various pork products	1			
Wheat flour	1			
GRAND TOTAL	751	278	119	1148

Countervailing duty actions by Country

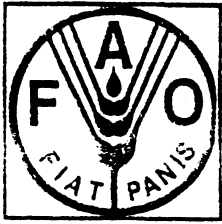
Action against	Initiating country												TOTAL					
	ARG.	ALA	Austria	Brazil	Canada	Chile	Colombia	EEC	India	IPN	Korea	Mexico		N.Z.	Peru	Thailand	Turkey	USA
Iceland																		0
India						4												7
Indonesia			1		2													3
Iran																		3
Ireland			1															1
Israel																		8
Italy			3															5
Japan																		0
Kazakhstan																		0
Kenya																		8
Kirgystan																		0
Korea			1															7
Lithuania																		0
Macedonia																		5
Malaysia			2															13
Mexico					2													0
Moldova																		2
Netherlands			3															7
New Zealand																		0
Norway																		4
Pakistan			1		2													0
Paraguay																		12
Peru																		2
Philippines					2													0
Poland																		1
Portugal																		0
Romania																		0
Russia																		3
Russian Fed.																		0
Saudi Arabia																		9
Sri Lanka																		10
Switzerland																		4
Taiwan			1															0
Tanzania																		4
Turkey																		0
Ukraine																		3
USA																		5
Yugoslavia																		0
Zimbabwe																		2

Action against	Incident country														USA TOTAL		
	ARG.	ALA	Austria	Brazil	Canada	Chile	Colombia	EEC	India	JPN	Korea	Mexico	N.Z.	Peru		Thailand	Turkey
▼																	
Sri Lanka				2													4
Sweden																	4
S. Africa	12																10
Tajikistan																	6
Thailand			3				6										12
Trin. & Tobago																	0
Turkey																4	4
Turkmenistan																	0
Ukraine																	0
UK																3	3
USA				3	1												4
Uzbekistan																	0
Venezuela																	5
Viet Nam																	0
Yugoslavia																	0
Zimbabwe																	1
TOTAL	4	12	3	15	5	3	6	0	0	0	0	0	0	0	0	176	258

Table 4:

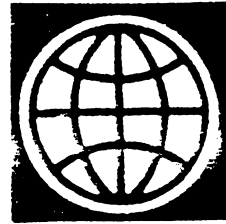
Countervailing duty actions by Product
January 1993 - June 1995

	1993	1994	1995	TOTAL
Steel	1	27	63	91
Textiles	1	14	9	24
Chemicals		5	6	11
Electronics				
Misc.		35	27	62
Petro-chemicals				
Glass			1	1
Ores, non-ferrous metals and minerals		1		1
Agriculture and food products: TOTAL	19	15	13	47
Atlantic salmon				
Apples (Red and Golden Delicious)				
Billet				
Brandy	1	1		
Canned bartlett pears				
Canned ham			3	
Canned tomatoes		5		
Canned tuna			2	
Cauliflower				
Coconut milk powder	5			
Dried egg white	1	1		
Edible veg. oils			2	
Fish meal				
Fresh kiwi fruit				
Frozen bovine meat				
Frozen prepared dinners				
Garlic				
Glacé cherries	1			
In-shell pistachios		1	1	
Lamb meat		1	2	
Live swine		1	2	
Maize glucose				
Malt beverages				
Milk products		1		
Olive oil	5			
Ordinary starch				
Peaches in syrup	1			
Pistachio nuts				
Refined sugar	2			
Red raspberries				
Rice		1		
Saccharin				
Shelled coconuts	5			
Soybean oil				
Sweetened condensed milk				
Syrup				
Sorbitol				
Sugar				
Sugar confectionary & filled chocolates		1		
Sweets		1		
Tomato paste				
Various pork products				
Wheat	1	1	1	
Wheat flour				
GRAND TOTAL	21	97	119	237



**FAO REGIONAL OFFICE FOR
LATIN AMERICA AND THE CARIBBEAN**

**TECHNICAL DEPARTMENT FOR LATIN AMERICA
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FAO/WORLD BANK WORKSHOP

**IMPLEMENTING THE URUGUAY ROUND AGREEMENT
IN LATIN AMERICA:
THE CASE OF AGRICULTURE**

- Santiago, Chile, from 28 to 30 November 1995 -

**REGIONAL AGREEMENTS AND THE GATT:
IMPLEMENTATIONS ISSUES FOR AGRICULTURE
IN LATIN AMERICA**

Carolyn Robert and Maurice Schiff

Santiago, Chile
1995

**Regional Agreements and the GATT:
Implementation Issues for Agriculture in Latin America**

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*This paper represents the views of the authors and not necessarily those of the World Bank or its affiliated organizations.

**Regional Agreements and the GATT:
Implementation Issues for Agriculture in Latin America**

This paper intends to examine for the agricultural sector the regional and bilateral agreements in Latin America and the Caribbean (LAC) as they relate to the Uruguay Round Agreements (URA) and to Article XXIV. The topics examined in relation to the commitments made in the URA include market access, domestic support measures and export subsidies. We also examine whether common external tariffs (CETs) are in conformity with Article XXIV.

1. The URA

The URA represents the most important reform of the world trading system since the GATT's creation almost 40 years ago. The WTO was created with responsibility for ensuring the implementation of reforms by member countries under GATT 1994, GATS and TRIPS. Member countries tariffed their NTBs and bound their tariff rates, and for the first time, the agricultural sector became subject to GATT disciplines and surveillance.

On the other hand, the URA achieved little or no liberalization in agriculture. Table 3 from Martin and Winters (1995) shows actual border protection for 1986-88, the base 1995 binding and the year 2000 binding for wheat, sugar cane, milk and meat. Most countries bound at a base level well above the actual 1996-88 rate, itself higher than the actual 1994 rate because of low world prices and high protection in 1986-88. And in a number of cases, the final 2000 bound rate is higher than the actual 1986-88 rate as well. The table shows this to be the case in Mexico and in Other Latin America, and in Brazil for milk and meat.

The welfare effects of the URA have been estimated in various studies, and Martin and Winters (1995) provide a summary of the results. All regions gain from the URA except sub-Saharan Africa. The regions which liberalized more under the URA gain more. LAC gains over 1% of GDP, which is about 50% more than the gains of about 0.7% for the world in general, and close to double the gains for the OECD. The gains for LAC are due essentially to liberalization of agriculture and manufactures. Compared to other regions, it gains less from the abolition of the MFA.

2. Regional agreements

In addition to unilateral and multilateral (URA) liberalization, Latin America and the Caribbean (LAC) has recently experienced a proliferation of new regional agreements (RAs) as well as revival of older ones. Figure 3 from Braga, Noguez and Rajapatirana (1995) shows the explosion of RAs in the Americas (as well as Europe-related ones) between 1985-89 and 1990-94.

Much of the literature on regional agreements has examined the normative aspects of these agreements (welfare effects in the context of the theory of second best) as well as their positive aspects (on output, trade and investment). To our knowledge (confirmed by WTO experts), studies examining the relationship between regional agreements and the URA are almost non-existent. Whether these regional and bilateral agreements are compatible with commitments under the URA and with GATT rules in general is the question which this paper attempts to answer.

Except for Chile, Mexico and Panama, LAC countries belong to one of four RAs that group neighboring countries and whose stated objective is to develop a common market. These are ANCOM (Andean Common Market or Andean Pact), CACM (Central American Common Market), CARICOM (Caribbean Community and Common Market) and MERCOSUR (Southern Common Market). As discussed below, the objective of becoming a common market with a common external

tariff (CET) and no internal barriers has not been achieved in the case of ANCOM, CACM or CARICOM, and is only likely to be achieved (or approximated) in the case of MERCOSUR.

Mexico joined NAFTA, a free trade agreement (FTA) with the US and Canada. Chile has applied for NAFTA membership, and has entered in bilateral FTAs mainly with non-neighbors (with Colombia in 1993, Venezuela in 1993, Mexico in 1991; negotiating with Bolivia and Ecuador).

In addition to Chile's bilateral FTAs, FTAs involving LAC countries include Colombia-Venezuela (1992); El Salvador-Guatemala (1991); NAFTA (1992); NUEVA OCOTEPEQUE AGREEMENT (1992) between El Salvador, Guatemala and Honduras; GROUP OF 3 or G-3 (1993) between Colombia, Venezuela and Mexico; and Mexico-Costa Rica (1994).¹

3. Objectives versus actual implementation of RAs

One of the striking aspects of RAs in LAC, when compared with the EU and NAFTA, is the lack of clarity arising from the fact that there is a host of overlapping RAs and that some RAs are actual subsets of other RAs.

Three examples of the latter are: 1) Colombia and Venezuela formed a FTA while belonging to the previously existing Andean Pact, and later joining Mexico in the G-3; 2) In the Andean Pact, even though the five members are supposed to have a CET, Bolivia has proceeded with its own unilateral liberalization, Peru is not complying with its commitments under the agreement, and integration is mainly between Colombia and Venezuela, with Ecuador somewhere in between in terms of

¹There are also preferential arrangements between LAC countries and Canada or the US. These include ATPA or Andean Trade Preference Act between Andean Pact countries (except Venezuela) and the US; CARIBCAN or Canadian-Caribbean Agreement between Commonwealth Caribbean countries and Canada; CBI or Caribbean Basin Initiative between Caribbean and Central American countries and the US.

compliance; 3) El Salvador and Guatemala, who already belonged to the CACM, formed a FTA between them, and later formed one with Honduras (NUEVA OCOTEPEQUE AGREEMENT). Examining whether there is a conflict between RAs and the URA is thus complicated by the fact that there may be contradictory commitments by countries belonging to some RAs which are subsets of other RAs.

In cases where a common market has been unable to achieve its stated goal of establishing a CET, each member set its own trade policy with non-members. Whether the policies which are set by each individual member country are compatible with the URA is an issue which is being examined at length in other papers at this conference and does not concern us here. As mentioned above, RAs where member countries were unable to establish CETs are the Andean Pact, the CACM and CARICOM. And trade barriers among member countries have not been eliminated either.

Take for instance the CACM. The interest in regional integration has varied among its members. El Salvador and Guatemala have always favored regional integration, Costa Rica has been a somewhat more reluctant partner, and Honduras only returned to the CACM in the 1980s. The CACM has set its CET in the range of 5 to 20%. However, Costa Rica has recently raised tariffs above 20% due to fiscal pressures, thereby violating the CET. Also, El Salvador plans to first unilaterally eliminate tariffs on raw materials, then lower the top tariff rate to 10% and finally reduce it to 1%. This also violates the CET.

Thus, the reality is that the CACM is far from functioning as a common market with a CET. And the situation is worse in the case of agriculture. Yellow and white maize, dairy products, beans and rice have been excluded from intra-free trade among the CACM members. All member countries have had NTBs on these products with respect to trade with the other members and with the rest of the world (ROW).

With tariffication under the GATT (of licenses, quotas, etc.), each member country bound its tariffs on agricultural products at different values. For instance, on yellow maize, Costa Rica imposed an import licensing system because of the CACM but in practice it imported what it needed to satisfy excess demand. In the URA, Costa Rica bound its tariff on yellow maize at 1%, while the bindings for El Salvador and Guatemala were at 50% or more. There is a project in the CACM to try and harmonize these bindings but it is hard to see how this will be achieved given the divergent interests and the enormous disparity in initial values.

It would seem that the RAs where there is most clarity in terms of rules are MERCOSUR and NAFTA. The analysis focuses on MERCOSUR in Section 5 and on NAFTA in Section 6.

4. Consistency between the URA and RAs

It would appear that - in case of conflict between commitments under the GATT's URA and those made in RAs - it would be better for most countries to bring the commitments under the RAs in conformity with those under the GATT rather than the opposite. One reason is that studies show that LAC countries gained from the URA while the impact of RAs on welfare is ambiguous (given the second-best nature of RAs; more on that in the Conclusion). Another reason is that for many of the RAs in LAC, the share of intra-regional trade in the total trade of the member countries is very small.

Lustig and Braga (1994) report for 1990 that the share of intra-regional trade in total trade was 0.1% for the Chile-Mexico FTA, 0.1% for the Chile-Venezuela FTA, 0.8% for the G-3, 1.4% for the Colombia-Venezuela FTA, 3% for CARICOM, 3.8% for the Andean Pact, and 5.7% for the CACM. And note that some of these shares are already biased upwards because they are affected by the existence of these preferential arrangements.

Two cases where the shares of intra-regional trade are significant is Mexico's trade with the US and Canada (over 70% of Mexico's total trade), and trade among members of Mercosur. Thus, we focus mainly, though not exclusively, on these two RAs.

One issue of compatibility of RAs with the GATT does not refer to the URA but to Article XXIV. For customs unions (CUs), the GATT requires that the CET (common external tariff) not be higher or more restrictive than the general applied level by the CU member countries before the formation of the CU. Thus, there is a danger that some members of the CU may have to raise their import duties or other measures above the level they bound at the GATT. If so, it will give rise to claims for compensation. The rules, though, allow interim arrangements but require a schedule of tariff reductions.

The bilateral agreements (BAs) do not have special treatment for agriculture which is treated as any other sector, with a general schedule of reductions of tariffs and NTBs. Since most of the BAs are GATT+ (i.e., they go further than the commitments under the GATT), there is no apparent conflict between BAs and the URA. Similarly, the G-3 and NAFTA are GATT+.

5. MERCOSUR

In the case of Mercosur, a common external tariff (CET) was negotiated with 11 tariff positions from 0 to 20%. Although the simple average common external tariff (CET) is about 12%, the CET is characterized by tariff escalation. In other words, the tariff level rises with the degree of processing, low for raw materials, higher for intermediates and semi-manufactures, and highest for consumer goods. Thus, even though liberalization has occurred (see below on the level of the CET compared to previous tariff rates), effective protection against third countries will be significantly higher than indicated by the CET.

In the context of the WTO Working Group on MERCOSUR, Canada requested clarification on whether MERCOSUR had a common agricultural policy, and if so, on its consistency with the URA. MERCOSUR's response in September 1995 was that currently there is no common agricultural policy, that a project on an agricultural common agreement is being examined in MERCOSUR's SGT 8 (Sub-Group on Agricultural Policy: Harmonization), and that in the meantime each member will continue to apply its own national policies.

In the expected future harmonization of their agricultural policies, members will have to ensure that the individual commitments at the URA by each member country will be respected. This is only relevant for Brazil (who bound agricultural export subsidies, some tariffs and some tariff-quotas) and for Uruguay (who bound export subsidies).

As part of MERCOSUR's effort to achieve a common trade policy, common trade rules on unfair trade practices with third parties have been drafted by the member countries. These are being revised to align them with WTO rules. However, member countries have agreed to retain their individual anti-dumping rules until common competition (intra-trade) policy and common anti-dumping rules on trade with third parties are in effect.

Member countries can maintain a list of exceptions (either above or below the CET) for no more than 300 tariff items (399 for Paraguay) of the Common Nomenclature (which has about 8,000 items) up to January 1, 2001 (2006 in the case of Paraguay and Uruguay). Some of these apply to agricultural products. The question is whether these are set in accordance with URA commitments or whether some conflict might arise.

The exceptions will require more restrictive rules of origin (Braga and Yeats, 1995, p.4). The rules of origin (RO) of MERCOSUR are based on domestic content while the URA recommends change in tariff line as a primary criterion. Whether this may constitute a problem is still to be worked

out. The relevant working party of the GATT/WTO Committee on Trade and Development - which was established to examine the GATT/WTO consistency of the Treaty of Asuncion (MERCOSUR) - has not completed its work (Laird 1995b).

On consistency with Article XXIV, MERCOSUR countries maintain that the CET has been set in conformity with Article XXIV, and that the weighted average of the CET does not exceed that applied by members individually prior to the formation of MERCOSUR (WTO 1995). MERCOSUR members have concluded that trade with third countries will not be adversely affected by the CET but rather that the CET will promote the growth of such trade. This seems to meet the test of the Understanding on the Interpretation of Article XXIV of the GATT 1994. However, even if the CET is lower than the weighted average of member tariffs before formation of MERCOSUR, trade with third parties will not necessarily grow because the elimination of internal barriers may result in trade diversion.

Laird (1995b) notes that the wording of the Understanding appears to leave open the question of whether the average tariffs of each member must not be higher than before the customs union. If it applied to each member, Paraguay would not meet the requirement since it increased its tariffs significantly to align its low tariff with the CET. Irrespective of whether or not Paraguay has violated Article XXIV requirements, it is clear that in the frame of MERCOSUR's CET, Paraguay has violated its tariff bindings (URA) on a significant number of products. The manner in which compensation will be implemented has not yet been determined. Among other issues to be resolved is whether it will be done at the level of MERCOSUR or at the national (Paraguay) level.

Laird (1995a) notes some areas which require further attention. The GATT inconsistencies in customs valuation procedures, often leading to higher rates of duty collected than expected from the

applied tariff rate, are being tackled in MERCOSUR's Sub-Group on Customs Issues and in the context of the implementation of the UR commitments of the member countries.

Also, Article III of the GATT is intended to ensure that all WTO members benefit from the same tax treatment as goods of domestic origin in each member countries. However, there appear to be instances of some discrimination. The issue of internal taxes has not been raised as an issue at the GATT. On the other hand, Laird (1995b) argues that it is unlikely that discriminatory internal taxes would pass unnoticed in negotiations of a Free Trade Agreement of the Americas (FTAA).

6. NAFTA

The NAFTA results in agriculture are GATT+ in many aspects. In fact, no trilateral agreement on market access was made. Rather, three sets of bilateral agreements were established.

Regarding Mexico-US trade, both countries agreed to tariffy their non-tariff barriers and set their tariffs at levels below (and their tariff-quotas above) those agreed in the URA in most cases. Moreover, NAFTA specifically exempts Mexico in its trade with the US from the quantitative restriction (QR) on meat and from the QR established by Section 22 (dairy, peanuts, cotton and sugar), and from marketing orders.

Regarding Mexico-Canada trade, both countries agreed to phase out all tariffs over 10 years. This goes far beyond what was agreed during the URA. However, in general, the most protected sectors and protective instruments have been left untouched by the NAFTA. Canada will maintain its import quotas and Mexico its import licenses on bilateral trade in dairy, poultry and eggs. Mexico will also continue to apply its MFN tariffs on sugar from Canada. In all those cases, the bindings agreed during the URA will apply. That would also be true for export subsidies where NAFTA did not tackle the problem but created a trilateral working group to address it.

Finally, as in the URA, NAFTA contains a special safeguard provision for agricultural products. Under the special NAFTA safeguard (which applies only to Canada-Mexico and US-Mexico trade), when imports reach the specified quota levels, tariffs may be raised back to the prevailing MFN rate or to the applicable MFN rate as of July 1, 1991. This mechanism is GATT consistent. Moreover, members retain their rights under Article XIX of the GATT (general safeguard or "escape" clause).

Conclusion

The issue of consistency between the URA and regional agreements in LAC may be more relevant in the area of implementation than in the rules themselves. Implementation is at a very early stage in the URA as well as in the RAs. And in the case of MERCOSUR, even rules on a common policy have not yet been agreed upon. Hence, we will have to wait for further implementation of the agreements in order to provide a more complete assessment of the consistency between the URA and RAs.

It is worth remembering that the URA calls for another round of multilateral negotiations in agriculture by the year 2001. This round should see a further liberalization of agricultural policies of WTO members. As such, this could be an opportunity to further harmonize regional policies with the multilateral system.

One area of concern is with respect to trade remedies. These have been applied mainly by developed countries but developing countries - including LAC - are increasingly resorting to such measures as legal means of restricting imports. The EU is the biggest user of anti-dumping (AD), followed by the US and Canada. Mexico has been identified as the fifth most frequent initiator of AD procedures and Brazil and Argentina have increasingly used such remedies against imports.

Anti-dumping and countervailing duties (AD/CVD) may remain an area of conflict among regional trading partners. However, this does not mean that the restrictions would violate GATT requirements. The problem is that much of what has been done in the area of AD/CVD has been consistent with GATT regulations because of the flexibility and ambiguity of the latter. And though the URA made important changes, particularly in the area of subsidies and CVDs, the WTO Agreement on Antidumping did not revise the fundamentals of the antidumping law. The latter remains flawed and represents only a limited step forward.

This issue is particularly relevant within the context of RAs. This is because NAFTA explicitly preserves each country's right to retain its AD/CVD laws, while in the case of MERCOSUR, members have agreed to retain their AD laws as long as common rules on AD policy are not adopted.

AD procedures have not been used widely in agriculture. In NAFTA, these have been used more extensively by Mexico - affecting mainly the US (35 cases) and Brazil (10 cases) - but they mostly affected chemicals, iron, steel, textiles and rubber products. As for CVDs, only two investigations had been initiated as of 1993, none against agricultural products.

Does the increased use of AD/CVD constitute a danger for agriculture in the near future given that agriculture has not been the main "target" of the application of AD/CVD in the past? As a result of the dismantling of the traditional instruments of protection against agricultural imports, pressure to use these trade remedies can be expected to rise. Thus, one might expect to see a more frequent use of trade remedies against agricultural imports in the future.

Bringing agriculture within the realm of GATT disciplines is one of the great achievements of the URA. However, the fact that there might be few conflicts between the URA and RAs in LAC in the area of agriculture in the future should by no means be interpreted as an endorsement of the RAs. As mention at the start of the paper, RAs are exercises in second best and whether they raise welfare or

lower it cannot be determined a priori. Moreover, they often result in new bureaucracies, and in complex rules of origin for FTAs (and in the case of exceptions to the CET for customs unions), which add uncertainty and complicate the private sector's decision-making process with respect to resource allocation.

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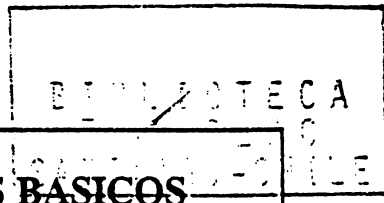
منظمة الأغذية
والزراعة
للأمم المتحدة

联合国
粮食及
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Food
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Alimentación



COMITE DE PROBLEMAS DE PRODUCTOS BASICOS
GRUPO INTERGUBERNAMENTAL SOBRE LA CARNE
15ª reunión
Roma, Italia, 3-6 de octubre de 1994
ACTA FINAL DE LA RONDA URUGUAY Y SUS REPERCUSIONES EN LA ECONOMIA MUNDIAL DEL GANADO Y DE LA CARNE

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INTRODUCCION

1. El Grupo ha señalado frecuentemente las graves distorsiones que se registran en el comercio internacional de la carne, últimamente en su 14ª reunión (CP:ME Informe 92/7, sobre todo sus párrafos 15-20). Los problemas persistentes comprendían:
 - Unos precios internos de la carne en algunos países que eran notablemente superiores a los que regían en el mercado internacional (según se ilustra en el documento CCP:ME 92/2).
 - Protección de los mercados nacionales, lo que ha estimulado la producción y ha deprimido el consumo, creando excedentes que sólo se pueden vender a base de subsidios.
 - Unas subvenciones relativamente grandes de las exportaciones de carne, especialmente de la de vacuno.
 - Unas normas y procedimientos de control de la sanidad e higiene animal que han reducido el acceso de los exportadores a los mercados de importación.
 - La existencia de medidas que distorsionan el comercio y parecen violar los compromisos adquiridos en acuerdos internacionales, a pesar de las quejas de los socios comerciales a través del GATT y las conclusiones de que ha habido una anulación o deterioro de beneficios que van a parar a otras Partes contratantes del GATT.
2. La Ronda Uruguay, que se inició en 1986, abordó esas deficiencias y otras distorsiones. Finalmente acabó firmándose en Marrakesh el 15 de abril de 1994 el Acta Final que incorpora los resultados de la Ronda Uruguay de Negociaciones Comerciales Multilaterales, que ahora está abierta a la ratificación por los participantes y a su aplicación.
3. Se prepara este documento para ayudar al Grupo a analizar las consecuencias de estos resultados para el comercio internacional de la carne según lo solicitado en el último período de sesiones del Comité de Problemas de Productos Básicos¹.

RESUMEN Y CONCLUSIONES

4. La aplicación del Acta Final de la Ronda Uruguay de Negociaciones Comerciales Multilaterales reducirá los obstáculos comerciales en cierto modo y dará pie a unos beneficios mundiales. Por lo que respecta a la carne, los beneficiarios principales serán probablemente los exportadores de bajos costos y los consumidores de aquellos países con altos niveles de protección. Los niveles globales de ingresos también se beneficiarán y los aumentos tenderán a elevar la demanda de carne.
5. Entre los aspectos del Acta Final que revisten importancia para la carne figuran:
 - a) Un mayor acceso de los exportadores a los mercados extranjeros, especialmente a los de los países desarrollados, mediante:
 - i) la transformación de los gravámenes a las importaciones, como impuestos variables, en aranceles consolidados en el GATT y el compromiso de reducirlos,
 - ii) la disposición de reducción de los aranceles para asegurar un nivel mínimo de acceso a las importaciones.
 - b) La reducción del volumen de las exportaciones subvencionadas y una mayor reducción del desembolso financiero por esos subsidios.
 - c) Establecimiento de normas internacionales que rijan la aplicación de las medidas sanitarias para las importaciones de carne.
 - d) Limitaciones para la escala de gastos gubernamentales en algunos tipos de medidas de sostenimiento agrícola, pero no en la mayoría de los servicios generales, como lucha contra las enfermedades, inspección de los productos, investigación o extensión.
 - e) Establecimiento de una Organización Mundial del Comercio (OMC).

¹ Informe del 59º período de sesiones del Comité de Problemas de Productos Básicos. CL 104/2, párr. 80 (1993).

- f) Arreglos por los que las diferencias que surjan entre países miembros de la OMC respecto del cumplimiento de los compromisos y obligaciones se sometan a un procedimiento de solución de duración limitada.
- g) Provisión en los compromisos de un trato especial y diferencial de los países en desarrollo y sobre todo de los países menos adelantados.
- h) Cláusula para el examen y enmienda de los elementos del Acta Final abarcados por este documento.

6. Resulta difícil predecir los efectos que en el mercado de la carne tendrán los cambios relacionados con la Ronda Uruguay, especialmente por cuanto los cereales, las semillas oleaginosas y otras fuentes de piensos están sujetas a compromisos análogos a los de la carne. Sin embargo, en la medida en que los cambios arriba indicados abrirán las vías del comercio internacional, convergerán también los niveles nacionales de precios. En comparación con un modelo teórico "sin Ronda", los precios tenderán a ser inferiores en los mercados muy protegidos y algo superiores en los mercados internacionales. Otras de las previsiones es que pudiera haber un cierto desplazamiento hacia la importación de más carne en sustitución de la importación de piensos para producir carne.

7. Los productores que probablemente saldrán beneficiados de las mayores oportunidades que se les abren para participar en el comercio internacional serán probablemente los que podrán cumplir los requisitos de los importadores en materia de condiciones sanitarias, calidad y precio del producto. Estas exigencia plantean un reto a muchos países en desarrollo, especialmente en materia de sanidad animal, tecnología alimentaria y agrícola y comercialización.

8. Tal vez el Grupo quiera estudiar la necesidad de un examen detallado de las dificultades específicas que habrán de afrontar los Estados Miembros para aprovecharse de lleno de la mayor apertura del comercio internacional de la carne. A este respecto, el Grupo tal vez quiera examinar y comentar los medios y niveles de cooperación internacionales actuales para superar esas dificultades, especialmente las que afrontan los países en desarrollo.

ACUERDOS EN EL ACTA FINAL RELACIONADOS CON LA CARNE

Acuerdo sobre agricultura²

9. El Acuerdo prevé un marco para los compromisos específicos que contraerán los miembros para aumentar el acceso de otros miembros a sus mercados, reducir la subvención a las exportaciones agrícolas así como el sostenimiento interno de la agricultura.

10. Los compromisos sobre el acceso a los mercados se han aplicado generalmente producto por producto, es decir, de forma separada para la carne de vaca, de cerdo, de aves de corral y de ganado ovino y caprino³. Los compromisos sobre la subvención de las exportaciones valen generalmente para todos los productos que guardan relaciones de producción, así pues la "carne de vaca" incluye el ganado y la carne de vaca elaborada. Los compromisos sobre sostenimiento interno se declaran como un agregado para la agricultura en su conjunto, la Medida Global Total de Sostenimiento (MGS), más bien que para la industria animal, y probablemente no tendrán efectos directos en este sector o en el comercio internacional de sus productos.

² En el Anexo 1 del "Acuerdo por el que se crea la Organización Mundial del Comercio", que es parte integrante del Acta Final en la que se incorporan los resultados de la Ronda Uruguay de Negociaciones Comerciales Multilaterales, firmado en Marrakesh, el 15 de abril de 1994.

³ En general, la distinción se hace entre productos que figuran separados en el Sistema Armonizado (SA) de la nomenclatura empleando los primeros cuatro dígitos del Sistema, constituyendo una gran excepción la agregación de la carne de vacuno, porcino, aves de corral, carne de ovino y caprino por la CEE.

11. Hay tres elementos del compromiso sobre **acceso a los mercados**: aranceles, reducción de aranceles y oportunidades mínimas de acceso. La arancelarización significa que las barreras no arancelarias específicas, como impuestos variables y acuerdos voluntarios de limitación, deberán suprimirse y transformarse en un arancel equivalente. El compromiso de reducir los aranceles ordinarios, en particular los derivados de la arancelarización, es de un 36 por ciento por término medio, con una reducción mínima del 15 por ciento para cada partida arancelaria. Sin embargo, cuando ha habido arancelarización, unas disposiciones especiales de salvaguardia permiten la imposición de derechos adicionales cuando haya alzas de importación o especialmente precios bajos, en comparación con los niveles de 1986-88. Cuando no haya grandes importaciones, el compromiso consiste en ofrecer un acceso mínimo en 1995 igual al 3 por ciento del consumo nacional en 1986-88, pasando al 5 por ciento para el año 2000.

12. Los compromisos sobre **subsidios a la exportación** consisten en reducir para el año 2000 el volumen en un 21 por ciento y los gastos en un 36 por ciento de la media para 1986-90. Sin embargo, los exportadores podrán iniciar las reducciones partiendo del nivel alcanzado en 1991-92 en lugar del nivel de 1986-90. El Acuerdo contiene también algunas disposiciones para impedir que se burlen los compromisos de subsidios a la exportación, incluso medidas sobre el empleo de los créditos a la exportación y créditos garantizados, así como para la ayuda alimentaria.

13. Para las políticas de **sostenimiento interno** sujetas a compromisos de reducción, el sostenimiento total dado en 1986-88, calculado por la Medida Global de Apoyo (MGA total) ha de reducirse un 20 por ciento. Sin embargo, quedan excluidas las políticas que no distorsionan gravemente el comercio o afectan a la producción. La lista de estas políticas exentas o "compartimento verde" comprende aquellas como la ayuda alimentaria interna, algunos pagos a los productores y servicios generales a la agricultura como lucha contra las enfermedades, inspección de productos, investigación y extensión. Además, también se excluyen en virtud de la regla *de minimis* las políticas que equivalen a una transferencia a favor de los productores de menos del 5 por ciento del valor de la producción.

14. En cada uno de los sectores principales abarcados por el Acuerdo se prevé un **trato especial y diferencial (E y D) para los países en desarrollo**. En lo que se refiere al acceso a los mercados, se prevé una cierta flexibilidad para fijar los niveles arancelarios, se da más tiempo para los reajustes y hay compromisos de menores reducciones en los aranceles. Por lo que respecta a la reducción de los subsidios de exportación, los países en desarrollo están exentos de disminuir los que reducen los costos de comercialización en función de los productos agrícolas y los costos diferenciales de transporte interno. En cuanto al sostenimiento interno, la categoría "compartimento verde" para los países en desarrollo se amplía algo y contiene disposiciones especiales para existencias de seguridad alimentaria y ayuda alimentaria interna. Además, las políticas de los países en desarrollo que transfieran menos del 10 por ciento del valor de la producción quedan exentas de los compromisos de reducción, es decir, de la regla *de minimis*. El período de aplicación para los países en desarrollo es de 10 años en lugar de 6 y los compromisos de reducción en los sectores del acceso a los mercados, competencia de las exportaciones y sostenimiento interno ascienden a dos terceras partes de lo que se exige a los países desarrollados. Por otro lado, los países menos adelantados están exentos de los compromisos de reducción en su conjunto, aunque todos tienen que consolidar cualquier subsidio de exportación y calcular y consolidar el MGA total. Hay también disposiciones especiales para ayuda en la "decisión sobre medidas relativas a los posibles efectos negativos del programa de reforma en los países menos adelantados y en los países en desarrollo importadores netos de productos alimenticios".

15. Otros artículos de importancia comprenden: el artículo 13 sobre restricciones debidas; el artículo 17 por el que se establece un Comité de Agricultura, que se reunirá anualmente para examinar la aplicación del Acuerdo; y el artículo 20 en el que se prevén negociaciones para proseguir el proceso de reforma que se iniciará en 1999.

Acuerdo sobre la aplicación de las medidas sanitarias y fitosanitarias

Sinopsis

16. Hasta ahora a los miembros del GATT no se les impedía adoptar las medidas necesarias para proteger la vida y salud de las personas y los animales o para preservar los vegetales (GATT, artículo XX b)). Estas medidas han tenido un gran efecto en el comercio internacional del ganado y productos pecuarios, especialmente en las exportaciones de los *países en desarrollo*. Los aspectos más destacados de este problema son:

- Los riesgos para la vida y buena salud de los seres humanos y animales que crean las plagas y enfermedades transmisibles por importaciones de ganado o productos ganaderos.
- El aumento de las preocupaciones de la "asistencia sanitaria" de personas en muchos países.
- El deseo de los países a decidir por su cuenta los riesgos contra los cuales quieren estar protegidos.
- Las diferencias notables que hay entre países en cuanto a las medidas que adoptan en nombre de la protección contra riesgos relacionados con las importaciones de ganado y sus productos.
- El hecho de que las actividades que agregan valor a las exportaciones en la industria animal pueden también agregar nuevas clases de riesgos que tienen que ser controlados.
- La escala de dificultades con que se enfrentan muchos países, especialmente muchos de los *países en desarrollo* para satisfacer los requisitos sanitarios de los importadores en relación con el ganado y la carne.

17. La respuesta a estos problemas fue un acuerdo innovador para establecer un marco multilateral de normas y disciplinas que guiaran el desarrollo, adopción y aplicación de medidas sanitarias y fitosanitarias a fin de reducir al mínimo sus efectos negativos en el comercio (Preámbulo⁴). Al propio tiempo, los miembros reafirmaron que "no debe impedirse a ningún miembro adoptar ni aplicar las medidas necesarias para proteger la vida y la salud de las personas y los animales o para preservar los vegetales, a condición de que no se apliquen de manera que constituya un medio de discriminación arbitrario o injustificable entre los miembros en que prevalezcan las mismas condiciones, o una reducción encubierta del comercio internacional". El "Acuerdo es aplicable a todas las medidas sanitarias y fitosanitarias que puedan afectar, directa o indirectamente, al comercio internacional" (Artículo 1) y a continuación se resumen por temas los principales elementos de sus disposiciones ulteriores⁵.

Compromisos sobre medidas sanitarias y fitosanitarias (SFS)

18. Sobre la **transparencia** de las medidas, en el Acuerdo se prevé la publicación de normas, la facilitación de puntos de consulta y procedimientos de notificación. Lo último obliga a los miembros a divulgar por anticipado la notificación de los proyectos de reglamentos que puedan tener un efecto notable en el comercio de otros miembros y que se aparten considerablemente de una norma internacional⁶. Además, la Secretaría señalará a la atención de los *países en desarrollo* miembros cualquier notificación relativa a productos de interés para ellos (Anexo B).

19. Los Miembros están obligados a la **armonización** de las medidas sanitarias y fitosanitarias en la medida más amplia posible (artículo 3), sobre la base de las normas internacionales disponibles, expresamente las de:

- La Comisión del Codex Alimentarius, en lo que respecta a la inocuidad de los alimentos,
- La Oficina Internacional de Epizootias por lo que se refiere a la sanidad animal y zoonosis,

⁴ Todas las citas en esta parte se refieren al "Acuerdo sobre la aplicación de las medidas sanitarias y fitosanitarias (SFS).

⁵ Las medidas sanitarias y fitosanitarias se definen, al igual que otros términos, en el Anexo A del Acuerdo.

⁶ "Norma internacional" se empleará aquí para incluir las directrices o recomendaciones.

- La Secretaría de la Convención Internacional de Protección Fitosanitaria en lo que se refiere a la sanidad vegetal,
- Otros organismos internacionales pertinentes abiertos a todos los Miembros, identificados por el Comité, para asuntos no abarcados por las organizaciones anteriores (Anexo A).

20. El nuevo **Comité de Medidas Sanitarias y Fitosanitarias** habrá de elaborar una lista de normas internacionales de gran importancia para el comercio, junto con información recabada de miembros en que se indique las que se aplican como condiciones para la importación o sobre cuya base los productos importados que se ajusten a dichas normas pueden disfrutar de acceso a sus mercados (artículo 12). Los Miembros tendrán también que dar razones de por qué no aplican una norma internacional como condición para la importación. Además, podrá recabarse una explicación del uso de una medida SFS que no se ajuste a las normas y esa explicación habrá de darse a cualquier Miembro que tenga motivos para creer que esa medida es limitativa, o que pueda limitar sus exportaciones (artículo 5). El Comité también examinará la aplicación del Acuerdo y formulará propuestas para su modificación dentro de los tres primeros años de su funcionamiento (artículo 12).

21. Otra característica del Acuerdo son las disposiciones para **reducir al mínimo la carga de las medidas SFS** y expresamente la carga que supone su cumplimiento para que los productos de los Miembros obtengan su ingreso en los mercados de otros Miembros. La obligación básica consiste en que los Miembros deben asegurar que cualquier medida sanitaria o fitosanitaria sólo se aplica en el grado necesario para proteger la vida o salud humana, animal o vegetal, se basa en principios científicos y no se mantiene sin suficientes pruebas científicas (artículo 2). La solicitud de normas internacionales por parte de un Miembro se aceptará automáticamente como necesaria y justificada (artículo 3). Además, las medidas de otros Miembros se aceptarán como **equivalentes**, aun cuando sean diferentes, siempre que el Miembro exportador demuestre objetivamente al Miembro importador que sus medidas consiguen el grado apropiado del Miembro importador en cuanto a protección sanitaria y fitosanitaria (artículo 4). La demostración de la equivalencia y la justificación de las medidas para alcanzar grados de protección sanitaria superiores a los que se conseguirían con medidas basadas en las normas internacionales pertinentes, dependen de evaluaciones de los riesgos para la vida o salud humana o animal (artículo 5)⁷.

22. El Acuerdo prevé también oportunidades para reducir la carga de certificar que las exportaciones están libres de enfermedades mediante disposiciones sobre **zonas libres de plagas y enfermedades** (artículo 6). La aceptación de que una zona está libre de enfermedad en lugar de todo un país podría tener repercusiones muy importantes para el mercado internacional de la carne de vacuno y para la economía de la carne considerada en conjunto (CCP:ME 92/7, párr. 50).

23. Los Miembros pueden sustentar una queja contra una medida SFS no uniforme de otro Miembro alegando uno o más de los motivos siguientes:

- No se basa en las pruebas científicas disponibles y en la aplicación de procedimientos de evaluación del riesgo (artículos 3 y 5).
- No tiene en cuenta las condiciones pertinentes tanto en los Países Miembros importadores como exportadores y la eficacia-costo respectiva de las soluciones alternativas para limitar los riesgos (artículo 5).
- El grado de protección procurado por el Miembro importador no es superior al proporcionado por las medidas SFS del Miembro exportador (artículo 4, "Equivalencia"), o es superior al existente en su territorio (artículo 2).
- Es "más restrictiva comercialmente que lo necesario para conseguir su nivel apropiado de protección sanitaria o fitosanitaria, teniendo en cuenta su viabilidad técnica y económica" (artículo 5).

⁷ Se puede obtener de la Secretaría ulterior información sobre evaluación de los riesgos y sus técnicas.

- Que un Miembro discrimine arbitraria o injustificadamente entre Miembros donde predominan condiciones análogas, incluso entre su propio territorio y el de otros Miembros (artículo 2) y, sobre todo, se dan unos retrasos excesivos en los procedimientos de control, inspección o aprobación aplicados a los productos importados, o que productos análogos de origen nacional se tratan de forma más favorable (Anexo C).

24. Una disposición especial es la de que, si el Organismo de Solución de Diferencias de la OMC establece un órgano para entender de una queja que entrañe cuestiones científicas o técnicas, entonces dicho órgano deberá recabar un dictamen pericial (artículo 11).

Reconocimiento de las dificultades con que tropiezan los países en desarrollo y disposiciones especiales a su favor

25. Se reconocen las dificultades especiales con las que los países en desarrollo miembros pueden tropezar para cumplir el Acuerdo y las medidas SFS de los países importadores. Ya se han señalado más arriba algunas de las disposiciones que responden a esas preocupaciones y, además, el artículo 9 se dedica a la prestación de asistencia técnica y a dar un trato especial diferente, sobre todo fomentando que se dé una prórroga para el cumplimiento. Por último, los países menos adelantados pueden retrasar la aplicación de las disposiciones del Acuerdo a sus importaciones por un período de cinco años (artículo 14). Para otros países en desarrollo, el retraso máximo admisible es de dos años.

Entendimiento relativo a las normas y procedimientos por los que se rige la solución de diferencias⁴

26. El alcance del retraso para la solución de diferencias debiera reducirse considerablemente con las disposiciones de este Entendimiento. Las normas enmendadas prevén que, una vez un Miembro haya pedido a otro Miembro de la OMC consultas para tratar de una queja, hay límites estrictos de tiempo para cada fase a fin de lograr una solución ejecutable. Sin embargo, en el Entendimiento para la Solución de Diferencias (ESD) se subraya la importancia de celebrar consultas y de los medios voluntarios para resolver las diferencias, tales como el empleo de buenos oficios; la conciliación; la mediación y el arbitraje. El ESD también recalca que la solución preferida es la que rectifique la causa de la queja, mientras que la indemnización o suspensión de la concesión u otras obligaciones ofrecen un reparo sólo transitorio. En caso de que la queja no se resuelva dentro de los 60 días de haberse solicitado las consultas, la parte que la presenta tiene el derecho a que el Organismo de Solución de Diferencias de la OMC establezca un órgano a tal efecto. Las conclusiones de dicho órgano han de ser aceptadas y actuadas dentro de determinados períodos a menos que se recurra. Estos recursos podrán hacerse alegando motivos jurídicos, tienen que resolverse dentro de los 60 días y las conclusiones serán obligatorias sin condiciones para las partes. Para los países en desarrollo se prevé un cierto trato especial y diferencial.

27. El funcionamiento de estos arreglos habrá de revisarse y presumiblemente mejorarse ulteriormente, en el término de cuatro años de su entrada en vigor⁵.

COMPROMISOS Y SUS REPERCUSIONES PARA LA ECONOMIA MUNDIAL DE LA CARNE
Compromisos sobre determinados productos

28. En este breve examen se prestará especial atención a los países cuyas concesiones y compromisos tendrán según se prevé, unos efectos relativamente grandes sobre el comercio de

⁴ Esta parte está tomada del documento de la Secretaría del GATT: MTN.NTC/W/122.

⁵ Decisión sobre la aplicación y examen del entendimiento relativo a las normas y procedimientos por los que se rige la solución de diferencias. "Acta Final que incorpora los resultados de la Ronda Uruguay de Negociaciones Comerciales Multilaterales", 1994".

ganado y carne. No obstante, hay que recordar que los compromisos de cualquier otro País Miembro reflejarán las modalidades o normas convenidas para su establecimiento¹⁰.

Carne de vacuno

29. Uno de los aumentos más notables en el **acceso al mercado** es el del **Japón**. Una vez entre en vigor el Acuerdo en dicho país, el arancel, que recientemente se ha reducido al 50 por ciento, habrá de consolidarse en el GATT y entonces reducirse al 38,5 por ciento durante los 6 años sucesivos¹¹. El arancel de los **Estados Unidos** del 31,1 por ciento*¹² ha de reducirse un 15 por ciento para llegar al 26,4 por ciento. El alcance del arancel reducido, que en la actualidad se aplica en virtud de la Ley de Importación de Carne, será de 656 721 toneladas, lo que representa un incremento respecto del total de la Ley de Importación de Carne para 1994, que fue de 552 400 toneladas. Además, las importaciones procedentes de Canadá y México están amparadas por el Tratado de Libre Comercio norteamericano (TLC) y seguirán entrando sin límites cuantitativos. Los aranceles sobre la carne de vacuno elaborada se reducirán, y se suprimirá el arancel del 7,5 por ciento sobre las importaciones de "corned beef" enlatada, principalmente de Argentina y Brasil. **Canadá** dará por terminada sus restricciones cuantitativas sobre la carne de vacuno fresca, refrigerada o congelada y las importaciones de terneras de países fuera de la zona del TLC e introducirá un cupo libre de arancel de 76 409 toneladas. La CEE transformará sus impuestos en un arancel y reducirá todo el arancel en un 36 por ciento para la carne de vacuno y para toda otra carne. Para las importaciones dentro de los cupos en gran parte inalterados seguirán sin cambios los tipos arancelarios en condiciones de favor.

30. Entre los *países en desarrollo*, la **República de Corea** aumentará su contingente de importación de las 106 000 toneladas actuales a 225 000 toneladas para el año 2000. Se efectuarán también reducciones en el grado de aumento de los precios por parte del Organismo Comercial Estatal entre las importaciones y la venta en el interior de la República. El comercio estatal y todas las demás formas de barreras no arancelarias quedarán eliminadas en el año 2001. En el año 1995 se establecerá un arancel del 44 por ciento, que se reducirá al 10 por ciento para el año 2004. Otros países en desarrollo también reducirán sus aranceles a la importación; se prevé que las reducciones que harán las **Filipinas** y **Tailandia** tengan un efecto notable en el comercio.

31. La CEE tiene que hacer el gran recorte en los **subsidios a la exportación** limitando la cantidad de los productos de vacuno subvencionados y las exportaciones de ganado bovino en 1995 a un 1 119 000 toneladas (equivalente de peso en canal, e.p.c.) y reducirlas a 817 000 toneladas en el año 2000, frente a 1 323 000 toneladas en 1992. Se aplicarían disciplinas análogas a otros exportadores que aplican subsidios aunque las cantidades correspondientes son relativamente pequeñas. El límite para los **Estados Unidos**, por ejemplo, es de 21 500 toneladas en 1995 bajando a 17 600 toneladas en el año 2000. Además, los **Estados Unidos** limitarán la exportación subvencionada de ganado vacuno (animales de cría de raza pura).

Carne de porcino

32. El acceso al mercado en el **Japón** se ha regulado mediante un tipo variable de arancel que se sustituirá luego por un tipo consolidado de arancel y éste se reducirá un 15 por ciento a lo largo del período de aplicación. Se entiende que en realidad "el precio de entrada" de la carne de cerdo en el Japón se reducirá un 29 por ciento al final¹³. La CEE también aumentará el acceso a su mercado ampliando su contingente para la carne de porcino deshuesada en 39 000 toneladas, de las que

¹⁰ GATT, "Modalidades para el establecimiento de compromisos vinculantes específicos en el marco del programa de reforma", documento MTN.GNG/MA/W/24, 20 de diciembre de 1993.

¹¹ En el documento CCP:ME 94/2 se ofrece una descripción de los cambios en el acceso al mercado japonés.

¹² Las cifras con asterisco son equivalentes arancelarios y por lo tanto las importaciones de los productos a los que se apliquen pueden quedar abarcados por las disposiciones especiales de salvaguardia del artículo 5 del Acuerdo sobre Agricultura.

¹³ En el documento CCP:ME 94/2 se dan detalles sobre los arreglos sobre el "precio de entrada".

5 000 toneladas serán de filete. También habrá un 36 por ciento de reducción en el arancel del citado cupo. Entre los *países en desarrollo*, la **República de Corea** ofrecerá una expansión importante de su cupo de importación para el porcino congelado hasta su eliminación total en 1997. El arancel se reducirá luego del 37 por ciento al 25 por ciento para el año 2004, que el mismo nivel que se estableció para el porcino fresco en 1994. **Filipinas** estableció un cupo de 32 000 toneladas para las importaciones con un arancel del 30 por ciento y lo ampliará a 54 000 toneladas para el año 2004. Simultáneamente, se reducirá el arancel de **Tailandia** para el porcino fresco del 60 al 40 por ciento y para los productos congelados del 60 al 30 por ciento.

33. Las exportaciones subvencionadas por la CEE se limitarán a 509 000 toneladas en 1995, que bajarán a 402 000 toneladas para el año 2000 en comparación con las 559 000 toneladas en 1991. La subvención de las exportaciones por otros países será en escala bastante menor. Los **Estados Unidos**, por ejemplo, tienen un límite para 1995 de 21 500 toneladas, que bajarán a 17 600 para el año 2000.

Aves de corral

34. En el acceso a las importaciones, se mantendrá el cupo de la CEE para cortes congelados que entrarán a un arancel cero se y habrá cupos adicionales para las importaciones de carne de aves de corral de otras denominaciones a tipos reducidos, lo que ascenderá en total a otras 11 000 toneladas. Una baja notable en el arancel de la CEE para las aves de corral conservadas es para la carne de pavo, en que se reducirá a la mitad el arancel del 17 por ciento, aplicándose la reducción general del 36 a otros productos. El tipo base de arancel del **Japón** para los cortes deshuesados de aves de corral es del 14 por ciento, que se reducirá a un tipo límite del 11,9 por ciento, algo inferior al tipo corriente del 12 por ciento. El tipo para los muslos de pollo con hueso se reducirá en un 15 por ciento quedando en el 8,5 por ciento. Los **Estados Unidos** reducirán sus derechos de importación para las aves de corral en un 20 por ciento. El arancel para los cortes de pollo, por ejemplo, de 22 centavos/kg quedará consolidado en el GATT y se reducirá a 17,6 centavos/kg.

35. Entre los *países en desarrollo*, la **República de Corea** reducirá los aranceles de importación sobre todo para los cortes congelados, donde el tipo básico del 35 por ciento se reducirá a un tipo límite del 20 por ciento para el año 2004. La reducción respecto de su tipo actual del 30,5 por ciento se iniciará en 1997, fecha en que han de eliminarse todos los obstáculos no arancelarios para este producto. **Hong Kong**, otro gran importador, ha de consolidar todos los aranceles sobre aves de corral a un tipo cero. **Filipinas** reducirá su tipo base de aranceles y también establecerá un cupo para las importaciones a tipos más bajos. Este cupo se aumentará a 23 500 toneladas para el año 2004.

36. Las exportaciones subvencionadas de carne de aves por la CEE en 1995 se limitarán a 440 000 toneladas, límite que bajará a 291 000 toneladas para el año 2000. El compromiso adquirido por los **Estados Unidos** consiste en limitar las exportaciones subvencionadas en 1995 a 34 000 toneladas de carne de ave y reducirlas a 28 000 toneladas para año 2000.

Sector ovino y caprino

37. Por lo que respecta al **acceso al mercado**, el importador principal, la CEE, transformará sus gravámenes en un arancel, reducirá el arancel base y ampliará algo la cantidad que entra en su mercado con un arancel de favor. El cupo para las importaciones libres de arancel será de 279 500 toneladas (de equivalente en canal), de cuya cantidad la asignada a Nueva Zelandia aumentará a 225 000 toneladas sin restricciones respecto a su suministro congelado o refrigerado. Habrá también un cupo para ovino vivo importado con un arancel del 10 por ciento, que ascenderá a 39 300 toneladas, de cuya cantidad se asignará a Hungría 21 400 toneladas. La subvención de las exportaciones no constituye problemas en este sector.

Mercado de abastecimiento de piensos

38. Los resultados de las negociaciones principales y de los compromisos sobre acceso a los mercados, apoyo interno y subvención de las exportaciones por lo que respecta al trigo, cereales secundarios y semillas oleaginosas y piensos afines tendrán efectos importantes tanto en el mercado mundial como en las economías ganaderas de muchos países, y especialmente en la CEE. No es posible describir aquí los compromisos, cuanto menos analizar sus efectos en los mercados del ganado y de la carne. No obstante, para apreciar la importancia del proceso de reforma de las políticas agrícolas asociadas con la Ronda Uruguay para los mercados de la carne, es necesario analizar el probable rumbo que tomarán los cambios en los mercados de abastecimiento de piensos¹⁴. Los compromisos de acceso al mercado por parte de la CEE deben dar lugar a grandes reducciones en los precios para el trigo y los cereales secundarios en el seno de la Comunidad. El objetivo es que el programa de reformas para las semillas oleaginosas en la CEE reduzca la producción del aceite para consumo. Sin embargo, la producción por encima de los cupos de la CEE, el empleo de tierras apartadas para suministrar aceite de colza con fines industriales y la expansión de las importaciones de semillas oleaginosas pueden suplementar la producción de tortas de semillas oleaginosas. Además, los compromisos de acceso al mercado contraídos por otros países de Europa occidental y por el Japón ejercerán una presión a la baja sobre los precios de los piensos en esos países. El volumen de las variaciones de precios puede ilustrarse con la baja de un 36 por ciento en los precios de los piensos de la CEE en 1991/92 y 1995/96 dentro del programa de reforma de la PAC¹⁵. En cambio, tenderá al alza la presión sobre los precios del mercado internacional para cereales que derivarían de los compromisos de reducir los subsidios a la exportación. Se ha estimado que el gravamen de los precios de los cereales secundarios en el mercado internacional que resulte de la Ronda Uruguay sería del 2 al 4 por ciento en relación con una proyección "sin Ronda"¹⁶.

Repercusiones de los compromisos sobre productos

39. La multiplicidad de los cambios e interacciones que afectan a los mercados del ganado y la carne hacen especialmente difícil estimar el resultado final. A este respecto, se están revisando las proyecciones de la Secretaría para la Carne para el año 2000, que han sido examinadas por el Grupo en su última reunión (CCP:ME 92/CRS 3), para tener en cuenta los compromisos adquiridos en la Ronda. Entre tanto, se examinarán aquí brevemente el probable rumbo de algunos de los principales cambios que se prevén, junto con indicaciones provenientes de análisis anteriores.

40. Los efectos en los mercados de la carne que tendrán los cambios en la CEE derivados de la Ronda Uruguay serán especialmente importantes. Los precios de los cereales-pienso en la Comunidad han bajado ya y es probable que sigan bajando. Las reducciones correlativas en los precios de los piensos concentrados permitirán a los productores de carne de aves de corral y de cerdo en esos países reducir los precios en términos reales, y seguirá la contracción de la cuota de la carne de vacuno en el mercado de la CEE. Sin embargo, la presión a la baja de los precios de la carne de vacuno no reducirá necesariamente la producción en grado considerable ya que muchos de los productores de carne de vacuno de la Comunidad no tienen prácticamente ningún otro uso para sus recursos. Por consiguiente, no es probable que las exportaciones subvencionadas de la CEE de carne bovina y de ganado vacuno al resto del mundo caigan más de las 500 000 toneladas programadas, es decir, un 10 por ciento de las exportaciones mundiales en 1992, con consecuencias para los mercados a los que provee la CEE y para otros exportadores.

¹⁴ Se están preparando documentos sobre los resultados y repercusiones de la Ronda Uruguay para el Grupo Intergubernamental sobre Cereales, que se reunirá el 30 de mayo de 1995, y para el de Semillas Oleaginosas, Aceites y Grasas, que se reunirá en abril de 1995.

¹⁵ Pueden muy bien darse otras reducciones en los precios de los cereales de la CEE a medida que la Comunidad se adecúe para cumplir su compromiso de reducir las exportaciones subvencionadas de cereales. En realidad, hay la opinión de que algunos productores de la Comunidad llegarán a vender en el mercado mundial sin necesidad de subsidios.

¹⁶ En *Situación y perspectivas de los productos básicos, 1993-94* (FAO), pág. 26, aparecen estos resultados con arreglo a la labor realizada antes de la conclusión de la Ronda.

41. Las estimaciones que sobre los efectos probables de las reducciones en la protección han hecho otras autoridades antes de la conclusión de la Ronda arrojaban que los precios internacionales de la carne de vacuno en un modelo simulado del liberalización tenderían a ser un 5 por ciento superiores a los de las proyecciones "sin Ronda"¹⁷. La presión alcista prevista sobre los precios refleja tanto la constricción de las exportaciones subvencionadas y la expansión de la demanda de importación de muchos países, especialmente en Asia, que resultaría de ganancias en los ingresos y de una reducción de las barreras a las importaciones, hechos atribuibles a la Ronda Uruguay.

42. Es probable que el resultado global para otras carnes sea análogo al de la carne de vacuno aunque con un equilibrio diferente entre las fuerzas que impulsan el cambio. Esas otras carnes se exportan principalmente sin subsidio y por ello el mercado mundial se verá mucho menos afectado por los compromisos de reducir las exportaciones subvencionadas. En cambio, los cambios en los mercados de piensos serán más importantes para la carne de aves de corral y de cerdo que afectan tanto a sus niveles de precios como a la ubicación de la producción. Los precios internacionales de estas carnes tenderán a moverse al alza en consonancia con el aumento de los precios internacionales de los piensos. Es probable que haya una presión alcista adicional sobre los precios internacionales de la carne que procederá de la expansión de la demanda de importación con el crecimiento en los ingresos atribuible a la Ronda. Se prevé que la tendencia en la ubicación de la producción será hacia una mayor proporción de producción de piensos cerca de las fuentes de los mismos al reducirse la protección de la producción de carne basada en piensos importados. Este fenómeno probablemente será más perceptible en la expansión de las exportaciones de carne de cerdo por los Estados Unidos y Canadá y a una expansión complementaria de las importaciones de carne por Japón y los países en desarrollo del Lejano Oriente, especialmente la República de Corea. Es también probable que estos mercados absorban más carne de aves de corral de los Estados Unidos y de los *países en desarrollo*, entre ellos Brasil y Tailandia. Asimismo es probable que la expansión de las exportaciones de aves de corral por los países en desarrollo sea especialmente valiosa para ellos ya que muchas veces se elaboran antes de la exportación. Los compromisos de la Ronda Uruguay para la carne ovina podrían dar lugar a una cierta expansión del comercio internacional aunque parece ser la carne que se verá menos afectada por los resultados de dicha Ronda.

Repercusiones del Acuerdo SFS y del entendimiento sobre la solución de diferencias

43. De un análisis de las disposiciones del Acuerdo SFS resulta que en lo sucesivo las medidas SFS de los países importadores podrán ser impugnadas por los proveedores que busquen acceso a sus mercados. Sin embargo, todavía sería difícil para muchos países cumplir las condiciones legítimas de un importador e, incluso más todavía, impugnar las que parecen estar injustificadas a través del Organismo de Solución de Diferencias de la OMC¹⁸. Por otra parte, es probable que las mayores dificultades por ambos conceptos sean las que tendrán que afrontar los países menos adelantados.

44. Por consiguiente, aunque la Ronda Uruguay ha ampliado bajo muchos aspectos el alcance de las normas SPS acordadas internacionalmente y favorecerán un acceso ampliado a los exportadores de carne a mercados extranjeros, el alto precio de entrada podrá excluir a muchos países en desarrollo. Por lo tanto, existe la perspectiva de que el comercio internacional de carne se restringiría aún más en su conjunto para limitarse sólo a los países que puedan permitirse el "derecho de entrada" de niveles relativamente elevados de controles veterinarios y de normas de sanidad e higiene animal dentro del país, así como la capacidad de demostrar la equivalencia de sus

¹⁷ *Situación y perspectivas de los productos básicos, 1993-94* (FAO), pág. 26.

¹⁸ El entendimiento relativo a las normas y procedimientos por los que se rige la solución de diferencias prevé que los países en desarrollo miembros dispongan de un experto jurídico (artículo 27) pero no se dice nada de ayuda en las cuestiones científicas y técnicas que probablemente serán importantes en las quejas sobre medidas SFS (Acuerdo SFS, artículo 11).

medidas SFS con las pretendidas por los importadores, incluso hasta el punto de entablar una queja ante la OMC.

Apreciación global

45. Parece estar llamado a reducirse con la conclusión de la Ronda Uruguay el grado de intervención estatal en el mercado de productos agrícolas. Para finales de siglo, los *países desarrollados* habrán cumplido sus compromisos plenamente, según se prevé. Los *países en desarrollo* tendrán hasta el año 2004 para hacerlo. Sin embargo, todos estos países sentirán los efectos de la Ronda antes del final del siglo. Se prevé que el impacto de los resultados generales de la Ronda dará un impulso menor a los precios de muchos productos agrícolas en comparación con un escenario simulado "sin Ronda".

46. Los compromisos de los países que figuran en el Acta Final y que tienen interés directo para la carne pueden dividirse en:

- Los especificados en los apéndices,
- Las obligaciones generales, como las relativas a las medidas sanitarias que se aplicarían a las importaciones de carne.

47. El efecto principal del Acuerdo sobre la Agricultura tendrá lugar probablemente a través de los compromisos para la reducción de la protección y los subsidios a la exportación que se contienen expresamente en los apéndices. Al Comité de Agricultura tocará seguir de cerca y examinar el cumplimiento de estos compromisos. En cambio, el beneficio que derivará de los compromisos generales importantes en virtud del Acuerdo SFS podrán obtenerse sólo a través de quejas específicas formuladas por los exportadores. En definitiva, la obtención de un cumplimiento inmediato y satisfactorio de los compromisos dependerá de la forma en que funcione el Organismo de Solución de Diferencias establecido dentro de la OMC cuando el entendimiento supere las deficiencias que hasta ahora ha habido.

48. Las oportunidades de exportación están llamadas a aumentar mediante la arancelización de los importadores, la reducción de las barreras arancelarias y no arancelarias, todo ello complementado por los compromisos de acceso mínimo. Estas oportunidades se verán reforzadas por iniciativas relativas a medidas SFS que han sido efectivamente una grave barrera para el comercio. La probabilidad de que un país se beneficie de las cláusulas del Acta Final se verán también incrementadas por el Entendimiento para la Solución de Diferencias. Habrá así un cumplimiento más satisfactorio e inmediato de los compromisos. Por último, en el Acta Final se han sentado las bases para ulteriores negociaciones sobre la reforma de las condiciones del mercado internacional de la carne.

49. Un gran preocupación para los *países en desarrollo*, y especialmente para los países menos adelantados, será la de obtener en la práctica los beneficios virtuales que brinda el Acta Final y reducir al mínimo los costos que para algunos de ellos tendrán los cambios que habrá en los mercados internacionales y que serán atribuibles a la Ronda.



FAO REGIONAL OFFICE FOR
LATIN AMERICA AND THE CARIBBEAN
TECHNICAL DEPARTMENT FOR LATIN AMERICA
AND THE CARIBBEAN OF THE WORLD BANK



FAO/WORLD BANK WORKSHOP

**IMPLEMENTING THE URUGUAY ROUND AGREEMENT
IN LATIN AMERICA:
THE CASE OF AGRICULTURE**

- Santiago, Chile, from 28 to 30 November 1995 -

**DISPUTE SETTLEMENT AND
THE MONITORING OF COUNTRY IMPLEMENTATION**

Chris Carson

Santiago, Chile
1995

**DISPUTE SETTLEMENT AND THE MONITORING
OF COUNTRY IMPLEMENTATION**

Chris Carson, WTO, Geneva¹

1. The Agreement on Agriculture² provides for the establishment of a Committee on Agriculture and sets out the framework for monitoring the implementation of commitments. The Committee met four times in 1995 and much of the time spent has been on working procedures and notification requirements to ensure it is in a position to efficiently and effectively monitor the implementation of Uruguay Round commitments. Monitoring will be principally carried out on the basis of notifications from Members - a system of "peer review". Provisions are made for counter-notifications where one Member believes another has not been completely honest in its endeavours and the Secretariat may also be asked for an input into the debate.

2. Notifications are designed to ensure transparency as to the evolution of certain types of agricultural policy, but do not prejudice consistency with rules. Members are required to notify the following: the methods used for the administration of tariff quotas; an indication of tariff quota fill; the individual use and an annual summary of special safeguard actions; the actual use of domestic support measures in relation to Total Current AMS and *de minimis* commitments; new domestic support measures that are claimed to be exempt from reduction commitments; the use of export subsidy measures and related information in relation to the Agreement on Agriculture's rules in this area; new export restrictions introduced; and measures concerning the Decision on the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Country Members. Some notifications are designed to show Members have fulfilled their commitments (hence in the most part will not be received until 1996 - after the end of the first year of implementation).

3. The working procedures of the Committee allow for the discussion of each notification or counter-notification received. Members are encouraged to propose questions in advance to allow for a

¹The views expressed in this paper are those of the author and do not necessarily reflect those of the Organization.

²While this note focuses on the implementation of those commitments covered by the Agreement on Agriculture, similar comments concerning the role of notifications and Committee review, along with the more formal dispute settlement procedures, apply to other agreements such as the Agreement on the Application of Sanitary and Phytosanitary Measures.

constructive debate in the Committee. In addition, and no less importantly, any Member has the right to raise in the Committee any matter in relation to the implementation of commitments - a right set out in Article 18:6 of the Agreement on Agriculture. This right has been extensively used already to tackle issues such as the late or non-implementation of commitments by certain Members; possible "abuses" of the time prior to the implementation of the Uruguay Round that could impair the value of Uruguay Round commitments; and apparent breaches of compliance with the Agreement on Agriculture rules.

4. The Committee as it has worked so far has proven to be a valuable forum for the discussion and, in some cases, the resolution of problems. The comments of other Members, indeed even only the knowledge that they are looking over another Member's shoulder, is an element of the work of the Committee.

5. The working procedures of the Committee also allow Members to call on the Chairman to help resolve issues between them in an amicable manner if the parties concerned agree. The Chairman uses his own personal discretion in any such cases. Such an approach to the Chairman does not affect the WTO rights of the Members concerned.

6. The wide scope of commitments taken in the Uruguay Round and the fact that only a very small proportion of them are the source of friction between Members should be kept in mind. Nevertheless, in some cases bilateral contacts or discussions within the Committee on Agriculture are not sufficient to resolve the problems, hence the need for a formal dispute settlement process. And immediate access to formal dispute settlement procedures is in no way affected by the Committee on Agriculture or options provided for in its working procedures.

7. The Agreement on Agriculture, along with the Agreement on the Application of Sanitary and Phytosanitary Measures and other agreements resulting from the Uruguay Round, rely on one integrated dispute settlement procedure - itself the subject of an Understanding in the Uruguay Round.

The Dispute Settlement Procedure

8. The dispute settlement procedure is based on the practices of the GATT concerning Articles XXII and XXIII which has been developed over the years since 1948. It is now monitored by one entity -

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the Dispute Settlement Body (DSB) which meets regularly to deal with procedural aspects of disputes and to monitor their progress and the implementation of recommendations. Since the establishment of the WTO, there have been some 20 disputes between Members under consideration. Nine are currently at the panel stage in the form of 4 panels reflecting the joint settlement for similar cases (see below), 7 are at the consultation stage (which does not involve the WTO) and 4 have been settled already (without the panel process being completed).

Consultations

9. The first step of the formal process involves consultations. Any Member may request Article XXII or XXIII (of GATT 1994) consultations with another Member. Such a request for consultations shall be notified to the DSB and, through the Secretariat, to all WTO Members. Article XXII initially involves only consultations while Article XXIII involves both consultations and dispute settlement.

10. In certain cases (Article XXII requests for consultations), other Members with substantial trade interests may indicate their desire to join in the consultations which should be granted where interests are genuine. A period of 60 days is provided for consultations which, with the added weight of a formal process hanging over them, may reach a successful conclusion. If not, the complainant can apply to have a panel established any time after the sixty day period and establishment takes place automatically the second time the request is placed on the agenda of the DSB (unless there is a consensus among Members not to establish a panel). Within the 60 day period additional time limits are specified relating to responses to requests for consultations (10 days) and the first such consultations taking place (30 days). If such time limits are not respected, the complainant may request that a panel be established directly. In the case of urgency, mainly including those cases involving perishable goods, the consultations shall be entered into within 10 days of the request and a panel may be requested after 20 days. Other time periods too are reduced in these instances. On the other hand, the time limits may be extended in cases concerning developing countries to allow more time for preparation. During the consultation period, the parties to the dispute may request the initiation of "good offices", conciliation or mediation by the Director-General acting in an *ex officio* capacity. Such a request does not affect rights to move to request the establishment of a panel.

The Panel Process

11. During the 20 days following a request for a panel, panel members are selected and agreed upon - or, if this is not possible, chosen by the Director-General in consultation with the Chairman of the General Council and of the DSB within 30 days. Panel members act as individuals and are chosen for their experience and knowledge of the legal issues at hand. Panels usually have three members and normally operate under standard terms of reference - to examine the complaint in light of the provisions of the Agreement(s) concerned. In some cases several agreements are cited including, for example, in one current agricultural dispute, both the GATT 1994 and the Agreement on Import Licensing as well as the General Agreement on Trade in Services (the GATS).

12. Within six months following the establishment of a panel (a period that can be reduced to 3 months - for example when perishable goods are concerned) the final report should be given to the parties concerned. During this time, parties to the dispute present their cases and rebuttals during panel meetings. The more factual aspects of the case are then circulated to the parties concerned, followed by an interim statement by the panel of conclusions and findings. The final report is then prepared and eventually circulated to all WTO Members. "Third parties", other WTO Members with a substantial interest in the matter, can also make presentations to the panel. In addition, expert review groups can be called upon where scientific or other technical matters are involved.

13. The findings and conclusions specify whether or not the measure/action concerned is consistent with the relevant rules. If it is inconsistent, the panel will recommend that it be brought into line with the WTO rules - it may even recommend how this could be accomplished. Panel reports must be adopted by the DSB within 60 days of their circulation unless one of the Members involved in the dispute appeals to the appellate body or there is a consensus against its adoption.

14. Appeals can only involve aspects of law and legal interpretations. Three members from a seven-person appellate body consider appeals and usually report back in 60 days (a maximum of 90 days is possible). The report is unconditionally accepted by Members involved in the dispute and adopted by the DSB within 30 days (unless there is a consensus not to adopt the Appellate Body's findings). (As yet, the Appellate Body has not been formally established, but no disputes have reached the stage where appeal is possible.)

The Implementation of Panel Rulings

15. The dispute process is not only designed to give legal rulings, but, of course, it is also designed to ensure that Members bring any inconsistent measures into consistency with the rules. The implementation of dispute settlement decisions is, therefore, essential.

16. Following the adoption of a report, a Member must give an indication of how the measure will be brought into WTO conformity. In the cases where immediate implementation is not practicable, the DSB will set a "reasonable period" for implementation and, in any event, will monitor the process of implementation. If implementation does not occur, the Member acting inconsistent with the relevant rules must enter into negotiations to agree on "compensation" for its ongoing breach of commitments. Such compensation could, for example, take the form of tariff reductions of products of trade interest to the complainant and should be agreed within 20 days.

17. At the end of the day it could be envisaged that none of these pressures to implement bear fruit. In that case, the DSB has the right to allow a suspension of commitments or obligations by the complainant towards the respondent as a retaliatory measure - within 30 days of the expiry of the reasonable period of time for implementation. Such retaliations should take place in the same area of trade as the initial complaint although where this is not practicable or effective, a different sector in the same agreement can be targeted or, failing that, concessions made under another agreement if circumstances warrant. Obviously, retaliation is the very extreme example. It is hoped and expected that most, if not all, issues will be resolved before such a step is taken. Indeed, most bilateral frictions will never go to the formal dispute settlement process at all - they will be resolved bilaterally or in the context of the Committee on Agriculture or SPS Committee, etc.

18. While the dispute settlement process has been part of the GATT system since its inception, the Uruguay Round made some important changes to improve its effectiveness. Prior to the Round, for example, it was possible to block the establishment of a panel and hence not allow the process to move forward at all. Nevertheless, this was not a major impediment as it only occurred once and the possibility was effectively removed in the Mid-Term Review of the Uruguay Round in 1989.

19. More important, however, was the requirement of consensus before a panel report was adopted - even the "guilty" party had to restrain itself from blocking a report for adoption to take place. There

are some examples of blocked panel reports in the recent past in the agricultural area. As noted previously, adoption is now automatic unless there is a consensus against adoption.

20. The Appellate Body too is an important feature introduced in the Round to ensure the integrity of the system as is the ongoing monitoring of the implementation of panel findings in the DSB. The possibility of compensation and retaliation action have been facilitated and this is also considered to be a major improvement in the system.

21. While it is hoped that Members will faithfully implement their Uruguay Round commitments, the possibility of disputes that can only be resolved in a formal setting is ever-present. Thus the Understanding on Rules and Procedures Governing the Settlement of Disputes forms a corner stone of the WTO process in all areas of its coverage - including with respect to agricultural products.

**THE REMOVAL OF QUANTITATIVE RESTRICTIONS,
TARIFFICATION AND MINIMUM ACCESS PROVISIONS
AS THEY AFFECT IMPORTABLES**

Chris Carson, WTO, Geneva¹

1. This paper covers the market access provisions of the Agreement on Agriculture and the elements contained in individual country schedules - mainly tariffs and tariff quotas. It is not intended to discuss in any detail the "modalities" that led to the scheduled commitments as these are a thing of the past - the important element to consider now is how WTO commitments are to be complied with. The paper will concentrate on the implementation of commitments and look at some of the implications from both a legal and a economic point of view. In considering this paper, it should be noted that it is not up to the WTO Secretariat to interpret agreements or to decide on legal conformity - this can only be done by WTO Members acting together in the Ministerial Conference or General Council or through the establishment of legal precedents through the dispute settlement mechanism. As a result, the paper can only be seen as personal reflections on how issues may be examined in the future - if, indeed, they are raised in any formal sense.

The Agreement on Agriculture

2. The Agreement on Agriculture that entered into force on 1 January 1995, is relatively brief in its treatment of market access. This results directly from the fact that since the inception of the GATT market access has been at the forefront. The Agreement on Agriculture acts to reinforce and further define the market access provisions in the GATT 1994 itself. It can be recalled that at the beginning of the Uruguay Round in September 1986 there was a situation in agricultural trade that could be characterized by important exceptions to GATT ("GATT 1947" at that time) rules on border measures applied to agricultural products, country-specific derogations from the rules and the widespread use of "grey" area measures such as variable import levies and abuses of state trading provisions. These features were particularly prevalent in trade in temperate agricultural products.

3. Article 4 of the Agreement on Agriculture reaffirms the individual commitments of Members. In the first paragraph, reference is made to the first basic rule - the obligation of Members to comply with the tariff and other commitments (mainly tariff quota commitments) as set out in the individual

¹The views expressed in this paper are those of the author and do not necessarily reflect those of the Organization.

country schedules which are themselves a prerequisite for WTO membership. The focus of this paper is the implementation of these commitments as discussed below.

4. It should be recalled that commitments contained in the individual country schedules - whether they be "bindings" of maximum legal tariffs or any other commitment - are given legitimacy through Article II of the GATT 1994. Article II states that import measures at least as favourable as those shown in the schedules must be granted to all WTO Members at all times (subject to other provisions of the GATT 1994)).

5. Article 4:2 of the Agreement provides the second basic rule applying to agricultural products in the market access area. In simple terms, it both reaffirms and extends the principles of GATT 1994 itself. It reaffirms Article XI:1 of GATT 1994 by prohibiting non-tariff border measures - not only quantitative restrictions, but also other "border measures other than ordinary customs duties" such as minimum import prices, variable import levies, the maintenance of non-tariff measures by state trading enterprises and all similar measures. It goes further than GATT 1994 itself by extending the prohibition in three important directions. Firstly, the list of non-tariff measures explicitly prohibited by Article 4:2 includes the grey area measures evident before and during the Uruguay Round. Secondly, the exceptions in Article XI (Article XI:2(c), for example) are effectively made redundant which means Members can no longer claim recourse to non-tariff measures designed to assist in the implementation of supply control programmes. And finally, Article 4:2, via the footnote, removes the legal coverage that existed under GATT 1947 for all country-specific waivers and derogations. For the first time, the major impediments to predictable market access parameters have been removed.

6. There are, however, exceptions to the general rules on the prohibition of non-tariff measures. Two exceptions are inherent in the Agreement on Agriculture itself while the third involves the broader WTO spectrum. Within the Agriculture Agreement, the "special safeguard provisions" allow tariff bindings to be breached subject to certain conditions being met (as will be discussed further below) while Annex 5 of the Agreement allows the continuation of non-tariff measures in certain strictly defined cases as indicated in the schedules themselves. This so-called "special treatment" was taken up by only Japan, Korea and the Philippines for rice and by Israel for sheepmeat and certain dairy products.

7. In the broader context, the general non-agricultural exceptions contained in GATT 1994 and other WTO Agreements can also override the prohibition of non-tariff measures. The most important of these are contained in GATT 1994 itself and involve, for example, exceptions necessary in order to protect plant, animal and human life and health (Article XX(b) - to be discussed in the context of

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the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) at another session), exceptions for security purposes (Article XXI) and exceptions for balance-of-payments purposes (Articles XII and XVIII(B)). Other exceptions include those provided for under the safeguards (Article XIX) and as part of anti-dumping and countervailing duty actions (Article VI) as will be discussed in the following session along with the associated WTO agreements.

8. Leaving aside the SPS issue, an important exception in the agricultural area revolves around the balance-of-payments issue - particularly in the case of developing countries. Article XVIII:(B) allows the use of non-tariff border measures which are necessary to avert a balance-of-payments crisis. The Uruguay Round agreement encourages the use of price-based measures (surcharges etc.) instead of non-tariff measures, but the legal option is still there. The sector specific application of such measures is also discouraged.

9. Nevertheless, the collective examination by WTO Members into the use of balance-of-payments exceptions has been reinforced by the Uruguay Round and the present system of meetings of the relevant Committee to provide an on-going assessment of the use of such measures has discouraged Members from abusing the mechanism - through claiming measures in place largely for protective purposes are justified for balance-of-payments reasons for example. Of course, the generalized trend away from the use of quantitative restrictions has also reduced claims in this area including claims by four countries represented here.

10. Currently, 10 WTO Members use of balance-of-payments restraints in the goods (agricultural and non-agricultural) area. (Balance-of-payments provisions also form part of the General Agreement on Trade in Services). Of those using the provisions, 7 are developing countries while the remainder are economies in transition (covered by Article XII). Other Members can claim recourse to the measures at any time but it is unlikely that this will prove to be an impediment to the faithful implementation of the Agreement on Agriculture. None of the countries participating in this workshop continue to use balance-of-payments restrictions.

11. In summary, it is considered that the market access provisions of the Agreement on Agriculture provide a very strong base for ensuring that agricultural trade will not slide back into the indiscipline of the past. While exceptions to the rules are present, those covered by the Agreement on Agriculture are tightly constrained as are those covered by other WTO Agreements.

The incidence of tariff bindings and tariff quotas

12. As noted previously, each WTO Member has its own schedule of concessions which is an integral part of the overall Uruguay Round package. The schedules were devised from a combination of: pre-Uruguay Round commitments; the so-called negotiating "modalities"; and bilateral negotiations.

13. It is not intended to go into the modalities in any depth, but only to indicate the major principles. Firstly, for those products subject only to tariffs, tariffs were either bound at existing levels or were the subject of ceiling bindings (see below). Secondly, where non-tariff measures existed, it was recognized that the "tariff equivalents" of these measures were often higher than existing tariff levels. In order to be in a position to meet the prohibition of non-tariff measures required by the Agreement on Agriculture, developing countries had two choices for "converting" non-tariff measures to tariffs. The first was "tariffication" (the only alternative for developed country Members) which involved setting a bound rate of duty at the difference ("tariff equivalent") between the domestic price (inflated as a result of the non-tariff measure in place) in the country concerned and a world price (a surrogate-import price), along with the establishment of tariff quotas - commitments to provide the opportunity for specified quantities of imports to occur at lower tariff rates. These tariff quotas were the result of current access provisions - the maintenance of current trade on terms at least equivalent to those existing - and where current access accounted to less than 5 per cent of domestic consumption, minimum access provisions - the establishment of tariff quotas representing initially 3 per cent increasing to 5 per cent of domestic consumption at low or minimal tariff rates. Products subjected to tariffication, and those products only, are eligible to claim recourse to the special safeguard provisions of the Agreement on Agriculture (Article 5).

14. Tariffication only took place in 7 of the 17 Members involved in the workshop which led to the establishment of almost 200 tariff quotas - representing those established via both current and minimum access opportunity modalities (note, however, that the majority of these are in two countries which disaggregated products to a greater extent than most other WTO Members). Claims for the right to use the special safeguard provisions indicate less than 20 per cent of agricultural products of these 7 countries were tariffied.

15. The second approach used by many developing countries to set tariff bindings were the "ceiling binding" provisions. These only applied to previously unbound tariffs and did not involve guidelines in the same way as tariffication, but allowed the Member concerned to propose the binding level. In the case of ceiling bindings, current and minimum access provisions did not apply and no recourse

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to the special safeguard can be had. In terms of the commitments of the Members represented at this workshop, it is clear that the ceiling binding modality was the overwhelming favourite.

16. Finally, almost all agricultural tariffs in all countries were bound, i.e. a legal maximum import tariff set (only the few products subject to "special treatment" were not bound). Tariff bindings prior to the Uruguay Round accounted for about one-third of all agricultural tariffs in workshop countries (most of those in countries that acceded to the GATT during the Round) and now 100 per cent are bound.

17. In both the tariffication and ceiling binding cases, the initial proposals of Members were subjected to bilateral consultations and negotiations which could have led to changes in both tariff and tariff quota commitments and the introduction of other restraints on trade policy. Now, each Member's schedule is attached to the WTO Agreement via the Marrakesh Protocol, the commitments are precisely defined and legally established. These commitments, like those of all other WTO Members are now set in place for the implementation period and beyond.

The implementation of tariffs

18. While the tariff commitments are clear from the schedules, there are a certain number of means to implement the tariff bindings apparent in national regulations. In the most simple form, Members simply apply the maximum tariff as set out in their WTO schedule for each product - experience shows however, that this is not always the case. (It should also be recalled that most tariffs are to be reduced over the Uruguay Round implementation period of six years (developed Members) or ten years (developed Members)).

19. For various reasons, many Members do not always want to apply the maximum tariff that they are legally entitled to. While tariffs provide protection that is sometimes desired, they also push up domestic consumer prices to the detriment, particularly, of low-income consumers - especially in cases such as tariffs on food products - and can lock resources (capital, labour and land) into relatively inefficient industries. In order to allow imports to take place governments often apply tariffs lower than the bound rates either across the board (for unlimited quantities), for limited quantities (autonomous tariff quotas), or for unlimited quantities but subject to price criteria. The latter category can include systems such as the price band mechanisms under which import duties vary depending on trends in import or reference prices, or the similar systems that differentiate imports on the basis of their price (i.e. the product description includes price criteria) with lower priced imports usually paying higher

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duties.

20. There are also some examples of tariffs being applied at different rates on a seasonal basis, i.e. lower tariffs applied in the "off season", or on the basis of the use of the product concerned, e.g. lower tariffs for wheat for animal feed versus wheat for direct human consumption. Finally, governments do change duties (as long as duties are kept below bound rates) for reasons unrelated to agricultural policy, such as those related to revenue collection.

21. Another evident method of applying tariffs is not through the direct levying of tariffs at all, but through a state trading monopoly that undertakes all imports and can thereby create a mark-up between the purchase price on the world market and the sale price on the domestic market - again in order to achieve agricultural or broader policy objectives.

22. Possible legal and economic implications of two of these means of applying out-of-quota tariffs are discussed below - those involving state trading and those involving measures that could be classified as "fluctuating applied tariffs" - tariffs which are levied at rates which depend on other factors such as trends in import or reference prices.

23. Finally with respect to the implementation of tariffs, it was noted earlier that the special safeguard provisions can permit the imposition of tariffs at rates higher than the bound rates. This only applies to the products specified in the schedules as being subject to the special safeguard (the tariffed products) and after meeting the condition of either a surge in imports (the magnitude of which depends on the current level of import penetration) - called the "volume-based" special safeguard; or a significant fall in import prices - called the "price-based" special safeguard. In the case of the volume-based safeguard, the rate of duty levied can exceed the bound tariff by one-third while in the case of the price-based safeguard, the additional duty represents a proportion of the fall in import prices compared to the 1986-88 base period as set out in Article 5 of the Agreement on Agriculture. Members must notify the first use of the special safeguard provisions - as yet only one Member has indicated its recourse to it.

The implementation of tariff quotas

24. For those Members that tariffed and established tariff quotas, notifications had to be made to the Committee on Agriculture as to how the quotas are to be implemented on a practical basis as the GATT allows some scope as to the method of allocating the right to import at the lower tariff rates.

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25. Most tariff quotas, including all those that resulted from the minimum access provisions, are "m.f.n.", i.e. Members should not discriminate in favour of particular trading partners in the allocation of rights to access to the tariff quotas. Nevertheless, the m.f.n. clause (Article I of GATT 1994) is qualified by Article XIII of GATT 1994 which allows those maintaining tariff quotas to specify the supplying countries the product is eligible to come from. This is preferably on the basis of an agreement with all other Members having a substantial interest in supplying the products concerned or on the basis of trade in a representative period. In both cases, the allocation should be along the lines of the import share that may be expected in the absence of the tariff quota limitation. Some current access tariff quotas too involve country allocations as existed prior to the Round - the allocations are shown in the schedules of the Members concerned. The allocation of quantities to supplying countries is used in conjunction with one of the methods of regulating imports set out below and may also involve export licensing by the supplying countries. To date, tariff quota administration methods notified (some notifications are outstanding - including from countries involved in the workshop) include the following:

- (i) via the applied tariff: all imports are charged a tariff equal or lower to the in-quota tariff rate, even if the tariff quota quantity is surpassed. In this case no special mechanism is needed for the administration of the tariff quota concerned;
- (ii) first-come-first-served: in this case the in-quota tariff applies to imports, but only up until the time when the tariff quota quantity is reached. All imports beyond the tariff quota quantity must pay the higher out-of-quota tariff rate.

All other methods of implementing tariff quotas involve some form of state control - normally the issuance of import licences. Methods include:

- (iii) licences issued on a first-come-first-served basis: here the government issues licences until such a time as licences for the whole tariff quota quantity have been allocated. The first to apply for licences receive them. If the initial demand for licences exceeds supply, they are often rationed on a pro rata basis.
- (iv) licences issued by lottery: where there is a clear indication that the demand for licences to import at the lower in-quota tariff will outweigh the tariff quota quantity, some governments resort to choosing licence holders by lottery - by picking the importers

out of a hat and allocating licences to them;

- (v) allocating licences through auctions: again where the demand for licences exceeds supply, some governments have opted to auction licences - to sell the right to import at the lower tariff to the highest bidder. Some Members consider that this is in contradiction to GATT 1994 rules.
- (vi) allocation of licences to historical importers: where trade has been taking place in the past, some governments have chosen to continue the pattern of trade by allocating licences to historical traders. Generally some allowance for new importers is also made.
- (vii) allocation of licences to a state trading enterprise: where one entity (government or not) receives the right to import at a lower tariff rate, it appears to meet the definition of a state trading enterprise. Such enterprises are not prohibited, however, and are evident in some notifications of tariff quota administration. In some cases, import rights are given to producer or processor organizations which appear to share many similar administrative characteristics.

The above list is not exclusive and some other countries, including some represented at the workshop, use other means. For example, in certain cases governments allocate the licence to import in relation to the quantity of domestic produce a company buys. In other cases, the government allocates the licence to import on the basis of the best draft contract (in terms of price and quality) of all importers for the goods in question.

26. As Members have notified tariff quota administration, this is one area on which the Committee on Agriculture has focused. In addition to some of the issues raised above, discussions have covered the relationship (if any) between the allocation of m.f.n. tariff quotas and preferential (often regional) trading arrangements and the potential problems of allocating import rights to particular sub-components of tariff quotas (e.g. milled rice versus rice in all forms). Such issues are sure to continue to be discussed in the future.

27. All allocation methods have their own advantages and disadvantages in terms of ease or practicability of administration, the avoidance of potential disruptions in the importing markets, the encouragement of competition for the benefit, particularly, of consumers and who gets the "quota rent" inherent in such regimes. One overall aspect is clear: (i) the legality of some options is less

questionable than that of others and (ii) in any event, the method of tariff quota administration chosen must not impair or nullify the value of the concession negotiated in terms of both the quantity of the tariff quota and its potential economic return.

Implications of market access concessions

28. In this section possible legal implications of the use of state trading enterprises and the use of "fluctuating applied tariffs" are examined along with brief comments about some possible economic implications, including with respect to price stabilization. As stated at the outset, the following comments can only be seen as personal reflections on the issues.

29. With respect to state trading entities, these are not prohibited, per se, by the rules in GATT 1994, or by the Agreement on Agriculture. It should be recalled that the prohibition of non-tariff measures in the Agreement on Agriculture applies to "non-tariff measures maintained through state trading enterprises" (emphasis added) -not to the enterprises themselves (Article 4:2).

30. GATT 1994 has, however, other specific commitments on state traders in Article XVII (and the Understanding on this Article resulting from the Uruguay Round) which include the stipulation that the import function of such entities must be based on "commercial considerations" and that the fundamental principles of GATT 1994 must be upheld - m.f.n. treatment (Article I), the level of protection in the schedules (Article II) and national treatment (Article III), for example.

31. Nevertheless, there is still concern on the part of many exporters that state traders could impair concessions through their actions and, indeed, some claim that an import monopoly in itself could represent a prima facie case of impairment under Article 4:2 of the Agreement on Agriculture.

32. In any event, state trading enterprises with multiple functions (e.g. trade and domestic price stabilization) clearly result in contradictory objectives which may spill over to affecting compliance with WTO commitments. On the other hand, those Members using importing state trading enterprises believe that they can maintain them as sole importers as long as they trade in a manner consistent with commercial considerations. Earlier GATT dispute settlement panels have defined this as, inter alia, satisfying domestic demand. They argue that no non-tariff measure is applied if domestic demand is satisfied at the level of protection implied by the schedule (tariff binding) for the product concerned. Thus, as long as the domestic price level does not exceed the world price level by more than the margin implied by the tariff binding, the state trading entity is within its legal constraints. Such an empirical

analysis is, of course, fraught with practical difficulties.

33. The state trading area, concerning both imports and exports, is one that is likely to come under closer scrutiny in the future - at least in terms of calls for improved transparency of such entities so other Members can be more satisfied that concessions are not being impaired. A working group on state trading enterprise was established under the Uruguay Round Understanding to examine such issues.

34. The area of applied tariffs that fluctuate on the basis of exogenous factors such as import or reference prices e.g., price band systems, is also likely to come up more in the future. It is clear that in implementing Uruguay Round commitments a number of countries are taking such an approach. The countries concerned argue that as long as the tariff bindings are not breached, they are in compliance with their GATT 1994 commitments. It does not seem to be questioned that any case where the total import charge exceeds the tariff binding for the product concerned is clearly inconsistent with GATT 1994/Agreement on Agriculture obligations.

35. On the other hand, it could be argued that the footnote to Article 4:2 of the Agreement on Agriculture prohibits such measures entirely i.e., "variable import levies, minimum import prices ... and similar border measures other than ordinary customs duties". In this sense, the last phrase "other than ordinary customs duties" could be important. If the claim of a member that its price band mechanism is merely an ordinary custom duty (i.e. a tariff) - albeit one that changes often due to certain factors - were accepted, the footnote and hence the prohibition of the measure would not apply. This is clearly a case where only a formal consideration - through dispute settlement proceedings, for example - can give a definitive interpretation.

36. There are, however, other potential legal problems with such mechanisms. It could easily be imagined that certain exporting countries tended to pay higher duties than others if the rate of duty depended on import prices - could this be the basis of a claim of discrimination contrary to Article I of the GATT 1994? Even if reference prices rather than actual import prices are used to trigger different rates of duty applied in different periods a discrimination claim could be forthcoming if the mechanism is insufficiently clear as to enable traders to accurately predict the duty that they would have to pay on imports or, perhaps, if the seasonality aspect favoured some exporters over others.

37. No legal prognosis can be made on the consistency of such measures, particularly with respect to Article 4:2 of the Agreement on Agriculture. Nevertheless, the more transparent, simple and predictable the mechanisms are, the less likely would exporters be to ask the WTO to take a formal

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decision through the dispute settlement mechanism. In addition, looking at the issue in more pragmatic terms from the exporters' point of view, it is clear that a lower tariff - albeit one that could change frequently - is more attractive than the higher bound rate being levied in all instances. For this reason alone it may be some time before the question is formally posed.

38. In terms of the economic implications of the market access package of the Uruguay Round, it is apparent that the tariff binding, along with tariff quota commitments where they exist, place limitations on government interventions in the agricultural sector - particularly with respect to the output prices of farm goods. The level of tariff protection bound in the schedule will place a natural brake on how far the domestic price level may rise. If domestic prices were to exceed the level of world prices inflated by tariffs, a displacement of domestic production would occur. This is not of course, a problem per se - lower consumer prices would be a result of such a displacement along with a migration of resources out of what would be at least a partially inefficient industry.

39. The same general points can be made with regard to price stabilization. Means are available within the Agreement on Agriculture to allow for legitimate price stabilization. (In this light, commitments on domestic support are also important as will be discussed at another session). Nevertheless, a mechanism undertaken through border measures even if consistent with tariff bindings is less legally secure given the possible scope of Article 4:2 as noted above. The Agreement, combined with GATT 1994 provisions, certainly does, however, ensure that such price stabilization does not become protectionism to the extent that the level of protection in Members' schedules is surpassed or other factors, such as discrimination, introduced.

40. In all cases, one of the major achievements of the Uruguay Round is transparency in world trading relationships and such transparency is as important domestically as in international trade. All countries should take into account in the formulation of policy objectives, not only the strict legal aspects of the Agreement on Agriculture and the Uruguay Round as a whole, but also the underlying spirit. That spirit - openness and predictability - is consistent with the economic theory espoused by other international organizations and by the countries represented at the workshop. It is this predictability that has led to the influx of productive investment in the Latin American economies. State trading enterprises, even with the best intentions when established, are often not transparently operated and create vested interests and the possibility of abuse. Experiences in many countries show the price stabilization schemes too are sometimes high-jacked to become much more and, of course, interrupt the transmission of price signals to producers leading to too many resources being concentrated in the area concerned. Without government mandated price stabilization schemes, producers tend to find

their own methods to achieve the same goals.

41. Finally, while increased protectionism is no longer a policy option (even if desired for domestic reasons), it should be recalled that it does not mean that there is no possibility to safeguard a particular agricultural industry from short-term damage. The action to be taken, however, must be in line with normal WTO provisions such as those covering safeguard or anti-dumping actions as will be discussed in the following session. Or, perhaps as a last resort, protection levels can change via Article XXVIII renegotiations of tariff bindings with compensation payable for other Members affected by such changes.

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Preface

The Working Group on International Trade and Marketing is one of six working groups organized by the National Center for Food and Agricultural Policy and the Hubert Humphrey Institute of Public Affairs, University of Minnesota, to focus on issues relating to the 1995 Farm Bill. The purpose is to provide a better understanding of the issues, alternative approaches to these issues and the consequences of policy options.

These working groups are a part of a project designed to help lay the groundwork for a more informed debate and better public policy choices during the 1995 Farm Bill process. In November of 1994, soon after working groups were appointed, two symposia, with the theme "Farm and Food Realities for the Twenty-First Century", were held to help provide a setting for working group efforts. The final phase of the project consists of seminars, symposia and other discussion fora that focus on the findings and conclusions of the working groups and a consolidated report, summarizing and addressing issues that cut across working group topics.

Working group members were selected to include as many of the stakeholders, interest groups and scholars as possible without making them too large to function efficiently. In all, about 80 persons representing farm organizations, agribusiness firms, cooperatives, academics and others with an interest in farm policy served on the six working groups. Members included a former secretary of agriculture, six former assistant secretaries, presidents of 11 state farm organizations, 26 university faculty, several agribusiness executives, commodity organizations, and farmers. The Economic Research Service, USDA designated a resource person to work with each group. The sponsors are deeply indebted to all working group members who took time from busy schedules to participate and to the Kellogg Foundation, the ERS and a number of private firms and organizations which provided financial support for the project.

The Working Groups' reports attempt to reflect the discussion and predominant views about issues, options and consequences. No endorsement of a particular option on the part of members, their employers or the sponsors is necessarily implied.

John G. Stovall
Director, Farm Bill Project

REPORT OF
THE WORKING GROUP ON
INTERNATIONAL TRADE AND MARKETING

Executive Summary

From the Great Depression until the 1960s, the food and fiber sector in the United States followed a policy that depended largely upon domestic markets and domestic policy instruments. Export markets were important for a few commodities, but even for these commodities policies were largely oriented toward domestic consumers. In the early 1960s producers and policy makers faced a crucial decision as to whether to continue the domestic high-price policies or to fully compete in world markets. The decision was to compete for world markets, and reforms were begun to adjust US domestic policies to allow it to compete. Those reforms are not yet complete.

A major push into world markets in the 1960s and 1970s allowed the food and fiber sector in the U.S. to use its capacity and to exploit its natural advantages in farm structure and efficiency, its superb infrastructure, and its considerable business talents in international trade and marketing. By the mid-1980s world conditions changed and US policies were once again distorted to the point where the U.S. lost a large share of the markets it had gained in the previous two decades. Once again policy makers concluded that the U.S. could not afford to shrink its food and fiber system to serve only domestic markets, and a series of new programs thrusts were initiated to help the U.S. regain its position in world markets. These included lower domestic price supports, marketing loan programs, the reinstatement of direct export subsidies, and new types of export assistance to private firms selling products abroad. The Congress authorized (and three successive administrations negotiated) three trade agreements which opened foreign markets to US agricultural products.

The Working Group identified five issues that need to be considered in the 1995 Farm Bill relating to international trade and marketing.

1. Why should federal assistance be provided in the area of international trade and marketing of agricultural products?
2. What can be done to assist domestic producers in dealing with increased competition in domestic markets?
3. What can be done to help US producers in foreign markets that are still closed or where unfair competition is still a problem?

4. What can be done by the federal government to help keep US agricultural products competitive in foreign markets?

5. If US government assistance is to be provided to increase exports and to aid in the international marketing of US food and fiber products what form should the assistance take and who should receive it?

The Working Group strongly supported some federal government support for exports and international marketing. It justified this support based on extensive government intervention around the world in agricultural markets and the resulting distortions in world markets. As a minimum there is justification for strong action by the US government to remove these foreign government-induced distortions. In addition, the group asserted that the nature of foreign markets and of US food and fiber exports are such that in the absence of some government support, such activities would not be done. Since these activities have a positive impact on foreign market development and on the ability of US products to penetrate these markets, the group believed continued government assistance is justified. Activities such as market development show a high return for each dollar spent and the benefits are spread widely throughout the domestic economy in terms of income and employment. The Working Group believes that a withdrawal of government from all of these activities would be a serious blow to the US export position.

The group recognized that one of the prices paid for opening foreign markets is more competition in the U.S.' own markets. It suggested that as a minimum the government should insure that US producers are not handicapped by regulations and costly restrictions that their competitors do not face, and therefore, efforts should be made to insure that US concerns for environment, food safety and related issues be met in the most cost effective way. The Working Group did not believe that attempting to raise protection levels would be productive, but felt strongly that the government should insure that exporters to the U.S. abide by the rules of trade agreements.

The U.S. should vigorously pursue its trade rights under international agreements to open foreign markets and remove unfair competition, according to the Working Group. Group members were especially concerned about the adverse impact of government-sanctioned single seller organizations that have the ability to use price discrimination and target markets. The Working Group endorsed the use of unilateral action to end unfair trading practices and the use of appropriate retaliatory action to deal with unfair trade practices by other countries.

The group identified a number of alternative policies that would increase the competitive position of US exports. It suggested that a thorough examination of US domestic policies for their impact on competitiveness would pay high dividends. In some cases it will be necessary to have substantial changes in policies in order for US producers to be competitive, and producers may be reluctant to accept the necessary changes in the absence of some kind of safety net. In other cases, the Working Group felt there were major gains to be achieved by removing some of

the policies that are outdated or that work at cross purposes. The group also suggested that there should be a careful review of US export policies to see if they are designed to fit the current situation. In addition, it emphasized that there could be a high payoff to some publicly-funded research on the issues related to international trade and marketing.

Finally, the group examined the question of whether the present allocation of spending on export assistance is optimal. Some group members felt that, even after the GATT-induced rollbacks in direct export subsidies, too much will be spent on direct export subsidies that are aimed at short-run market share for a limited number of products and not enough will be spent on long-run market development activities for high value products that generate more domestic employment and income as they are exported. On the other hand, supporters of direct export subsidies argue they are still needed to counter the actions of other governments in a highly imperfect world.

I. Introduction

This is the report of the Working Group On International Trade and Marketing, one of six groups convened by the National Center for Food and Agricultural Policy and the Hubert H. Humphrey Institute For Public Affairs as part of a project to help promote a more enlightened discussion for the 1995 Farm Bill. The working group consisted of 12 persons who represent commodity groups involved in international trade, farm organizations, cooperatives, private firms involved in international marketing, and academics with experience in international trade.

The Working Group was asked to: (1) identify the key issues relating to international trade that should receive attention in the 1995 Farm Bill, (2) describe options that should be seriously considered to address these issues, and (3) lay out the implications of following each of the options. The group held three one-day meetings and exchanged and reviewed extensive materials to produce this report.

In considering the implications of following the various options, the Working Group used the following criteria for evaluating and comparing the alternatives:

1. What effect would the option have on the value of agricultural exports?
2. What effect would the option have on the value of agricultural imports?
3. What effect would the option have on federal spending for assistance to the food and fiber sector?
4. What effect would the option have on the income of the sector?

II. The Modern Food and Fiber Industry in the US Economic System

Most Americans do not appreciate that the modern US food and fiber system is a capital-intensive, sophisticated, "high tech" system that meets the changing demands and tastes of 250 million Americans and also increasingly serves millions of customers around the world. US consumers spend on average only 11 percent of their income for food. The demand for food changes as families and countries get richer, and after incomes have reached a certain point additional income changes bring very little increase in demand for food.

Personal income in the United States has been at the level where income growth adds little to demand for food for some time. However, the efficient production and marketing system built by the U.S. can also be competitive in foreign markets, given the right opportunity. Starting from a limited base of exporting a few raw commodities in early years, the U.S. developed an international market for a broad array of its food and fiber products. In the last two decades

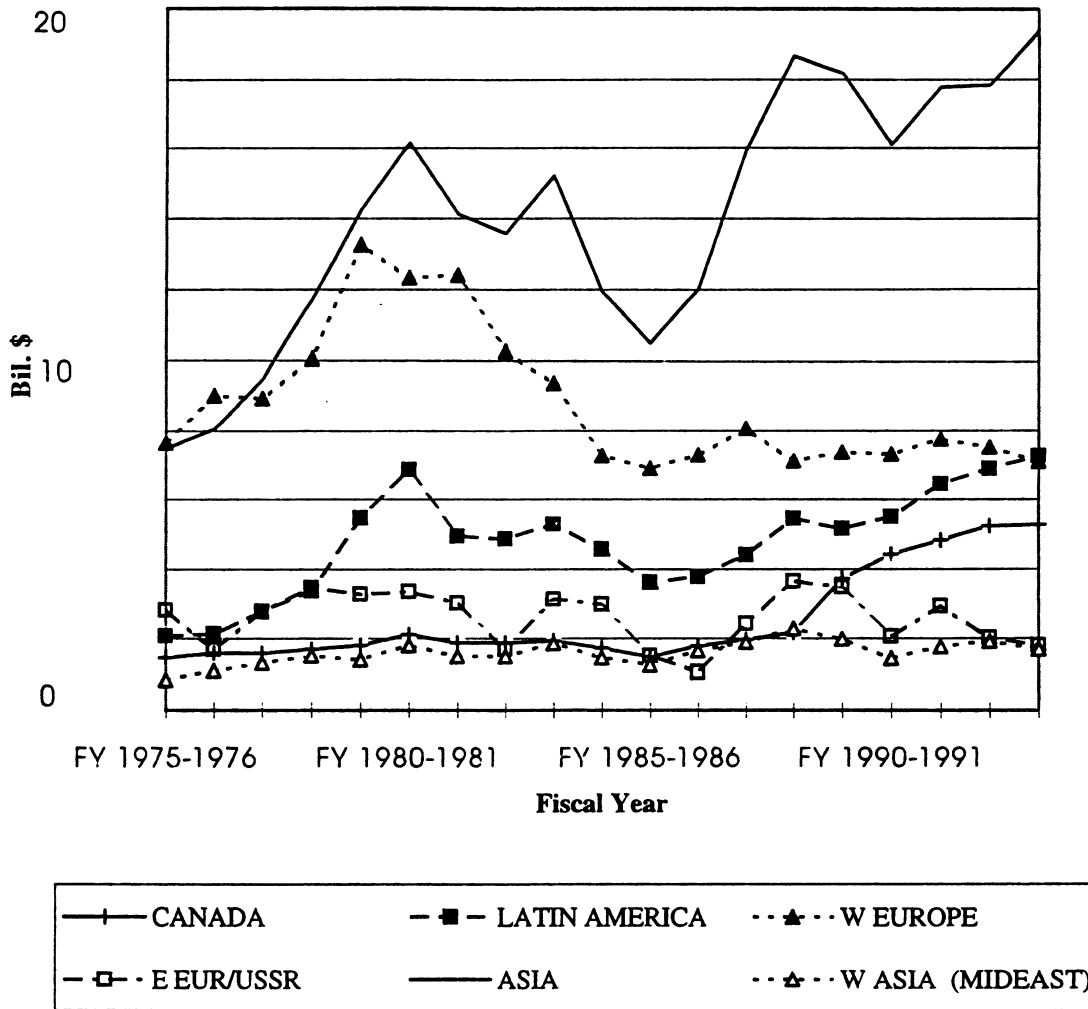
international trade has become a major factor in the economic health of the US food and fiber industry. This expansion of agricultural trade has been of tremendous benefit to the economy at large. The production, processing, and marketing of food and fiber products for international markets has provided new jobs, increased profits for the firms involved, and augmented foreign exchange earnings (which allow US consumers to buy products from abroad). Thus, it is in the national interest and is sound public policy to take actions to maintain or increase US international competitiveness.

Exports of US food and fiber faced a crisis in the 1980s and a series of emergency policy measures were adopted. Now, a decade after the worst of the crisis, it appears that the situation has turned around, and some are suggesting it is time for the federal government to withdraw from programs that aim to assist exports. Part of the objective of this review and report is to examine the situation and to assess what direction different policies might take the U.S. in terms of this vital national interest.

Changing Markets

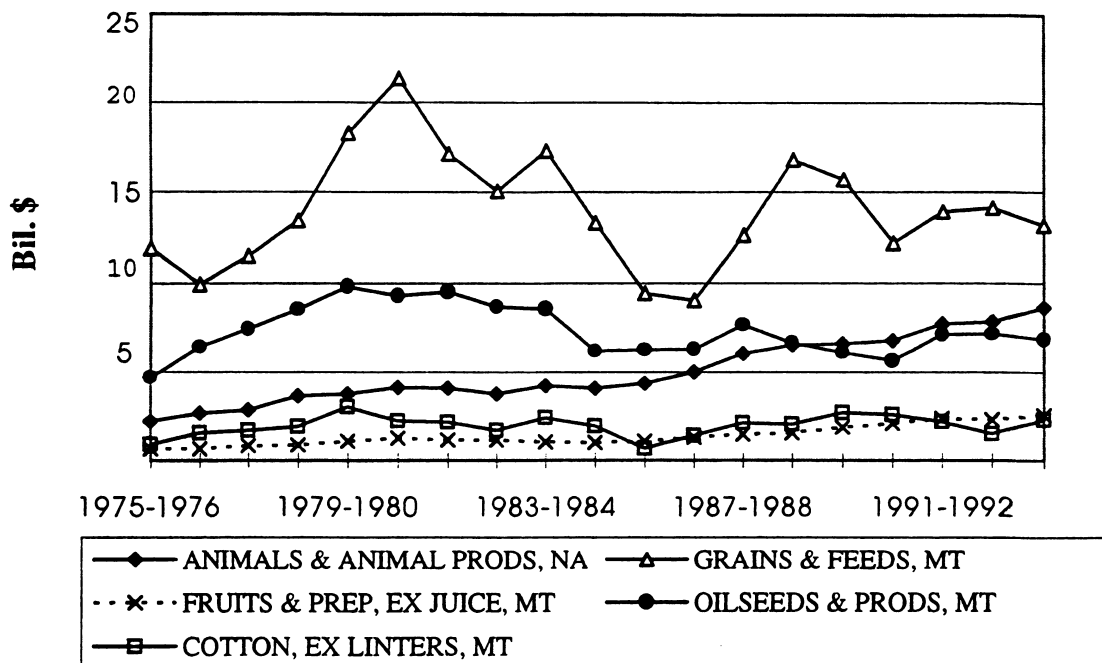
As will be discussed later, the Former Soviet Union (FSU) market which helped set off the US export boom in the 1970s has largely disappeared as a commercial market. However, new markets have appeared and agricultural exports have been expanding slowly but steadily since their low in 1985-86. Twenty years ago the U.S. was exporting \$22.7 billion of farm products--about half of which was going to Western Europe, Eastern Europe, or the Soviet Union. All of Asia was importing \$7.5 billion and nearly half of that was to Japan. China imported a little over \$2 billion. Now the picture has changed. In 1993-94 total exports to Western Europe are less than they were 20 years ago as are those to Eastern Europe, but the \$7 billion market in Asia has grown to over \$19 billion. Japan accounts for \$9.2 billion, more than all of Europe, and China has become a billion dollar market for US farm products. Other areas have also taken more US exports. The \$2 billion Latin American market of 20 years ago has become a \$7.2 billion market, with Mexico leading the expansion. Canada has grown from a \$1.4 billion market to a \$5.3 billion market in the same period. Thus, despite a stagnant or declining market in Europe and the FSU, US agricultural exports are expanding (Figure 1).

Figure 1.
US Agricultural Exports to Major Regions, 1975-1994



There has also been a quiet revolution in the composition of US agricultural exports. Twenty years ago animals and animal products made up only 10 percent of US agricultural exports. In 1993-94 they made up almost 20 percent of \$43.5 billion worth of exports. Grains and feeds made up half of US exports in 1975-76. In 1993-94 they had risen only slightly in absolute terms and had fallen to less than a third of US export earnings. There have also been marked increases in the share of exports of fruits and fruit juices, vegetables and preparations, while export values of tobacco and oilseeds have remained static, at levels no higher than the 1970s (Figure 2).

Figure 2.
Major US Exports by Product Type, 1975-1994



An examination of the leveling off of traditional markets and the changes in product mix indicate that the future market growth for food and fiber products is likely to be in developing countries where population and income growth will drive huge increases in demand for higher quality foods. This means that the future well-being of the US food and fiber industry will be heavily determined by the success of these developing countries in achieving and maintaining strong growth in per capita incomes. While the Farm Bill is not the place where US policy for foreign assistance is determined, it should be remembered that in the absence of world income growth, no set of government or private programs can keep the US food and fiber industry healthy. Therefore, a strategy for long-term market development is a legitimate and essential component of a sound policy for the US food and fiber sector.

III. An Historical Perspective

Most observers of the modern US food and fiber system do not realize that the heavy emphasis on international markets is a relatively recent phenomenon. Of course, the export of some crops such as tobacco, cotton, and wheat were features of US development in the 19th century, but apart from these few products the U.S.' heritage was not as a producer for foreign markets. During the 1930s and 1940s, US policies were aimed at a food and fiber sector that focused on domestic markets as the foreign markets dried up because of world-wide depression and then war.

The basic approach to US agricultural policy was laid out in the 1930s. That policy direction is still apparent for some commodities. It involved the provision of government price supports to maintain internal prices at levels satisfactory to farmers, border protection against low-cost imports, and production controls to avoid surpluses beyond the demands of domestic consumers. If surplus production occurred, there was a provision for the use of direct export subsidies to allow for exports into world markets if lower prices existed.

The U.S. was so convinced of the correctness of this agricultural policy model that it insisted the original rules for GATT be written to accommodate such policies. The U.S. also urged that countries be allowed to maintain import quotas if the product in question had domestic production controls. Later, when imports threatened the domestic price support program for dairy products, the U.S. demanded a special waiver from GATT rules (known as the Section 22 waiver) which allowed the U.S. to impose quotas whenever imports threatened domestic support programs. This temporary waiver was granted in 1955, and remains in place until the new Uruguay Round agreement takes effect in 1995.

The U.S. also insisted on rules for agriculture in the original GATT agreement that allowed a country to use export subsidies for agricultural products whereas they were prohibited for other products. However, for most products there was not an emphasis on foreign markets and therefore, the use of export subsidies by the U.S. was limited to a few commodities, primarily where surpluses built up under price support programs.

This policy was possible for several reasons. First, the U.S. provided a huge and prosperous domestic market for farm products. World War II and the postwar boom in birthrates, employment and incomes provided a huge expanding market for farm products in the U.S. while other industrial countries were struggling to recover from wartime devastation and developing countries had not yet begun their economic growth. The policy was also possible because the lengthy depression and war had prevented or slowed the large increases in investment and productivity which would have such an impact on US agriculture in subsequent decades.

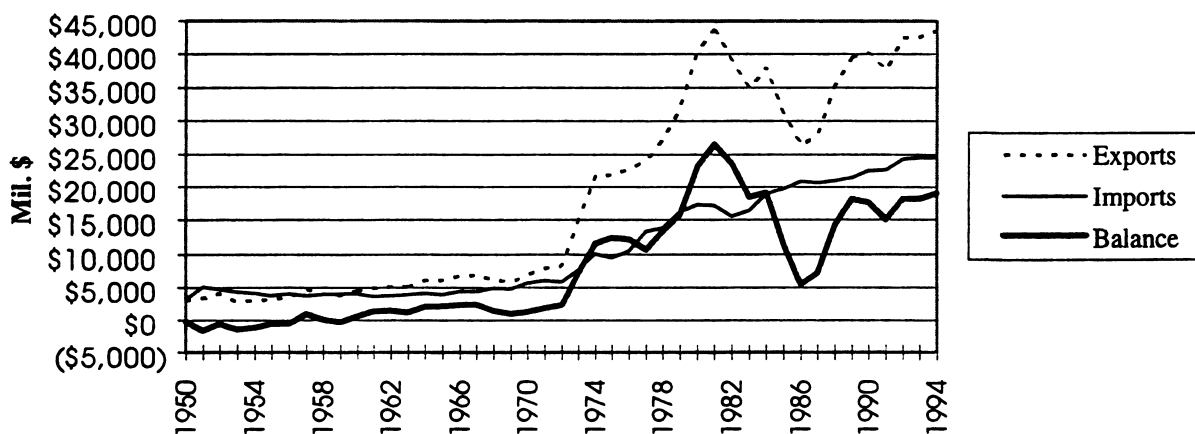
The imbalance between domestic demand and supply began to emerge in the 1950s as surpluses developed in some supported commodities. Since there was substantial opposition to domestic policy reform, the U.S. embarked upon its first surplus disposal program. In 1954 Public Law 480 was passed. It provided for a surplus disposal program in the form of farm products to be sold to developing countries for local currency. The accumulated currency was to be used for economic development, market development for US farm products, and scientific exchange. The same law also began the first market development programs with private sector groups called cooperators and provided a mandate for the Foreign Agricultural Service to engage in market development and promotion activities.

Despite these beginnings of an export policy, the real thrust in that direction came in the early 1960s as a result of a major watershed in domestic policy. The Kennedy Administration

confronted farmers and the Congress with a major policy choice. Either the producers of supported commodities had to be willing to accept effective production controls to limit output to quantities that domestic markets could absorb, or domestic support levels had to be reduced enough to allow domestic surpluses to be sold abroad. The producers of wheat, feedgrains, cotton and rice chose to move to a system of lower domestic support levels and direct government payments to producers to supplement their incomes. The producers of tobacco and peanuts chose to continue their policies of high domestic supports and restrictive domestic production controls. Dairy producers chose to continue the system of price supports above world market levels, but avoided production controls by various policies to reduce production if surpluses developed and the use of surplus disposal programs at home and abroad when surpluses occurred.

It should be noted that the U.S. did not have a positive balance of payments for agricultural products, apart from a brief period during WWII, until the mid-1960s (Figure 3).

Figure 3.
US Exports and Imports of Agricultural Products



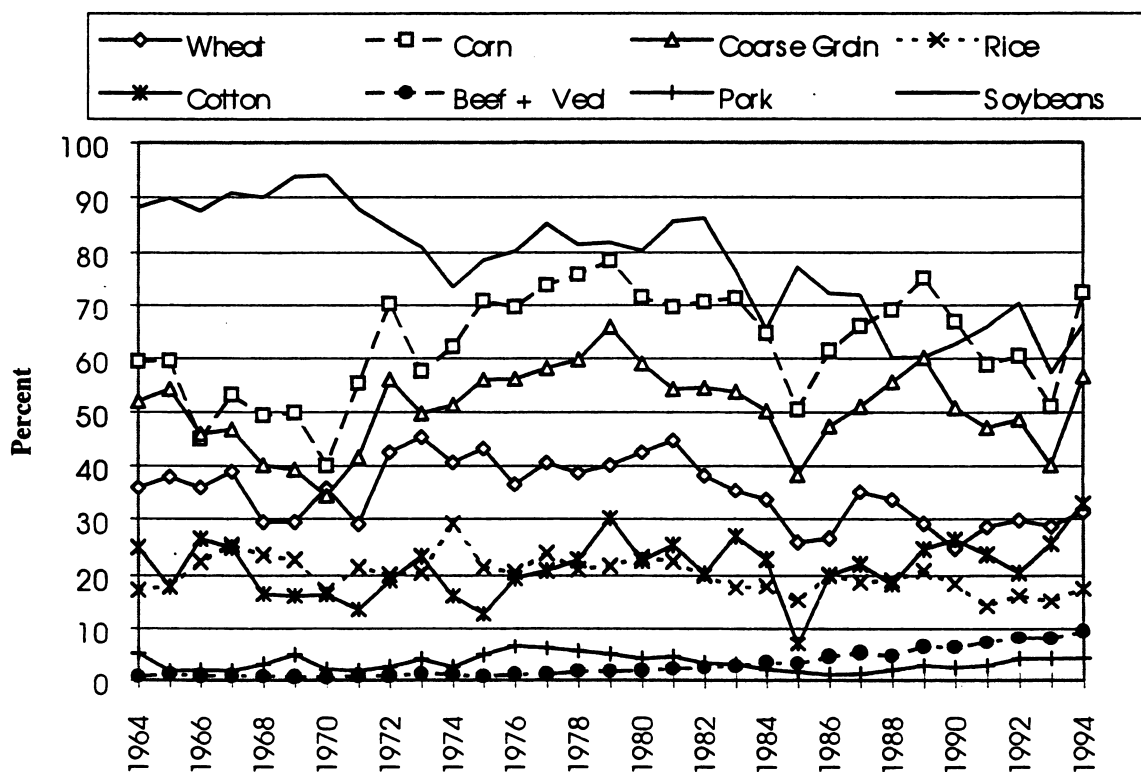
The shift in US domestic policy occurred at a time when there were major changes taking place in the world economy. The economies of Western Europe and Japan were booming, and a number of developing countries were beginning rapid economic growth to accompany their growth in population. In 1973 the U.S. devalued its currency by abandoning the gold standard that had been the anchor for fixed exchange rates since WWII. This had the effect of lowering US prices to foreign buyers.

During the same time period, the combination of economic growth in developing countries, the failure of Soviet agricultural policy, and worldwide monetary boom led to an explosion in world trade in the late 1960s and 1970s. The U.S. was in a unique position to capture a major share of this market expansion with its efficient, underutilized agricultural production capacity, its competitive pricing for most products, its extraordinary internal transport system, and its large number of multinational corporations, which were willing and able to develop international marketing systems.

In retrospect, the 1970s were a unique period in US export marketing. Exports of US farm products expanded at a dazzling pace with limited government assistance in the form of Commodity Credit Corporation (CCC) credit and a modest cooperator program of market development. Congress apparently did not realize that these market conditions could change and the U.S. could price itself out of world markets again as it had in the 1950s. Price support levels were raised in 1977, 1979, 1980, and in the 1981 Farm Bill.

In 1981 and 1982 the growth of most developing countries came to a halt and, as their debt burden overwhelmed them, many fell into a downward income spiral that was to last throughout most of the decade. At the same time, the countries of Central and Eastern Europe which had built their prosperity and imports on external debt also began to totter. As a result, world trade in major agricultural products actually contracted for the first time in several decades. The problem was exacerbated by a major over-valuation of the US dollar resulting from the mix of loose fiscal policy and tight monetary policy that depended on major inflows of foreign capital to finance a ballooning federal budget deficit. The prices of products in world markets fell to the lowest levels in real terms since the Great Depression, and the higher US support prices prevented it from competing effectively in the shrinking markets for many products. This combination of events resulted in the U.S. losing market share in a shrinking market (Figure 4).

Figure 4.
US Percent of World Trade for Selected Commodities



The impact of these sharp changes in the international market together with high domestic real interest rates brought the first major collapse in the price of US agricultural assets since the 1930s. The fall in land prices, high interest rates, and lower product prices brought extreme distress to those farmers that were over-extended, or who had invested in assets at speculative prices. There were serious side effects on farm suppliers, owners of export facilities, and rural lenders. At first, policy makers tried to combat the problem with a return to the old approach. A massive land-retirement program in 1983, combined with a major drought, caused the U.S. to have short crops and the resulting higher prices caused it to further withdraw from world markets. There was serious discussion of withdrawing from competing in world markets and reverting to domestic farm programs that control production and depend largely on domestic markets. However, after a sharp debate it was concluded that the U.S. could not afford to allow so many productive resources to go unused, and attention turned to the issue of returning the U.S. to its competitive position in world markets.

In the 1985 Farm Bill the Congress set out to address the problem of the US inability to compete in world markets. First, price-support levels on the major export commodities were reduced. Second, the use of direct export subsidies was authorized to combat those of competitors that were expanding market share in world markets. Third, new programs of export assistance were approved for products and companies that faced unfair competition in export markets.

Also, the Congress authorized three trade negotiations, the Canada-US agreement, the North American Free Trade Agreement (NAFTA), and the Uruguay Round of multilateral negotiations. Three successive administrations used these authorizations to open foreign markets for US farm products, and to negotiate limits on the use of government price subsidies to compete in international markets.

Thus, in the mid-1990s there exist a series of policies developed over nearly half a century to assist and expand US agricultural exports. It is now time to review and reassess these policies in light of current events and future prospects.

There are four types of programs designed to assist agricultural exports. They are:

1. Food aid programs.
2. Foreign market development and export promotion programs.
3. Government-backed export credit programs.
4. Export subsidy programs that reduce prices to foreign buyers.

Food Aid Programs

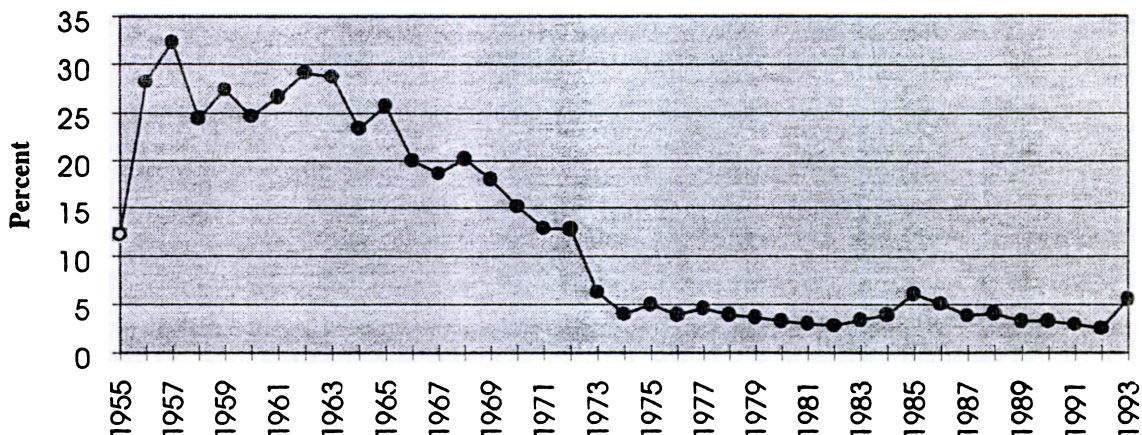
In 1954, the 83rd Congress enacted the Agricultural Trade Development and Assistance Act (PL 83-480) establishing the US international food assistance program commonly referred to as PL 480 or the Food For Peace Program. The legislation envisioned a program to help meet urgent humanitarian food needs and to support agricultural marketing goals through the use of US surplus agricultural commodities. Since its creation, PL 480 has been an important component of US agricultural and foreign policy. Its multiple objectives (humanitarian feeding, market and economic development, and foreign policy) created a complex program under which goals and emphasis shifted as conditions changed.

The program was divided into three titles. Title I authorized the sale of US farm products for foreign currencies. The local currencies were used to finance activities in the country concerned. Title II authorized government to government food donations to meet famine and other emergency humanitarian needs. Title III provided for the barter of surplus commodities for strategic materials. In accordance with the Cargo Preference Act of 1954 (PL 83-664), 50 percent of all food aid cargoes had to be shipped on vessels registered in the United States.

As Figure 5 shows, PL 480 and related programs played an important role in US agricultural exports for a number of years. From its inception through the mid-1960s PL 480 accounted for a fifth or more of the value of US agricultural exports. However, in the 1970s, changes in the program and in world conditions sharply reduced the importance of PL 480 to the total export picture.

Figure 5.

Percent of US Agricultural Exports Moving Under PL 480



In 1973, facing diminished global stocks and a sudden surge in world trade, agricultural commodity prices rose sharply making food imports more expensive. At the same time, increased US commercial exports, especially to the Soviet Union, reduced the availability of surplus agricultural commodities for export under PL 480. With fixed budget appropriations PL 480

shipments declined as prices rose. Food aid shipments fell from 9.9 million tons in 1972 to 3.3 million tons in 1974. Although they subsequently rebounded, they never reached the levels of the 1960s when 15 million tons of food aid were shipped annually.

Program changes in the 1970s reflected an increasing emphasis on advancing the development of poor countries. The International Development and Food Assistance Act of 1977 (PL 95-88) added a new program called Food For Development, under a completely revised Title III. This program was created to encourage countries to use the proceeds from sales of Title I commodities to support agriculture and rural development projects, nutrition and health services, and population planning

By the early 1980s, the international economic and political climate had undergone changes which affected PL 480 programs. Once again policy makers turned to food aid and export subsidy programs to help reduce the rising surpluses. The most significant change made to the US food aid programs was made in the Food Security Act of 1985 which authorized a new multi-year program named Food For Progress. This was to assist developing countries committed to market-oriented agricultural policy reform. Title I was amended to allow for foreign currency sales again. The minimum tonnage under Title II was raised to 1.9 million tons with a minimum of 1.425 million to be distributed through private organizations and the World Food Program. Cargo preference requirements were raised to 75 percent.

In the late 1980s, international policy conditions generated pressures for further changes. The 1990 Food, Agriculture, Conservation and Trade Act (FACT) revised food assistance programs to change the policy objective to promote US foreign policy by enhancing the food security of friendly developing countries. Policy emphasis was shifted away from commercial market development and surplus disposal toward food security, hunger relief, and economic development. The Secretary of Agriculture was given the sole responsibility for Title I sales, and the Administrator of USAID was given authority to execute Titles II and III.

The export boom of the 1970s sharply diminished the importance of PL 480 in agricultural exports. PL 480 exports fell to less than 4 percent of all exports in the 1970s. Over time there has been a shift away from Title I sales and a relative increase in Title II programs. The private voluntary organizations implementing Title II have been increasingly focused on increasing incomes, which has implications for long term market development. There has been a real tension between these programs because shifting food to meet the escalating demands of emergency programs disrupts longer-term development activities. There has also been some shift in program destinations of the overall food assistance program. In the early days, food assistance programs were spread widely among developing countries but later became focused on Egypt, the countries of the former Soviet Union, and sub-Saharan Africa.

From the beginning, PL 480 programs have focused heavily on the export of grains and grain products, primarily wheat, wheat flour, and rice. They also have provide vegetable oils and some processed products, in part because the Congress has enacted a minimum for inclusion of

processed food products. Thus, while the programs have declined in significance insofar as total exports are concerned, they are still important for some commodities and some products.

In recent years the funding for PL 480 and Food For Progress programs has been running at slightly under \$1.5 billion, and is scheduled for reduction in the 1996 budget submitted by the President. The lower funding level would provide for about 3.4 million tons of food, compared to the 4.6 million tons originally budgeted for the 1995 fiscal year. The Food For Progress program is being maintained at its recent levels.

The Foreign Market Development Programs

Market development programs boost exports of US agricultural and food products by expanding foreign consumer and industry demand for US products. This is accomplished through promotional activities such as advertising, nutritional information, store promotions, technical assistance, and trade servicing. USDA's Foreign Agricultural Service (FAS) currently operates two non-price market development programs: the Foreign Market Development Program (FMD or Cooperator Program) and the Market Promotion Program (MPP).

Funding for the FMD was first authorized in 1954 under section 104 of the Agricultural Trade Development and Assistance Act. The Market Promotion Program (MPP) was authorized in the 1990 FACT Act. From each program's respective authorizing legislation, the FMD and MPP are expected to encourage the development, maintenance, and expansion of commercial export markets for agricultural commodities. Changes in the 1990 FACT Act gave priority for MPP funding to organizations demonstrating the incidence of an unfair trade practice. This continued the legacy of the Targeted Export Assistance (TEA) Program which was first authorized in 1985. The Budget Reconciliation Act of 1993 (for fiscal 1994 appropriations) required all MPP applicants, with the exception of small-sized firms, to demonstrate the incidence of an unfair trade practice to receive MPP funding. However, the implementing legislation for the Uruguay Round agreement eliminates this legislative requirement for MPP funds.

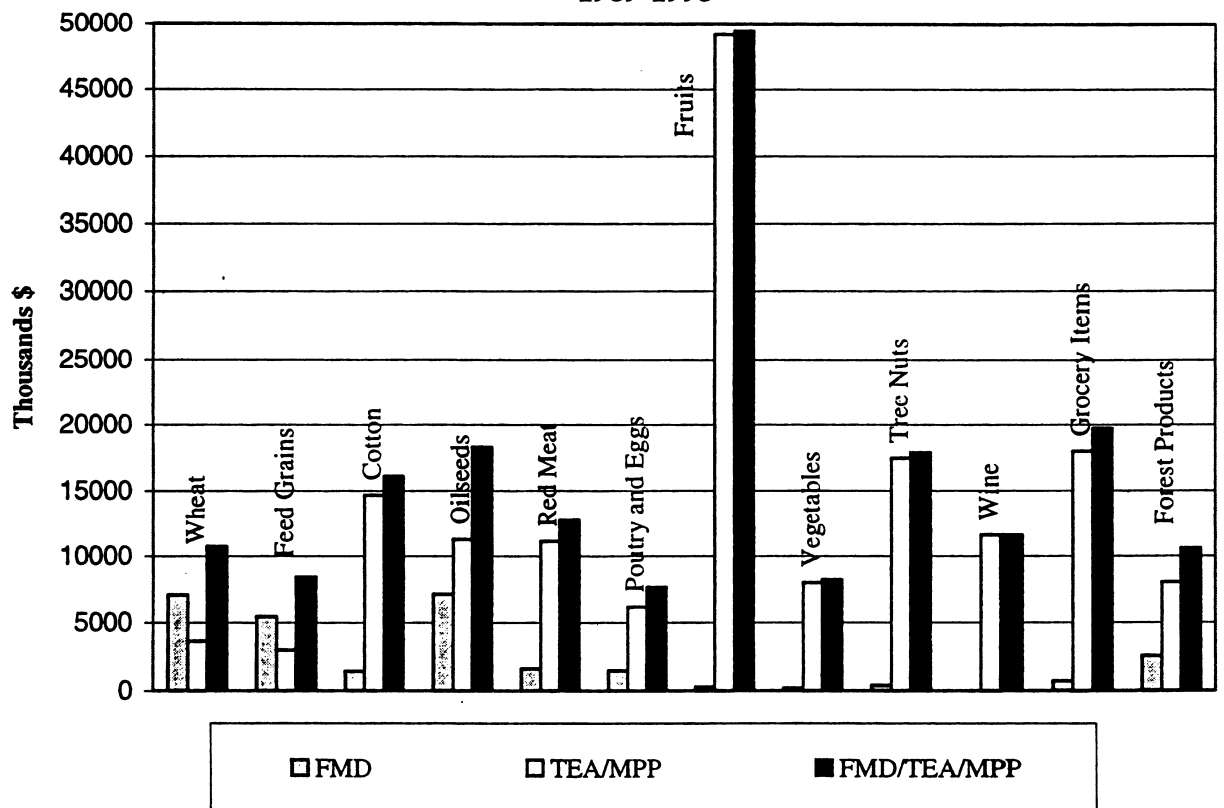
Export market development program activities are conducted by organizations of commodity producers (such as the Washington State Apple Commission), regional organizations of state departments of agriculture (for example, the Western United States Agricultural Trade Association), and private companies. FMD funding is aimed chiefly at nonprofit commodity organizations that promote generic products such as wheat or beef produced in the U.S. In contrast, close to 40 percent of MPP funds are invested in jointly-funded corporate promotions for branded products. FMD funding also may assist generic commodity organizations to maintain their foreign offices.

The FMD is considered part of the annual FAS budget, while the MPP is a separate budget item funded by the Commodity Credit Corporation (CCC). Funding levels (expenditures) for the FMD have remained relatively constant, averaging about \$30 million since 1985. Annual

MPP funding was steady between 1989 and 1992, but began to dip in fiscal 1993. The 1995 MPP appropriation of \$85.5 million is less than half the annual MPP appropriation for 1989 through 1992.

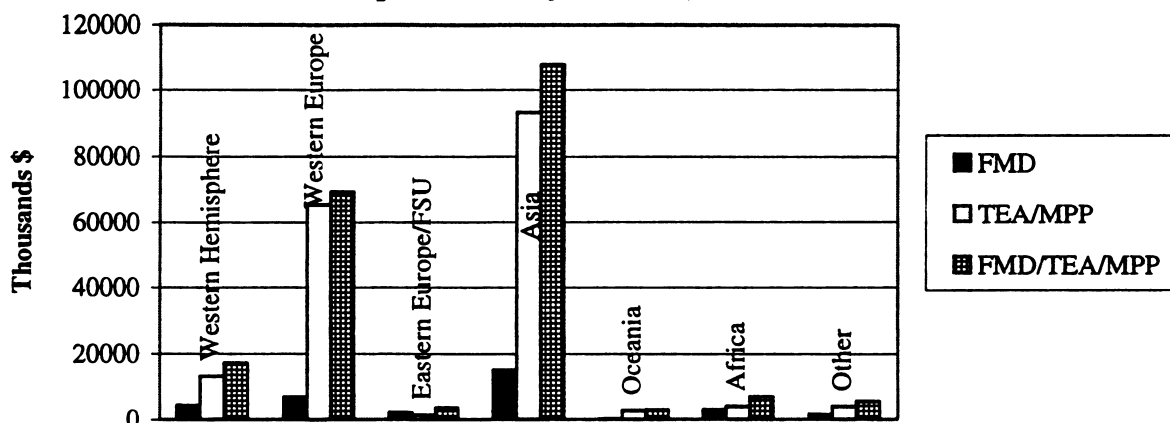
The FMD and the MPP assist in promoting a multitude of agricultural products (Figures 6&7). From 1989 through 1993, 70 percent of FMD funds helped develop markets for grains and oilseeds. Close to 80 percent of MPP (and TEA) funds contributed to promotions of non-bulk, or higher-value products such as meats, fruits, vegetables, tree nuts, and packaged grocery products.

Figure 6.
Foreign Market Development, TEA/Market Promotion Programs: Averages
1989-1993



In the late 1980s and early 1990s, FMD and MPP funding went primarily to Japan and other East Asian countries and Western Europe. Since 1992, program participants have begun to explore market opportunities in Mexico, the Caribbean, and Canada where recent trade agreements have increased market access (Figure 7).

Figure 7.
**Foreign Market Development and Market Promotion Program
 Expenditures by Markets, 1989-1993**



Export Credit Guarantees

Many foreign importers face foreign exchange constraints and need credit to purchase food. To help US exporters meet this need, the Commodity Credit Corporation (CCC) operates the Export Credit Guarantee Program (commonly known as GSM-102, after the General Sales Manager's office which operates the program) and the Intermediate Export Credit Guarantee Program (known as the GSM-103 program). The GSM-102 program is the largest agricultural export assistance program in the United States.

Under the programs, the CCC typically guarantees repayment of 98 percent of the principal and a portion of the interest on credit extended for specified US agricultural commodities to selected markets. The GSM-102 program covers private credit extended for up to three years, while the GSM-103 program covers private credit extended for three to ten years. The programs encourage creditors to participate since CCC assumes most of the risk of non-repayment. The programs allow exporters to arrange commercial financing for their sales at lower interest rates than those which importers may otherwise find. Some importers may be unable to obtain credit without a credit guarantee. If the buyers default on their payments to the lending institutions, the CCC assumes the guarantee to the banks and the responsibility to collect the debt. The program is sometimes used in conjunction with the price subsidy programs discussed below.

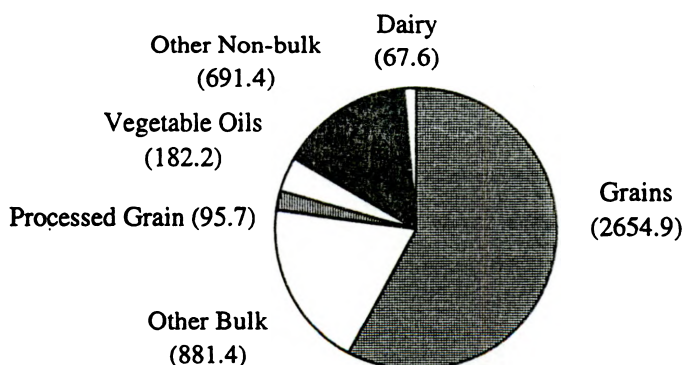
The FACT Act of 1990 included several significant provisions related to the CCC credit guarantee programs. First, the CCC could not offer credit guarantees to any country that the Secretary determined could not adequately service the debt associated with the sale. Second, the Act stipulated that credit guarantees cannot cover financing for the foreign content of an exported

product under the programs. The programs' exemption from cargo preference provisions was made explicit. The FACT Act also reauthorized the Short-Term Direct Credit Sales Program and the Intermediate-Term Direct Credit Sales Program, although these programs have not been implemented. At least \$1 billion for fiscal years 1991-95 was to be made available to emerging democracies under the export credit guarantee programs.

Program levels of the CCC credit guarantee programs have been stable between fiscal year 1989 and 1994 at a minimum of \$5 billion under the GSM-102 program, \$500 million under the GSM-103 program, and since 1991, \$200 million per year for emerging democracies. However, use of the program has varied because of the mix of program participants, credit needs of importers, and competitors' sales offers. The net cost of the export credit program to the federal budget cannot be calculated accurately. If buyers repay their credits on schedule there is no significant cost to the federal government. On the other hand, if borrowers default and reschedule the debt, as some foreign borrowers have in the past, the credit guarantee becomes a major subsidy to the importer that had the guarantee.

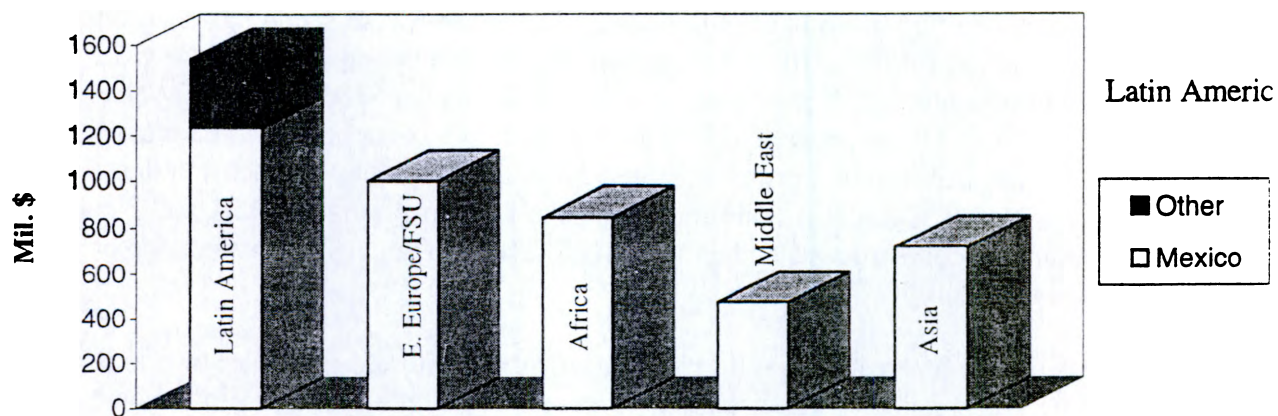
About 90 different commodities have been shipped under the GSM-102/103 programs since fiscal 1989, ranging from almonds to yeast (Figure 8). Grains and oilseeds (mostly wheat and soybeans) have accounted for more than two-thirds, although significant amounts of oilseed meals and oils are also sold under the programs. Between fiscal 1989 and 1993, slightly more than 10 percent of total US agricultural exports were shipped under the programs.

Figure 8.
**Commodity Shipments Under the GSM 102/103 Programs:
 Average 1989-1993 (Million Dollars)**



Since fiscal 1989, over 40 countries participated in the GSM-102/103 programs, including five of the top 15 US agricultural export markets (Figure 9). Latin America and Eastern Europe, including the FSU, accounted for about half of program shipments over the fiscal 1989-93 period. Countries reliant on CCC credit guarantees for more than half their 1993 US agricultural imports were Algeria, Morocco, Trinidad and Tobago, and Pakistan.

Figure 9.
Countries and Regions Under the GSM Programs: Average 1989-1993



Export Price Subsidies

Since the time it was chartered, the CCC has had the authority to use export subsidies to export US agricultural products. These subsidies were used on an intermittent basis for a number of products in the 1950s, and were used on a regular basis to export wheat in the 1960s. The grain sales to the Soviet Union that set off the great export boom of the 1970s were sold using price subsidies. Starting from that time, and for the period into the mid-1980s, export subsidies were not used as a policy to expand exports. The primary US export price subsidy program currently in use is the Export Enhancement Program (EEP). Smaller programs are the Dairy Export Incentive Program (DEIP) and the Cottonseed Oil and Sunflowerseed Oil Assistance Programs (COAP and SOAP). The CCC also makes export sales of dairy products at world prices from its inventories accumulated under price support programs.

The chief objectives of the EEP, as authorized in the 1985 Food Security Act, were to increase US agricultural exports, challenge competitors who subsidize their exports, and encourage US trading partners to begin serious trade negotiations on agricultural trade problems. The DEIP also was authorized under the 1985 Act. Monies were made available from Section 32 of PL 74-320 (1935) for the COAP and SOAP under the 1988 Rural Development, Agriculture, and Related Agencies Act.

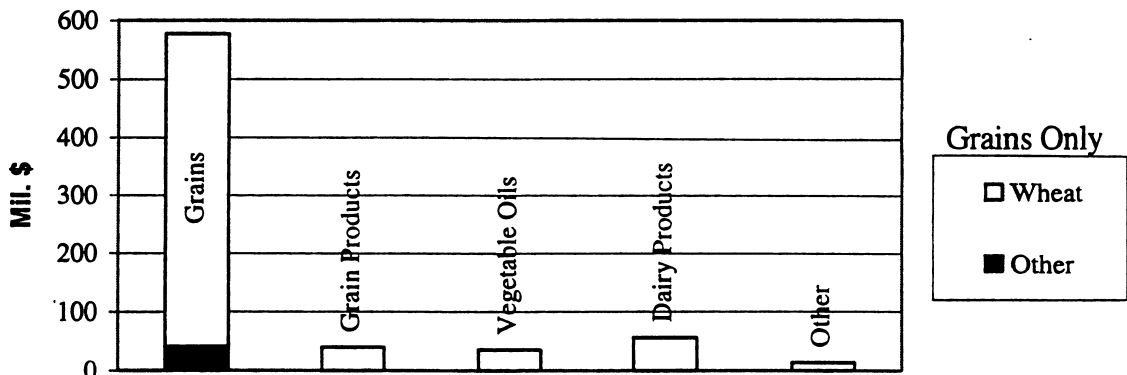
All of the export price subsidy programs were reauthorized and extended in the 1990 FACT Act. This act made the countering of unfair trade practices the primary focus of the EEP and established a minimum funding level of \$500 million annually for the program. A funding level of \$50 million annually from Section 32 funds was established for the COAP and SOAP

programs together. However, the legislation approving the Uruguay Round removed the requirement that unfair trade practices be a condition of these programs' use.

Since 1985, Congress has rarely capped EEP spending. However, for fiscal 1995, Congress limited EEP spending to \$800 million. EEP expenditures for fiscal 1994 were at an historic high of \$1.15 billion. For fiscal 1995, COAP and SOAP spending was limited to \$26.5 million. Funding for the DEIP is not appropriated separately, but is part of the CCC dairy budget. Annual spending for DEIP grew sharply in the 1990s to over \$100 million per year. Again, the net budget cost of these programs is difficult to calculate. Proponents argue that the export subsidies raise US domestic prices and thus reduce the deficiency payments under the target price program and the CCC acquisitions under the dairy support program. Thus, the Congressional Budget Office scores them as budget neutral or having no net cost. Most outside observers judge them less favorably.

Almost 80 percent of export price subsidy expenditures assist sales of grains, while the remaining 20 percent of program expenditures assist non-bulk products such as barley malt, canned peaches, dairy products, eggs, flour, frozen poultry, and vegetable oils (Figure 10). The chief commodity sold with EEP bonuses is wheat, which accounted for 73 percent of subsidy expenditures from 1989 through 1993. Dairy products account for the second largest category of subsidy expenditures, followed by vegetable oils.

Figure 10.
Export Price Subsidy Program Sales by Commodity, 1989-1993

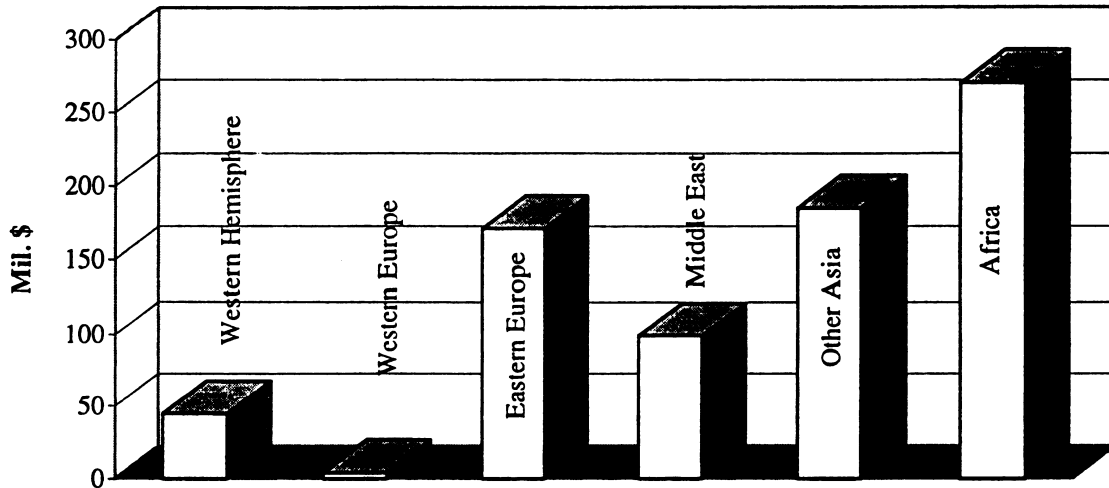


The value of commodities sold under price subsidy programs was less than 3 percent of US export value in 1993, but played a major role in US exports of barley, eggs, grain products, vegetable oils, and wheat. For example, the EEP was used for 60 percent of wheat exports, 93 percent of barley exports, 55 percent of wheat flour exports, and 70 percent of egg exports in 1993. The EEP, COAP, and SOAP combined were used for 73 percent of cottonseed, soybean, and sunflowerseed oil exports.

The primary markets where US price subsidy programs were used from 1989 through 1993 were the former Soviet Union (FSU), China, and the North African countries of Algeria and

Egypt (Figure 11). Some EEP, COAP, SOAP, and DEIP sales are also made using the CCC's export credit programs as well as export subsidies.

Figure 11.
Major Export Markets for US Price Subsidy Programs



IV. The Current Setting

There are several new realities which will need to be considered when formulating export policy for the future in the Farm Bill. These include the recently completed Uruguay Round agreement in agriculture, commonly referred to as the GATT agreement, the political and economic collapse of the former Soviet Union, and rising pressure to reduce federal spending.

The GATT agreement

The GATT agreement is a long and complicated document. For the purposes of this discussion we will concentrate on the changes it requires in US policies. First, it requires the U.S. to convert the Section 22 import quotas maintained for several supported products to tariffs. The products mainly affected are manufactured dairy products, peanuts, cotton, and sugar. The U.S. agreed to switch to a tariff-quota system that will allow a specified minimum import level of products. For some products such as cotton and peanuts, where imports had previously been prohibited, imports of three percent of domestic consumption must be allowed immediately. In six years the level rises to five percent. For dairy products, where imports already existed, quotas on some specific products will have to be increased. Sugar and beef imports have to be maintained at 1986-88 levels. Tariffs were reduced for many agricultural products.

The U.S. has also agreed to reduce its spending on direct export subsidies by 36 percent over the next six years, and the volume of subsidized exports must be reduced by 21 percent.

Other countries have to make the same reductions. The export subsidy reductions are on a commodity specific basis, and subsidies cannot be used on any product where they were not used in the 1986-90 base period. Thus, all countries are blocked from initiating new direct export subsidies on products where they had not been previously used. As a result of this agreement, US spending on export subsidies will have to be scaled back by 36 percent for each product.

The GATT agreement establishes a category of export assistance programs that are considered not to be trade distorting. They are generally referred to as "Green Box" programs. These include general market development and trade promotion programs, bona fide food aid programs, and export credit programs. As part of its commitment to the agricultural community at the time of the ratification of the GATT agreement, the Clinton Administration committed to include a minimum level of funding for Green Box programs to replace the direct export subsidy programs that were required to be reduced. The Cooperator Programs, food aid, MPP, and export credits are all considered to be Green Box programs under the GATT agreement.

The GATT agreement includes a commitment to roll back the aggregate expenditures on domestic subsidies by 20 percent, but it will not require any adjustments to US domestic policies as such. However, the limits on the future use of direct export subsidies may cause policy makers to consider alternative ways to improve our competitive position in world markets.

The Collapse of The Soviet Union

Part of the increase in export demand during the 1970s was due to the decision by the leaders of the Soviet Union to expand livestock consumption in the Soviet Union, with the expansion built on imported grains in those years when their domestic production was inadequate. This decision suddenly added to world import demand for grains by a quarter or more. The Soviets especially liked to buy from the U.S. because of its open market, where they could purchase large amounts quickly and secretly, and because of its unparalleled export infrastructure which moves huge grain exports to port on a steady basis. The Soviet Union became a major export outlet for US products, especially grains, and farmers and trade focused on the Soviet market almost to the exclusion of other areas. Starting from no imports from the U.S. in 1970, by 1975-76 the Soviet Union was importing about \$2 billion of agricultural products from the U.S., and 90 percent of it was grains and feeds. At the time, that was just under 10 percent of all US agricultural exports, and 15 percent of all grain and feed exports.

At the end of the 1970s export boom, the Soviet Union had diminished in importance to US trade. In fiscal 1980-81, when exports peaked at just under \$44 billion, the Soviets accounted for \$1.7 billion. In 1984-85 when US exports had fallen to \$31 billion Soviet trade accounted for \$2.5 billion.

Large-scale Soviet imports continued through the 1980s and reached a peak in 1988-89 and 1989-90 when they topped \$3 billion from the U.S., despite our unwillingness to grant export

credit to the Soviet Union. However, during this period the Soviet Union was building up large external debts as its economy continued to deteriorate. Finally, in 1990 Communist party control collapsed and the Soviet Union splintered into 15 independent republics. The ban on CCC credit to the Soviets was lifted in 1991, and the U.S. provided CCC export credit guarantees and export subsidies to underwrite continuing exports to the former Soviet Union (FSU) until export credits were suspended in 1992. During this period the FSU was the second largest recipient of export credit and one of the major beneficiaries of the export subsidy program. After Russia's suspension from the credit program, food aid assistance replaced export credit as the most important means of facilitating exports to the FSU. By fiscal 1993 concessional food aid exports to the FSU had climbed to more than 5 million tons valued at nearly \$1 billion. Most of the aid was used to import grains.

The economies of the FSU have continued their downward spiral. The population of the Newly Independent States (NIS) was faced with sharply declining incomes and rising prices. The consumption of meat and dairy products, which had been most heavily subsidized under the old regime, fell drastically. As a result, the production of meat and dairy products was cut sharply and with it the demand for grains for feed declined markedly. Despite the continuing use of concessional programs, imports by the FSU are falling and true commercial demand has almost totally disappeared.

Every informed observer of the FSU has predicted that the huge export market for bulk commodities to the FSU will disappear for a long time and possibly permanently. Indeed, some have suggested that when the Russian and other economies are reorganized they may become net exporters of farm products. In any case, one of the markets that drove the export expansion of the 1970s has disappeared and is unlikely to reemerge in the near future. This fact has to be considered in discussing US export strategy for the future.

Federal Spending

The third factor affecting US export strategy is the pressure to reduce federal spending. In the 1980s there was a myth that export subsidy programs were essentially free because they were using surplus commodities accumulated under the price support programs as payments in kind to compensate exporters for cutting prices to select foreign customers. Of course, any business that used its inventory to pay bills without showing the inventory reduction as an expense would be driven from the marketplace. However, creative accounting has a long tradition in US farm policy.

It is not technically possible to determine a net budget outlay for export programs for agricultural products. The Administration shows an estimated budget of \$8.2 billion for international program activities. However, \$5.7 billion of that figure is for export credit, which should be paid back and about \$1.3 billion is for food aid programs. Thus, the total net outlay for export programs is slightly over \$1 billion, most of which goes for direct export subsidies.

Supporters of the export programs point out that they reduce the cost of domestic income support policies by increasing domestic prices, thereby reducing the spending needed to meet commitments under entitlement programs such as target price payments. In fact, the Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) score the export subsidy program as saving some money on these payments. It is interesting to note that they do not score the food aid programs or market development activities with the same savings even though many private research findings indicate these programs have a greater impact on exports per dollar expended. It should be noted, apart from the direct export subsidies, the outlay for export assistance programs is much less than for many other federal programs to support agriculture.

V. The Major Issues Relating To International Trade And Marketing

There are five major issues relating to international trade and marketing that need to be addressed in the Farm Bill. They are:

1. Why should federal government assistance be provided in the area of international trade and marketing of agricultural products?
2. What can be done to assist US producers in dealing with increased competition in domestic markets?
3. What can be done to help US producers in foreign markets that are still closed or where unfair competition is still a problem?
4. What can be done by the federal government to help keep US agricultural products competitive in foreign markets?
5. If US government assistance is to be provided to increase exports and to aid US interests in international marketing, what form should the assistance take and who should receive it?

The Working Group discussed each of these issues, identified alternative ways of dealing with them, and discussed the implications of the following alternatives.

VI. Why Should Federal Assistance Be Provided in the Area of Exports and International Marketing?

The first issue that must be faced is the justification for federal assistance in the area of international trade and marketing of agricultural products. This is not to question whether expanding foreign markets for US agricultural products is a necessary and important element to maintain the economic health of the agricultural industry, the input supply industry which serves

it, the export firms that have developed to serve foreign markets, and the farm and nonfarm employment generated by these activities. There is nearly unanimous agreement throughout the food and fiber industry that foreign markets are critical to the sector and to the national economy. The question comes down to whether federal assistance is necessary to maintain and expand foreign markets and to enable US firms to compete in them.

As a starting point, it is necessary to consider the nature of the relevant markets; the types of products that are being exported to those markets; the size and structure of the firms that produce, process and export these products; and the institutional situation in the importing country.

Market growth for food and agricultural products in the future will clearly be driven by developing countries and the so-called Newly Industrialized Countries (NICs). Population growth in Western Europe, Eastern Europe, the FSU, and Japan has slowed so much that the average age of the population is rising. Moreover, in Western Europe and Japan, the food consumption patterns are already those of wealthy consumers and are unlikely to increase food consumption, even with continued income growth.

In many of the developing countries where future market growth can be expected, the majority of the consumers are often unfamiliar with nontraditional foods and imported products. In many cases the importing, processing, and internal marketing systems are not fully developed and are in a state of change and development. Many of those that control the marketing and processing systems have established ties with local products and local producers and are reluctant to change in order to work with unknown and untested products. Often foreign governments intervene in markets in a variety of ways, usually to protect traditional suppliers and local producers.

What needs to be done to successfully penetrate these developing markets? First, it is necessary to be competitive with other potential suppliers. Being competitive means offering products at competitive prices, but it also means furnishing products of a consistent agreed-upon quality, providing products in a consistent and timely fashion (being a reliable supplier), and supplying products consistent with local tastes and demands.

Second, to successfully penetrate these markets, US producers and exporters need to understand foreign consumers' tastes and habits and the complex and often inefficient marketing systems through which their products must be distributed, and must be able to acquaint foreign consumers and importers with the characteristics of US products that make them desirable.

Third, as trade begins to occur and expand there is an ongoing need for trade servicing. This involves responding to importers' concerns about a variety of issues, helping importers to understand the US production and export system, and assisting them in arranging financing and other export details.

Finally, the governments of importing countries must be dealt with. There are an array of government regulations around the world that affect agricultural trade, and most of them will still be in effect even after the results of the Uruguay Round are fully implemented. Many of these regulations are designed to reduce or prohibit the import of agricultural products that might compete with local production. Changing or removing these impediments to trade requires ongoing efforts to identify the impediments and to remove them.

On the US side, it is necessary to look at the structure of the producers, processors, and exporters of food and agricultural products. Even the largest of the producing firms is a small business by nonfarm standards. At the processing level the size is greater, and for some products the concentration is significant. The exporters of food and fiber products vary widely in size from small firms to major multinational corporations. In some products agricultural producers have formed large and successful cooperatives to process and market their products, and some of these cooperatives are heavily involved in international marketing.

It should be remembered that the majority of agricultural products exported from the U.S. are not branded products. Therefore, even the largest US firms that export grains, meats, most fruits and vegetables, and other non-branded products cannot capture the returns to long-term market development activities needed to develop the emerging foreign markets. Because of this situation, many countries have organized commodity marketing boards that have exclusive control over export marketing of key products for the country concerned. Other countries have provided public funds to carry out the same market development functions. Virtually every other major exporting country has a significant government or government-sanctioned export market activity.

Given the nature of the foreign markets, the structure of the domestic industry, and the products involved, it appears there are three options available to the US government as regards international trade and marketing. They are:

1. No action by the federal government in either foreign market development or in other activities to assist export expansion.
2. Limit US government action to dealing with other governments in order to remove trade barriers that impede US exports.
3. Intervene directly to support international marketing efforts with actions to remove trade barriers and programs to offset the actions of other governments, and to promote vigorous market development activities.

No one on the Working Group believed that the federal government should withdraw from all activities designed to support and expand US agricultural exports. There was general agreement that only the US government can exert the pressures necessary to remove the trade barriers and other interventions of foreign governments, and that many such barriers still exist.

Most members of the Working Group did not feel that limiting the role of the US government strictly to dealing with other governments was sufficient to enable US products to be competitive in world markets. One reason is that the removal of such barriers is a difficult process which would likely continue for a very long time. Therefore, most members of the group believed that additional federal activities are needed to provide assistance to the US food and fiber sector. In the absence of such government support the potential for the sector to penetrate foreign markets would be severely hampered. This would have the effect of reducing farm income, the exports of food and fiber products, employment in the sector, and of handicapping one of the most efficient earners of necessary foreign exchange.

Thus, the Working Group provided broad support for an extensive set of federal activities aimed at developing and supporting the expansion of US exports of food and fiber products. Both the continuing interventions of foreign governments and the nature of the export markets and the activities needed to develop them, underly the support for continuing federal activities. As will be illustrated later, there was not unanimous agreement as to what the mix and level of these activities should be, but there was general agreement that many of the activities would not and could not take place without federal assistance, and that the returns to these activities for the national economy are large even though they cannot be captured by individual companies and thus, cannot be privatized.

A major argument in support of some federal intervention is that it is required to offset heavy foreign government interventions which adversely affect US exporters or create unfair advantages for US competitors in global markets. In other words, the international market for agricultural products is imperfect and most of the imperfections are the result of the actions of other governments.

These market imperfections take a variety of forms, including: price support and other subsidies that expand the output of foreign products, tariffs and other barriers to entry of foreign markets, various forms of legal and economic discrimination in other countries against foreign goods, and direct export subsidies of various kinds used by the governments of US competitors.

The US government has strived to convince other governments to reduce their market-distorting activities. The opportunity for such efforts comes in the form of international trading rules such as formal complaints in GATT against unfair practices. The recently concluded GATT negotiations were especially productive in this regard. As a result of those negotiations, all countries have agreed to convert their non-tariff barriers to tariffs in 1995. The Uruguay Round agreement also brought a reduction in some tariffs in many countries, and in some cases the reductions were on products of direct relevance to US exports of farm products. The agreement will also force a reduction in the use of direct export subsidies and will prevent their use by countries that have not used them in the past, as well as their use on products where they have not been used in the past. However, there was little progress in attempting to get governments to end the subsidizing of uneconomic production which competes with US production. And, certain kinds of export assistance can be used by all governments without restriction.

The process of negotiation for removal of these various subsidies and trade restrictions is slow. The Uruguay Round negotiations lasted seven years, and countries have from six to ten years to phase in their changes, depending upon their level of development. Moreover, some of the most serious distortions remain untouched. One is the use of government authorized single-seller entities, such as the Canadian Wheat Board and the New Zealand Dairy Board, to export farm products. These boards can use price discrimination and other practices that multiple private-sector exporters operating in a competitive market cannot use, and these practices have the effect of targeted export subsidies. On the other side, many countries use state trading entities (STEs) to control imports. These entities can determine the level of imports, and the source of the imported products. Despite a GATT article that says that these STEs should act as commercial entities and should operate in a nondiscriminatory fashion, this provision has never been enforced and is probably unenforceable. Thus, the removal of nontariff barriers and the reduction of tariffs has not removed barriers to access and unfair practices in many markets. In some cases the U.S., as an importer, has insisted on the removal of the STEs, thereby freeing up access to the market.

Even after the Uruguay Round commitments are all in place there will still be significant use of direct export subsidies and high barriers to many foreign markets. Many additional negotiations will be required before they can all be removed and the international markets freed from significant distortions by the actions of governments.

The third alternative for US policy is for the government to develop programs that will help US exporters compete in foreign markets in the face of the market imperfections created by the actions of other governments. The U.S. has followed this alternative, together with that of actively seeking the removal of market barriers. Most of the major programs to aid the exports of US farm products have been started as a reaction to the activities of other governments. This is true of the export credit program, the Export Enhancement Program and the MPP program. The use of this option is now limited by the recent GATT agreement that classifies these programs into trade-distorting and non-trade distorting policies and puts a cap on the use of the policies classified as trade-distorting. Countries using trade-distorting export subsidies have agreed to reduce spending on such subsidies by 36 percent in a phased reduction over the next six years if they are a developed country and by 24 percent over the next ten years if they are a developing country. This will substantially change the market conditions US exporters face in foreign markets and it will significantly limit the assistance the U.S. can offer its exporters.

The question now is whether the various programs can be justified in terms of the benefits gained relative to the public expenditures involved. Even though there are no analyses of the returns created by US government efforts to remove the trade barriers erected by other countries, there can be little doubt that the returns to the food and fiber sector and to the public are high. The removal of such barriers benefits the national economy in terms of expanded exports, increased employment, and higher export earnings.

There are a number of studies that attempt to measure the returns to the different market development programs. Most show returns well above costs, with the rate of return varying by product and by market. The studies do not determine who captures the relatively high returns from these public expenditures. Where the products are generic it appears likely that the sector (meat, grain, oilseed, etc.) would be the primary beneficiary, with the public benefits manifested through greater employment. Where the products involved are branded products, the brand owner would appear to be the primary beneficiary, with secondary effects for general income and employment. As noted earlier, private firms cannot capture the high returns to market development activities for generic products, and thus those returns cannot be realized in the absence of public action.

Most studies show that the direct export subsidy programs have some effect on export volume, although there are varying estimates as to the additional gain achieved relative to merely rearranging trade patterns. The major beneficiaries of the export subsidy programs are the producers of the goods involved because the domestic price is increased. In the case of commodities with deficiency payments, the benefits go largely to producers of goods outside the program coverage. In the case of processed products, some of the benefits accrue to the processors in the form of wider margins. There are no estimates of the returns to the public in terms of income and employment outside the specific commodities concerned.

VII. The U.S. Faces Increased Competition in Domestic Markets

A number of changes have occurred or will occur that will increase competition for US producers in the domestic market. These include the Canada-US Trade Agreement (CUSTA), the NAFTA, and the recently approved GATT agreement. CUSTA and NAFTA will phase out most US tariffs on farm products entering the U.S. from Canada and Mexico. In addition, the controls on beef imports from those countries have been removed, and the quotas on other products will be or have been phased out.

As a result of these changes, US producers have lost some of their protection against lower priced imports. The pressure that such changes bring can be seen in the problem of increased imports of Canadian wheat and barley, which became so large that the U.S. demanded action by Canada to limit its exports. The import of live cattle from Canada and Mexico has put pressure on the price of feeder cattle. Over time there will also be additional imports of some dairy products, peanuts, and cotton where there were quotas before.

The Working Group identified several options that might be considered in dealing with increased competition in domestic markets. They include: (1) the use of political pressure by the US government to get other countries to limit exports to the U.S. or the use of GATT rights to increase protection by paying compensation to the exporting countries, (2) provide trade adjustment assistance to producers of affected commodities, (3) review domestic policies and programs to insure they allow US producers to have a competitive cost structure, or (4) take no action to assist domestic producers squeezed by rising imports resulting from trade agreements.

The first option, that of using political and economic pressure to get countries to reduce exports to the U.S., is a dangerous option if it is used when there is no evidence of unfair trade practices in the imports involved. Forcing another country to accept a Voluntary Restraint Agreement to limit exports is prohibited under the new international trade rules; hence, if there is to be an increase in protection, it will need to involve compensation if the exporters insist on it. Since the U.S. is the world's largest exporter of farm products, it is important that the new rules it helped to negotiate be observed to protect the U.S.' export position

A related and legal option is to convince the exporting country to accept higher levels of US border protection for the product. This option has a cost because foreign exporters are not going to give their legal rights to access to US markets which they have negotiated without compensation or retaliation. This compensation or retaliation is likely to be aimed at US agricultural exports to the country concerned, so that the process becomes one of trading the interests of one US agricultural group for the interests of another.

Another option is for the US government to provide trade adjustment assistance to producers of the affected commodities. Experience in the use of trade adjustment assistance in the nonfarm sector is not encouraging. Labor and management of firms adversely affected by trade have not found the assistance effective in helping either firms or workers to adjust. Moreover, it would be expensive to start a new program, and it is often impossible to tell whether individual economic problems are caused by trade or by any one of a host of other factors. An alternative might be the use of existing agricultural programs with a special focus on sectors facing adjustment pressure as a result of trade agreements. Credit programs, research programs, technical assistance programs, and some kinds of export assistance programs could be focused in this fashion. Indeed, in some cases, focusing some programs as a form of trade adjustment assistance might be a stronger justification for their continuation than the current rationale for their existence.

One option which was unanimously supported by the Working Group was for policy makers to review US domestic policies and programs to insure that they allow US producers to have a competitive cost structure. Domestic support programs that increase domestic prices above world prices tend to encourage imports and prohibit exports. US export subsidy programs may push up domestic prices enough to encourage imports as US border protection is lowered. This appears to have been the case for the use of EEP on barley and durum wheat which encouraged imports from Canada in 1993 and 1994.

Special attention needs to be given to the various environmental and other regulations that require costly investments and practices that are not required by foreigners shipping to US markets. As a practical matter there is no way the U.S. can force other countries to adopt the same production practices that are required of domestic producers as long as the imported products meet US standards for health and safety. Therefore, the U.S should examine its own practices to insure they are the least-cost way of achieving domestic health and safety goals.

Finally, there is the option of taking no action to assist producers that are squeezed by rising imports resulting from trade agreements. This is the approach that has generally been followed in nonfarm sectors, which often have to face major adjustments as a result of removal of border protection. This could result in the down-sizing of parts of the industry, or it may force the industry to restructure and become competitive. Many critics of the protection offered to US industries against foreign competition argue that as consumers we should be delighted that other suppliers will provide us with cheaper goods. While this argument may have some validity when the imported goods are cheaper because they are produced more efficiently, it is not valid if the cheaper goods are the result of unfair trade practices.

VIII. The U.S. Still Faces Closed Markets and Unfair Competition.

Despite the gains made in the recent GATT agreement, US exporters still face closed markets and unfair competition. The tariffs resulting from the conversion of NTBs are so high in most cases that it is unlikely any trade will occur over such barriers. In addition, the use of state trading entities (STEs) is still common for imports in a number of countries. These entities can, and do, practice discrimination in their sourcing of imports, and there are not effective GATT rules to prevent this practice. Moreover, these entities can effectively bar imports and control the resale price of imports, having the same effect as quotas and high tariffs.

The widespread use of STEs as single-seller exporters also creates unfair competition for US exporters. Several countries use them for wheat, and they operate in dairy and other commodities. These entities can use discriminatory pricing in specific markets and such practices can have the effect of targeted export subsidies. Thus, we find Canadian wheat and New Zealand dairy products in the Mexican market despite the obvious locational advantage that US exporters have in that market. Most of these STEs also operate highly effective market promotion programs.

The GATT agreement still has not solved the problem of lack of equity in the standards for health and sanitary regulations and uneven standards used in the inspection of incoming goods. The U.S. took the leadership in the development and approval of a new sanitary and phytosanitary agreement which spells out the basis for sanitary and phytosanitary protection. It requires that such protection be based upon scientific standards. Many countries still use regulations not based upon scientific standards to restrict the imports of farm products.

The Working Group felt that in the absence of US government action, nothing would occur to open closed markets or end unfair competition. There is no way the private sector can effectively deal with these issues, although the private sector can help the government identify the problems and determine priorities.

The group identified three options for government activity. They were: (1) vigorously pursue US rights under international trade agreements and rules, (2) push for rapid reductions in

foreign trade barriers through the use of bilateral and multilateral actions, and (3) use all of the acceptable international and export marketing programs to offset the policies and practices of others.

The Working Group endorsed the vigorous use of the newly strengthened World Trade Organization to pursue US rights under international trade rules. For the first time there are rules whereby capricious sanitary and phytosanitary rules may be challenged and if US exporters find unfair treatment the government can mount a challenge in the WTO. Since this portion of the trade rules is new it will require test cases and interpretation in order to establish the boundaries of acceptable action. The group endorsed the aggressive use of the new trade rules by the US government to remove lingering trade barriers.

It does not appear that the new international trade rules will deal effectively with the problem of STEs. Even so, the Working Group believed that the US government should actively pursue ways to curb the unfair practices of STEs, including looking at ways that GATT disciplines can be enforced to curb their activities.

The group also recommended the expanded use of bilateral or multilateral negotiations to further reduce continued high trade barriers in prospective markets. This can be done either through another round of multilateral trade negotiations or through the development of regional free trade agreements. Recent experience indicates that the achievement of trade liberalization via multilateral negotiations is a slow and uncertain process. On the other hand, the U.S. has been successful in achieving free trade agreements on a regional basis and there are indications that many other countries in Latin America and on the Pacific Rim are willing to enter into negotiations for a free trade agreement with the U.S. The U.S. is often the winner in such agreements because it usually starts with a less protected market, and hence the movement to free trade means greater opening in the trading partner's markets than in the US market.

The use of unilateral action against serious unfair trade policies was also approved by the group. This may involve the use of Section 301 action on behalf of the injured producers and the aggressive filing of complaints in the World Trade Organization (WTO). In those cases where the unfair practices involve the violation of WTO rules it is probably better to use the WTO to deal with the problem in order to build a system of basic case law.

Finally, even though it was not the first choice for action, the Working Group emphasized that the U.S. should stand willing and able to use the appropriate retaliatory action as necessary to offset the trade policies of other countries. However, there was not total agreement as to what the best form of action would be in such cases.

IX. How Can the U.S. Be More Competitive in Foreign Markets?

As trade barriers fall and the importance of foreign markets to US producers and marketers rises, it becomes increasingly important that the US products be competitive in terms of

price, quality, and availability. In the modern world of instant communication and easy comparison with an abundance of alternative sources from which to choose, the U.S. will win the export market only if its products can effectively compete in foreign markets.

The Working Group identified five options that might have a significant impact on our competitive position in foreign markets. They were: (1) adjust or reform US domestic policies in ways that will make its products more competitive in foreign markets, (2) eliminate features of domestic policies that increase costs of production, (3) find and eliminate policies outside of the food and fiber section that have an adverse impact on agricultural exports, (4) review and revamp the export credit program, and (5) expand research programs focused directly on export problems.

There was a general feeling within the group that too little attention was given to the impact on exports in the formulation and operation of domestic farm programs. Both sound analysis and experience indicate that some policies will inhibit exports. For instance, in the 1950s and the 1980s the U.S. saw its products become uncompetitive because domestic price supports were providing a price umbrella for competitors. The obvious way to avoid this problem is to either lower the support level for the product in question enough to avoid providing an umbrella for the competition, or to change the support system. Farm producers are concerned about lowering the support level so much that it no longer provides a safety net to maintain producers' incomes. The alternative is to move to a different type of support program. The producers of rice and cotton have found that the marketing loan program succeeds in maintaining an income support and keeping US products competitive. The use of a marketing loan program can be more expensive than a traditional support program in some cases, although there are ways to limit budget exposure that have not been used in this or in other programs.

For some products such as dairy, tobacco, and peanuts, a complete overhaul of the present policies would be required to remove domestic supports and other features which keep the U.S. uncompetitive in most markets. The simple fact is that for these products, the domestic support price is above the world market price. One method of dealing with this situation is merely to lower the domestic support price, but this could cause substantial economic difficulties for many producers. An alternative would be to change to a system of lower supports and deficiency payments for these commodities as the U.S. did for grains and cotton. Then, it would be possible to consider the marketing loan concept for these commodities.

If the current policies for dairy and tobacco were changed to a deficiency payment and marketing loan program with the present price support levels, these programs would rise sharply. On the other hand, as long as the U.S. maintains current programs and is barred from using export subsidies on a continuing basis, it is barred from being competitive in world markets for these products except for limited quantities.

Policy makers are going to have to face the same issues for these commodities in the near future that were faced for cotton, grains, and oilseeds in the 1960s. If producers of these

commodities are to be competitive and prosper in increasingly open world markets, policy makers will have to alter the domestic farm policies for these products. If not, producers will face an increasingly competitive market at home and have little ability to compete abroad.

A number of the commodities that attempt to compete in world markets find that some aspect of the current policies creates problems. Much of the original justification for these policies seems outdated or wrong today. The Working Group believes that removing all or a major part of these policies would significantly improve the US competitive position in the affected commodities. There is a general consensus that the US set-aside programs, cross-compliance requirements, land use and other supply restrictions, reduce the ability of US producers to compete in world markets. These include compulsory set-asides of productive land as a condition of eligibility for program benefits, individual crop bases that prohibit producers from switching between crops in response to market signals, and land use requirements relating to environment that may be expensive to producers.

In a period of increasing competition, it is important that each of these various requirements and regulations be examined to determine their necessity and alternative ways of accomplishing the same objectives. For instance, the required set-aside is an extremely blunt instrument to influence domestic crop output, and has no appreciable effect on world supplies or prices. It largely serves as a limit on program eligibility--which could easily be determined in some other way.

The Working Group also identified some domestic policies outside of agriculture that have a substantial adverse impact on agricultural exports. An example is the Cargo Preference Law that requires the use of US ships in the shipment of agricultural exports financed under concessionary terms. This is designed as a subsidy to the US merchant marine industry and as such may have a laudable objectives, but as currently operating substantially curtails the export of farm products under concessionary programs. If the Congress desires to subsidize the US merchant marine, it could do so without diverting funds from programs designed to bolster the exports of US farm products. The Working Group believes this would help increase the exports of the commodities concerned and increase the assistance going to the foreign recipients.

Finally, it should be remembered that while the recent GATT agreement promises the first effective controls over the use of export subsidies, it will allow countries to continue large-scale use of such subsidies for products that had them during the base period. This means that the ability to compete in foreign markets will remain an important issue. However, one area of government assisted export competition is still without controls: the area of export credit assistance.

US export credit programs were developed at a time when the importing entities were usually foreign governments or government-related entities. US credit programs were developed to service these types of enterprises. Now the world is changing and the credit-worthiness of these government-related agencies is often in doubt and trade is shifting to private sector

importers. If the U.S. is to use credit as a tool in international competition, the CCC export credit program needs to be reexamined, revamped, and may need new congressional authority. The Clinton Administration has proposed the development of two new export credit programs. One is a program to guarantee supplier credit for up to 180 days and the other is a program to guarantee credit for the building of facilities in foreign countries to improve their import capabilities. The Working Group believes that these and other suggestions for the use of export credit should be examined to determine if they might have a positive and cost-effective impact on US exports.

Another option that could substantially improve the U.S.' competitive position in export markets is to focus federally funded research and development activities on issues of cost reducing technologies, both on the farm and in other stages of the export process. Some research on foreign market development issues might have very high returns in terms of providing new information that would help US firms boost exports. In fact, a strong case can be made for the reallocation of some of the federal research funding now going to research likely performed by private firms, to research on international marketing not currently done by either the public or private sector. The Working Group suggested that too little attention had been given to the possible positive contribution that additional research might provide to US export efforts.

X. If US Government Assistance is to Be Provided to Increase Exports and to Aid US Interests in International Marketing, What Form Should the Assistance Take and Who Should Receive it?

From the early 1970s until the mid-1980s government export assistance consisted largely of three programs. The oldest and largest in terms of spending was the food aid program to provide farm products to foreign countries on a concessionary basis. The second program of export assistance was the CCC export credit program. It provides direct credit from the US government or government guarantees for private credit to eligible countries. The third export assistance program was the "cooperator program". It provides funds to groups organized by the private sector to match funds the groups provide to carry out authorized market development activities in foreign countries.

Starting in the mid-1980s a series of programs of direct export assistance was begun. One program, direct export subsidies, paid exporting firms selling products to eligible countries at less than the price in the US program. This program involved a case by case and sale by sale approval of subsidy levels and thus was a significant intrusion of government into the private exporter's activities. Moreover, some countries came to demand subsidies that lowered their purchase price in exchange for their buying from the U.S.

At about the same time, another program that subsidizes private sector exporters was begun. It provided funds to firms and marketing groups to help pay the costs of advertising and other promotional programs designed to increase US exports. The program was originally targeted to markets and products where it could be shown that unfair trade practices were

discriminating against US products. In recent years the targeting of unfair trade practices has been dropped and the program is now called the Market Promotion Program (MPP).

The GATT agreement finally places distinct limits on the future use of trade-distorting export subsidies by all countries. As part of the agreement, the U.S. will be required to reduce spending on direct export subsidies by 36 percent over the next six years and is forbidden to use export subsidies on products where they were not used during the period 1986-90. Even though the MPP program amounts to a subsidy to individual exporters to help them export more US products, it is not conditional upon the export of a specific product and is not classified as a trade-distorting subsidy under GATT rules. Thus, MPP and the Cooperator Programs are not subject to international limits as price subsidies are.

These agreements and the changed world market conditions, which have improved since the mid-1980s, raise two related issues. One is whether the signing of the Uruguay Round agreement means that the utility of the programs designed to fight foreign subsidies is sharply reduced. The second issue is, if the government is to continue to fund support for export expansion, is the present distribution of program funding the optimum mix to get the greatest boost to US agricultural exports?

The Working Group identified three options to consider in addressing these questions: (1) keep the current overall level of funding for export assistance, using the direct export subsidies to the maximum level allowed under the GATT agreement, and shifting the funds saved from reducing direct export subsidies, as required, to so called "green box" or permitted subsidies such as the cooperator programs or MPP, (2) as trade policies of export competitors permit, shift money from direct export subsidies, without regard to permitted levels, to other GATT-legal programs such as MPP for high-value products and Title II of PL 480 to foster the long-term development required for future market growth, and (3) as trade policies of export competitors permit, shift money from EEP to domestic programs that increase US competitiveness in foreign markets, without adding substantially to the level of spending on other export programs.

These options were developed because the Working Group believed the present programs focus too much on the current situation and today's markets and give too little attention to the development of a sound long-run strategy. It is generally agreed that the EEP program is a short-run strategy that does little to develop a long-run position of advantage or to develop customer loyalty to US products.

The first option implies that the U.S. should continue its present policy of spending most of its export assistance funds on short-run fire-fighting policies that aim to boost the export of a limited number of commodities during the current year. A majority of the Working Group believed that this would not maximize US agricultural exports over a period of time. If competitors continue to act in a predatory fashion, the U.S. will be required to respond, but in the absence of overt adverse action by competitors the group expressed reservations about this option of merely continuing what the U.S. is doing in the face of changing conditions.

A second option would involve the phasing out of all direct export subsidies and the use of these funds to expand the other permitted export programs. Proponents of this approach argue that the direct export subsidies have done little to expand the level of US exports, even on products where they were used extensively. In essence, the programs have acted as subsidies to consumers in foreign countries, or as subsidies to foreign governments where governments are the importers of the products. Thus, the US government has been subsidizing the governments of Russia and China as well as the consumers in Saudi Arabia.

Many group members asserted that the present program mix put too little emphasis on the activities that will result in long-run market expansion and long-run market development for US products. They believe that additional funds spent on cooperator programs, MPP, and economic development assistance would be a good investment for the US public and that the funds to expand these activities could be diverted from the EEP and other direct export subsidy programs. Other members of the group agreed that the direct export subsidies should be scaled back, but questioned whether the funds saved could be used productively to expand other market development programs. They argued that the funds saved could be used more productively to fund domestic programs which would improve the competitive position of US farm products in both the domestic and foreign markets

A third option would be to reduce the federal assistance to exports to the type of programs that were in place prior to the "subsidy wars" of the 1980s. Proponents of this approach argue that the world market conditions in the mid-and-late 1980s were unusual and that under more normal market conditions and with more consistent domestic policies, there is no verifiable need for direct export subsidies or direct assistance to private firms to carry out normal marketing activities in foreign markets. They point out that the most rapid gains in exports have been recorded by products receiving little or no federal export assistance and no direct export subsidies. Meanwhile, those commodities receiving the most assistance generally have done poorly in export competition.

US agricultural groups and firms involved in international marketing strongly endorse continued federal support for export marketing. There are, however, differences of opinion as to the best strategy to use the limited amount of funding that will be available. Many commodity groups receiving direct export subsidies believe that the future of their export efforts depends upon ongoing use of direct subsidies. The commodities receiving direct export subsidies point out that foreign competitors will still be receiving direct export subsidies, albeit at a lower rate than in the past. They argue that the direct export subsidies can be more effective and serve as a market development tool, now that the requirement that they be used only to counter the subsidies of others has been removed. In recent years, direct export subsidies have been used primarily in markets that are not growing, such as the FSU. Therefore, if direct export subsidies are to be continued up to the allowable limit, a market development strategy should be laid out by the USDA and the affected industries, and followed for a period of time.

US business and producer groups also argue that the market development programs which involve cost-sharing under the cooperator and MPP programs provide inducement for US firms and commodity groups to enter markets they otherwise could not afford to work in, and to carry out promotion and market development programs they could not otherwise engage in. They argue that this encouragement to expand at the margin has enabled many US products to get an edge in emerging markets for the product in question.

Even if the general mix of programs is maintained, the Working Group believes there are major issues regarding the way in which the programs are structured and assistance is allocated. If the direct export subsidy programs are continued without targeting, do the programs have to involve the complex government intervention in exporters decisions or can they be changed to make programs both simpler and more cost effective? Alternatives need to be evaluated for possible implementation.

Second, the question of the emphasis of allowable market development programs should be examined. There needs to be major evaluation of whether the programs should be focused on bulk commodities or on value-added products that will provide more domestic employment and income. Within "value added" products there needs to be greater evaluation of supporting generic value-added products or branded products.

Third, there is a question of whether there should be a cut-off or graduation time for federal assistance for exports to any one firm, or for a particular product in any distinct market. If so, how should that cut-off point be determined? The Working Group believes that if the efforts of these activities are successful they should not require federal support for any specific activity in perpetuity.

This group noted that the continued growth of agricultural exports was a crucial element in the strategy to expand the US economy and employment. The federal government has an important role to play in that export expansion. However, more thought and attention needs to be given to the future markets for US food and fiber products and how to gain access to those markets. There is considerable feeling that there is too much concern about preserving past programs, regardless of their utility in the current setting, and not enough effort by policy makers to devise new programs to fit current conditions.

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A Report to Help Lay the Groundwork
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March 1995

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Preface

The Working Group on US Farm Price and Income is one of six working groups organized by the National Center for Food and Agricultural Policy and the Hubert Humphrey Institute of Public Affairs, University of Minnesota, to focus on issues relating to the 1995 Farm Bill. Their goal is to provide a better understanding of the issues, alternative approaches to these issues and the consequences of policy options.

These working groups are a part of a project designed to help lay the groundwork for a more informed debate and better public policy choices during the 1995 Farm Bill process. In November of 1994, soon after working groups were appointed, two symposia, with the theme "Farm and Food Realities for the Twenty-First Century", were held to help provide a setting for the working group efforts. The final phase of the project consists of seminars, symposia and other discussion fora that focus on the findings and conclusions of the working groups and a consolidated report, summarizing and addressing issues that cut across working group topics.

Working group members were selected to include as many of the stakeholders, interest groups and scholars as possible without making them too large to function efficiently. In all, about 80 persons representing farm organizations, agribusiness firms, cooperatives, academics and others with an interest in farm policy served on the six working groups. Members included a former secretary of agriculture, six former assistant secretaries, presidents of 11 state farm organizations, 26 university faculty, several agribusiness executives, commodity organizations, and farmers. The Economic Research Service, USDA designated a resource person to work with each group. The sponsors are deeply indebted to all working group members who took time from busy schedules to participate and to the Kellogg Foundation, the ERS and a number of private firms and organizations that provided financial support for the project.

The Working Groups' reports attempt to reflect the discussion and predominant views about issues, options and consequences. No endorsement of a particular option on the part of members, their employers or the sponsors is necessarily implied.

John G. Stovall
Director, Farm Bill Project

REPORT OF THE WORKING GROUP ON US FARM PRICE AND INCOME

Executive Summary

The Farm Price and Income Working Group believes that US farm legislation is fast approaching an important juncture. There are many reasons why. However, one of the more important reasons is that the consideration of new farm legislation is taking place at a time of very serious Federal budget pressures. Thus, the costs and benefits of the next farm bill will probably be weighed more carefully than ever before.

The Working Group identified six issues that it believes should figure prominently in the 1995 debates over farm price and income policies:

1. **What purpose should farm price and income policies and programs serve in the future?**
2. **What should be the role of environmental programs in the Farm Bill?**
3. **What roles, if any, should crop acreage retirement and other supply control measures play in future US farm price and income programs?**
4. **Should farm program benefits be targeted?**
5. **How can spending on price and income policies be restrained or reduced with the least adverse impact on the sector?**
6. **Should something be done to remove the uncertainty about annual total expenditures associated with farm price and income programs?**

This is certainly not an exhaustive list of the issues that will be debated in 1995. For example, limitations of time and analytic resources precluded the Working Group from addressing those programs that depend largely on transfers to farmers from consumers via higher market prices, like the sugar, peanut, and dairy programs. However, all members agree that: (1) the six identified issues are important, (2) how society deals with them will have a significant effect on farmers, and (3) that the alternative policy approaches identified in this report are among those that should be considered. But, the list of policy options is by no means exhaustive.

On several points there was substantial (perhaps even surprising) agreement among the diverse interests represented on the Working Group. On other points there were sharp differences. Among those points on which there was at least general consensus are these:

- **Regardless of the policy course likely selected in 1995 by the federal government, the sector will experience dramatic change in the years ahead. Forces other than US federal farm policy are so strong that at best federal policy can only nudge and mitigate slightly the eventual outcomes. The effects of the globalization of markets; economies of scale; accommodation of environmental demands; the more sophisticated management of farm resources; integration among suppliers, farm product producers, and handlers, processors, distributors, and retailers; nonfarm employment opportunities; and global weather patterns, will dwarf the effects of any farm price and income policies that might be included in 1995 farm legislation.**
- **Environmental objectives and how they are pursued are of tremendous importance to the farm sector. However, the push for environmentally-friendly approaches to farming will not likely soften. This true because such objectives spring from the ever-increasing prosperity of the US economy and its increasing interdependence. Environmental objectives should be pursued independent of price and income objectives. Producers are opposed to diverting funding from price and income programs to environmental programs.¹ However, producers are also anxious to protect the funding of the Conservation Reserve Program (CRP).**
- **US farm policy should assure that US farm product prices are competitive in international markets. There is also general agreement that the primary purpose of these programs should be to compensate for the industry's uniqueness and that income redistribution is no longer an appropriate goal. Members of the Working Group generally favor programs designed to facilitate the industry's transition to greater market-orientation.**
- **Targeting of program payments should be avoided. The Working Group sees the primary purpose of the programs as directed toward stabilization of markets and thereby reduction of risks carried by producers rather than toward individuals meeting particular income or other criteria.²**
- **Acreage diversion has resulted in an erosion of the US share of export markets and, at the same time, has failed to strengthen domestic prices. As a result, there is decreasing support for programs that idle productive cropland.³**

¹ Additional comment by Leland Swenson, National Farmers Union: Environmental and conservation objectives should be pursued in conjunction with price and income objectives, but adequate funding should be provided to achieve these objectives. Producers are reluctant to divert funding from price and income programs to environment and conservation programs.

² Additional comment by Leland Swenson, National Farmers Union: Directing farm program benefits or the targeting of program payments to established production levels would reduce government costs while furthering the sustainability of independent family farmers, rural communities and natural resources.

³ Additional comment by Leland Swenson, National Farmers Union: The strength of the dollar, the economic instability of importing countries, and increased exports by other countries, have resulted in a decreased US share of the world market in lieu of any or no impact by the acreage diversion programs (which are part of the price and income program).

At the same time, there were substantial disagreements among members of the Working Group over several points that entered their discussions. For example there were different opinions as to:

- The effectiveness and ability of markets to absorb risk.
- How fast the sector will continue to become more concentrated.
- Adequacy of arguments for continuing the price and income policies and programs.
- The wisdom of cutting back the price and income programs. However, there was agreement that the sector could adjust to gradual change much easier than to an abrupt pulling back of the programs.

I. Introduction

The "Food, Agriculture, Conservation, and Trade Act of 1990," was signed into law on November 28, 1990. Its expiration in 1995 comes at a time of critical examination of the federal government's expenditures and its role in regulating economic activities.

The expiration of the 1990 Farm Bill also comes at a time of continuing dramatic structural adjustments in farming and ranching in this country. The "division of labor" between farming and agribusiness is increasingly blurred as traditional farm product markets are bypassed and ownership arrangements and contracts increasingly determine how farm products are produced and marketed, as well as how they are valued. Farms and ranches continue to increase in size as the combination of narrow margins and a continuous flow of improved technologies reward larger scale. The expiration of the current Farm Bill also occurs at a time of increased attention to export opportunities, to the importance of expanded exports to the long-run economic viability of American agriculture, to the relationship of agricultural production to environmental issues, and to the necessity of making US export-oriented and import-substituting crops competitive.⁴

These and other circumstances promise to make the debate over the 1995 Farm Bill particularly intense, especially those provisions dealing directly with the availability and level of price support loans, target prices, deficiency payments, acreage diversion, and payment limitations.

Members of the Farm Price and Income Working Group reflect a diverse set of interests. They include farm and ranch owner-operators; academicians; and officers of agribusiness, environmental groups, farm organizations, and cooperatives. The Working Group met three times. Initial discussions focused primarily on identifying a broad range of issues important to farm price and income policy. The preliminary list was quite extensive. These issues were then consolidated and prioritized. The group gave special attention and priority to the six issues highlighted in this report.

The Working Group recognizes that there are commodity programs other than those discussed in this report that affect farm prices and incomes. The peanut, sugar, tobacco, and dairy programs are prominent examples. They involve provisions that restrict imports, limit production or marketing, or have procedures that permit different prices for different uses. However, in the time available, it was not possible for the Working Group to seriously address the particular issues

⁴ Additional comment by Gaylon Booker, National Cotton Council of America: The timing of 1995 farm legislation is relevant in other ways. The new bill will be passed in the first year of the new GATT agreement which (1) makes U.S. markets more vulnerable to imported products and (2) underscores the importance of new farm policy reflecting the resolve of US agriculture not to unilaterally discontinue or substantially reduce its agricultural support programs.

associated with these programs nor the options that might be considered in response to such issues.

Similarly, the Working Group did not focus directly on the issue of regulatory burden. Members recognize that there are significant issues related to the complexities of farm commodity programs and that the programs place substantial resource requirements on USDA administering agencies and that programs impose burdens on producers.

The regulatory burdens on farmers associated with farm programs are of at least two types. First, programs impose costs on producers of products to which the regulations and rules relate. For example, when Acreage Reduction Programs (ARPs) are declared for wheat, wheat producers must cut their plantings by the ARP percentage and must abide by rules which govern how the ARP acreage can be utilized. Second, program regulations impose constraints on producers who are outside the programs. For example, a producer who does not have an historic base of growing wheat can grow that commodity, but is not eligible for wheat price support loans. Similarly, regulations prohibit the sale of peanuts for edible use unless the producer possesses a quota--which is available only if he or she produced peanuts in some historic period or purchased the marketing quota from someone who qualified.

The diversity of the Price and Income Working Group precluded unanimous agreement on many of the issues treated in this report. The discussions indicated clear differences in perceptions of cause and effect relationships, as well as policy preferences among the individual Working Group members. In a few cases there was consensus. But in more situations there was open and direct disagreement as to the preferable policy approach, as well as the specific implications of alternative approaches to the issues. An effort was made to capture the sense of agreement and disagreement in the main text of this report. In addition, individual members were encouraged to add footnotes to elaborate on their particular points of agreement or disagreement.

II. The Setting

Today's Policies and Programs

Today's farm price and income programs are complex. They are driven by different objectives, many of them inconsistent. Some programs aim to restrain and stabilize production, protect the environment, and assure that US farm products are competitive in international markets. Others have the opposite effects. Program complexities and occasional policy conflicts are reflected in the web of regulations including base acreage, flex acres, program yields, deficiency payments, price supports, conservation compliance, marketing loans, and export subsidies.⁵

⁵ See Appendix A for brief explanations on several of the commodity programs and features common to these programs.

Current farm programs support the income of farm land owners and producers of particular products like feed grains, cotton, wheat, sugar, and rice. The related program benefits are accomplished through a variety of means including direct government payments to producers, government loans to producers, and market prices that are, in some cases, higher than they would be without the programs.

These higher prices result from the use of barriers to farm product imports and programs that curtail US production and hold supplies off the market. These actions support market prices and restrain program budget costs. The amount of support that these programs provide to farm income varies widely from year to year and among commodities (Table 1).⁶ The support for soybeans is considered to be smallest among the crops affected and that for sugar the highest. Because price is determined by world supply and demand, efforts to manage farm product prices by curtailing US production are only marginally effective. The government's interest in such actions is related both to cost management and price management. Since ARPs reduce the supply eligible for government benefits, they reduce government outlays, whether or not they exert any influence on price.

Environmental objectives are pursued with program provisions that idle land and that require conserving practices in order to qualify for program benefits. Whether these environmental goals have been achieved in the most cost-effective manner is increasingly questioned.

Opportunities to export (together with the ability of US agriculture to produce more than demanded by US consumers) have been major catalysts for policy adjustments dating back at least to the early 1970s when the USSR made major purchases of grain in international markets. The boom in international markets in the 1970s occurred as US producers were increasingly disillusioned with the price depressing effects of large government stocks. In response, particularly in the 1973 and 1977 Farm Bills, the United States adjusted its cereal and cotton policies substantially.⁷ Programs began to be changed so that US market prices would more nearly reflect basic supply and demand conditions. At the same time a combination of target prices, deficiency payments, nonrecourse loans, and temporary set-asides of crop land were

⁶ Additional comment by Gaylon Booker, National Cotton Council of America: Those attempting to draw conclusions about merits of relative 'expenditures as a percentage of value of production' should note that CCC expenditures exclude the Export Enhancement Program (EEP) which, if allocated to appropriate commodities, would alter the array.

⁷ Additional comment by Gaylon Booker, National Cotton Council of America: The cotton program continued to be adjusted in subsequent farm bills. A marketing loan was introduced in 1985 and a requirement for the Secretary to base the upland cotton ARP on a stocks-to-use ratio was added in the 1990 Farm Bill.

Table 1: A Comparison of Value of Production with CCC Net Expenditures

Commodity	Value of production ¹	CCC net expenditures ²	CCC expenditures as a percentage of value of production
	Million \$		Percentage
Wool and mohair	83.0	148.1	178.5
Rice	1,173.6	753.5	64.2
Honey	113.1	29.1	25.8
Grain sorghum	1,367.8	331.8	24.3
Cotton, all types ³	5,076.3	1,103.9	21.7
Wheat, all types	7,276.0	1,511.5	20.8
Corn	18,057.0	2,986.5	16.5
Barley	928.9	76.3	8.2
Minor oilseeds ⁴	391.3	15.6	4.0
Oats	394.2	11.0	2.8
Dairy	19,637.4	501.5	2.6
Peanuts	1,207.0	17.9	1.5
Soybeans	11,387.9	7.9	0.1
Sugar ⁵	1,977.3	(16.7)	-0.8
Rye	24.9	(0.5)	-1.9
Tobacco, all types	2,801.9	(110.6)	-3.9

Source: USDA, various publications.

¹ Data are five-year averages for the marketing years 1989-93.

² Data are five-year averages for Fiscal Years 1989-93.

³ Includes data for cotton lint and for cotton seed.

⁴ Includes sunflower seed, safflower, mustard seed, canola, rapeseed, and flaxseed. Due to data availability, value of production and CCC net expenditures are based on three-year averages for the years 1991-93.

⁵ Includes sugarbeets and sugarcane. The value of production for sugarcane includes the value of production for sugar and for seed.

Table Comments

- The table presents the value of production and Commodity Credit Corporation (CCC) net expenditures for selected commodities. The table ranks the commodities in descending order by CCC expenditures measured as a percentage of the value of production for each commodity.
- CCC net expenditures measure the budgetary costs associated with the programs for these commodities. They do not, however, capture the total cost of these programs to the consumer. Any Government program which restricts the supply of a commodity, either through production controls or import restrictions, increases the price that consumers pay for that commodity. Thus, such programs have additional indirect costs to consumer beyond the direct budgetary costs shown in the table.^{*}

^{*} Additional comment by Gaylon Booker, National Cotton Council of America: We take strong exception to the assertion that US farm programs add indirect costs to consumers beyond the direct budgetary costs shown in the table. The programs for cotton, rice, wheat and feed grains, in fact, permit agricultural products to move across retail counters at a lower cost than could possibly be expected without the safety net of a government program

employed. This combination of measures was to provide a safety net to protect farm incomes when market prices were low.⁹ Thus, total returns to farmers reflected market prices plus direct government payments.

For much of the 1970s, export demand was robust, US cropland was more fully utilized, and farm incomes and asset growth were strong. The early 1980s brought retrenchment in US exports. A strong dollar and the upward creep in the safety net put most of the adjustment burden on the U.S. The swing in the European Community from a 20 million metric ton level of net imports in the late 1970s to a subsidized level of 20 million metric ton net exports by the mid 1980s aggravated the problem for US agriculture. Grain stocks rose to record levels in the United States, followed by record supply management efforts.

Producers and the Congress reached for particular program features that did not sacrifice farm income but still made US farm product prices competitive in international markets. The safety net was raised by program adjustments but in ways that did not sacrifice competitiveness of US farm products in international markets. However, with a decline of international demands for US products, program expenditures increased sharply. In response, the 1985 Farm Bill moved to expand the withholding of land, especially highly erodible cropland, of land from production. Commodity acreage reduction programs were continued. The legislation also called for stimulating exports with export subsidies and marketing loans which were initiated for cotton and rice. These were at least partially motivated by subsidy programs of other countries and the desire to reinforce the US position in international trade negotiations. Lowering support prices and linking these prices to a moving average of market prices was expected to end accumulations of government held stocks--and did so.

The 1990 Farm Bill basically continued the 1985 Farm Bill's main thrusts related to commodities including the CRP, Conservation Compliance, and Wetland Retention. The Omnibus Budget Reconciliation Act of 1990 introduced a flexible nonpayment acreage component to reduce program cost and provide greater flexibility for shifts in acreage among crops in response to market signals. Commodity programs continued to be treated as entitlement programs. Adjustments to restrain expenditures were opposed strongly.¹⁰ Nevertheless, program changes were made in 1985 and 1990 farm legislation, as well as the Omnibus Budget

which permits these products be produced and sold on very narrow margins. Furthermore, the government program availability makes it possible for US agriculture to compete internationally at prices 'bought down' by huge foreign subsidies.

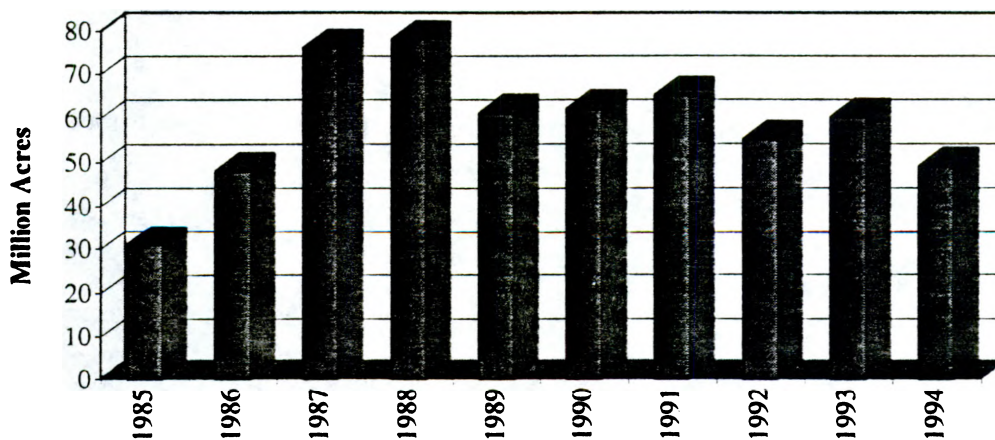
⁹ Additional comment by Gaylon Booker, National Cotton Council of America: Another motivation for using taxpayer money to provide an income safety net for farmers is the retail bargains that occur as a result of farmers and ranchers being able to operate with narrow margins. The end result is a subsidy from taxpayers to consumers with the greatest benefits going to low income citizens whose bargains in retail prices of agricultural products far outweigh any additional tax outlay for them.

¹⁰ Additional comment by Gaylon Booker, National Cotton Council of America: This language is prejudicial, and adds nothing of value for policy decisions on 1995 farm law.

Reconciliation Acts of 1990 and 1993 which reduced spending for traditional agricultural programs. Many suggested that farm programs, including export subsidies, were essential for the successful negotiation of the Uruguay Round of the GATT negotiations that had been initiated in 1986. Now that the GATT agreement has been completed and ratified, the framers of the 1995 Farm Bill will be challenged to write the legislation to conform to the GATT agreement.¹¹

Two of the more critical sets of numbers which depict the farm sector and farm program developments are the acreage idled under government programs (Figure 1 and Table 2). During the past 10 years, the amount of cropland idled under the auspices of some crop programs has ranged from about 30 to nearly 80 million acres. The 1994 amount of approximately 50 million included 36 million acres in the Conservation Reserve Program (Figure 2 and Table 3). CCC net outlays in the same ten years ranged from approximately \$6 billion to approximately \$22 billion. The current estimate for Fiscal Year (FY) 1995 is \$7.9 billion.

Figure 1.
Acreage Idled Under Federal Programs 1985-94



¹¹ Additional comment by Gaylon Booker, National Cotton Council of America: A simple extension of current farm policy, with appropriate spending adjustments is the most feasible way to conform with GATT. A more serious challenge is writing new farm law that conforms with the deficit reduction goals of the 104th Congress; but these goals can also be achieved without major agricultural program reform if agriculture is treated fairly in the budgeting process.

Table 2: US Crop Acreage Planted and Idled in Programs

Item	1989	1990	1991	1992	1993
Million Acres					
Principal crops <u>1/</u>	331.6	326.9	326.0	327.4	320.3
Feed grains	106.1	103.4	104.6	108.4	99.6
Corn	72.2	74.2	76.0	79.3	73.3
Wheat	76.6	77.2	69.9	72.3	72.2
Soybeans	60.8	57.8	59.1	59.1	59.4
Cotton	10.6	12.3	14.1	13.2	13.4
Fruit and vegetables <u>2/</u>	6.3	6.3	6.2	6.1	6.0
Idled in programs	60.8	61.5	65.0	55.2	60.3
ARP	18.4	12.2	17.1	8.6	8.4
0/92-50/92	12.6	15.4	13.5	11.2	15.5
Conservation Reserve	29.8	33.9	34.4	35.4	36.4

1/ Includes corn, sorghum, oats, barley, wheat, rice, rye, soybeans, flaxseed, peanuts, sunflower, cotton, all hay, dry edible peas and beans, lentils, potatoes, sweet potatoes, tobacco, sugarcane, and sugarbeets.

**Figure 2.
CCC Net Outlays, 1987-95**

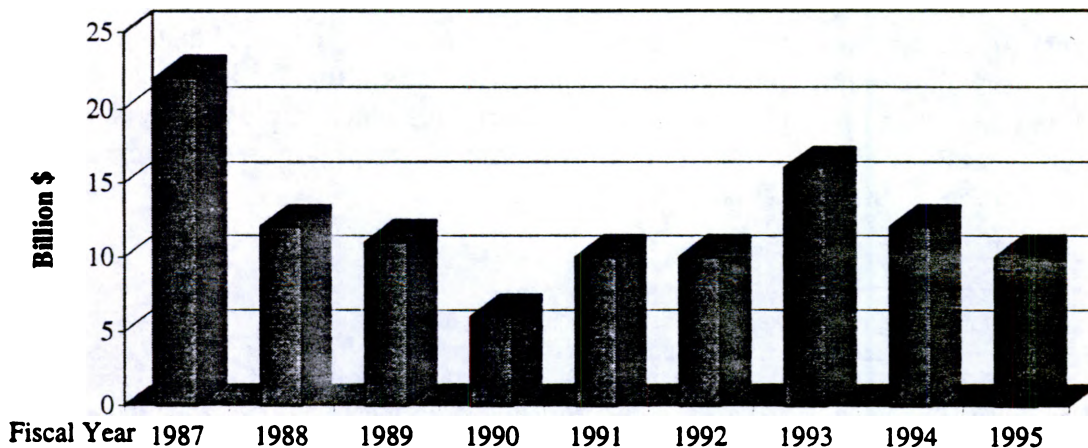


Table 3: Acreage Idled Under Government Programs

Item	1988	1989	1990	1991	1992	1993
Million Acres						
Annual programs						
Corn	17.6	6.3	6.1	4.7	3.1	6.6
Sorghum	2.8	1.1	1.0	0.8	0.5	0.5
Barley	2.2	.8	.7	0.7	0.4	--
Oats	.1	.1	--	--	--	--
Wheat	19.2	6.1	2.2	10.1	3.3	--
Cotton	1.5	3.1	1.5	0.6	1.3	1.0
Rice	.9	.9	.7	0.2	--	0.2
0/92-50/92	8.8	12.6	15.4	13.5	11.2	15.5
Conservation Reserve	24.5	29.8	33.9	34.5	35.4	36.4
Total idled	77.6	60.8	61.5	65.0	55.2	60.3
Program crops harvested ^{1/}	205.9	224.9	229.9	223.0	231.0	217.7
Idled plus harvested	283.5	285.8	291.4	288.3	286.2	278.0

^{1/} Includes feed grains, wheat, rice, cotton, and soybeans.

Current Conditions of US Agriculture

As today's policies, programs, and associated regulations are examined for their appropriateness for the coming century it is useful to recognize and understand that the relative prominence of agriculture in rural America has continued to decline, that the industry has become more concentrated, that the financial conditions of the sector are much improved over conditions in the first half of the 1980s, and that these financial conditions of the farm sector compare favorably to conditions in the rest of the economy.^{12 13}

¹² Additional comment by Gaylon Booker, National Cotton Council of America: Adjustments in farm programs, beginning primarily with 1985 farm law, have been major factors in this improvement.

¹³ Additional comment by Luther Tweeten, Ohio State University: The conclusion that farmers have achieved income/wealth parity with nonfarmers has profound policy implications. With farming no longer a welfare case, producers can afford to pay for means to cope with risk and other "unique" problems of agriculture. A government that pays risk insurance premiums for producers gets more of what it pays for (instability and farming of fragile, erosion-prone marginal lands) and less of what the public wants (stability and environmental protection).

One of the most important national trends in the U.S. since World War II is the declining importance of farming in rural America. This development is revealed in population numbers and in the increase of routine manufacturing in rural America. The farm population dropped from about 30 million in 1940 to just 5 million in 1987. Now, less than 2 percent of the nation's labor force is employed in agriculture. This decline occurred as growth of farm productivity displaced labor from farming. Simultaneously, the shift of routine manufacturing into rural areas began to transform the economic base of much of rural America. These two changes led to both the movement of population out of rural areas and the expansion of rural service and industrial employment. A recent Economic Research Service study indicates that today only one-fourth of the nation's 2,276 nonmetropolitan counties obtain 20 percent or more of their total labor and proprietor income from agriculture.

Farm numbers shrank and farm size increased simultaneously with the exodus of population from farms. In the 30 years between 1945 and 1974, farm numbers fell from 5.9 to 2.3 million, while average size rose from 195 acres to 440 acres. These trends have slowed somewhat in more recent years. The 1992 Census of Agriculture reported 1.9 million farms and an average size of 491 acres.

A useful measure of concentration of US farm production is the number of farms required to produce one half of total US sales of farm products. In 1900, 17 percent of US farms, nearly 984 thousand, produced one half of US farm products. Today, probably no more than 60,000

However, farmers should not have to pay for what the public wants from agriculture that the market will not provide. Possible candidates are food security, family farm preservation, and "downstream" environmental protection.

Nevertheless, in my judgment, food security does not justify commodity programs. Food security is amply provided by the large buffer this nation enjoys from a productive agriculture, food export surpluses, ability to feed less and slaughter more livestock, and a strong private sector that would provide buffer stocks and other food security functions if the government did not crowd them out. If intervention is deemed necessary, a simple and relatively unobtrusive means would be to expand the 4 million ton emergency wheat reserve to be used in times of special need as judged by the President.

Commodity programs have not but could help to preserve small family farms by careful targeting. But, as noted elsewhere in this report, the panel despairs of expecting that kind of administrative finesse in commodity programs.

Finally, the public wants a sound environment. That would require an extension of Conservation Compliance (CC) to cover all land with environmental hazards from the half currently covered by commodity programs. Some current commodity program funds would be reallocated to pay for environmental structures such as fences protecting grass filter strips. The public is not necessarily obligated to compensate farmers for extending Conservation Compliance because (1) modern conservation tillage practices now permit CC with no loss of profit or output on most land, (2) producers in most instances are being asked only to do what is in their interest (e.g., saving soil) or to stop "downstream" damage they were causing other farmers or nonfarmers, (3) costs to producers of CC are very difficult to estimate and hence to compensate, and (4) a Conservation Easement of Conservation Reserve Program needs to be available to remove cropland from production that cannot be cropped at acceptable soil erosion tolerance or water quality levels using best practices. The latter program would compensate farmers and avoid "taking".

In short, farm policy which recognizes and pays for what the public wants from agriculture (and which the market will not provide) requires a phaseout of current commodity programs.

farms (roughly 3 percent) produce one half of US sales of farm products. As the sector matured, production became more concentrated.

<u>Year</u>	<u>Farms</u>	<u>Share of all Farms</u>
	<u>Number¹⁴</u>	<u>Percent</u>
1900	983,563	17.1
1940	688,912	11.6
1969	221,690	8.1
1987	75,682	3.6
1992	61,673	3.2

This trend toward more concentration is continuing as indicated by the quickness with which hog production is being concentrated in large production facilities made possible by technologies, information controls, sophisticated management, and availability of capital.

As farm production units have increased in size, ownership and operation of the production resources is increasingly separated. For example, the large livestock production units are often operated with part of the labor and management being hired, and with capital and land being provided by people with large amounts of money and access to the major money centers. For crops a growing share of farmland is farmed by someone other than the full owner of the land. One measure is provided by farmland rented by tenants and part owners. After rising during the Great Depression, the share of farmland rented by operators dropped in the early 1950s to about 35 percent. Since then, the share rented has increased to 43 percent and continues to rise. Absentee ownership is also common. At least half of today's farmland owners who rent land to others live outside the community where their farmland is located. The owners of land rented out to farmers, of course, includes land owned by retired farmers and widows of farmers. But not all of it is owned this way. Recognition that "nonfarmers" own and rent out farmland is especially important to the accuracy of identifying benefit flows associated with programs designed to increase returns to farming.

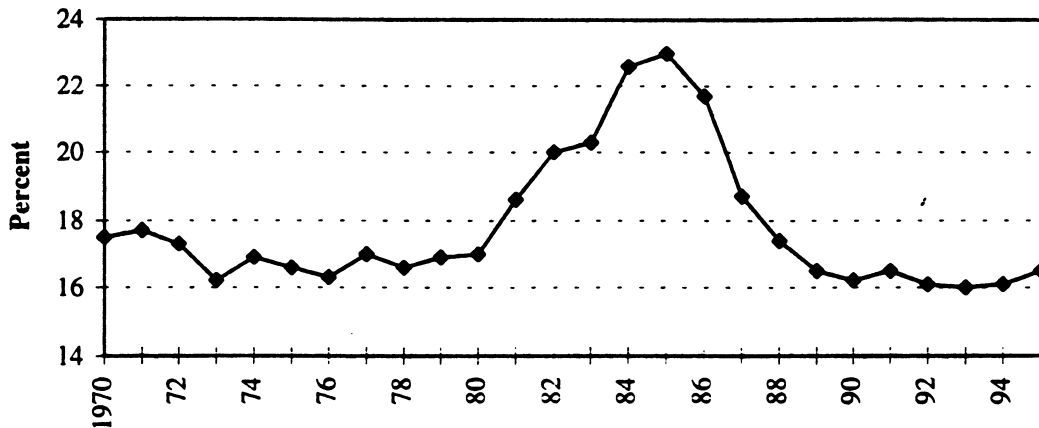
At the same time that the separation between ownership and operation of farm resources and the concentration of production rose, the concentration of farmland ownership increased. Today half of the nation's farmland acreage is owned by less than 5 percent of the landowners. At the other end of the scale, the half of farmland owners who have the smallest holdings own less than 8 percent of total US farmland.

The financial conditions of farmers as a whole have undergone important changes since the difficult years in the first half of the 1980s. Net income is running 37-39 percent of debt

¹⁴ Number of farms producing one half of US farm products.

compared to only 20 percent in 1980. The farm debt to asset ratio for the sector is now between 16 to 17 percent compared to nearly 23 percent in 1985 (Figure 3). Increases in farm land transaction prices attest to these improved conditions and the current expectations of farmland purchasers for the future returns to farming.¹⁵

Figure 3.
Farm Debt to Asset Ratio, 1970-95



Farming is no longer disadvantaged compared to other sectors of the economy. At one time average earnings of farm households were substantially below those of the rest of the nation. For example, 35 years ago farm operator family income was only 60 percent of the national average. By the 1990s, average farm household income had reached the national average. Moreover, the average values of farmer net worth and assets are well above the averages for all Americans.¹⁶

One reason for the relative improvement of the income of farm families is the increased opportunities for nonfarm income. Farm income has become a progressively less important part of the income of farm operator households as other employment opportunities in many rural areas have opened up for those still on farms. In 1993, for example, farm income accounted on average for only about 13 percent of the income of farm operator households. While the importance of off-farm income varies widely among individual farms, classes of farms, and regions, the declining importance of farming as a source of income for rural households is a clear trend.

¹⁵ Additional comment by Leland Swenson, National Farmers Union: Farm debt to asset ratios decreased as a result of more land held by off-farm, non-operator investors following the difficult years in the mid to late 1980s. Minimum investments made in current operations have also resulted in minimal increases in operating debt.

¹⁶ Additional comment by Leland Swenson, National Farmers Union: Farming remains disadvantaged compared to other sectors of the economy. Without the combination of off-farm income and on-farm income, including farm support programs, a majority of the farmers would be living below poverty level or forced out of farming completely.

Thus, two conditions stand out: Production in the sector has become much more concentrated and the sector's financial condition is much improved compared to conditions in the first half of the 1980s.¹⁷

III. Critical Issues

The Working Group identified the following as issues of highest priority:

- 1. What purpose should farm price and income policies and programs serve in the future?**
- 2. What should be the role of environmental programs in the Farm Bill?**
- 3. What roles, if any, should crop acreage retirement and other supply control measures play in future US farm price and income programs?**
- 4. Should farm program benefits be targeted?**
- 5. How can spending on price and income policies be restrained or reduced with the least adverse impact on the farming sector?**
- 6. Should something be done to remove the uncertainty about estimated annual total expenditures associated with farm price and income programs?**

Alternative policy options for addressing these issues were identified and the prospective implications of the options in terms of effects on farm income, competitiveness of US farm products in domestic and international markets, nonfarm income and employment, federal spending, farm price variability, consumer prices, and environmental benefits were examined.

The following discussion of each of the issues reflects the collective deliberations of the group. Clearly, members of the group have differences of opinion about the characteristics of the issues and certainly about the alternative policy-options wherein government might respond to the issues. Any one member would perhaps have stated the issues differently and each would have described the alternative approaches to the issues and their related effects differently to convey particular emphases and nuances. As indicated in footnotes, Working Group members in some instances take exception to sections of the main text.

Issue #1 What purposes are farm price and income policies and programs to serve in the future?

Policy Option A-- To equalize the income of farmers and nonfarmers.

¹⁷ Additional comment by Leland Swenson, National Farmers Union: The production sector's financial condition has improved only because of an increase in off-farm income reported as farm household income.

- Policy Option B-- To compensate for characteristics of the industry that, in some cases, are still unique.
- Policy Option C-- To constrain year to year variability in farm "program" crop prices.
- Policy Option D-- To promote the competitiveness of US farm products in international and domestic markets.
- Policy Option E-- To serve as a transition to a more market-oriented farm program.

For many years, the disparity between farmers' incomes and the incomes of others in society has been emphasized as a basis for federal government actions to increase farm prices and expand demand for farm products. Thus, the thrust of Policy Option A was a prominent rationale for farm price and income programs in the 1930s, when the U.S. initiated efforts to limit farm production, and it continued as a rationale into the 1970s. More recently, income objectives have receded in prominence and industrial policy has increasingly received more attention.

For an extended period of time, the average income of farmers lagged substantially below the average income of others in society. Over time this income disparity has been eliminated. On average, farmer incomes are now comparable. Moreover, the wealth of farmers, again on average, exceeds that of nonfarmers.

Consequently, it is no longer possible to persuasively argue for transfers of income to farmers on equity grounds. This long articulated objective of farm programs has been achieved! However, there is concern that prospective changes in programs could again lead to disparities.

The transition to an era of greater income equality between farm and nonfarm sectors of the economy has been associated with increased farm size, a large exodus of people from farming, increased nonfarm employment by farm family members, increased substitution of capital for labor, and greater sophistication in managing and organizing resources in farm and ranch production and marketing.¹⁸

Other rationales for farm price and income programs have become more prominent over the past two or three decades. One continues to emphasize the uniqueness of the industry and the

¹⁸ Additional comment by Leland Swenson, National Farmers Union: The decrease in the income disparity between farmers and others in society could never have been accomplished without including off-farm income. Operation costs, tax barriers, regulations and low cash commodity prices less off-farm income would leave many farmers with no so-called "wealth." In fact, the price and income program direction of the 1985 and 1990 Farm Bills left producers with no choice but to rely on off-farm income as a means of economic support.

implications of this uniqueness for a stable and viable sector (Policy Option B). Characteristics that give uniqueness to agriculture include:¹⁹

- its atomistic, divided, unconnected, and even sometimes antagonistic structure,
- its vulnerability to sharp swings in production from weather, pests, and diseases,
- its vulnerability to extreme price and income volatility due to the inelasticity of domestic demands for its products, and
- its lack of economic power vis-à-vis its suppliers and buyers for its products.

These arguments became less telling as agriculture matured as an industry and individual producers became better equipped to anticipate and deal with the risks that are unique to farming. For example, the issue of producers' economic power vis-à-vis their suppliers became less important for many commodity producers as they increased in size. Moreover, the availability of government support discouraged the development and use of commercial risk management tools.²⁰

The liberalization of international trade and the growing involvement of US agriculture in world markets have had highly beneficial results. However, econometric estimates conclude that global agricultural subsidies still lead to farm product prices below what they would be if agricultural production and exports were not subsidized by any country.²¹

Although many Working Group members accept the notion that the farm sector has several unique features, not all do. Those who dissent conclude that a vast majority of Americans are price-takers, not just farmers. They observe that farmers are not unique as price takers. They conclude that in many cases, even large corporations are unable to make product price increases

¹⁹ Additional comment by Leland Swenson, National Farmers Union: Its vulnerability to currency variances and fluctuations is another characteristic.

²⁰ Additional comment by Gaylon Booker, National Cotton Council of America: Agriculture operates on very narrow margins which is possible because of the existence of a government program safety net. Larger farms and improved technology notwithstanding, agriculture remains quite vulnerable to weather, pests and disease. This translates as higher risk than is normal for nonfarm enterprises--risk which, in the absence of the government safety net, would have to be rewarded by much higher consumer prices. While commercially available tools are useful for managing risk, they offer no assurance of profitable prices.

²¹ Additional comment by Leland Swenson, National Farmers Union: There is little or no evidence that liberalization of international trade, the growing involvement of U.S. agriculture in world markets and a reduction in carry-over stock has proven to be beneficial in higher commodity prices for producers. Studies have shown that export subsidies have not enhanced cash prices producers receive in the market.

hold. Moreover, there is no evidence that rates of return in agriculture are lower because of concentration of power in agribusiness, nor that farmers are exploited by the agribusiness sector.²²

Further, producers will not earn a low return on their resources if those resources are mobile. They conclude that farm resources do respond to economic incentives as evidenced by incomes and rates of return on resources of adequate-sized, reasonably well-managed farms being at least as high as like resources elsewhere in the economy.²³ They also argue that although weather related risks may be unique to farming, farming is not unique in encountering risks. Risks are widespread in our economy. They are encountered by small businesses which have a higher failure rate than do farms. They are also faced by typical American workers who often are not sure how long their jobs will last.

Another rationale for farm price and income programs is to promote competitiveness (Policy Option D). An emphasis on competitiveness, would accentuate policies that lowered costs of production, enhanced the demand for farm products in domestic and international markets, fostered the production of products with characteristics desired by domestic and foreign consumers, and allowed product and input prices to adjust so that market signals flowed quickly among farmers and buyers of their products. Efficiency and responsiveness to market prices and opportunities would be given high priority under this approach with reduction and possible elimination of government price supporting activities.²⁴ Attention would be given to expansion of private market activities that facilitate commercial transfers of risk.

Attention would also be given to (1) fostering private and public research and extension that contribute to improved production and lowered production costs, (2) privately and publicly financed market development activities designed to expand the demand for US farm products, and (3) continuous efforts to lower barriers to international trade of farm products. In addition, this emphasis on competitiveness would call for government action to influence environmental externalities so that the related social costs would be taken into account by private decision makers. A singular focus on competitiveness would call for less attention to: farm income levels, market price levels, and restraining farm production.

²² Additional comment by Leland Swenson, National Farmers Union: Farmers' and ranchers' marketing opportunities are affected by the concentration of power by agribusiness. Many farmers feel exploited by the agribusiness sector, especially by non-negotiable contracts extended for production.

²³ Additional comment by Gaylon Booker, National Cotton Council of America: Farmers have little discretion to move their resources around. Farms tend to be rather immobile and equipment rather specialized and unique to the commodity for which it is designed (cotton pickers are not useful for harvesting other crops, etc.). In the absence of government price support programs even 'adequate-sized, reasonably well-managed farms seldom generate enough revenue to cover the full economic cost of production.

²⁴ Additional comment by Gaylon Booker, National Cotton Council of America: Substantial reduction or elimination of price supports will not promote competitiveness if such reductions or elimination is done unilaterally by the U.S.

Farm prices and incomes are subject to wide swings from year to year. This situation motivates some to propose Policy Option C--to constrain year to year variability in farm prices. Year to year price variations are due to several factors. Two of the more important are changes in supply prospects caused by variations in weather and alterations in demand prospects associated with changes in import demands of other countries and supply availability in competing exporting countries. The resulting instability has been a primary justification for farm programs that support prices of selected crops and insulate crop supplies from markets.

Conceptually and on an after-the-fact basis, it is relatively easy to imagine how programs can be used to stabilize prices (i.e., mitigate price drops and cut off the peaks in prices while still permitting longer term trends in prices to occur). However, some members of the Working Group believe that in practice it is much more difficult. First, they say it is extremely difficult on any one day to identify which part of current price movements is associated with longer term trends and which part is associated with transitory supply and demand conditions. And, second, they contend that there is continual and significant pressures to avoid price declines, but, in contrast, pressures to let price increases run their course unrestrained by government actions even if the causes of the increases are considered to be transitory. Thus, an asymmetric set of pressures develops to mitigate price declines, but to let price increases happen without restraint.

In the past this asymmetry is believed to have led on occasion to excessive build up of stocks and the withholding of resources from production for extended periods of time. These actions are costly to taxpayers.

Those who favor public actions that stabilize prices point to the economic efficiencies that can be gained if prices are stable. Creditors, for example, are more willing to provide credit to producers assuming prices are stabilized at a level high enough to provide a reasonable expectation that the loans can be repaid. However, such efficiencies, if realized, imply greater investment, higher production, and lower price levels than if prices are not stabilized.

All can agree that risks are prevalent in agriculture. The vital questions are: To what extent should risks associated with agricultural production and marketing be assumed by the public, especially urban consumers? If there is a political decision to shift risks, can it be politically and administratively accomplished without large distortions in efficiency that are greater than the benefits realized by producers and consumers? And, what are the effects of the farm program's socialization of risks on the development of private risk transferring mechanisms?²⁵

²⁵ Additional comment by Gaylon Booker, National Cotton Council of America: Risks can, indeed, be shifted in a cost effective way. Federal price and income support programs allow farms to operate on very narrow margins. In the absence of such programs, prices of farm products would be more volatile and would be much higher on average in order to compensate for the unusual risk associated with agricultural production.

There is general agreement among members of the Working Group that US farm policy should pursue policies that assure that US farm product prices are competitive in international markets (Policy Option D). There is also general agreement that the primary purpose of these programs should be to address some of the problems associated with the industry's uniqueness and that income redistribution is no longer the primary goal. Members of the Working Group recognize the need to implement programs designed to facilitate the transition of the industry to one that is more market oriented (Policy Option E). Most of those who favor a substantially reduced role for government in US agriculture, visualize that the transition should be gradual and not abrupt and that consideration should be given to international trade opportunities and the subsidy programs of other countries, in adjusting the programs.²⁶

Further, the producer members of the Working Group are particularly concerned about the effects of large and sudden unilateral cuts in US farm programs on prices and farm income. They also believe that a very important purpose of farm programs is to compensate US farmers for price depressing effects of foreign agricultural subsidies. At the same time, other members of the Working Group point out that the family farm, risk, and environment may be unique aspects of farming that commodity programs might address but that current programs do not address the issues associated with these aspects of farming in an effective, efficient, or equitable manner.

Issue #2 What should be the role of environmental programs in the Farm Bill?

- Policy Option A--** Retain existing commodity and environmental programs largely in their present forms, including a modified Conservation Reserve Program.
- Policy Option B--** Require designated environmentally friendly farming practices as a condition for receiving benefits associated with commodity and other USDA programs, including credit and cost-sharing.
- Policy Option C--** Disconnect environmental objectives from price and income programs and utilize regulations and green or stewardship payments to farmers for taking actions to reduce environmental degradation.
- Policy Option D--** Mandate that all farmers and ranchers are to practice approved conservation practices.

The relationships among commodity programs, farm production practices, and environmental quality have been given increased attention in recent years. In considering these

²⁶ Additional comment by Gaylon Booker, National Cotton Council of America: Huge foreign subsidies (e.g., the EU), disruptive policies of non-market economies (e.g., China) and undisciplined actions of nations with totally artificial economies (e.g., republics of the former Soviet Union) can only be effectively addressed through federal programs.

relationships it is important to keep in mind that only one-half of US cropland is in farms that participate in commodity programs. This situation seriously limits the ability of commodity programs to address environmental problems. Some people support program features designed to enhance farm related environmental amenities and feel that this should be intertwined with commodity program features that support the income of producers and farm land owners. They believe that, without the link to farm income objectives, environmentally related programs might not attract budget support, and thereby neutralize the potential supply restraining effects of farm programs. Such a situation could force the abandonment of some environmental programs unless society is disposed to pursue a more intense regulatory approach.

Producers are anxious to protect the funding of the CRP. Although there is substantial support among Working Group members for continuation of the CRP in some form, there was recognition that environmental benefits associated with the program could be achieved with a more targeted criteria and for less cost.

Voluntary compliance with environmentally-friendly practices as a condition for participation in farm programs (Policy Option B) has been promoted, even though it decreases producers' flexibility in managing resources and probably slows reorganization of resources to achieve economic efficiencies. It also dilutes the focus of the programs and deflects them from achieving environmental objectives.

There was general agreement that environmental objectives could be pursued independently of funding the price and income objectives (Policy Option C). Producers are opposed to diverting funding from price and income programs to environmental programs. Producers are supportive of an environmental approach that is voluntary, incentive driven, and operated in ways that are complementary to traditional farm programs.

Some members of the Working Group maintain that society should expect all farm land to be managed in ways that are consistent with conserving soil and water (Policy Option D). The central argument for this approach relates to property rights. Much of the damage associated with non-conserving farming practices is imposed on resources off the farm. Silting of rivers and reservoirs is an example. Just as it is argued that neither the public nor private individuals have a right to negate the value of property owned by individuals, it is argued that private property owners (in this case farmers) do not have a right to negate the value of property owned by the public. To do so impinges on the rights of others. Historically, a corollary of the right to hold property has been a duty to refrain from using it in a manner that would cause harm to others.

In summary, the Working Group is favorably inclined toward programs that make environmental practices voluntary and that provide incentives to induce producers to undertake and maintain them.

Issue #3 What roles, if any, might crop acreage retirement and other supply control measures play in future US farm price and income programs?

Policy Option A-- Continue to use set-asides and other land idling alternatives to control crop output.

Policy Option B-- Reserve acreage control authority (including ARPs and the CRP) for use as a last resort, allowing private decisions to adjust cropping patterns (including switching land between pasture/hay and cultivated crops), crop production practices (such as intensity of fertilization), and livestock production, to reflect market demands and supplies.

Policy Option C-- Totally abandon use of supply control and crop acreage retirement programs (including ARPs and the CRP), but provide government financed incentives for farmers to adjust storage levels in response to changes in international demands and supplies.

Programs that withhold land from crop production have been a feature of US farm programs for many years. In some years they have been essentially inoperative. In other years these programs have prevented the cropping of a substantial number of acres. For example, at the beginning of 1995 36.4 million acres (about one tenth of US cropland) were enrolled in the CRP and could not be cropped. Also, under certain individual crop supply and stock conditions, the Secretary of Agriculture may require producers of specific crops to forego production on a designated portion of the historic crop acreage.

It has become apparent to many involved with the commodity programs, including producers, that acreage diversion has contributed to an erosion of the US share of export markets. As a result, support for programs that idle productive cropland has diminished.

One program adjustment discussed widely might be considered as a variation of Policy Option A. It involves combining the acreage of the individual crops and utilizing a "normal crop acreage." This approach would give producers more flexibility in deciding the mix of their crop production.

A "normal crop acreage" approach might be offered as compensation for reduced payments. Producers of some crops are concerned that widespread application of the "normal crop acreage" concept could lead to increased production of their crops and therefore to lower prices for their products. The "normal crop acreage" approach leads to less government control over production of any one commodity.

Those who favor Policy Option A point out that other countries subsidize production and stress that until these countries eliminate their subsidies, US producers would be disadvantaged in trying to compete in international markets in the absence of government programs to adjust supplies, subsidize exports and support of market development activities. They also argue that to suggest that US consumers are better off relying on imports, glosses over longer term impacts of reliance on higher cost foreign production, discounted temporarily by foreign treasuries. In addition, they point out that economic activity, jobs, and taxes are also lost if the United States refuses to compete and forfeits its agricultural production base and its processing and marketing infrastructure to subsidized competition from abroad.

The response to the argument that the US government should subsidize US producers as long as other countries do so, focuses on US consumer interests. Consumers benefit from the availability of products at the lowest cost. If taxpayers of other countries are willing to subsidize production, this works to the advantage of US consumers as long as consumers have the benefit of these lower prices. In the end, US consumers are better off if the U.S. recognizes and accepts the product availability at the lower price levels. But they are worse off if, in response to other countries' subsidies, they forego the availability of lower prices and instead raise US domestic prices by idling resources and undertaking inefficient economic activity, including subsidizing exports.

Further, those who support this logic and favor options B and C suggest that in today's modern economy, the adjustments would occur without undue hardship and note that half of US farm production occurs on farms that do not have the direct benefit of price and income programs. Yet, producers of these products effectively adjust to changing economic challenges and opportunities.

Those who favor option B or C also argue that the export subsidy/land idling approach leads to the U.S. being the residual supplier in international markets and ignores the historic significance of the Uruguay Round, which finally capped escalating supports and began the process of phasing them down. Simply put, they argue that supply management is no longer necessary or useful as a tool to build farm income or rural economic activity. Moreover, in a global market, US acreage set-asides are a relatively ineffective means of raising commodity prices.

Members of the Working Group who tend to favor options B and C also argue that current programs lead to outcomes that are inefficient in that the programs (the combination of regulations, income transfers, withholding of land from production, as well as other program features) lead to the organization of production resources and production mixes that in the end cost consumers more than would be the case without the programs. The argument is that markets work and that price signals unfettered by government intervention lead to greater efficiency, lower consumer prices, and higher national income.

In contrast, other members of the Working Group believe that it is illogical to think in terms of "price signals unfettered by government intervention". Prices are made in the global market. They argue that even if the US government should abolish its agricultural programs, other nations would not, and prices would continue to be "fettered" by government intervention. They also argue that if annual acreage controls are eliminated, stockholding incentives must be increased to ensure stable markets.

Again, others disagree and argue that there are several problems with this argument. Governmental storage benefits can take on the character of an income supporting entitlement. This leads to excessively large and expensive "reserves" that, in the end, weigh heavily on markets and taxpayers.

Moreover, they suggest that world supply fluctuations are modest--typically less than 3 percent deviation from trend. Demand surprises like those of the 1970s also are unlikely, as resource constraints limit buyers. More open trade flows also now work to smooth these fluctuations. Perhaps most importantly, if government stockholding is limited to emergency reserves, markets will adjust to provide incentives to carry additional supplies in periods of surplus and to reduce stocks in times of tight supplies. It will perform this stabilizing function at lower cost and greater responsiveness than subsidized schemes.

Issue #4: Should government farm program payments be targeted?²⁷

- Policy Option A-- Continue to base the amount of payments to individual producers and landowners on their production in some historic period.
- Policy Option B-- Limit payments to those producers and landowners who are heavily dependent on farming for their income, for example, those with farm sales over \$100,000.
- Policy Option C-- Limit payments to those who produce farm commodities, and have net farm and nonfarm income less than, for example, \$25,000 or the US poverty level.

²⁷ Additional comment by Leland Swenson, National Farmers Union: Another policy option should be added to limit payments to a volume of production on which a person can receive deficiency payments with strong prohibitions on artificial subdivision of farmers to avoid such limits.

Getting agreement across the agricultural community on how to distribute farm program benefits is inherently difficult. Traditionally, farm program benefits have served as incentives to induce those farmers responsible for most of the output of program crops to participate in supply management programs. As the value of supply management has been questioned, the pressures for charting a new course have grown.

The distribution of income transfers associated with commodity program benefits among landowners and farm operators is very uneven among farmers since these benefits are based on the level of output and farms vary greatly in scale. Also, farm price and income programs directly benefit landowners and farm operators who produce only certain commodities and the levels of benefits among commodities differ greatly. The investments required, revenue generated, and economic activity stimulated also vary greatly among producers. In response to criticism of the distribution of large payments and program benefits to some producers, various attempts have been made to legislate limits on the size of payments going to individual producers.

The federal government paid farmers \$9.1 billion in direct payments in FY 1993 and \$5.1 billion in FY 1994. Most farmers received small payments. But, a small number of producers obtain a large share of the payments. And many program participants have relatively high net incomes. This distribution of payments is an inevitable result of commodity programs that tie payments to production.²⁸

Payment limitations are recognized as having been highly ineffective in actually limiting the amount of direct program financial benefits accruing to individuals.²⁹ With creative organizational arrangements farm operators and farmland owners have been able to avoid much of the severity implied by farm program payment limitation rules.

Policy Option A represents a continuation of measures adopted in 1985 that links income supports to historical bases in order to reduce their production-distorting effects. This "partial decoupling" of benefits has been only partially successful in curbing distortions. But, it can provide a relatively smooth and predictable transition with only minor changes.

Policy Option B represents a new concept. Revenue assurance or tax advantaged income holding accounts are examples of this approach.³⁰ Policy Option C reflects the idea of targeting benefits exclusively on the basis of need. This approach implies that low-income people should

²⁸ Additional comment by Gaylon Booker, National Cotton Council of America: But the tie to production is a crucially important component of U.S. agricultural policy in a post-GATT international trade arena in which a continuation of very large, non-targeted benefits is sanctioned and will undoubtedly be continued by most of US agriculture's foreign competitors.

²⁹ Additional comment by Gaylon Booker, National Cotton Council of America: Benefit targeting is counterproductive as well.

³⁰ Additional comment by Gaylon Booker, National Cotton Council of America: Revenue assurance and tax plans are much inferior to current policies.

receive income support simply because they are engaged in farming, a proposition of questionable merit.

Over time there has been substantial resistance to limiting payments to farmers. One of the primary reasons for this reluctance has been the concern about the consequences of effective payment limitations on program participation. The notion is that effective limitation would lead to large producers not participating in the programs and that this nonparticipation would erode the effectiveness of the programs on restraining production and supporting farm product prices.³¹

Although the Working Group was not able to come to a single point of view on this subject, members are generally opposed to proposals to use a "means test" to target payments. They see the primary purpose of the programs as directed toward stabilization of markets (and thereby reduction of risks carried by producers), rather than toward individuals meeting particular income or other criteria. Moreover, limiting payments through means testing tends to be administratively difficult and generally unworkable.³²

Issue #5: How can USDA spending be restrained or reduced with the least adverse impact on the sector?

Policy Option A-- Maintain existing structure of price and income programs, but reduce the magnitude of benefits through such measures as increased flex acreage and/or reduced target prices but continue to require historic production levels for payment eligibility.³³

Policy Option B-- Cut other USDA related spending before making cuts in commodity programs.

Substantial federal government expenditures and consumer price enhancement are associated with farm commodity programs although there are significant differences among commodities. Americans pay for these programs in two ways.³⁴ For some commodities like feed

³¹ Additional comment by Gaylon Booker, National Cotton Council of America: Denying program eligibility to larger commercial entities also inhibits international competitiveness.

³² Additional comment by Leland Swenson, National Farmers Union: Farmer owners and operators who have supplemental off-farm jobs should continue to be eligible, but persons or entities which have extraordinary net incomes from unrelated, nonfarm sources of more than \$100,000 should not be eligible for farm program benefits.

³³ Additional comment by Leland Swenson, National Farmers Union: A better option is to maintain the existing structure of price and income programs, but direct benefits to a limited volume of production on which any one person may receive deficiency payments and prohibit the artificial subdivision of farmers to avoid limits. In addition, raise the loan level close to the established target price to reduce deficiency payment costs.

³⁴ Additional comment by Gaylon Booker, National Cotton Council of America: Any analysis which purports to show that Americans pay two ways for the cotton, rice wheat and feedgrain programs is highly flawed. In fact, these programs deliver a net gain to Americans because: (a) the programs provide a highly cost-effective safety net

grains, cotton, rice, and wheat, the cost is borne by the taxpayer. Some of these programs use federal payments to encourage producers to produce less.

For other commodities, such as sugar and peanuts, restraints on both production and imports are used. These policies and regulations impose implicit consumption tax-like effects on consumer expenditures for the related farm products. In recent years, imports of sugar have been limited and now as a result of the Uruguay Round of trade negotiations high tariff quotas will be substituted for the quantity limits on imports. Thus, prices consumers pay for sugar will continue to be much higher than they would be without the sugar program. The milk program also affects consumer prices. The classified pricing system applied through milk marketing orders results in fluid milk prices that are higher than they would be without the orders, and prices for milk used in processed products like cheese may be lower.

Given the diversity of its membership, the Working Group failed to develop a consensus response to this issue. Some members favor arrangements whereby cuts, if any, in farm commodity programs would be no greater than cuts in other agricultural programs and, in particular, less than cuts in non-agricultural programs. They note that agricultural spending was reduced by two-thirds between FY 1986 and 1995. They recognize that cuts will make the programs increasingly ineffective and eventually lead to the demise of the programs. Others insist that cuts in commodity programs could be acceptable if all programs were cut an equivalent amount. Still others argue that inequitable and inefficient programs should be cut whether for agriculture or other sectors, and that farm commodity programs should be cut more than other agricultural and non agricultural programs.

Issue #6: Should something be done to remove the uncertainty about annual total expenditures associated with farm price and income programs?

Policy Option A-- Preserve the existing entitlement status of the commodity programs.

Policy Option B-- Set program caps and eliminate the entitlement feature of commodity programs. And, eliminate the CCC--which facilitates the avoidance of caps on program expenditures. Enforce caps with program features such as (1) setting the number of acres (on which payments to farmers are made). (2) adjusting price support levels and repayment requirements associated with

which reduces the substantial risk on agricultural investment that otherwise would have to be rewarded with much higher retail prices for food and fiber products, and (b) the programs also function as part of a global system of agricultural supports, the very intent of which is to permit farm products to move to market at prices below the world average cost of producing them. In the absence of these programs, retail prices for cotton and grain products would most assuredly be higher. Each American spends just over 5 cents a day for the cotton, rice, wheat and feedgrain programs combined. Americans spend a smaller percentage of their income for food and fiber than citizens anywhere else in the world. How can anyone possibly conclude that such returns do not far surpass a nickel-a-day investment.

marketing loans after price and supply conditions are known with a high degree of confidence, and (3) adjusting other farm program outlays.

Policy Option C-- Set program caps and initial criteria for making farm program payments. As events unfold, prorate available funds among commodity program activities.

Policy Option D- Identify historic levels of direct program benefits received by each producer and landowner (including the value of marketing loans and deficiency payments, as well as program benefits). Prorate any future appropriations according to these historic benefits.

It is nearly impossible to accurately predict the federal expenditures for commodity price support programs. The programs are operated so that producers and landowners who meet specified criteria receive payments based on events that occur after the details of the programs are announced. Consequently, the total costs of the individual programs may be more or less than projected and are not limited by congressional authorization and appropriations. Neither authorization nor appropriation decisions, in the end, limit total payments to producers and, therefore, the federal expenditures for the price and income programs.

The federal budget deficit continues to be excessive. Although the annual deficit has declined and is projected to decline again in FY 1995, it is now expected to increase again in FY 1996 and to double by the early part of the next century. At the same time, the cost of farm price and income programs is small relative to the prospective deficits of the federal government (about one percent of all entitlement expenditures). Even so, pressures to constrain government costs, including farm price and income programs, are likely to continue to be severe.

The entitlement feature of current programs, transfers some economic risk from farmers to society as a whole. Implementation of any options for capping government cost exposure would shift these risks, at least partially, back to producers. But the extent of this shift would depend greatly on the level of the caps.

To cap total expenditures, regardless of the technique utilized, strikes at a central tenet of the commodity programs as they were conceived and have been operated over the years. Basically they were designed to transfer risk of low farm product prices from producers to society as a whole (Policy Option A). Thus, government expenditures increase when farm product prices decline, and should decrease when farm product prices increase. To cap total payments regardless of market forces and trends in price would stymie the stabilizing counter cyclical nature of the programs.

Further, there are problems associated with the uncertainty over annual total commodity program outlays. The difficulties in predicting weather and export demands make it impossible to

accurately forecast the specific expenditures for any one year. However, if this were the only problem, the difference between actual and forecast expenditures would even out over, say, a 5 to 10 year period. But this is not what has happened.

Some members of the Working Group believe that any appreciable shifting of risk currently carried by society to farmers (as would be done with policy Options B, C or D) will produce one or more of the following consequences: (1) higher retail prices commensurate with the increased risk to investors, (2) reduced competitiveness of US agricultural production (particularly if marketing loan benefits are limited), and/or (3) shifting of the US agricultural production base (and processing and handling infrastructure) to countries whose governments are willing to underwrite the risk.

In contrast, others argue that shifting more risks to producers by capping total program payments would lead to increased efficiencies as producers made adjustments similar to those made by other industries (and, in fact, by US agriculture when it encounters lower returns and/or greater risks are encountered). They also conclude that current commodity programs and associated subsidized crop insurance supports production in high risk marginal farming areas. This production is uneconomic, they argue, and is unfair to producers of competing commodities in other areas of the nation.

These members feel that capping expenditures may also result in other changes. Perhaps most important, a cap on total expenditures might prompt much closer review of programs for their real cost-effectiveness. This could result in much better spending decisions across the board in agriculture.

IV. Concluding Comments

For many reasons, US farm legislation is fast approaching an important juncture. One of the more important reasons is that the consideration of new farm legislation is taking place at a time of very serious federal budget pressures. Therefore, the costs and benefits of the next farm bill will probably be weighed more carefully than with any previous farm bill.

In addition, this examination of farm policy comes at a time of dramatic structural changes in farming and ranching. Ownership patterns are changing. People continue to leave farming and those remaining are integrating farm and nonfarm activities. The "division of labor" between farming, and agribusiness is blurred as traditional farm product markets are bypassed and ownership arrangements and contracts determine how farm products are produced and marketed, as well as how they are valued. Farms and ranches continue to increase in size as a continuous flow of improved technologies reward larger scale.

The expiration of the current Farm Bill occurs at a time of increased attention to export opportunities and to the importance of expanded exports to the long-run economic viability of American agriculture.

Society continues to have an affinity for farmers and a sympathy for how they cope with weather and market vagaries. There is, however, a real possibility that past support of farm price and income programs will erode as the increasing equality of farm and nonfarm incomes is recognized and budget pressures pit farm price and income programs against other government expenditures.^{35 36}

³⁵ Additional comment by Leland Swenson, National Farmers Union: Equality of farm and nonfarm income has not occurred because of farm price and income programs. This statement misleads readers into believing less support is needed for price and income programs because of reported equality in farm and nonfarm income. The reality is that in 1993 farm income was \$5,125 including monies received from farm price and income support programs.

³⁶ Additional comment by Leland Swenson, National Farmers Union: People have been forced to leave farming and ranching and rely more on off-farm income because of the price and income support levels of the 1985 and 1990 Farm Bills and the action incorporated in the budget reconciliation process during the past five years.

The decrease in the US share of the world market is a result of the strong dollar, economic instability in many importing countries and increased exports by a number of countries.

To decrease the cost of current farm programs and to restore integrity in the eyes of the public and farmer, the 1995 Farm Bill needs to direct farm program benefits, provide farmers planting flexibility and enable producers to increase their income from the cash marketing of commodities.

APPENDIX A

A List of Farm Program Definitions

Acreage Reduction Program (ARP)

A voluntary land retirement system in which participating farmers idle a prescribed portion of their crop acreage base of wheat, feed grains, cotton, or rice. The base is an historical average of the acreage planted for harvest and considered to be planted for harvest. Acreage considered to be planted includes any acreage not planted because of acreage reduction and acreage diversion programs during a period specified by law. Farmers are not given a direct payment for ARP participation, although they must participate to be eligible for benefits such as Commodity Credit Corporation (CCC) loans and deficiency payments. Participating producers are sometimes offered the option of idling additional land under a paid land diversion program, which gives them a specific payment for each idled acre.

Base Acreage

A farm's average acreage of wheat, feed grains, cotton, or rice planted for harvest and considered planted during each of the preceding five crop years or three crop years for cotton and rice. Acreage considered planted includes acreage reduced under an acreage reduction program, diverted, prevented from planting by natural disaster, and placed in conserving used under the 0-85 provision. Crop acreage bases are reduced during the life of the contract by the portion of base acreage placed in the Conservation Reserve Program.

Conservation Reserve Program (CRP)

A program first authorized by the Food Security Act of 1985 (PL 99-198) designed to reduce erosion on 40-45 million acres of cropland. Under the program, producers who sign contracts agree to convert highly erodible cropland to approved conserving uses for 10-15 years. In exchange, participating producers receive annual rental payments and cash, or payments-in-kind to share up to 50 percent of the cost of establishing permanent vegetative cover. Under the Food, Agriculture, Conservation, and Trade Act of 1990 (PL 101-624) the program was broadened and renamed the Environmental Conservation Acreage Reserve Program.

Deficiency Payments

A direct government payment made to farmers who participate in wheat, feed grain, rice, or cotton programs. The payment rate is per pound, bushel, or hundredweight. It is based on the difference between the price level established by law (target price) and either the market price during a period specified by law or the loan rate, whichever is higher. The total payment is equal

to the payment rate multiplied by the eligible payment acreage planted for harvest and then multiplied by the program yield established for the particular farm.

Federal Marketing Orders and Agreements

A means authorized by legislation for agricultural producers to promote orderly marketing and to collectively influence the supply, demand, price, or quality of particular commodities. A marketing order may be requested by a group of producers and must be approved by the Secretary of Agriculture and a required number of the commodity's eligible producers (usually two-thirds) in specified areas in a referendum. Conformance with the order's provisions is mandatory for all producers and handlers covered by the order. It may limit total marketing, prorate the movement of a commodity to market, or impose size and grade standards.

Federal Milk Marketing Orders

A regulation issued by the Secretary of Agriculture specifying minimum prices and conditions under which milk can be bought and sold within a specified area.

Flex Acres

A provision of the Omnibus Budget Reconciliation Act of 1990 (PL 101-508) and the Food, Agriculture, Conservation, and Trade Act of 1990 (PL 101-6724) that requires a mandatory 15-percent planting flexibility for program participants. Under this provision, producers are ineligible to receive deficiency payments on 15 percent of their crop acreage base (not including any acreage removed from production under any production adjustment program). Crops on normal flex acreage are still eligible for nonrecourse loans and marketing loans. Producers are allowed to plant any crop, except fruits, vegetables, and any crop prohibited for planting by the Secretary of Agriculture, on these acres. Also referred to as triple base. Producers may plant alternative crops on up to 10 percent additional base acreage (optional flex acres) if they agree to forego deficiency payments.

Marketing Loans

A program first authorized by the Food Security Act of 1985 (PL 99-198) that allows producers to repay nonrecourse price support loans at less than the announced loan rates whenever the world price or loan repayment rate for the commodity is less than the loan rate. Under the Food, Agriculture, Conservation, and Trade Act of 1990 (PL 101-624) marketing loan programs are mandatory for soybeans and other oilseeds, upland cotton, and rice and discretionary for wheat and feed grains. Provisions of the Omnibus Budget Reconciliation Act of 1991 made marketing loans mandatory for the 1993-1995 crops of wheat and feed grains.

Nonrecourse Loans

The major price-support instrument used by the Commodity Credit Corporation (CCC) to support the price of wheat, feed grains, cotton, honey, peanuts, tobacco, rice, oilseeds, and sugar. Farmers or processors who agree to comply with each commodity program provision may pledge

a quantity of a commodity as collateral and obtain a loan from the CCC. The borrower may elect either to repay the loan with interest within a specified period and regain control of the collateral commodity, or default on the loan. In the case of a default, the borrower, under penalty, forfeits the collateral commodity to the CCC. The loans are nonrecourse because the government has no option (or recourse) but to accept forfeiture as full satisfaction of the loan obligation, including the accumulated interest, regardless of the price of the commodity in the market at the time of default.

Normal Crop Acreage (NCA)

The acreage on a farm normally devoted to a group of designated crops. A farm's total planted acreage of these designated crops, plus any set-aside, cannot exceed the NCA if a farmer wants to participate in the federal farm programs. The NCA has not been used as the basis for commodity programs since 1980.

Payment Limitations

The maximum amount of commodity program benefits a person can receive by law. The payment limitation was first imposed by the Agricultural Act of 1970 (PL 91-524). Separate payment limitations are set for the honey, wool, and mohair programs. Persons are defined under payment limitation regulations, established by the USDA, to be individuals, members of joint operations or entities such as limited partnerships, corporations, associations, trusts, and estates that are actively engaged in farming.

Price Support Loans

Government programs that keep farm prices received by participating producers from falling below specific minimum levels. Price support programs for major commodities are carried out by providing nonrecourse loans to farmers so that they can store their crops during periods of low prices. The loans can later be redeemed if commodity prices rise sufficiently to make the sale of the commodity on the market profitable, or the farmer can forfeit the commodity to the Commodity Credit Corporation. In the latter case, the commodity is stored and is not available to the market until prices rise above statutory levels that allow the CCC to sell the commodities. Other price support mechanisms include direct purchases and other payments. Commodities supported in the United States include wheat, corn, grain sorghum, barley, oats, rye, rice, soybeans, peanuts, tobacco, certain dairy products, wool, mohair, and sugar.

Program Yield

The farm commodity yield of record determined by a procedure outlined in legislation. Under the Food, Agriculture, Conservation, and Trade Act of 1990 (PL 101-624) program yields were set at the same levels determined for program crops in 1986. The law also allows the U.S. Department of Agriculture (USDA) to update program yields at the average of the preceding 5 years' harvested (see harvest) yield (after dropping the high and low years). However, this

provision, known as proven yields, has not been implemented. The farm program yield applied to eligible acreage determines the level of production eligible for direct payments to producers.

Set-asides

A voluntary program to limit production by restricting the use of land. Introduced in 1970, set-asides may be implemented at the discretion of the Secretary of Agriculture but have not been offered since 1979. When a set-aside program is in effect, the total of the planted acreage of the designated crops and the set-aside acreage cannot exceed the normal crop acreage. Producers must comply to be eligible for commodity loan programs or deficiency payments.

Support Price

A legislated minimum price for a particular commodity, maintained through a variety of mechanisms, such as minimum import prices. In the United States, support-price mechanisms include nonrecourse loans and purchase programs.

Target Price

In the United States, a price level established by law for wheat, corn, grain sorghum, barley, oats, rice, and upland and extra-long staple cotton. Farmers participating in the federal commodity programs receive deficiency payments based on the difference between the target price and either the market price during a period prescribed by law or the loan rate, whichever is higher.

Tariff Rate Quota (TRQ)

A tariff system that is extensively used in the Uruguay Round Agreement and the North American Free Trade Agreement to replace fixed import quotas. The TRQ imposes a nominal or zero tariff for import quantities up to a certain level and a very high tariff on imports above the first-tier level. The first-tier level can be progressively increased to gradually reduce import restrictions.

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Preface

The Working Group on Land Use, Conservation and Environment is one of six working groups organized by the National Center for Food and Agricultural Policy and the Hubert Humphrey Institute of Public Affairs, University of Minnesota, to focus on issues relating to the 1995 Farm Bill. Their goal is to provide a better understanding of the issues, alternative approaches to these issues and the consequences of policy options.

These working groups are a part of a project designed to help lay the groundwork for a more informed debate and better public policy choices during the 1995 Farm Bill process. In November of 1994, soon after working groups were appointed, two symposia, with the theme "Farm and Food Realities for the Twenty-First Century", were held to help provide a setting for the working group efforts. The final phase of the project consists of seminars, symposia and other discussion fora that focus on the findings and conclusions of the working groups and a consolidated report, summarizing and addressing issues that cut across working group topics.

Working group members were selected to include as many of the stakeholders, interest groups and scholars as possible without making them too large to function efficiently. In all, about 80 persons representing farm organizations, agribusiness firms, cooperatives, academics and others with an interest in farm policy served on the six working groups. Members included a former secretary of agriculture, six former assistant secretaries, presidents of 11 state farm organizations, 26 university faculty, several agribusiness executives, commodity organizations, and farmers. The Economic Research Service, USDA designated a resource person to work with each group. The sponsors are deeply indebted to all working group members who took time from busy schedules to participate and to the Kellogg Foundation, the ERS and a number of private firms and organizations that provided financial support for the project.

The Working Groups' reports attempt to reflect the discussion and predominant views about issues, options and consequences. No endorsement of a particular option on the part of members, their employers or the sponsors is necessarily implied.

John G. Stovall
Director, Farm Bill Project

REPORT OF THE WORKING GROUP ON FOOD AND CONSUMER ISSUES

Executive Summary

Purpose

The Food and Consumer Issues Working Group has produced this report as part of the 1995 Farm Bill Project. The group's members represent diverse backgrounds and brought a variety of viewpoints to the discussion. This diversity yielded a well-rounded consensus regarding the key issues, options, and consequences of public policy for food programs and food safety. The report is intended to inform policy makers about the full range of issues and options in these areas. No single viewpoint is given precedence, and the report contains no recommendations. The intent of the report is to inform.

Report Highlights

- Food programs developed in this country as a way to dispose of surplus agricultural commodities, but are now driven by the premise that "there should be no starvation amidst plenty" (Black, 1942).
- Food stamps provide an economic safety net for one in every ten citizens including one in seven children. They are a basic building block of income support for the poor.
- Some semblance of equity in the distribution of food to the poor is maintained by federal standards (entitlement) and programs.
- Block grants to states will move the burden of supporting the poor to the states. With balanced budgets, there is little capacity to respond to economic downturns. When citizens need help the most, the least resources will be available.
- Block grants to states will likely result in wide discrepancies in the amount of food and other resources distributed to the poor.
- Food stamps and other food assistance programs allow taxpayers to know how their tax dollars are spent.
- In addition to feeding the poor, current food and nutrition programs are an investment in the health and productivity of all residents, especially children.

- Modifications of the current food stamp and other assistance programs can be made that will accomplish the same cost savings allegedly available through block grants.
- Substantial resources are spent on food safety assurance by business and government. With tight federal budgets and increased international competition, the overall issue is achieving desired food safety levels as efficiently as possible.
- Food safety issues have traditionally not been included in farm bills. However, an analysis of food safety issues is an important part of a comprehensive assessment of food and agricultural policy.
- The US food supply is one of the safest in the world, but there are critical gaps and a loss of consumer confidence. A number of scientific reports have also criticized various aspects of the food quality regulatory system and suggested changes.
- Trade-offs exist between risk and cost. Legislation has passed the House of Representatives which would broadly apply risk assessment and cost-benefit analysis to regulatory decisions.
- There is widespread agreement that the current meat and poultry inspection system is antiquated. USDA has proposed new regulations based on a Hazard Analysis Critical Control Point (HACCP) system.
- A federal court decision ordered the EPA to apply the Delaney Clause and its zero-tolerance standard to pesticide residue in processed foods. Reforms have been proposed to enact a negligible risk standard for pesticide residues.

PART A

FOOD ASSISTANCE PROGRAMS

I. The Setting

Historical Context

The first government food assistance programs were started in the 1930s during the Depression. The primary goal at the time, was to dispose of agricultural surpluses purchased by the government in order to stabilize farm prices and incomes. Preventing hunger and improving the nutritional status of the poor--that is, investing in the human capital of the country--were strong secondary goals of food aid. Thirteen million people were receiving food supplements by 1939 (Paarlberg, 1980, p. 104). An early version of the Food Stamp Program (FSP) was initiated at this time. Most of these early food programs were discontinued during World War II because of enormous demand for agricultural products and a strong economy.

Public concern was again drawn to poverty and hunger in the United States in the late 1960s. The book *Let Them Eat Promises: The Politics of Hunger in America*, the CBS television documentary, "Hunger, U.S.A.", the Citizens' Board of Inquiry Report, the Poor People's March in Washington, D.C., and Congressional fact-finding trips to the rural South all focused attention on the pressing problems. Although many food assistance programs, including the current Food Stamp Program, had already been established in the early 1960s, a White House conference was held in 1969 in which former President Nixon said it was time to "put an end to hunger in America for all time." A Senate Select Committee on Nutrition and Human Needs was established and spending on food programs was \$1.1 billion by 1969 (Paarlberg, 1980). During the 1970s a major expansion took place in the Food Stamp Program; federal expenditures on food assistance reached \$11.2 billion in FY (fiscal year) 1979.

Current Conditions

A lack of food and inadequate diets are almost always a result of inadequate income. Since there was greater political support for food assistance than direct income support programs, the expansion of food assistance programs was one way to the help alleviate the problems of poverty, hunger, and hopelessness. The number of Americans living below the official poverty level declined from 39.9 million (22.2 percent of the population) in 1960 to 25.4 million (12.6 percent of the population) in 1970. By 1993, however, 39.3 million Americans were poor, which was 15.1 percent of the population (*Minneapolis Star and Tribune*, October 7, 1994, p 7A). For a frame of reference, a family of four was considered poor in 1993 if it had an annual earned income of under \$14,763. Half of all U.S. households had incomes under \$31,241.

Even more worrisome has been the increase in the number of homeless persons and the number of children living in poverty. An estimated 500,000 persons may be homeless on any given day and some 2 million over the course of a year (*Minneapolis Star and Tribune*, 1994, p. 7A). The rate of poverty among children fewer than 18 years old rose from 14.9 percent in 1970 to 21.9 percent in 1992 (*New York Times*, October 10, 1993, p. 5). Other indicators of the increasing seriousness of poverty are the growing demand faced by private food shelves and charitable feeding programs for the poor and the staggering increase in homicides by youth in poor neighborhoods (*Minneapolis Star and Tribune*, February 18, 1995, p. 6A). The coincidence of poverty, hunger, unemployment and crime calls for serious long-term attention with food assistance being a major part of the investment and a safety net for the poor. (See charts in USDA, ERS, *The Economics of Food Assistance Programs*, January, 1995).

Table 1 provides a summary of the expenditures on the various government food assistance programs in FY 1992, 1993 and 1994, although the 1994 figures are not strictly comparable. Total spending increased 5.2% from FY 1992 to 1993 and another 4.2% by 1994. Total federal spending reached \$40 billion in calendar year, 1994. The food programs, administered by the Food and Nutrition Service, represent the largest item in the Department of Agriculture's budget. Since their growth is related to the employment and general economic growth, it is no surprise to see their rate of increase decline from 5.1 percent to 3.6 percent in 1994 as economic growth and employment increased.

II. Current Issues

Cutting the federal budget deficit is a major force motivating the search for new approaches to funding food assistance and other entitlement programs. Finding ways to cut welfare programs is a top priority among politicians. Since the cost of entitlement depends more on demographic changes and business cycles than on careful budget forecasts, cutting entitlement is one way to gain control of the budget deficit. Most food assistance programs (except WIC) are entitlement programs.

"There shall be no starvation amidst plenty" (Black 1939) has been a widely-held value in the American community which dictates that those who cannot afford enough food are entitled to receive it. This philosophy is partly self-serving--to farmers and food sellers, who want to sell more food, and to employers, who want a well-fed and educated labor force. This link between good nutrition and learning and health is well-known, and a society in need of educated people must see to it that the foundations of life and health are provided for all to be productive.

There is a maximum level of human misery and/or civil disobedience that any society will tolerate amongst its citizens. Too many homeless, and hungry, and violent people will call forth a demand for government programs to house and feed the poor and punish the criminals, even if it stretches the budget and increases the taxes. If the federal government will not provide such assistance, state and local governments will have to step into the breach.

Table 1. USDA Food Assistance Program Costs
Fiscal Years 1992-94

PROGRAM	FY 1992	FY 1993	Estimated FY 1994	Percent Change	
				FY 1992 to FY 1993	FY 1993 to FY 1994
-----Million Dollars-----					
FNS FUNDS	33,351.3	35,167.3	36,352.5	-5.4	3.3
Food Stamp	22,459.6	23,605.0	24,472.5	5.1	3.6
Nutrition Assistance ¹	1,005.9	1,043.9	1,082.2	3.8	3.6
Food Donation Programs ²	470.3	456.6	442.6	-2.9	-3.1
WIC	2,596.8	2,818.5	3,177.3	8.5	12.7
Commodity Suppl. Food ³	84.4	73.9	87.4	-12.4	18.3
Child Nutrition	6,610.9	7,047.3	7,466.5	6.6	5.9
National School Lunch	4,439.7	4,670.9	4,118.4	5.2	5.3
School Breakfast	786.6	866.0	955.1	10.1	10.2
Child & Adult Care	1,097.5	1,218.4	1,353.5	11.0	11.1
Summer Food Service	202.9	210.4	219.9	3.7	4.5
Other ⁴	84.2	81.7	98.8	-3.0	20.9
Special Milk	19.5	18.7	17.8	-4.3	-4.8
Food Program Admin.	103.8	103.5	106.3	-0.3	2.7
OTHER USDA FUNDS	460.8	396.2	701.1 ⁷	-14.0	N.A
USDA Commodities ⁵	40.3	40.3	40.3	-0.1	0.0
Bonus Commodities ⁶	229.0	164.1	158.9	-28.3	-3.1
TEFAP	191.5	191.8	202.9	0.2	5.8
TOTAL FUNDS	33,812.1	35,563.6	37,053.6	5.2	4.2

NOTE: Although data are rounded, percentage changes on all food program update tables are based on whole numbers. The sum of details may vary slightly from sub totals or totals due to rounding.

¹Includes block grants to Puerto Rico and to the Northern Marianas.

²Includes Food Distribution on Indian Reservations, Nutrition Program for the Elderly (NPE), Disaster Feeding, Soup Kitchens and Food Banks.

³Includes Elderly Pilot Projects (EPP). As of Jan. 1987, also includes elderly participants in non-EPP projects.

⁴Includes Commodity Schools, Nutrition Studies and Education, and State administrative expenses.

⁵Includes funding for Charitable Institutions and Summer Camps.

⁶Includes bonus commodities for the following programs: National School Lunch, Child Care, Commodity Supplemental Food, WIC, NPE, Indian Reservations, Summer Food Service, and Charitable Institutions.

⁷It is not comparable to earlier figures in this row.

Source: U.S. Department of Agriculture, Food and Nutrition Service, "Food Program Update: Fiscal Year 1993," Washington, D.C., p. 4 and updates.

Taxpayers always want to pay less in taxes, even as they demand government services. Taxpayers prefer to know how their money is being spent. Targeting specific types of causes or groups of people (like prisons or bridges or food for the hungry) is preferred to paying for anonymous government expenditures. Food assistance programs like food stamps and school lunches in which money is allocated specifically to food are more acceptable than general income support.

Cases of fraud and abuse involving food stamps can seriously damage the public's perception of the program and weaken its political support. Falsifying of applications, misuse, and trafficking are the major forms of fraud and abuse. Misuse involves exchanging the stamps for ineligible items or redeeming them so as to receive as much change as possible. Trafficking, the most serious offense, involves selling, buying, or bartering the stamps. Food stamps may be sold for as little as 50 cents to the dollar. Several serious cases in which food retailers were "laundering" large quantities of stamps by paying cash and then redeeming them through normal channels have been uncovered in recent years. However, since the coupon allotment for most households is less than their total food expenditures, trafficking makes little sense unless the recipient has a desperate need for cash.

Taxpayers dislike paying for government bureaucrats to administer the programs. Ironically, the programs that are the most closely targeted and controlled have the highest administrative costs. The dilemma here is the trade-off between allowing more money to "leak out of the bucket" and paying higher administrative costs to be sure only eligible people and products receive benefits. (See p. 13, USDA, ERS, *The Economics of Food Assistance Programs*, January, 1995, and Kinsey and Smallwood, 1994, p. 150). Taxpayers seem to prefer to pay more to police the behavior of recipients than to risk slippage or fraud in the use of their tax dollars.

Eligibility for federal programs is determined by the federal government. One advantage of this arrangement is equitable treatment of recipients across states. States prefer to set their own eligibility standards. They believe they understand the needs of their population better than the federal government. Yet history tells us that, given the choice, local governments are likely to allocate less to the poor and more to programs that benefit middle income households. Federal programs exist for a reason, and one is that local politics can be short-sighted about long term investments and not very altruistic.

The federal government's setting of program rules without funding coverage of all those eligible is tantamount to an unfunded mandate, another highly unpopular situation. Since states already have balanced budget rules, they cannot expand funding for poverty programs in times of crisis. There will be increased pressure on state and local government spending if states set the eligibility rules even if they use federal (block grant) funding.

In the past, maintaining an urban-rural coalition in Congress has been important for garnering enough votes to pass farm programs and gaining support for urban food programs. Food assistance and distribution have been considered as part of food, farm and agricultural bills in the past and have been administered by USDA. If food assistance is folded into other welfare programs and/or funded by block grants, its tie to agriculture will be severed. Conventional wisdom says that a "farm bill" cannot pass Congress without food stamps as part of it.

Without the food programs, USDA would be a very small department relative to others in the federal government. USDA's long-run existence in its current form could be called into question. With the weakening of USDA and less legislative cooperation between farm and food program proponents in Congress, the commodity programs would be under increased pressure.

A key issue is the implementation of the dual goals of providing adequate nutrition and income support for the poor. Food stamps have been called a "second currency" by the Federal Reserve Bank of Minneapolis (Senauer, 1993) and, as such, a primary income safety net in America. In this sense, food stamps also support income. These two goals can, however, be at odds with each other in their implementation. Providing good nutrition implies the need to match people who receive assistance with nutritious food and education to ensure that they actually receive nutritious food. Food stamps, school breakfast and lunch, and direct commodities distribution does this. Providing income support to the poor, with no particular concern about health and nutrition, can be accomplished by other means. For example, raising the minimum wage to a "living wage" and/or increasing the Earned Income Tax Credit (a negative income tax) can help those in poverty to increase their ability to purchase food and other goods and services.

The income earners and consumers in society will pay, one way or the other, to help support the poor. Subsidizing the poor with food or equivalent welfare payments acts as a subsidy to employers who can pay lower wages to workers. The earned income tax credit is a direct transfer of spending power to the poor. With these policies, people pay through their taxes. Raising the minimum wage leads to higher consumer prices, and people pay through their daily consumer expenditures. Higher minimum wages also tend to raise the incomes of the poor less than of middle income households with teen-age workers, and, allegedly leads to disemployment of low-wage workers.

III. The Food Stamp Program (FSP)

Issues and Current State of Affairs

Federal spending on food stamps in FY 1994 was \$24.5 billion, and average monthly participation was 27.5 million people. Excluding the six percent used for administrative costs, this spending provided an average of about \$836 worth of food to each recipient, or one out of every ten Americans. The Food Stamp Program comprises 66 percent of the cost of all food assistance programs. (See Table 1, page 3).

This program issues monthly allotments of coupons which can be used by eligible persons to purchase food at grocery stores. Participants are certified for eligibility and receive their stamps through county welfare offices. A household is eligible if its gross monthly income does not exceed 130 percent of the poverty level (\$1,234 for 4 persons) and has less than \$2,000 in countable assets. In 1993, eight percent of food stamp recipients had income above the poverty line; they received 3.2 percent of the benefits. Forty-two percent of recipients had incomes less than half the poverty line.

The maximum allotment is based on the Thrifty Food Plan established by the USDA. In 1994 the highest allotment was \$386 per month (or \$1.07 a meal) for a family of four with no income. This amount reduced by 30 cents for each additional dollar of income from any source. The monthly food stamp allotment averaged \$69.66 per person in FY 1994. In 1993, 51 percent of program participants were children and 7 percent were elderly. The FSP embodies many of the principles advocated by experts for welfare programs. In particular, it has (1) uniform national eligibility standards and benefits, (2) universal coverage for all those eligible, including "intact" families with a husband present, (3) benefits that are automatically adjusted for inflation, (4) federal financing to cover the benefits and half the states' administrative costs, and (5) coverage for the working poor with little disincentive to work. The program also functions as an automatic counter-cyclical stabilizer in the economy. The number generally climbs as the economy weakens and falls as the economy improves.

The major current issues for the FSP relate to cash-out, overlapping benefits with other programs, fraud and abuse, alternative delivery methods such as electronic benefits transfer (EBT), and folding into other welfare programs with or without block grants to states.

Options and Consequences

Option 1 - Food Stamps *Cash-Out: No change in funding levels or rules.*

Distribute cash to recipients through a given agency or program, instead of food stamps or electronic benefits with access to food only.

Consequences

1. Decreases money spent on food and increases that spent on rent and other expenses.
 - A. Most studies of cash-out experiments suggest that cashing out the food stamp program (providing an equivalent amount of cash as opposed to food stamps) would lower food spending and nutrient intake (See USDA, ERS, *The Economics of Food Assistance Programs*, January, 1995 p. 39-41 for list of 21 studies). Out of a dollar's worth of food stamps an average of \$.37 goes to increase the amount of food purchased while out of a dollar in cash, \$.11 is spent on food. Based on this difference, food stamps (coupons) increased total spending on food by \$9.1 billion in FY 1994. Had all these food stamps

- A. Food stamp recipients increased nutrient intake between 8 and 44 percent compared to nonparticipants (Fraker, 1990).
7. If the total value of benefits is not decreased, cash-out increases recipients' choices and probably their satisfaction with the program.
- A. They do not need to be embarrassed at the grocery check out by being identified as poor and "on food stamps".
 - B. They can use their cash to purchase food away from home which can be cheaper and more convenient.
 - C. In economic terms, they can substitute among goods and services so as to reach a higher level of satisfaction than is possible when they are locked into purchasing a certain amount and type of food.
 - D. More eligible people may actually use the program. Costs increase (if the program remains an entitlement), but more people will receive the benefits and be helped to purchase food and other goods.
8. Decreases taxpayers' control of the way their money is spent.
- A. If taxpayers consider food a "merit good" that the poor "deserve", taxpayers are more likely to support a program that forces the poor to use their resources for food. Cashing out will decrease taxpayer support because cash benefits induce lower levels of food and nutritional status.
 - B. With a cash out, the level of support could easily diminish over time. Politicians would find it easier to vote for funding cuts than for nutritional cuts and in subsequent allocations, benefits (in cash) are more vulnerable to being reduced.
9. Tends to divorce food programs from agricultural programs.
- A. Dissolves the urban/rural coalition in Congress. Support is lost for food stamps by rural constituents, for farm subsidies by urban legislators.
 - B. Increases the chance that food assistance programs will be moved to an agency other than USDA.

Option 2 - Food Stamps *Block Grants to States: Combine food stamps and other food assistance programs, keep the federal guidelines, and not cap the amount spent at the federal level.*

Consequences

- 1. Not capping the amount states can receive and spend exposes the federal budget to larger-than-planned program expenditures in times of increased unemployment.

3. Federal guidelines on how states spend their block grants possibly creates an unfunded federal mandate.

Option 3 - Food Stamps *Status Quo with a Switch to Electronic Benefit Transfers Versus Food Coupons.*

A plastic card that acts like a "debit card" is now being tested in various locations as a way to transfer food stamp benefits to recipients. A bank account is established upon which the recipient may draw funds only for food purchased at a store where electronic equipment is installed to read the pin number, the account and the balances left to purchase food. Each state has a different system, the card reader is different from the standard debit card reader and the computer systems in each state are not connected.

Consequences

1. Involves initially high capital investment costs. Administrative costs were expected to be lower but initial experience is mixed.
2. Does not eliminate opportunities for fraud. Street fraud--trading food stamps for cash on the street--decreases. Trafficking in the smaller retail stores is still possible, and some well known cases have been found. A better paper trail should make fraud easier to track.
3. Reduces embarrassment on the part of recipients who use the debit-type card rather than food coupons. This expectation is not universally true, especially when the general population does not use debit cards and store computers are not working properly, thus causing embarrassing delays. In addition, the equipment that can read an EBT card may be positioned in only some of the check-out aisles, segregating those who use it from other shoppers.
4. May create high state administrative costs if debit cards are lost and used illegally for withdrawals over the limited liability of \$50 per loss. Regulation B by the Federal Reserve Bank requires that the users of these cards be afforded all the rights of other consumers who may lose a credit or debit card. The government would have to bear the liability for money (over \$50) stolen from these accounts.
5. Retains taxpayers' control of how food stamp monies or tax revenues are spent.
6. Creates opportunity to electronically sort eligible food items and charge accordingly.

Option 4 - Modified Regulation of Food Stamps

- a. *Stamps or electronic scanning could target expenditures more closely to more nutritious food, an idea formerly used.*

Consequences

1. Begs the question as to how to define "nutritious" food.
2. Helps to increase the nutritional value of the diet.
3. Limits consumers' choices and puts an onerous burden on check-out clerks in stores.
4. Raises opposition from food processors and distributors since it limits the variety of products they can sell and promote.
 - b. Adjust the index used to increase the value of food stamps each year. One could freeze the COLAs for a few years, or use a different index than the CPI for food, or adjust the index by some fraction of the inflation rate (say, 80 or 90 percent of the change in the CPI).*

Consequences

1. Recipients will not receive as large an increase in the future.
2. The budget deficit will be reduced.
 - A. A \$1 increase in the monthly cost of the Thrift Food Plan for a family of 4 persons raises the cost of the Food Stamp Program by \$82 million per year (USDA, ERS, *The Economics of Food Assistance Programs*, January, 1995 p. 7). Therefore, economic policies that hold down inflation, especially in food, will hold down the cost of this program.*
 - c. Reduce eligibility to those with only 100 percent of poverty level income rather than 135 percent.*

Consequences

1. Only 9 percent of households that receive food stamps are above the poverty level and they receive only 3.2 percent of the benefits. At best, in 1994, this would have saved \$783.1 million (USDA, ERS, *The Economics of Food Assistance Programs*, January, 1995, p 8).
 - d. Roll back the liberalized income deductions.*

Consequences

1. Decrease the amount of money needed to be spent.
2. Recipients will not receive as large an increase in the future.

e. Omit overlaps in eligibility for various food assistance programs.

Consequences

1. Creates budget savings that rival those projected in the Personal Responsibility Act.
2. Decreases the number of eligible persons, but better targets the truly needy.
3. Lowers children's nutritional status by eliminating eligibility overlaps to the extent that overlaps provide added assurance of adequate child nutrition.
4. Increases enforcement and administrative costs because elimination of program overlaps is expensive, and programs are administered separately and lack centralized information systems.

IV. Food Assistance and Block Grants

Options and Consequences

Block Grants to States: Combine food stamps and other food assistance programs and cap the annual amount spent without federal eligibility guidelines.

Current Proposal: Personal Responsibility Act (PRA)

The Republican welfare reform proposals would end the federal food and nutrition assistance programs as they now exist. Under the Personal Responsibility Act, part of the "Contract with America", uniform national standards for eligibility and benefits would be eliminated. States would be given broad discretion to design their own programs, provided that no more than 5 percent of funds is allocated to administration, at least 12 percent to nutrition assistance for women, infants, and young children, plus at least 20 percent to school and child-care meal programs. They include an escalator clause for increasing the annual allocation that is tied to the CPI for food at home and changes in the population. Initial allocations would be based on historical funding needs in each state. Furthermore, the proposed legislation would eliminate USDA's authority to donate commodities and would require any bonus commodities to be sold to states.

A proposal from the House Committee on Economic and Educational Opportunities proposes to combine the WIC and school feeding programs into a block grant, but leaves the FSP in its present form as the "ultimate safety net for low-income people" (Pear, 1995, p. 1,7). These are sweeping reform proposals with major implications.

Consequences

1. Eliminates federal nutrition standards, placing children and other poor people at risk of malnutrition, especially in states with no enforceable nutrition program.
 - A. Represents a fundamental change in the purpose of programs away from human capital investment in child health and education, equity of income support, and assurance of adequate nutrition.
2. Allows states to cash out food stamps and use the food and nutrition block grant for cash payments under a reformed welfare program, although some states may not choose to cash out food stamp funds.
3. May cut federal spending on food assistance by a sizable amount (e.g., spending in FY 1994 would have been \$12 billion less under the assumptions of the proposal).
4. Eradicates the entitlement nature of food assistance programs. Currently, Congress must authorize appropriation of sufficient funds to cover all eligibles; under the proposal, expanded funding for food and nutrition block grants in times of high unemployment would be at the discretion of Congress.
 - A. Eradicates the counter-cyclical effect of food programs on family incomes: currently, participation in and funding for food programs rises during economic recession, but under the proposed reforms, Congress would be at liberty to shrink food program funding during recession.
 - B. Allows states to not increase or to shrink funds for food programs during recession, especially when tax revenues decline in recession or state budget problems arise.
5. Probably decreases both the federal budget costs and the budget deficit.
 - A. Decreases federal funding of food and nutrition programs by a projected \$4 billion in 1996 and \$31 billion over five years in comparison to current spending, even when adjusted for population growth and changes in the CPI for Food at Home (USDA, *The Nutrition, Health, and Economic Consequences of Block Grants for Federal Food Assistance Programs*, January 17, 1995).
 - B. Attempts to balance the federal budget by reducing funds for food assistance and welfare programs, for which expenditures are far less than other social programs in 1994. Federal spending on Medicaid was over two times, and on Social Security and Medicare for the elderly nearly twelve times, the spending on food assistance and welfare.
 - C. Forces food and nutrition programs to compete with other demands on limited funds.
6. Leads to decline in food sales between \$1.75 billion to \$10.5 billion according to USDA estimates.

- A. The size of the estimated decline depends on assumptions regarding new program operations, recipient behavior, and government use of savings (USDA, ERS, *The Economics of Food Assistance Programs*, January 1995, p. 19, and USDA, *The Nutrition, Health, and Economic Consequences of Block Grants for Federal Food Assistance Programs*, January 17, 1995).

7. Leads to decline in food and agricultural sector output by an estimated \$6 billion to \$16 billion, depending on the assumptions of the estimation procedure (USDA, *The Nutrition, Health, and Economic Consequences of Block Grants for Federal Food Assistance Programs*, January 17, 1995).

- A. Could lower farm incomes by \$1 billion to \$2 billion, and farm employment by 15,000 to 45,000 jobs.
- B. Could lead to a decline in food processing sector output by \$3 billion to \$9 billion, and to a loss of 28,000 to 83,000 jobs.
- C. Could lead to negative impacts on other sectors. For example, elimination of the mandatory milk requirement in the school lunch program is estimated to reduce milk sales for school use by 25 to 75 percent. A 25 percent reduction could cost dairy producers \$380 million in lost income, and could raise the cost of commodity support to farmers.

8. Probably increases state costs as states set and administer their own guidelines, but the size of the increase is unknown.

- A. Under the PRA, funding in FY 1996 for the block grants would cut projected current program spending by 13 percent. The 5 percent of funds for administrative costs falls below the 6 to 7 percent now spent on the Food Stamp Program, the least expensive program to administer. Fewer federal funds for administration and enforcement may force states to either make up the difference or accept increased fraud and decreased program targeting.

9. Increases inequity among recipients because of unequal benefits across states and incentives for states to minimize payments.

- A. May cause migration of the poor to states with higher benefit levels, thereby burdening more generous states, though little evidence exists to support this theory.
- B. Defeats one of the principles of a good welfare system--equity among recipients.
- C. Leads to uneven investment in nutrition and education, creating a need for employment training and leading to uncertainty about labor force quality.
 - 1. Benefits states with better-fed and educated labor force by attracting businesses and jobs.
- D. Increases likelihood that incidence of hunger will increase in times of high unemployment.

10. Creates disincentive to work if benefit reduction rates increase.

- A. If block grants do not require a uniform and acceptable benefit reduction rate, states would be able to establish benefit reduction rates of their choosing. Higher benefit reduction rates are a strong disincentive to work. Under the current Food Stamp Program, the benefit reduction rate is 30 percent, although this rate can be 28 percent to nearly 100 percent, depending on the deductions taken in the calculation of income (Ohls and Beebout, 1993).

V. Swaps and Food Programs

Options and Consequences

Swap. Federal expenditures on food stamps and WIC could be swapped for state expenditures on Medicaid. The federal government will pay for the portion of Medicaid now paid for by states, and states will apply for the costs of food stamps and WIC. States must maintain the federal level of spending for up to 5 years.

Consequences

1. Increases administrative costs to states.
2. Lessens equality among recipients across states and raises the number of hungry people.

VI. Other Options - Food Programs

Options and Consequences

Increase volunteerism. Some have proposed that local churches and charitable organizations undertake the task of feeding the poor as the government's role decreases. Many local charities are already providing feeding programs, food shelves, soup kitchens, etc., at full capacity, however. They cover the costs of distributing the food; the cost of the food is born largely by the government or private donors. They are an effective last resort for the most desperate but are totally inadequate as a means of providing food daily to the many poor in America.

Another aspect of this idea is that those who receive food should "work" for it by doing volunteer work for others. The strong work ethic and the charitable ethic clash in this suggestion.

Consequences

1. Creates massive hopelessness and hunger in the absence of government support for food or income to the poor.

2. Allows a grossly inadequate system to provide the daily food needs of poor families.
3. Creates unenforceable and costly requirement that people work for their food. Causes additional costs of creating jobs--paid or unpaid.

VII. Child Nutrition and Feeding in Schools

The Current Program

The Child Nutrition Programs are comprised of the National School Lunch, School Breakfast, Child and Adult Care and Summer Food Service Programs. They were designed to "safeguard the health and well-being of the nation's children." An estimated 25.2 million children are served daily through the National School Lunch Program in about 92,000 schools. Some 55,200 schools also serve school breakfasts. Children from families which meet certain income requirements are eligible for free meals or reduced price meals. Those below 130 percent of the poverty threshold are eligible for free meals (12 million or 47 percent) and those between 130 and 185 percent of the poverty line are eligible for reduced price meals (about 7 percent of children). Those with incomes over 185 percent of the poverty line are also subsidized at a rate of \$0.165 per lunch. Free school lunch subsidies cost of \$1.73/lunch and reduced-price lunches cost \$1.33/lunch (USDA, FNS, *Program Information Report*, August 1994, p. 6). The total cost of school lunches in 1994 was about \$4.9 billion. The daily cost of serving school lunches for 161 days per year is about \$30.5 million. The average cost for meals served in schools, both breakfast and lunch is about \$0.72 (*Federal Register*, 59:111, 6/10/94, p. 30242).

The other food aid programs for children are listed on Table 1 along with their costs in 1994; the total 1994 cost is estimated to be \$7,466.5 million for an increase of over 6 percent over 1993. These programs receive both cash and food commodities. The commodity value is about 12 percent of the cost of each school lunch (USDA, FNS, *Program Information Report*, August 1994.)

General Issues

In addition to the overall issues discussed under food programs involving the budget deficit, administrative costs, block grants, and overlapping participation in food programs, child nutrition programs raise the issue of society's responsibility to feed its children and to invest in their human capital. Preventing hunger and improving the nutritional status and long run health of its citizens, is a matter of both altruistic compassion and investment in the nation's future security. This program was started after a number of draftees into World War II failed their physical exams. This caused widespread concern about the nutritional status of the U.S. population. There are several reasons to continue to be concerned about our health and nutrition based on recent reports of rising obesity, sedentary lifestyles, and emerging diseases.

This set of child nutrition and feeding programs raises the question of who should bear the responsibility for feeding the children. If child nutrition and health is truly a public good, then only a governmental entity can carry out the job; no single private market will provide enough consistently and equitably.

If the purpose is to invest in the health and nutrition of all children, then providing some food for all children is sensible. If the goal is primarily to prevent hunger, supplying food only to poor children is reasonable.

The form of the food is also controversial. These programs are a mix of financial contributions to school breakfast and lunch providers and ultimately to the children, and to some food commodities served in school (e.g., milk). At one time, the direct delivery of food was thought to ensure better nutrition, but when children refuse to eat certain kinds of food or find it unpalatable, food is wasted. Also, the high fat content of surplus food commodities and of the school lunches in general, calls into question whether the school lunch program should respond to new Dietary Guidelines. The School Nutrition Dietary Assessment Study, October, 1993, found that school lunches had 38 percent of calories in the form of fat and 15 percent from saturated fat compared to the 30 percent and 10 percent respectively, recommended by the Dietary Guidelines (*Federal Register*, 59:111, 6/10/94, p. 30220). A proposal to update the nutritional standards for school lunches was announced in the summer of 1994. It would move the nutritional composition of school lunches and breakfasts closer to the Dietary Guidelines.

Option 1- School Breakfast/Lunch

Status Quo: Focus on food and nutrition for children with revised nutritional guidelines consistent with the Dietary Guidelines.

Consequences

1. Allows children to continue to receive reduced-price or free breakfast and/or lunch. Increases the likelihood that children will receive nutritious meals.
2. Continues the investment in health and educational capability. Should enhance the nutritional status of the population. Estimated to save long term health care and educational costs.
 - A. Estimated to provide about 12 percent of the change needed to bring children's overall diets into conformance with the Dietary Guidelines for fat, cholesterol and sodium consumption (*Federal Register*, 59:111, 6/10/94, p. 30247).
3. Continues to provide an outlet for some surplus commodities, holding down the costs of the farm commodity programs.
4. Probably increases costs in the short run if meeting the Dietary Guidelines requires reformulating recipes and foods served.

Option 2- School Breakfast/Lunch

Target poor children: Let others buy their own breakfasts or lunches.

Consequences

1. Targets subsidy to poor students--possibly leaving schools without food service, stigmatizing the whole program, and causing many schools to drop out of the program.
 - A. The amount of money that was spent on regular meals was about \$612.2 million in 1994 or 14 percent of the total amount spent on school lunches (USDA, FNS, *Program Information Report*, August 1994). The savings would not be as large as many might think.
 - B. The price of meals would go up for non-poor students. There is some dropping out when the price increases. About 6 percent of paid participants drop out with every \$1.00 increase in school lunch.
 1. With the advent of working parents, this drop out rate of individuals or schools is expected to be minimal because of convenience for parents.

Option 3 - School Breakfast/Lunch

Decouple from commodity programs.

Consequences

1. Forces producers of some surplus foods to find another outlet.
2. Does not save much money, since 80 percent of the federal support is in cash. In addition to the cash support, surplus commodities were valued at only \$77 million in 1994, while "entitlement" food cost USDA \$589 million. The entitlement foods are selected by states to meet their needs and purchased by USDA for this purpose. They consist mostly of hamburger, fruits, and vegetables.

Option 4 - School Breakfast/Lunch

Block Grant Funds to the States for Child Feeding Programs: Abolish federal nutritional standards (other than some minimum) and let school districts decide on how they want to offer child food and nutrition programs if at all.

The proposal by the House Committee on Economic and Educational Opportunities would combine child nutrition programs and WIC into two block grants to states mandating that 80 percent of the portion for child feeding be used for children from low-income families (*New York Times*, February 18, 1995, p. 1,7). About 73 percent of the current expenditures on free or reduced price meals. The initial grant of \$6.5 billion in 1996 is 7.3 million above the \$5.87 billion spent in 1994, so with no increase in the number of children to be fed, there is no a substantial cut in funds. Subsequent grants will be based on individual state's participation.

Consequences

1. Repeals the National School Lunch Act and the Child Nutrition Act of 1946.
 - A. This treats the problem of feeding poor children--assuming that local schools will sign on and use the money as mandated. It is silent about the value of good nutrition and nutritional education through establishing good eating habits.
 - B. Since it targets the poorest children, it has all the consequences of such targeting outlined above.
2. If it caused school districts to cease offering school lunches, several may bring in franchise food chains or vending machines where children can buy food. This action would be expected to decrease the nutritional status of the children.
 - A. Increases instances of hunger in children without money, leading to deterioration of their learning ability.
 - B. Some argue it is more important for breakfast to be available than for lunch.
3. Eliminates miscellaneous feeding programs like summer camps, commodity distributions to school lunch, etc.
 - A. Some commodity producers, like dairy, would suffer a decline in demand for their products and probably a decline in their price.
 - B. Government surplus commodities would need to find a different outlet, increasing the government costs of purchasing surplus commodities.

VIII. Special Supplemental Program for Women, Infants and Children (WIC)

Current Program

The WIC Program is a targeted program for low income, pregnant, postpartum, and breastfeeding women, to infants, and to children up to 5 years of age who are determined by health officials to be at nutritional risk. The program provides supplemental foods, nutrition education, and health care referrals. The program originated from the 1969 White House Conference on Food, Nutrition and Health that recommended special attention be given to people in these groups. WIC authorization is separate from the farm bill process and like the child and elderly feeding programs, one of its primary goals is investment in the health and human capital of society (Kinsey & Smallwood, 1994).

In contrast to the FSP, WIC is not an entitlement program; participation is limited by appropriated funds. In 1990, it was estimated that 90 percent of eligible infants were covered, 45 to 85 percent of eligible women, and 40 percent of eligible children aged one to five. About 77 percent of all participants are infants and children. WIC provides eligible participants food, food

vouchers, or food checks to supplement their diets with nutrients critical during pregnancy and early growth such as iron, calcium, protein, and Vitamin-A and C. The foods provided include milk, fruit/vegetable juice, infant formula, cheese, eggs, cereals, dried peas and beans, and peanut butter (Kinsey & Smallwood, 1994).

WIC expanded rapidly from \$10 million and 88,000 participants in 1974 to \$3.2 billion and nearly 7 million participants in FY 1994. Now, 40 percent of all children born in the U.S. are eligible for this program and between 30 and 50 percent of all infant formula sold is purchased by WIC participants (USDA, FNS, *Program Information Report*, August 1994, p. 6). WIC provides the full cost of supplemental food packages for recipients; benefits are not adjusted for household income. The average food cost per person is around \$30 per month but approximately 30 percent of its costs are for nonfood expenses such as health exams, studies of the program, education and administration (Kinsey & Smallwood, 1994).

WIC is widely touted as a most successful program. It is highly targeted. It saves between \$1.77 and \$3.13 in Medicaid costs for newborns and their mothers for every dollar spent (USDA, *The Nutrition, Health, and Economic Consequences of Block Grants for Federal Food Assistance Programs*, January 17, 1995). Half of the savings occur in the first year of a baby's life (Devaney, B.L. et al, 1990).

Issues

One of the problems is that a large portion of those who receive help through WIC also receive food stamps. Perhaps some need both programs, but the overlap exists. Another issue is that, since it is not an entitlement program, many eligible people are not covered, and though this keeps the budget exposure down, it creates an inequity and a gap in coverage which may end up costing more later.

Options and Consequences

Option 1 - WIC

Status Quo Or Expand the Funding to Catch More of the Eligible People.

Consequences

It does not fund all the eligible now. It has been touted as a highly successful program in improving infant health and saving Medicare money.

Option 2 - WIC

Count all income sources in establishing eligibility in order to avoid so much overlap with food stamps. Recipients could then choose between WIC or food stamps.

Consequences

1. Fewer people would receive benefits from both programs, and some households would experience a decline in benefits.

- A. Since the program is targeted to children, some families are eligible for WIC who would not qualify for food stamps. As long as the children are the target recipients, the unavailability of extra food stamps should not jeopardize their food supply.
- B. About 9 percent of food stamp recipients also participate in WIC but no one knows for sure the extent of overlapping participation in all food programs. A food stamp recipient could increase those benefits by 28-44 percent with additional program benefits (Smallwood, 1993).

Option 3 - WIC

Roll WIC into Block Grants and Other Welfare Programs: Under the original Personal Responsibilities Act and the new Block Grant proposal by the House Committee on Economic and Educational Opportunities, WIC funds would be in the form of a block grant (New York Times, February 18, 1995, p. 1,7). In the first case the funds for this purpose would increase with 12 percent of funds mandated for WIC. Under the second proposal (which includes WIC, food for the homeless and summer feeding for children) the \$4.5 million in 1996 is almost one-third greater than the 1994 costs.

Consequences

1. If there is no decrease in total funding and the program continues to be targeted, its effectiveness could be maintained.

2. To the extent that it is administered locally anyway, and the dollars and rules do not change, the effect of this block grant may be minimal.

3. Depending on how many feeding programs besides WIC need to be covered, it may result in an expansion of dollars for WIC.

- A. More poor mothers and infants may receive benefits and more health care costs will be saved.

IX. Food Distribution Programs

Current Programs

There are a number of commodity distributions programs. Section 416 of the Agricultural Act of 1949 made certain food commodities acquired through farm price-support operations by

the Commodity Credit Corporation (CCC) available for distribution to the poor. The intent was to prevent waste through deterioration and spoilage before the foods could be disposed of in normal domestic channels without impairment of the farm price-support program.

Surplus CCC stocks are often donated to domestic food assistance programs. Donations include cheese, butter, nonfat dry milk, cornmeal, flour, honey, rice, and wheat. During the 1980's, domestic food assistance programs benefited greatly from these donations, especially the Child Nutrition Programs and the Temporary Emergency Food Assistance Program (TEFAP) (Kinsey & Smallwood, 1994).

The Food Distribution Program on Indian Reservations. This program operates as a substitute for the FSP on or near Indian reservations. In 1994 about 115,000 people participated each month (USDA, FNS, *Program Information Report*, August 1994, p. 2). The program allows tribal organizations to run commodity distribution programs in lieu of receiving food stamps.

Nutrition Program for the Elderly. This program is administered by the Department of Health and Human Services. Originally developed to provide nutritious foods to senior citizen meal sites and meals on wheels, it has evolved into mostly a cash subsidy program. In 1992, about 92 percent of all benefits were distributed in the form of cash; in 1994 about 924,000 meals were served under this program (USDA, FNS, *Program Information Report*, August 1994, p. 2).

Donations to Charitable Institutions and Summer Camps. Commodities acquired by the USDA are distributed to charitable institutions serving needy persons and summer camps for children. These include soup kitchens, some hospitals, the meals-on-wheels program, and orphanages that do not participate in other Child Nutrition Programs. Next to the school feeding programs, these are the largest recipients of commodities distributed by USDA and provide an outlet for continued distribution during the summer when many schools are not in operation. In 1994, about 2.3 million low income children were served free meals during summer periods (USDA, FNS, *Program Information Report*, August 1994, p. 2).

Temporary Emergency Food Assistance Program (TEFAP). In 1981 surplus dairy products were at an all-time high. PL 97-98, the Agricultural and Food Act of 1981, Section 1114, required that price-supported commodities "not likely to be sold by CCC or otherwise used in programs for commodity sale or distribution" be made available to nutrition programs providing food service and food banks. This was the beginning of the TEFAP. In a few years the CCC ran out of surplus stocks of some commodities, primarily cheese, honey, and nonfat dry milk. However, but pressures to continue the TEFAP program resulted in the Hunger Prevention Act of 1988 authorizing over \$120 million per year to purchase other commodities for distribution. This action effectively "delinked" TEFAP from fluctuations in farm surplus stocks. The benefits of TEFAP are that it helps to feed hungry people who do not participate in the food stamp program by supporting local, voluntary food distribution agencies (Ballenger & Harold

1991). In 1994, it provided \$40 million in administrative funds to distribute \$80 million worth of USDA commodities and food provided by the private sector, to the needy (USDA, FNS, *Program Information Report*, August 1994, p. 3).

Issues

Since food available from the CCC stocks fluctuates with supply, there is often great pressure to continue benefits when surpluses are gone. This causes fluctuations in the non-federal cost of programs and influences the kinds and amounts of commodities bought with appropriated funds. Historically, the National School Lunch Program and the TEFAP program grew out of such pressures to keep food coming after surplus commodities ran out (Kinsey & Smallwood, 1994).

Farm price support programs that restrict supply (e.g., sugar and peanuts) raise food prices. Poor households are most affected by rising food prices because they spend almost 50 percent of their income on food, compared to 11 percent for the average household. Food price increases also raise the cost of providing food assistance, since most programs are indexed to the cost of providing food (Kinsey & Smallwood, 1994).

Commodity distribution programs cause "slippage". That is, they substitute for some of the food that consumers would otherwise purchase, altering traditional marketing channels. They partially offset some of the farm price supports resulting from commodity removal programs. The USDA studies of TEFAP commodity distributions found that on average, each pound of cheese distributed displaced about one-third of a pound of commercial cheese sales and that butter donations displaced margarine sales pound for pound (Kinsey & Smallwood, 1994).

Price support and food distribution programs are not an economically efficient means of providing food and nutrition assistance to the needy. The costs of procurement, distribution, storage, and management are higher than for many alternative forms of assistance programs such as cash or food stamps.

Options and Consequences

Option 1 - Commodity Distribution

Maintain the status quo.

Consequences

1. An uneven supply leads to an increase in the budget costs to purchase food to fill promised food supplies. Commodities used in disasters come from the normal school supplies which are then replaced with cash.
2. Allows some people to feel better about receiving food than using food stamps because they believe it is surplus, or "free", and not purchased.

Option 2 - Commodity Distribution

Delink commodity distribution from the commodity purchase programs that support farm incomes. Under some block grant proposals, it appears that this will happen.

Consequences

1. Assuming no change on the purchase side, increases the cost of commodity programs for storage and disposal.
2. Raises budget exposure to purchase food for these programs.

Option 3 - Commodity Distribution

Stop distributing surplus food commodities and purchased food. Under some block grant proposals, it appears this would happen.

Consequences

1. Increases the cost of commodity purchase programs for storage and disposal, assuming no change on the purchase side.
2. Lowers the budget exposure for purchase of food for school lunch, TEFAP, or other programs.
3. Raises the cost of obtaining food to recipients and increases the costs of other welfare programs (i.e., food stamps, AFDC, elderly feeding, etc.).
4. Takes the government out of the business of directly providing food (or income to buy food) for a variety of food programs.

PART B

FOOD SAFETY AND NUTRITION

I. The Setting: Food Safety

In the United States, very significant levels of resources are spent by the private sector and government on food safety assurance. In a business environment characterized by increased international trade and an era of tight federal budgets, the major question facing the food safety assurance system is whether desired safety levels can be attained more efficiently. This question needs to be considered within the context of a broader discussion of food and agricultural policy, because food safety is one of several not necessarily complementary objectives of that policy. Food safety issues have not traditionally been dealt with in the farm bills, but in separate legislation. There is no reason to believe this situation will change. However, an assessment of current food safety issues, options, and their impacts, is an important part of a comprehensive discussion of food and agricultural policy. Consumer and environmental issues will increasingly be a part of the farm bill debates.

Food safety regulation, historically and to the present day, has been driven by crises that have aroused the public's concern. Before the turn of the century, the food industry was virtually unregulated. Upton Sinclair's classic 1906 book, *The Jungle*, described the appalling conditions that existed then in the meat-packing industry. The book had a major impact. At about the same time, other problems were dramatically brought to the public's attention. A study by the New York City Health Commission found that over half the milk sampled in the city was adulterated with water, chalk, and plaster of Paris (Paarlberg, 1980, p. 86).

In 1906, Congress reacted to the crisis by passing the Pure Food and Drug Act and the Meat Inspection Act, the first major food safety laws. They clearly established that the federal government was prepared to ensure the safety of the food supply. The Food and Drug Administration (FDA) was created in 1931, and the Federal Food, Drug, and Cosmetic Act was passed in 1938. The Miller Pesticide Amendment was added to the Act in 1954 and the Food Additives Amendment with the Delaney Clause in 1958. As the poultry industry began to grow rapidly, the Poultry Products Inspection Act was passed in 1957.

Increased consumer interest in food safety and nutrition has been building over a period of years, based in the case of food safety on a series of incidents over time, and in the case of nutrition, on concerted efforts to improve the general public's awareness of links between diet and health. One of those incidents, which occurred in 1989, was the use of Alar (daminozide) on apples which it was suggested might be carcinogenic. The second was the discovery of a few grapes imported from Chile that had been injected with cyanide. These incidents raised public concerns about chemicals used in the food supply, and pesticide residues in particular.

More recently there was the tragic outbreak of illness in Washington state in early 1993, which was traced to E. Coli 0157:H7 contamination of fast-food hamburgers. Four children died, and over 500 people became seriously ill. This incident focused public attention on the dangers of microbiological foodborne pathogens and directly led to efforts to label meat and poultry products with handling and cooking instructions and to revamp the entire system of meat inspection. A major outbreak of illness due to Salmonella contamination of ice cream in Minnesota occurred in 1994 and brought additional attention to the risks of microbial pathogens.

Furthermore, over the past few years, numerous reports detailing and often criticizing the operation of different aspects of the food quality regulatory system have appeared. They have closely scrutinized the current organization of activities and found them wanting in several respects. Reports by the National Academy of Sciences and the U.S. General Accounting Office alone provide a comprehensive review of the regulatory system. Among the most important of these reports are those on pesticide residue regulation (National Academy of Sciences 1987, U.S. GAO 1986a, 1986b); food inspection activity (National Academy of Sciences 1985, U.S. GAO 1989, National Academy of Sciences 1990); animal drug residues (U.S. GAO 1990); and diet and nutrition (National Academy of Sciences 1990, 1991).

The United States has one of the safest food supplies in the world, but there are critical gaps and a loss of consumer confidence. There has been a decline in the confidence that consumers have in the food industry's and government's ability to insure the safety of their food. As measured by the Food Marketing Institute's annual survey of food shoppers, the number of respondents who are completely or most confident that the food in their supermarkets is safe has declined. Effective actions to address current food safety issues will also restore public confidence in the overall safety of the food supply and the trust placed in the food industry and government.

Food safety concerns must confront certain fundamental dilemmas, though. Everyone believes that food should be safe and wholesome. Obviously no one favors unsafe or unwholesome food. The controversy involves how the goal of food safety is practically interpreted and the actions taken to achieve it. As in most human activities, risks will always be present. Furthermore, trade-offs exist, increased safety and reduced risk usually come only at a cost. Food scientists and other knowledgeable professionals rank microbiological pathogens as the major food-related health hazard, followed by malnutrition and chronic diseases related to diet, environmental contaminants such as mercury, naturally occurring toxins in food, and pesticide residues and additives.

The seriousness of foodborne illness is not realized by most people. Most cases go unreported and about half the outbreaks reported to the Center for Disease Control are never linked to a specific pathogen. The FDA estimates that between 6 and 33 million people become ill each year from foodborne pathogens and 6,000 to 9,000 die. The cost associated with foodborne

illness has been estimated to be over \$5 billion per year (*Food Review*, May-August 1994). Public awareness of the risks posed by microbial pathogens is increasing. A 1990 USDA survey found that 49 percent of the respondents listed bacteria and parasites in food as the most important of four food safety issues. Twenty-three percent cited pesticide residues, 12 percent drug residues in animals, and 3 percent food additives (*National Food Review*, May-August 1994, p. 15).

The current system of food safety regulation is characterized by inconsistencies. As one critic stated, "food safety is governed by a patchwork of safety standards defined in a multitude of laws that have evolved over time to meet a variety of needs" (Archibald, 1988, p. 39). The risk standards applied vary from the zero-tolerance Delaney Clause to the risk-benefit approach that has been applied with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Currently, 12 federal agencies spend about \$1 billion annually to administer about 35 laws governing food safety and quality. Fundamental differences in agencies' missions, responsibilities, and authorities have led to inconsistent oversight, inefficient use of resources, and poor interagency coordination (*Transition Series Report on Food and Agriculture Issues*, U.S. GAO 1992b, p. 25).

Major jurisdictional responsibility over food safety and nutrition is split between the Food and Drug Administration (FDA) in the Department of Health and Human Services and the U.S. Department of Agriculture (USDA), primarily its Food Safety and Inspection Service (FSIS). The split is generally based on product type, with FDA regulating all foods except meat and poultry, which are regulated by USDA. In this split, similar (although not identical) activities occur in two agencies (Caswell 1994). Split responsibilities, resource discrepancies, and inconsistent regulation of comparable products have led to calls for a consolidation of authority with a single agency.

As part of the "Contract with America", the Republicans have introduced legislation that would have a major impact on health, safety, and environmental legislation, presumably including food safety. Their proposal would broadly apply risk assessment and cost-benefit analysis to regulatory decisions. New regulations could not be issued without demonstrating that expected benefits justify expected costs. Moreover, the proposal would also explicitly supersede the existing criteria for making decisions under current regulations (*New York Times*, February 10, 1995, p. A10). There is enormous variation in the cost-benefit ratios of many current regulations. Requiring an economic impact assessment of proposed regulations is certainly reasonable. Risk assessment and cost-benefit analyses bring many problems with them. The data necessary to carry out rigorous quantitative analyses are frequently lacking. Crucial assumptions must be made which can bias the results. Values must be placed on such intangibles as the value of a human life.

In the coming decades, food safety assurance in the United States will be increasingly affected by international trade in agricultural commodities and processed food products for two

major reasons. First, an increasing amount of food is being imported into the United States, challenging the US regulatory system to ensure that imported products meet the same safety standards as domestic products. Second, international trade agreements, in particular the General Agreement on Tariffs and Trade (GATT), now with the World Trade Organization (WTO), and others such as the North American Free Trade Agreement (NAFTA) add an important new dimension to regulatory decision-making. The US regulatory system will be challenged to assure that its programs, rules, and practices are scientifically-based and not simply nontariff barriers to trade posing as consumer protection.

Food safety regulations will need to make sense on a risk/science basis to be justifiable. Under GATT, countries can set their own risk standards, but Sanitary and Phytosanitary Safety (SPS) measures must be established in a scientifically defensible way. The United States can choose to minimize regulatory trade barriers or use regulations as protectionist trade barriers. The need to consider the impact of domestic regulatory decisions on international trade relationships further complicates policy making on food safety. A key issue is finding ways to enhance the competitiveness of US products internationally. The crux of the regulatory issue is consumer protection plus competitiveness.

Current food safety regulation is a patchwork, making coherence and effective oversight difficult. If farm bill legislation expands its scope of involvement in food safety areas, the patchwork will become more intricate and hinder coordination and coherence. Thus, a major consideration in incorporating food safety concerns more directly into farm bill legislation, and an argument against it, is the potential for introducing inefficiency into the regulatory system.

II. The Setting: Nutrition Education and Consumer Information

The USDA has a long history of providing information and education on food and nutrition to consumers. An important example is the "Dietary Guidelines" developed with the Department of Health and Human Services, which give the outlines for a healthy diet. A more recent example is the new "food pyramid" that furnishes information on basic food group choices. Both of these programs reflected the controversy which frequently surrounds providing food and nutrition guidance because certain food categories are necessarily emphasized and others are de-emphasized.

The Nutrition Labeling and Education Act of 1990 resulted in a major change in the information available to consumers. The new nutrition labeling regulations went into effect last year. They provide more relevant information on a product's nutritional content and a more readily understood format. Such crucial changes as standardizing "serving size" and defining descriptions such as "light" and "low-fat" were introduced.

Many Americans lack a basic understanding of good nutrition. For even more Americans, their food consumption patterns are not in line with the basic recommendations for a healthy diet.

The major nutritional concerns in the United States have largely shifted from a focus on diseases related to nutrient deficiencies to the linkage between diet and the major chronic diseases. Widespread nutritional problems today are related to overconsumption, rather than to shortages of certain nutrients. In general, the typical American's diet contains too much fat, particularly saturated fat and cholesterol, too much sodium, and frequently too many calories for the level of physical activity. The average diet contains too few fruits and vegetables and too few of the complex carbohydrates found in cereal grains and their products.

About two-thirds of the two million deaths in the United States each year are due to heart disease, cancer, and stroke. Medical evidence is increasingly strong that these three major causes of death are affected by diet and other lifestyle factors. Initially, the public had reason to be somewhat confused because there was scientific disagreement over the exact link between diet and these chronic diseases. However, the message to the public from scientific report after scientific report has become increasingly clear and consistent.

Effective nutrition education, which would lead Americans to develop healthier diets and lifestyles, could have a major payoff by reducing health care costs. Research is needed, however, to understand how to communicate effectively concerning diet, nutrition, and health. Opportunities also exist for specific nutrition education programs that could be linked to various food assistance programs--such as food stamps--to increase their nutritional impact. Many low-income children suffer from poor diets, with inadequate intake of key nutrients.

III. Current Issues, Options, and Consequences

The food safety issue of greatest concern today is meat and poultry inspection. Other current issues include the Delaney Clause and pesticide residues, plus consolidation of food safety responsibility, and better data and research on food safety risks.

Meat and Poultry Inspection Issues

The Food Safety and Inspection Service (FSIS) of the USDA is responsible for the safety and quality of meat and poultry products. There is virtually unanimous agreement that the current system (which emphasizes visual inspection) is antiquated. It has changed little since it was first established early in this century. The success of the inspection depends on the accuracy of the inspector's sight and smell, and only a few seconds are available as each carcass is moved past. Only gross problems are caught. However, the most serious health hazards are microbiological (e.g., *E. coli* and salmonella) and unable to be detected by human sight and smell.

The current inspection system costs \$600 million per year and has some 7,000 inspectors. The 1985 National Academy of Science report, *Meat and Poultry Inspection: The Scientific*

Basis of the Nation's Program, recommended a scientific, risk-oriented approach and establishment of a traceback, monitoring, and recall system.

In September 1994 USDA declared that *E. coli* in raw beef would be treated as an adulterant with a zero-tolerance. A modest sampling program was initiated. If any of the pathogen was found, the entire lot of meat would have to be recalled. An industry group originally filed a lawsuit but dropped it after a U.S. District Court denied an injunction (*FCN*, December 26, 1994). Also in September, USDA proposed legislation related to pathogen reduction in meat and poultry to the Congress. Sampling and standards for pathogens in meat and poultry would be established. The plan would provide the USDA authority to recall adulterated products, establish a traceback system, and impose civil penalties for violations.

In February 1995, USDA proposed a major new meat and poultry inspection scheme. A risk-based, farm-to-table regulatory program for meat and poultry would be developed to prevent contamination. A Hazard Analysis Critical Control Point (HACCP) system forms the basis of the proposed new regulations. Meat and poultry would be checked by microscope to catch microbial contamination. The 1985 National Academy of Sciences report provides the blueprint for the current proposals with a trace-back system, monitoring of critical control points, and focusing on high risk problems. The FDA is also moving to implement a HACCP system for seafood inspection. However, some would argue the seafood HACCP is too weak and needs to be strengthened.

HACCP typically consists of seven steps:

- (1) identifying the likely health hazards,
- (2) identifying the critical control points where contamination is likely to occur,
- (3) establishing safety measures to prevent the hazard,
- (4) monitoring the system to insure the measures are working,
- (5) establishing the appropriate remedy if a problem occurs,
- (6) establishing a recordkeeping system on the monitoring, prevention, and remedying of hazards, and
- (7) verifying that the control system is working.

HACCP was originally developed by the Pillsbury Company as a quality control approach. Many companies in the food industry have adopted it in their plants. In general, the industry supports the adoption of a HACCP approach. There may be important differences, however, between HACCP as a company quality control process and HACCP as a means to government-established food safety standards. The government's role in oversight of a HACCP system and the fate of the current inspection system and cadre of inspectors remain important questions.

USDA's HACCP proposal allows for a comment period and a series of public hearings. The objective is to finalize the regulatory reform by the end of 1995, with implementation over

one to four years. In terms of cost-benefit analysis, USDA estimates a HACCP system for meat and poultry will cost less than \$250 million per year. The estimated benefits will be a reduction in the costs associated with foodborne illness of \$990 million to \$3.7 billion per year (*FCN*, December 26, 1994, pp. 58-59).

Options and Consequences

Option 1 - Meat and Poultry Inspection *Maintain Status Quo.*

1. Does not address risks from microbial pathogens.
2. Large commitment of resources with little public health benefit.
3. Burdens industry.
4. Does not use best available science.
5. Continues to erode consumer confidence in safety of food.
6. Allows continued foodborne illness.
7. Provides known system with clear roles and responsibilities for government and industry.

Option 2 - Meat and Poultry Inspection *HACCP, Science/Risk Based System.*

1. Places more responsibility on the industry and increased cost to industry.
2. Requires fewer jobs and different skills for inspectors.
3. Directly addresses most important risks but still may not result in zero risk.
4. Still requires choice of level of acceptable risk and balance against costs.
5. Possibly costs more for small plants and may lead to further concentration in industry.
6. HACCP focuses on prevention which is more efficient from both firm's and regulatory agency's standpoint.
7. Enhances food safety.
8. Increases consumer confidence in food safety.
9. Possibly decreases government costs if present inspection system is ended or reduced. However, micro-testing by government may make costs comparable.

10. Implementation requires addressing many issues:

- Increased costs to industry and possibly consumers.
- Retraining of inspectors and plant personnel.
- Preapproval of HACCP plans.
- Phase-in for high risk products or for all food products.
- Public access to HACCP records.
- Ability of all plants to implement--may be increased loss of small food businesses and producers.
- Worker protection for private plant workers with new food safety responsibilities.

Option 3 - Meat and Poultry Inspection

a. Set microbial standards and let industry find ways to comply.

Consequences

1. Expensive to test for compliance.
2. Would directly address greatest risks.
3. Issue of how low would reasonable standards be and where would they be applied in the marketing chain.

b. Provide information to consumers about food handling.

Consequences

1. Addresses market failure directly.
2. Forces consumer to bear risk.
3. Not clear which consumer decisions result in greatest risk and therefore where to target information.
4. Not clear that warnings and labels are effective.
5. Changes in food sector mean consumers have less control over preparation so may not be able to use information.
6. Might be most useful if combined with other alternatives.

c. Allow voluntary certification of higher level of safety.

1. Creates opportunity for market for safety--consumers can pay more for higher level of safety and firms can be rewarded for achieving that level.
2. Raises objections from industry because implies uncertified is "unsafe".
3. Does not address safety of food consumed by those unable to pay more.

The Delaney Clause and Pesticide Residues Issues

The Delaney Clause, which is contained in the 1958 Food Additive Amendment to the Food, Drug, and Cosmetic Act states that "no additive shall be deemed safe if it is found to induce cancer when ingested by man or animal, or if it is found, after tests which are appropriate for the evaluation of the safety of food additives, to induce cancer in man or animal" (Institute of Food Technologists, 1988, p. 121). The Delaney Clause has a zero-tolerance standard. This standard has become increasingly extreme as the ability to detect infinitesimally small amounts of substances has improved. There has been great reluctance in Congress, however, to make this change since the public can not see why a zero-risk tolerance should not apply when it may affect their health, especially when it relates to a risk of cancer.

The Environmental Protection Agency (EPA) has responsibility for setting and enforcing the allowable levels of pesticide residues under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1972. FIFRA embodies a risk-benefit approach in which environmental and health risks are weighed against economic benefits. The rationale was that the use of pesticides is essential to ensure an adequate food supply and some residues cannot be avoided. Pesticides have been registered for use even if there was evidence they were carcinogenic, as long as the benefits are substantial and the risks negligible. A substantial reform of the regulations governing pesticides and any resulting residues has become almost unavoidable given a court ruling applying the Delaney Clause to pesticide residues in processed foods.

In July 1992, a Federal Appellate Court in San Francisco, in a ruling involving a law suit filed by the Natural Resources Defense Council, ordered the EPA to apply the Delaney Clause and its zero-tolerance provision to pesticide residues that concentrate in processed foods (*New York Times*, February 2, 1993, p. A1). In February 1993, the U.S. Supreme Court declined to review the Appeals Court ruling. The implications of this ruling are significant. Federal regulators have agreed to ban dozens of widely used pesticides as a part of the settlement of this law suit. Some 34 chemicals will be phased out of processed foods within two years and no longer used directly on crops within five years. Data for another 87 pesticides which the EPA lists as carcinogens will be analyzed for their possible presence in processed foods. This could have a major impact on the production of some crops.

A National Academy of Science (NAS) report on pesticides that was made public in June 1993, focused attention on the unique potential risks posed to children by pesticide residues in

food. Children consume more food per unit of body weight than adults and eat less varied diets than adults, and thus have more exposure to pesticide residues in food. The NAS study found the existing data on children's diets and the effect of pesticide residues inadequate to be sure they are being protected. The report recommended that the EPA reform its approach to pesticide regulation to give priority to health concerns rather than to economic considerations and agricultural production.

Even before the NAS report was released the Clinton Administration suggested it would propose major reforms for pesticide regulations (*Minneapolis Tribune*, June 27, 1993, p. 8A). The aim would be to reduce the use of pesticides and promote alternative pest-control practices in agriculture. The proposed reforms would shift from the current risk-benefit approach that considers economic impacts to a health-based standard for judging the safety of pesticides and residues. A negligible risk standard is proposed which probably would be interpreted as a one-in-one-million risk, which means the hazard may not cause more than one additional death for every million people over their lifetimes. The proposal would allow for a ten year transition period and set tolerances for pesticide residues both at the farm gate and at the dinner plate. The House Agriculture Subcommittee on Department Operations and Nutrition approved a pesticide reform bill in July 1994 (HR 1627) which would have repealed the application of the Delaney Clause to pesticide residues in processed foods, replacing it with a negligible risk standard, and would encourage integrated pest management techniques. This bill did not progress further, however.

Options and Consequences

Option 1 - The Delaney Clause *Retain the Delaney Clause.*

Consequences

1. Creates dual risk standard for residues in fresh food and residues concentrating in processed food.
2. Where foods have processed markets they would lose pesticide uses; ERS analysis show that greater impacts in terms of higher production costs would be on hops, apples, and sugar.
3. Dual risk standard creates Delaney paradox--may increase risk by precluding use of less risky alternatives when these concentrate in processed foods.
4. Increases in some food costs.
5. With court ruling, decreases chemicals on market.
6. Creates disincentive for new product development.
7. Applies a much higher risk standard to chemicals than to other food safety risks.

8. Focuses only on carcinogens and ignores other hazards.

Option 2 - The Delaney Clause *A Negligible Risk Standard.*

Consequences

1. Allows some products to remain on market.
2. Encourages product research and development.
3. May decrease consumer confidence in safety of foods.
4. Consensus on science-based decisions may be difficult to reach.
5. Maintain or decrease cost of some foods.

Option 3 - The Deianey Clause *Some Higher Standard than Negligible Risk.*

Consequences

1. Could allow some products to remain on market.
2. Maintain consumer confidence in safety.
3. Could provide greater protection for some groups, such as children.
4. Could increase some food costs.

Single Food Safety Agency Issue (not in USDA or FDA)

Various reorganization proposals have been considered to give greater importance to food safety issues. The Food Safety Group of Vice President Gore's government evaluation known as the National Performance Review, called for the formation of a single, independent food safety agency, finding the present system "inefficient, cumbersome, and costly." Vice President Gore himself suggested rather than a separate agency that food safety responsibility be combined under the FDA (*FCN*, January 3, 1994, p. 3). The USDA reorganization proposal approved by the Congress in 1994 includes appointment of an Under Secretary for Food Safety (*FCN*, June 20, 1994, p. 43). Appointment is by the President for four years with confirmation by the Senate. The position's responsibility would specifically exclude the marketing or promoting of food and food products (*FCN*, February 7, 1994, p. 64).

Options and Consequences

Option 1 - Single Food Safety Agency *Status Quo.*

Consequences

1. People most familiar with processes are most likely to know how to develop solutions. Need to understand food production processes to make improvements.
2. Currently are set up in this manner and operating.
3. May duplicate efforts and inconsistencies in approaches to consumers and food industry.
4. Creates perception of conflict of interest.
5. Allows for much oversight by Congress.

Option 2 - Single Food Safety Agency *Consolidate.*

Consequences

1. Decreases duplication of efforts with potential for resource savings.
2. Lessens potential for concerns "slipping through cracks".
3. Could have significant negative effects on food industry if would result in more narrow thinking and loss of creative approaches to solutions.
4. Loses momentum for change while reorganizing.
5. Decreases number of Congressional oversight committees.
6. Regulates more consistently across products, i.e., seafood and meat and poultry.

Food Safety Research Issues

There is a pressing need for a better knowledge base on which to base food safety policy. In particular, better data are needed on the risks from microbial foodborne pathogens for various products and for different types of consumers. According to a report released September 30, 1994, by the Council for Agricultural Science and Technology on foodborne pathogens, "better data are needed to:

- (1) more accurately identify the current foodborne disease burden on society;
- (2) identify pathogen-specific control options;

- (3) estimate the public health protection benefits of potential control options all along the food chain as well as their likely costs to industry, consumers, and the government; and
- (4) measure improvements in the safety of the food supply over time.

In addition, the special risks from foodborne pathogens faced by special population groups, such as children and the elderly, or people with certain health conditions, need to be studied to learn how to better protect those at high risk.

Options and Consequences

Option 1 - Food Safety Research *Better Data and More Research.*

Consequences

1. Facilitates risk assessment, but payoff many years away.
2. Possibly reduces costs of producing lower risk products.

Option 2 - Food Safety Research *Government Responsibility.*

Consequences

1. Research results seen as unbiased.
2. Basic research is expensive with long payback and may not be done by private industry.
3. Limited government resources.
4. Government can encourage interdisciplinary and multi-institutional cooperation.
5. Public health is government responsibility.
6. Research results are available to all.

Option 3 - Food Safety Research *Industry Responsibility.*

Consequences

1. Industry may profit from enhanced food safety.
2. Research information is proprietary.
3. Can result in duplicative efforts.

4. Some research too expensive for industry.
5. Limited industry resources and may be more narrow focus.

Conclusions

Legislation concerning several of the food programs and most food safety issues have traditionally not been dealt with in the farm bills. However, the food programs and food safety are an important component of a comprehensive assessment of current food and agricultural policy issues.

The current magnitude of the problem of poverty together with the size of food program expenditures calls for an analysis of current food programs and of proposals to reform them. The humanitarian concern which underlies these programs remains strong among policymakers and the public at large, while the budget deficit looms large in their minds. Although food programs were developed in this country as a way to dispose of surplus agricultural commodities, a basic philosophical and moral premise drove the distribution of food (and other resources) towards the poor; that is, "there should be no starvation amidst plenty" (Black, 1942). Food Stamps provide an economic safety net for one in every ten citizens including one in seven children. They are the basic building block of income support for the poor. Food assistance programs are an investment in the health and productivity of people.

Over the past decades it has been observed that the poor received widely different levels of support in various states and localities. In order to provide some semblance of equity in the distribution of food to the poor, federal standards (entitlement) and programs were designed and funded by the federal government, although they were administered by the state and local governments. Despite the simplicity of several proposals to reform food assistance programs, there exists a rich multitude of options illuminated in this report.

Block granting of food program funds can take a variety of forms. It is possible to block grant portions of funds with a variety of guidelines and scenarios. Block granting portends some obvious consequences: the elimination of the entitlement nature of food programs; the loss of the countercyclical effect on family incomes during economic recession; wide discrepancies in food and other resources distributed to the poor in various states. In addition, block granting may not result in the significant savings that many desire. Finally, the policies chosen must incorporate an understanding of the distinction between nutrition programs and poverty programs, and their different goals.

Block grants to states, without federal guidelines (entitlement), will move the burden of supporting the poor to the states where, with balanced budgets, there is little capacity to respond to economic downturns. When citizens need help the most, the least resources will be available. Food stamps and other food assistance programs allow taxpayers to know how their tax dollars

are spent. Block grants leave taxpayers with little assurance that federal dollars will accomplish national purposes. Modification of the current food stamp and other assistance programs can be made that will accomplish the same savings allegedly available through Block Grants. They include variations on indexing, income deductions, eligibility criteria and other forms of income support.

Substantial resources are spent on food safety assurance by business and government. With tight federal budgets and increased international competition, the overall issue is achieving desired food safety levels as efficiently as possible. Food safety needs to be considered within the context of broader food and agricultural policy, because it is one of several, sometimes conflicting objectives of that policy. Food safety issues have traditionally not been included in farm bills. However, an analysis of food safety issues is an important part of a comprehensive assessment of food and agricultural policy.

The U.S. food supply is one of the safest in the world, but there are critical gaps and a loss of consumer confidence. Consumer concern about food safety has increased in response to a series of widely publicized incidents, such as the tragic outbreak of illness due to E. Coli contamination. A number of scientific reports have also criticized various aspects of the food quality regulatory system and suggested changes. Food safety assurance must confront certain fundamental dilemmas. Trade-offs exist between risk and cost. Legislation has been introduced which would broadly apply risk assessment and cost-benefit analysis to regulatory decisions.

The two most important specific food safety issues relate to meat and poultry inspection and the Delaney Clause, particularly in relation to pesticide residues. There is widespread agreement that the current meat and poultry inspection system is antiquated. USDA has proposed new regulations based on a Hazard Analysis Critical Control Point (HACCP) system, which has substantial support. There are many questions about how it would be implemented and the fate of the current inspection system, though. A federal court decision ordered the EPA to apply the Delaney Clause and its zero-tolerance standard to pesticide residues in processed foods. In response, the EPA has agreed to ban many widely used pesticides, which may be carcinogenic. Reforms have been proposed to enact a negligible risk standard for pesticide residues.

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Preface

The Working Group on Rural Development is one of six working groups organized by the National Center for Food and Agricultural Policy and the Hubert Humphrey Institute of Public Affairs, University of Minnesota, to focus on issues relating to the 1995 Farm Bill. Their goal is to provide a better understanding of the issues, alternative approaches to these issues and the consequences of policy options.

These working groups are a part of a project designed to help lay the groundwork for a more informed debate and better public policy choices during the 1995 Farm Bill process. In November of 1994, soon after working groups were appointed, two symposia, with the theme "Farm and Food Realities for the Twenty-First Century", were held to help provide a setting for the working group efforts. The final phase of the project consists of seminars, symposia and other discussion fora that focus on the findings and conclusions of the working groups and a consolidated report, summarizing and addressing issues that cut across working group topics.

Working group members were selected to include as many of the stakeholders, interest groups and scholars as possible without making them too large to function efficiently. In all, about 80 persons representing farm organizations, agribusiness firms, cooperatives, academics and others with an interest in farm policy served on the six working groups. Members included a former secretary of agriculture, six former assistant secretaries, presidents of 11 state farm organizations, 26 university faculty, several agribusiness executives, commodity organizations, and farmers. The Economic Research Service, USDA designated a resource person to work with each group. The sponsors are deeply indebted to all working group members who took time from busy schedules to participate and to the Kellogg Foundation, the ERS and a number of private firms and organizations that provided financial support for the project.

The Working Groups' reports attempt to reflect the discussion and predominant views about issues, options and consequences. No endorsement of a particular option on the part of members, their employers or the sponsors is necessarily implied.

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REPORT OF THE WORKING GROUP ON RURAL DEVELOPMENT

Executive Summary

Justification

Any nation can better its economy if part of its people or resources is performing at less than full potential. The evidence suggests this is true for a significant part of rural America. If so, government intervention may improve rural performance. But intervention is justified only if the benefits exceed the costs; the situation must be better with intervention than without it.

Characteristics of Rural America

Rural public policy must operate under the constraints of: (1) an extremely diverse countryside, (2) an economy and social structure highly interdependent with urban areas and the international market place, and (3) an economy that is predominantly non-agricultural.

Requirements for an Effective Rural Public Policy

New policies should meet these requirements:

- *Substantial local autonomy.* Local initiative will be forthcoming only if there is local participation. Local knowledge must be utilized if the highly diverse conditions in rural America are to be reflected in public policies.
- *Tri-level government involvement.* Federal, state, and local governments must have the opportunity to be involved in any successful rural program. Each has legitimate interests in the countryside and each should pay some part of the cost.
- *Informational, educational, and support services.* Local people have need for such services if they are to realize their potential.

Alternatives to Current Rural Policy

Alternatives to current policy and their principal characteristics are set forth in three approaches:

- a streamlined version of existing policy,
- a system of block grants for planning and project-development awarded either on an unrestricted or a competitive bases, and
- a free market approach.

No one approach is advocated. Each should be considered in terms of the requirements for effective public policy. Education, research, and communication needs for rural areas should be addressed regardless of approach.

Administration of Rural Policy

The United States Department of Agriculture (USDA) is the most logical place for a more clear-cut rural development program. If the USDA is given an explicit mandate in this regard (as this report suggests), the name of the Department should reflect its mission.

I. Rural America in Perspective

Why should a principally urban nation be concerned about the countryside? Are rural people and places sufficiently different to warrant special attention in public policy? Could this Nation be made better off by improving its rural economy? At a time when the Congress and the Administration are moving to reduce government spending, is there an essential federal role in rural development? Such questions deserve answers before it is recommended that the federal government establish special programs for rural people and places.

Any nation will suffer if a significant part of it, measured either by population or geography, is producing at less than full potential. Improving the net productivity of any group or region will increase the total national product and benefit all citizens. When there is unfulfilled potential, government intervention may be warranted; but even unfulfilled potential, in itself, does not make the case for such intervention. There must be evidence that the situation will be better with government intervention than without it; the benefits must outweigh the costs. The quality of the intervention effort itself may determine whether intervention is justified.

All reasonable evidence indicates that rural America is performing at less than its full potential. Rural dwellers earn substantially less than their urban counterparts; many rural communities have difficulty providing even a minimal selection of social services; physical capital and natural resources are often used inefficiently; and environmental conflicts among rural people, and between rural and urban people, indicate that we are far from consensus on care of the rural natural environment. This is serious where care of the natural environment is high on the list of public concerns.

In this report the official census definition of rural is followed. Following this definition a rural place is one with fewer than 2500 people. The term "non-metropolitan area" is used to refer to one or more counties which do not have a city of 50,000 people or more. Neither term is wholly satisfactory in all circumstances. Nevertheless it should be clear the concern in this report is with those places which have a relatively sparse population--meaning that space and distance are of particular importance. The focus of the report is with the actual and potential productivity of all resources in rural America. This includes human, natural, and man-made resources. It also includes rural institutions and organizations which determine how group decisions are made and define relations and rules among individuals.

The charge to the Working Group on Rural Development was to identify and clarify rural public policy issues. Emphasis was placed on isolating alternative policy approaches rather than recommending a particular approach. To do this, the Working Group drew on existing literature as well as its own experience in identifying fundamental characteristics of rural America and evaluating existing policies and programs.

Rural Places and Economic Change

Rural places and people play a unique role in economic development. As agriculture and forestry become more efficient, people and other resources--formerly used for farming and forestry--can be diverted to different enterprises. If these diverted resources are of poor quality (e.g., if the people leaving farming are poorly educated or not adaptable) economic progress will be less than it might be. But if these people are adaptable, capable, and motivated, their progress will be more rapid and their productivity greater--whether they remain in place or migrate to an urban or suburban location.

The 1980s and, thus far, the 1990s have not been kind to many rural places. Those that have been the most dependent on the extractive industries of farming, fishing, and forestry have been hit the hardest. And those dependent on farming or forestry that are farthest from urban areas usually have been at the greatest disadvantage. But the 1980s and 1990s do not stand alone. The 1920s and 1930s were also difficult for rural people and places. Rural to urban migration fueled the rapid economic growth of the United States through the first half of this century. Only the 1970s stand out in this century as a favorable decade for rural areas.

Rural people and communities must cope with the special problems of distance and sparse populations as they adapt to economic change. If out-migration does not occur, or if new economic activity is not attracted to the rural community, it may become economically and culturally isolated and suffer substantial unemployment or underemployment. If out-migration does occur, such communities may have difficulty maintaining viable social services because of an inadequate population base. Some communities are destined to decline, others have viable futures if opportunities can be identified and exploited. Rural to urban moves mean leaving the familiar community, and often necessitates a major lifestyle change.

The fundamental problem for rural communities is how to manage their options well. Often the principal need is for a realistic view of alternatives and a logical plan for choosing among them. The traditional solution has been to attempt to recruit industry, but the supply of rural places that seek to attract industry far exceeds the demand. This often leads to unfortunate competition among communities in the form of offers of tax incentives or other inducements. Some observers believe that electronic communication technology can eliminate the disadvantage of remoteness, but such opportunities are not sufficiently numerous to aid more than a few communities. The data on one point are clear--in rural areas, small entrepreneurs (those who employ 100 people or less) employ more people than do large firms.

Not all rural communities are struggling, of course. Some are doing relatively well. Many of the more prosperous are near urban areas and benefit from urban markets for rural services and goods. Some communities have outstanding natural amenities and can establish enterprises based on that advantage. Other communities have attracted significant numbers of retirees. Unfortunately, the options open to communities that have prospered often are unavailable to those that have not.

The decline and obsolescence of rural communities can be a significant cost to a nation. Constant adjustment among communities is required if economic progress is to occur. The desired option would be for rural places to discover for themselves the kind and level of economic activity that could be sustained over a reasonable time. When decline is inevitable, the best policy is to help people adjust to live elsewhere. When this is the case, educational and training policies are of great importance. When population becomes sparse and the distance from an urban area is great, social services should reflect these realities, for example, regionalization of health services.

Clearly the nation has a stake in the performance of people in rural places, as well as in the places themselves, and in the skills and adaptability of people migrating to urban and suburban places. But urban and suburban people should also be concerned if important economic opportunities in rural places are not realized because when this happens, the nation's production is less than it could be. We all are poorer as a result.

When a rural community fails to adjust either by increasing local employment opportunities or adequate out-migration, the seeds for even further decline may be sown. Such adjustment failure may result in a kind of stagnation which spreads from economic affairs to social organizations including the community and the family. Such stagnation is the precondition for chronic poverty. Once established, chronic poverty is exceedingly difficult to escape.

Rural Productivity and Low Income

If conditions were ideal, there would be little reason for rural people to be at an economic disadvantage relative to the rest of the population. Unfortunately this is not the case. Rural places have more than their proportionate share of low income people. The question that must be faced squarely is whether the federal government has an essential role in addressing this problem.

Some progress has been made in improving rural low income in the almost 30 years since the federal report, "The People Left Behind," chronicled the problem. The percentage of the rural population living in poverty has declined from over 30 percent in the early 60's to 16.8 percent (most of the decline occurring before 1978). The number of counties with a poverty rate of 20 percent or more has dropped from over 2,000 in 1960 to 796 in 1990. Even so, rural poverty rates remain higher than urban rates, particularly in some subgroups and regions. No rural area escapes some poverty. Its persistence is a condition in which everyone loses, rich and poor, rural and urban. It keeps all of the country from benefiting from the contributions the poor might otherwise make to national life. It places a burden on governments to address its consequences--poor health, inadequate housing, and unsafe drinking water and waste-disposal systems. Some important characteristics of the rural poor are set forth here for two reasons. First, the low income rural population constitutes a serious social problem and provides a dramatic illustration of unrealized potential. Second, to understand this segment of rural America, although it is not typical in income and wealth, is to understand something about the people of rural America generally. Some basic considerations are central to that understanding.

More than half of the rural families in poverty have one or more people employed but the employment is not sufficient for them to escape poverty. While per capita income grew nationally over the last decade, per capita rural income was stagnant. The natural resource-based industries on which rural America has traditionally depended did not keep up with the rest of the economy, particularly in terms of employment. Low-skilled, low-wage rural manufacturing faced stiff competition from off-shore production. For rural businesses generally, rural characteristics such as small places, low population density, and remoteness from urban places were an impediment to being competitive in the larger economy.

Rural poverty is disproportionately a southern problem but is found in all parts of rural America, east and west, remote from and close to metropolitan areas. Fifty-four percent of the rural poor, but only 44 percent of the total non-metropolitan population, lives in the South. Poverty is concentrated in roughly 500 counties that have had over 20 percent in every population census since 1960. These are places where poverty is endemic, and where it is very much a community as well as a family problem. Employment growth in these counties during the 1980s was only 60 percent of the national non-metropolitan growth. More recently, although unemployment rates in rural counties have been decreasing, the poverty rate is increasing.

The largest number of the rural poor are white, but a disproportionate share are minorities. Even in the South, where almost all rural blacks who are poor live, more than half of the rural population living in poverty is white. At the same time, rural minorities, principally Blacks, Hispanics and Native Americans, are disproportionately poor. Rural black poverty, with a rate of 40 percent, is almost entirely a southern phenomenon. Hispanic poverty is chiefly found in the South and West, Native American poverty in the West and sprinkled across the upper Midwest.

Husband-wife families account for almost half of all families living in poverty. The popular perception is that female-headed families constitute the poor population. In fact, although they represent a disproportionate share of families living in poverty, they make up less than a third of that population. Strategies based on the assumption that rural poverty is found principally in female-headed families are likely to miss its prevalence in traditional husband and wife families.

In summary, rural poverty does not exist because rural low-income people are unwilling to work (most do), but that their jobs do not pay enough or do not employ them enough hours to provide adequate income.

We may question whether the conditions described result from characteristics of low-income rural people themselves or from the failure of our economic and social systems to provide appropriate incentive and opportunity. Do they suffer disadvantages that would explain the income pattern that has been described? For example, is the fact that rural people are older than the general population important? Also, persistent low income often creates conditions that make escape difficult: for example, education and training services may not be as good as those for people in other places. When an entire region or community is poor, community services tend to suffer. Health services may be

inadequate as well as educational and training opportunities. Such conditions make breaking a pattern of low income difficult. The economic and social system does not appear to function equally well in all places.

Rural Amenities and the Natural Environment

Economically developed economies are characterized by a strong two-way flow of goods and services between urban and rural areas. It is to the advantage of each area to be as productive as possible in this exchange. However, market goods and services may not measure the general well-being adequately, because they may not reflect all social costs or benefits stemming from management of the natural environment.

The natural environment of rural areas should be managed to provide for (1) the health and enjoyment of the people who reside in it, (2) the protection of resources for rural economic activity, and (3) natural amenities for urban people. About 97 percent of the nation's land, where most natural amenities are found, is rural. Those concerned about the natural environment must necessarily be concerned about rural resource use.

National environmental legislation, as exemplified by The Clean Water Act, The Safe Drinking Water Act, The Clean Air Act, and The Endangered Species Act reflects a top-down approach, with uniform standards of compliance expected. This legislation is having a significant impact on rural resource use. The fact that much land is in federal ownership also has important implications for rural resource-use in some regions, as in the current controversy over public land-use for grazing versus recreation.

State and local governments also have significant roles in environmental policy. Property rights, especially those pertaining to ground water, are typically established in state law. States frequently administer federal law and are often viewed at the local level as part of the top-down approach to environmental policy. Local governments, representing local people, have legitimate environmental objectives--a healthy and attractive natural environment, and natural resource use in support of local economic activities. Yet in many places, they too create negative effects, such as water quality problems stemming from non-point sources or from small community disposal systems. Local environmental policy often consists of reaction to federal and state rules and regulations with much conflict in the reconciliation of national, state, and local interests.

It is not the purpose of this report to discuss specific environmental policies. However, it is important that reconciliation of federal, state and local environmental concerns is recognized as an essential part of rural development policy.

Local environmental policy should be more than a reaction to top-down state and federal legislation. There is great need for local people to develop local environmental plans. State and federal legislation and mandates must be taken into account, but so should alternative means of accommodating national and state interests that may serve local interests better. If state and federal

environmental policy can develop such flexibility, there would be two major benefits. First, their environmental policy would be enriched by local initiative and experimentation and would provide for social learning. Second, local people would better accommodate and support state and federal environmental interests and objectives.

Current environmental management falls short of the goals identified above. Not only is there substantial conflict, but resource abuse exists as well. Ground water is no longer a healthy source of drinking water in some places. Substantial costs are imposed on communities downstream from non-point siltation. To realize the nation's potential, environmental initiatives and decisions need to be shared among the various levels of government.

II. Rural Public Policy

Rural public policy must operate within an environment characterized by three conditions: First, rural America is highly *interdependent* with urban America and the international marketplace. The economic and social health of rural areas is positively related to the health of urban places and international economies, even though rural and urban interests are not always compatible, especially in the short run. Thus, rural policies should not be advanced in isolation from the broader concerns of the nation.

Second, rural areas are widely *diverse*. They are highly dispersed geographically; they were settled at different times by various peoples; they produce distinct products; and, at any given time, their well-being is very different. It is not possible to develop identical solutions for all rural problems.

Third, rural America is predominantly *non-agricultural*. Farming and ranching continue to be major employers in over 500 counties. Farming occupies nearly as much land now as it did at the beginning of this century and it is a major factor in rural environmental management. But the population that remains on farms receives more income from off-farm than on-farm sources. In 1820 about 90 percent of the nation's population was rural, with approximately 70 percent employed in agriculture. By 1990, only 2.4 percent were employed in agriculture, but 25 percent of the population still resided in rural areas. The percentage of the total population that is rural non-farm has been remarkably stable--between 20 and 25 percent--for nearly 2 centuries. Because rural America is predominantly non-agricultural, farm-commodity price programs cannot solve its low-income and other problems. The benefits of such programs tend to go to relatively well-off land owners who are very much a minority of all rural residents.

Requirements for Effective Rural Public Policy

An effective contemporary rural public policy should have the following characteristics:

- **Substantial local autonomy.** Local commitment and participation will be forthcoming only if there is local, representative involvement. The highly diverse conditions in rural America

require local participation if centrally designed policies are to be administered successfully. Local autonomy, however, should not be exercised to perpetuate local power structures that may underlie existing inadequate local accomplishments. A legitimate concern of the federal government is whether local governments represent diverse local interests; assurance that they do might well be a condition for federal participation.

- **Integration under local, state, and federal governments.** Local government, counties or their equivalent, is needed to provide legitimacy and authority for the exercise of local autonomy. State government is necessary for regional and area coordination, and coordination among state programs. Federal participation may be required to ensure that legitimate national interests are reflected locally. Each level of government should be given the opportunity to participate and if they do, each must bear some part of the cost of rural public policies.
- **Provision for informational, educational, and support services.** Support services are needed to help people understand critical changes in global economic forces, analyze their specific problems and opportunities, and make comprehensive plans and strategic decisions that offer hope for achievement of their goals. This assistance is especially important for local leaders who, in many instances, lack the access to important information enjoyed by their urban counterparts. Large jurisdictional units are able to hire staffs of professionals to do their engineering and other technical services. Small places often have to rely upon volunteers or elected people for such professional services. Such people can play their roles much better with appropriate informational, educational and support services.

Existing Rural Public Policy

Existing rural policies include those that apply to all segments of the population, rural or not, and those designed especially for rural people and places. Social Security, Medicare, and Medicaid are examples of important policies that are not exclusively rural. The principal policy question pertaining to such programs is whether they are being administered realistically, given the differences between rural and urban places, and among rural places themselves.

The 1990 Farm Bill recognized the difficulties in making a coherent policy from the numerous categorical programs then in existence. However, only USDA programs were considered, and rural development coordination in the Bill was never implemented. The Bush administration launched an intergovernmental partnership for rural development.

The National Rural Development Partnership of state and national councils began in 8 states and is now operating in 39 states. State councils, with federal, state, local, tribal, and private-sector members, define their own missions, structures, operating guidelines, and action plans. Each has a full-time director but depends on a federal/non-federal cost-sharing arrangement for financing. Work plans are carried out mainly through the members.

The National Rural Development Council consists of senior federal-program managers, and state, local, tribal, and private-sector representatives in Washington D.C. Federal representatives come from 17 federal departments and independent agencies. While USDA provides a portion of the administrative support for the National Partnership, others contribute and participate as well. About one third of the budget at the national level is provided by the USDA: of the total budget more than one third is provided by non-federal entities.

Few would argue that the existing programs, created one at a time over a long period, constitute a comprehensive or balanced approach to contemporary needs. Even with the partnership approach, there is considerable fragmentation. All of the following federal departments are involved: Agriculture, Commerce, Defense, Education, Health and Human Services, Housing and Urban Development, Justice, Interior, Labor, Transportation, Treasury, and Veterans Affairs. Agencies that are involved are the Appalachian Regional Commission, Environmental Protection Agency, National Endowment for the Arts, Small Business Administration, and Tennessee Valley Authority. The major need is to have a comprehensive, integrated, and consistent set of modern policies to address circumstances that will exist during the life of the 1995 Farm Bill.

Three Alternative Policy Approaches

Three alternative approaches to current rural public policy are advanced in this section. The first, *continuation of categorical programs*, requires the least organizational and structural change of the three. The second, a proposal for a program of *block grants for planning and project development*, recognizes a national responsibility in rural America with a major change in approach. The third, *a free-market non-intervention alternative*, articulates the belief that the case has not been made for federal involvement in rural America.

Both *need* and *benefit* should be shown if particular rural public policies are to be recommended. We believe the available evidence indicates need. Rural America is falling far short of its potential contribution; we believe the necessary condition for government intervention has been met. That the nation will be better off with government intervention than without it, must be demonstrated in reference to particular policy approaches.

This report does not recommend any particular alternative, but it reflects the belief that current policies and programs are not the best we can do. The fragmented nature of existing programs makes collaboration a heavy burden. Further, existing policy does not adequately unleash local initiative or take advantage of local human resources. Readers are encouraged to keep in mind the earlier section, "Requirements of an Effective Rural Public Policy" when considering the alternative policy approaches.

Alternative #1: Streamlining Categorical Programs

This alternative would streamline, consolidate, better coordinate, and focus existing programs. Some categorical programs would be discontinued; others would be created. Increased coordination responsibility would be vested in the USDA.

Many existing programs were created under the assumption that centralized wisdom could anticipate local need and local conditions. For example, water and waste problems are clearly present in rural communities, but, in a given community, such problems may not be the most pressing. Categorical programs often divert local talent and energy from high-priority problems toward efforts to obtain grant funds from a diverse set of federal programs. This is a misuse of local initiative.

Even though existing programs are imperfect, they can be made more effective by consolidation, better coordination, more flexible administration, and better use of funds. The formation of rural development councils at the state and national levels has been an encouraging development. These councils permit variation among states in addressing problems and in achieving interagency cooperation. Their experience should be of great value if alternative #1 is selected.

In meeting the requirements for effective policy set forth earlier, Approach #1 would not rank high with respect to encouraging local autonomy. Nor does it carry with it automatic access to knowledge and information. But building on past experience, it would permit improved integration of federal, state, and local-government activities.

Alternative #2: Block Grants for Planning and Project-Development

A block grant program would be a major departure from categorical grant programs and would provide greater opportunity for federal, state, and local partnerships in development. Funding for a block grant program could come from discontinuing categorical grants. The current experience with block grants should be useful if such a program is established. Block grant programs would directly address the diverse nature of rural economic, social, and geographical milieus that have hindered the effectiveness of federally centered rural programs.

Conceptually, there are two types of block grants: (1) *unrestricted*, in which money goes to the governors, who then reallocate the funds, and (2) *competitive*, in which a federal agency such as the USDA operates a competitive program that awards successful grants directly to the local level. An unrestricted block grant program would give more authority to governors, a competitive grant program more authority to representatives of local societies and Congress. Both programs would emphasize flexibility in the interpretation of Congressional goals for rural development. No state or local government would be required to participate, but those that did would bear some part of the cost. Cost sharing is believed to be an important ingredient for success of such an approach.

Both the unrestricted and competitive grant approaches outlined are based on the assumption that existing federal, state, local, and private institutions will be mobilized and, if needed, strengthened to support the grants. A shortcoming of both is that not all eligible rural areas would benefit at a particular time. Many variations on each approach are possible.

- i. In an *unrestricted block grant program*, the federal government would allocate funds to the states on the basis of such criteria as the percentage of population or the percentage of land that is rural or non-metropolitan. Of course, other criteria could be used as well as, for

example, the percentage of the rural population that is poor. Governors would have the principal responsibility for determining the allocation of funds within states. However, Congress could stipulate a greater role for existing State Rural Development Councils, intergovernmental groups, and public-private organizations in identifying development priorities. The states would have to match a percentage of the federal funds to participate.

It is not envisioned that every county in a state would receive such grants--which would be made on the basis of the importance of the problem proposed and the prospects for success. If local initiative is to be encouraged, considerable autonomy must be accorded to local people to establish priorities and approaches consistent with national and state interests.

2. *A competitive block grant program* would focus more on rural community initiatives, identifying projects that would achieve general Congressional goals for rural development. Communities would act in cooperation with federal and state agencies, sub-regional development organizations, the Cooperative Extension Service, and institutions of higher learning. A community or cluster of communities would form local rural-development boards (similar to current agricultural boards) that would represent the population. These boards would develop a strategic plan, identify program priorities, produce a project proposal, and submit the proposal to the USDA. A competitive grant program would be administered by the Secretary of Agriculture, with recommendations coming from panels composed of federal, state, and local representatives as well as rural-development experts. These panels would be similar to those for the National Research Initiatives or National Science Foundation grant programs. Congress would specify the eligible counties.

A competitive block grant program would support locally identified priorities for rural development. Ideally, it would allow local people flexibility in identifying and assigning priorities to their problems as well as in proposing their solutions. It would encourage cooperation of private and public institutions while requiring native initiative. The use of rural development boards would be similar to that for traditional agricultural boards in rural communities. The communities would be given incentive to act on their own initiative, to seek the assistance of private and public development organizations, to design programs to meet stated objectives, and to use federal and state resources to meet high-priority local needs consistent with general Congressional goals for rural development.

Both types of block grants would allow priority to be given to local problems rather than to predetermined categorical programs objectives. Both would require greater cooperation among the various levels of government than now exists. The two are not mutually exclusive; various combinations could be considered.

Alternative #2 provides for considerable local autonomy. It is especially well-suited for integrating the efforts of federal, state, and local governmental. To be successful it would need to be combined with an informational and educational program.

Alternative #3: A Free Market Non-Intervention Approach

A free market alternative would require that all federal programs designed specifically for rural America be discontinued (with the exception of special service programs described later). This would include commodity programs, water and waste facility programs--to the extent they are specifically rural--and rural business-development, electric, and credit programs. The federal government would still have a presence in rural areas by virtue of those programs that apply to the entire nation, such as Social Security, Medicare, Medicaid, and highways and education. There should be no discrimination against rural areas in the administration of such programs. For example, rural areas should be eligible to participate in a federal small-business program, with recognition of rural conditions.

Those in support of this alternative may grant that rural America is falling short of its potential, but may doubt that government intervention will improve the situation. They may deny either the uniqueness of rural America or that the benefits of government intervention will exceed the costs. This alternative would be the most drastic departure from the existing situation and would place the greatest burden on individual and community initiatives to improve rural conditions.

The free market alternative may be considered to be a statement of direction and principle rather than a rigid prescription. A market economy cannot function in the complete absence of external authority. Thus, those who wish to rely more heavily on the market may well seek to identify government actions that will make markets and private enterprise better serve public purposes. And, of course, private markets do not address all public needs effectively, such as that for establishment and maintenance of public roads.

The need for capital and credit for rural America provides an example of how government might change performance in the private sector. The American Bankers Association (ABA) has recommended federal actions that would make it more profitable for rural bankers to better serve rural America. The recommendations pertain to new sources and types of loanable funds, a secondary market for economic development loans, increased access to equity capital for startup and growth businesses, consulting for those businesses, improved access to specialized project analysis, and tools to better support intergenerational transfer of existing community businesses. The recommendations of the ABA on each of these matters would require adjustment in government activity that would permit banks to be more responsive. Such changes would not need to be confined to alternative #3, of course. They can and should be considered for each of the other approaches.

The free market alternative provides for, indeed would require, considerable local autonomy. There would be no explicit educational and informational programs, unless they were also available in urban areas. Standing alone, this alternative would not foster the integration of federal, state, and local rural development.

The three alternative approaches are, in practice, not necessarily mutually exclusive. For example, the current Administration's rural development effort, called performance partnerships, combines a categorical program approach with elements of a block grant program. Nevertheless, it is

the belief of the Working Group that rural development policy will be improved if the principal characteristics of each approach are kept clearly in mind when public policy is formulated.

What might be said about the comparative federal costs of the three approaches? At the present time the budget authority for existing programs is approximately \$2.7 billion. Given rural development needs, it may be assumed that this amount would be continued for both alternative approaches #1 and #2. Alternative approach #3, the free-market alternative, would have no federal program cost. It would be possible, of course, to scale down expenditures for either alternatives #1 or #2. Given the enormity of rural development problems, however, at some point such reduction would be counter productive and federal programs for rural development would not be viable.

Special Services

Some needs are so fundamental that government should respond with programs regardless of the policy approach taken. Two are identified here: education/research and communication infrastructure. Clearly there are many ways of meeting these needs, and this report is not exhaustive in this respect.

Rural Education and Research

The greatest hope for improving productivity in rural America lies in unleashing local imagination and creativity. The rural communities that do best are those with well informed, local leaders. As already noted, small entrepreneurs create more jobs than do large entrepreneurs. Local leaders and small business entrepreneurs should be fully informed of the best means by which they can take advantage of the opportunities in their communities. Experience underlines the importance of a comprehensive educational and research program in support of rural development. Such a comprehensive program would provide education and technical assistance for community leaders involved in local development planning and action, local entrepreneurs during startup and expansion, and local government personnel seeking to make government more efficient. It would support elementary, secondary, and continuing education to improve the quality of human resources in rural places, and research related to making rural America more productive and environmentally secure.

The Cooperative Extension Service has had much experience in providing such support for community development. In some locations, community colleges have done outstanding work toward rural problem solving. Both institutions have important roles in rural education. The Cooperative Extension Service might be charged with responsibility to develop an educational program consistent with the fundamental rural characteristics of contemporary rural America identified earlier. If a system of block planning and project grants were established, a percentage of grants awarded could be set aside for education at the local level. Each state would then be free to develop the kind of educational program it wished, with whatever providers of special services it prefers. In any circumstance, the federal government should work with the states to develop a plan for addressing rural educational needs.

An elaborate system of agricultural research and education is now jointly administered by the USDA and Land Grant Universities. Investigation of the social benefits of this public investment show that it has historically yielded a high rate of return. This system might now be charged formally with the responsibility of developing a comprehensive program of research and education for rural America that is consistent with the fundamental characteristics of rural America set forth earlier in this report.

This nation has a legitimate interest in the quality of all education. If rural education is markedly inferior to education generally, the larger society as well as rural people will suffer. Evidence does not show that all rural education is inferior, although some rural places have poor programs. Attention should be directed to this issue, especially to education through the 12th grade. While adult education is important for community and rural development, elementary and secondary education is of enormous general importance, whether young people remain in rural places or migrate elsewhere.

Communication Infrastructure

Economic activity in the United States depends increasingly on the fast, accurate, and dependable information transfers made possible by recent advances in telecommunications. Progress in this area has changed the way work is organized and is steadily increasing the opportunities to decentralize traditional workplaces. Demographic changes since 1990 indicate that more and more US citizens are choosing to move to small or intermediate-sized communities, and some are taking their occupations with them. Telecommunication has reached into rural areas in private sector activities, education, medical care, and local government. However, many households, businesses, towns, and counties remain untouched by this technology because they are not served by fiber optic cable and digital switching mechanisms, both of which are expensive and can be used to advantage only by skilled personnel.

Improved telecommunication facilities and access to the "information superhighway" have become important rural development tools. The requirements are well known and documented: hardware in the form of extended lines, advanced switching, and modern tie-ins with regional telephone systems. Software for individuals, businesses, schools, and other public institutions, and continued training and opportunities for users and potential users must be made available as well.

The initial expense associated with installing facilities may be beyond the capacity of rural user groups and the public utilities that serve them. The local installation and upgrading of telecommunications facilities must be accompanied by tie-ins with regional or national networks before service needs can be reliably met. Each of these problems can be addressed by public policy. Policies used in extending electricity, telephone service, or natural gas lines to remote areas may be useful models. This is a priority concern for rural public policy.

The Administration of Federal Programs

Federal categorical programs for rural America are located in 12 federal departments, but chiefly in the USDA. In 1990, the USDA was given coordinating responsibility for all federal

programs affecting rural America. In the opinion of the Task Force responsible for this report, the USDA is the logical department to invest with this responsibility. We believe the USDA should be strengthened with respect to two rural development functions: information services (collection and dissemination) and policy assessment.

There is a great need for comprehensive and reliable information about conditions in rural America. We should remember we are concerned with approximately one quarter of the population and 97 percent of the land area of the United States. The Rural Economy Division, Economic Research Service of the USDA has done an admirable job of addressing this need in the recent past. Such programs are relatively inexpensive and their continuation should be given high priority.

Many actual and proposed government programs and economic trends do not equally affect all regions of the country, or rural, urban, or suburban areas. There is need for the assessment, without advocacy, of differential impacts. For example, high interest rates and a restricted money supply tend to have a negative effect on housing and forestry activities. Subsidies for transportation in urban and suburban places may encourage their growth at the expense of rural-area growth. Policy analysis of such developments is needed to determine their effects on rural areas.

Consideration should be given to the administrative requirements of the three alternative policy approaches. The first alternative, a streamlining of categorical programs, would require the most federal administration. Federal administrative responsibilities for a block grant program for planning and project-development should be of high quality. By definition, the free market alternative would have relatively fewer administrative requirements, but the federal government would continue to have major responsibilities in rural America. All alternatives should be supported by the educational and technical services previously described.

The USDA should be assigned additional, specific responsibilities for rural programs; indeed, rural development should become a specific mission. The 1995 legislation should strengthen and extend the 1990 legislation in this respect, and the name of the USDA should reflect its expanded mission. Possibilities are: *The Department of Agriculture and Rural Affairs*; *The Department of Rural Affairs, Food, and Agriculture*; *The Department of Rural Affairs and Rural Resources*; *The Department of Rural Affairs*.

It is not anticipated that federal spending or federal activity would increase in every rural community or locality. What can be anticipated is a federal program that stimulates states and localities to better help themselves. "Local empowerment" is more than a slogan; its possible benefits in this instance are enormous. Rural America should realize its potential for its own sake as well as that of the nation.



A 2020 VISION FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

The Vision, Challenge, and Recommended Action

International Food Policy Research Institute
1200 Seventeenth Street, N.W.
Washington, D.C. 20036-3006

June 13, 1995

DRAFT

This document will be finalized following the 2020 International Conference for Food, Agriculture, and the Environment, taking into account comments and suggestions received during the conference.

Dear Conference Participant:

The challenges we have identified and the actions we recommend to achieve the 2020 Vision will be discussed and debated during this Conference. We invite you to contribute to the 2020 Vision by giving us feedback on this draft document. Comments may be made on the document itself and given to any IFPRI staff person during the Conference or sent to us. All comments received by July 15 will be carefully considered as we finalize the 2020 Vision Statement.

We would also appreciate your suggestions for follow-up to this Conference to maximize the contribution of the 2020 Vision initiative to eradicating hunger and malnutrition while protecting the environment.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Pinstруп-Andersen'. The signature is fluid and cursive, with the first name 'P.' and the last name 'Andersen' being the most prominent parts.

Per Pinstруп-Andersen
Director General, IFPRI

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A 2020 VISION FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

The Vision, Challenge, and Recommended Action

AN OVERVIEW AND SUMMARY OF REQUIRED ACTION

IFPRI's 2020 Vision is a world where every person has economic and physical access to sufficient food to sustain a healthy and productive life, where malnutrition is absent, and where food originates from efficient, effective, and low-cost food and agricultural systems that are compatible with sustainable use and management of natural resources. Whether the Vision is fully achieved by the year 2020 depends on appropriate action taken by civil society and governments in both developing and developed countries. Using the Vision as a catalyst for action should move the world closer to achieving the underlying goals. Commitment to the 2020 Vision will not only achieve the underlying goals by 2020, it will set the world on the road to broad-based economic development that will be sustainable beyond 2020.

The world's natural resources can support the 2020 Vision. But we must act now. Each day we wait, many thousands of children will die and many millions of people will be hungry, malnourished, and ill. Continued resource degradation will weaken the earth's carrying capacity, and a time may come when our children will look back and wonder why we did not take action when natural resources were still sufficient to accommodate a desirable solution. Lack of appropriate action will also lead to social and political instability and lost opportunities for improved general well-being of people in both developing and developed countries.

The 2020 Vision will be achieved only if broad-based economic growth is accelerated, particularly in the low-income developing countries, along with gender equality in decisionmaking and improved access by low-income people, especially women, to productive assets, markets, employment, education, clean water and sanitation, and primary health care including reproductive health care. The agriculture sector has a key role in fostering sustainable economic growth and meeting future food needs. Agriculture is a major contributor to overall economic growth in developing countries, especially the lowest-income countries, where it provides three-quarters of employment, nearly half of gross domestic product (GDP), and more than half of all export earnings. Through its production, consumption, and employment linkages, agricultural growth is a catalyst for growth in other sectors of the economy.

There is no magic solution that will make the 2020 Vision a reality. The action needed is not new, but it will require joint efforts by individuals, households, local communities, civil society, national governments, and the international community. Governments in both developing and developed countries must change their priorities and policies to reflect the Vision. International cooperation between

developed and developing countries as well as among developing countries (South-South) must be strengthened. The action most critically needed is summarized below. More details on the challenges to achieve the Vision and justifications for the action recommended are provided in the main document.

Sustained action is needed to:

1. Strengthen the capacity of developing-country governments to perform their appropriate functions;
 2. Enhance productivity, health, and nutrition of low-income people and increase their access to employment and productive assets;
 3. Strengthen agricultural research and extension systems in and for developing countries;
 4. Promote sustainable agricultural intensification and sound management of natural resources, with increased emphasis on areas with fragile soils, limited rainfall, and widespread poverty;
 5. Develop effective, efficient, and low-cost agricultural input and output markets; and
 6. Expand international assistance and improve its efficiency.
1. **Strengthen the capacity of developing-country governments to perform their appropriate functions.**

Strong national governments of developing countries are essential to achieve the 2020 Vision. Each country must identify the appropriate functions of government vis-à-vis other parts of society and strengthen the government's ability to perform these functions while letting go of functions better performed by others. Policy predictability and transparency, currently lacking in many countries, are critical. Governments should:

- ▶ Develop a national strategy to achieve the goals embodied in the 2020 Vision in collaboration with civil society;
- ▶ Take full advantage of the potential of the agricultural system in such a strategy;
- ▶ Seek continuity and transparency in policymaking and enforcement to assist the private sector in predicting future investment environments;
- ▶ Maintain exchange rates and monetary and fiscal policies appropriate for accelerated broad-based economic growth; and
- ▶ Seek improved access to international markets through bilateral and multilateral trade negotiations and regional integration, and press for further reform of global trade.

The international assistance agencies, including bilateral donors and multilateral institutions, should support these actions through technical assistance when requested by national governments.

2. Enhance productivity, health, and nutrition of low-income people and increase their access to employment and productive assets.

Over a billion people in developing countries—one-fourth of the population—live on less than US\$1 a day. About 800 million people are food insecure, and 200 million preschool children are malnourished. Without new and accelerated action, poverty will increase considerably in Sub-Saharan Africa, slightly increase in Latin America, and remain unchanged in South Asia. In addition to the tremendous human suffering associated with these numbers, the productivity of starving, malnourished, and ill people is low. The 2020 Vision will not be achieved unless the productivity of poor people is increased and their access to employment and productive resources improved. Immediate action by governments, nongovernmental organizations, and communities is recommended to:

- ▶ Assure access to and support for a complete primary education for all children, eliminating discrimination against female and rural children;
- ▶ Assure access to primary health care, including reproductive health services, for all people, with initial emphasis on women and children;
- ▶ Improve access to clean water and sanitation services;
- ▶ Provide training for skill development in adult women and men;
- ▶ Strengthen and enforce legislation and provide incentives for empowerment of women to gain gender equality;
- ▶ Increase access of the rural poor within and outside agriculture, especially women, to productive resources through land reform, property rights legislation, strengthened credit and savings institutions, more effective rural labor markets, and infrastructure for small-scale rural enterprises;
- ▶ Improve targeting of programs to the poor and monitoring of food security effects of programs and policies, and maintain support for famine early warning systems and other disaster preparedness and management systems; and
- ▶ Expand employment through broad-based economic growth, using agriculture as the engine of growth in low-income developing countries, and removing implicit and explicit subsidies on labor-replacing capital.

International assistance agencies should provide financial support for these actions on grant terms or as long-term low-interest loans.

3. Strengthen agricultural research and extension systems in and for developing countries.

2020 Vision research forecasts that between now and 2020 global demand for foodgrains will increase by about 55 percent and for livestock products by 75 percent as a result of population growth, increasing incomes, and dietary changes. Demand for these goods in developing countries will increase 75 and 155 percent,

respectively. Most of this additional food will have to be produced on land currently under cultivation, as significant expansion of cultivated area is costly in both economic and environmental terms. The required productivity gains will be possible only if agricultural research systems are mobilized to develop improved agricultural technology and if extension services are strengthened to assure dissemination of improved technology to farmers. But developing countries continue to underinvest in agricultural research despite consistently high economic rates of return. In many countries, national agricultural research systems have deteriorated to the point that they cannot meet the challenges posed by future food needs. The private sector can meet some of the research needs but low-income, food-deficit countries are not likely to attract much private-sector research. National agricultural research in developing countries should be supported by a vibrant international agricultural research system that undertakes strategic research of a public goods nature and with international externalities. Like the national systems, the existing international system suffers from underinvestment.

Immediate action is recommended to:

- ▶ Move national agricultural research expenditures in developing countries as quickly as possible to a target of at least 1 percent of the value of agricultural output with a long-term (5-10 year) target of 2 percent;
- ▶ Develop a portfolio of research activities that conform to the needs of the country and the expected social returns;
- ▶ Undertake research to reduce unit costs of production, processing, and distribution; increase the quantity and quality of food produced; assure sustainability in production through sound use of natural resources; and reduce risks and losses in production, processing, and distribution;
- ▶ Expand agricultural research for all ecoregions, with emphasis on areas with significant agricultural potential but with fragile soils, low or irregular rainfall, and widespread poverty and natural resource degradation;
- ▶ Expand investments in strategic international and regional agricultural research with large potential international benefits to better support national efforts;
- ▶ Strengthen interaction between public-sector agricultural research systems, farmers, private enterprises, and nongovernmental organizations to assure relevance of research and appropriate distribution of responsibilities; and
- ▶ Expand biotechnology research in national and international research systems to support sustainable intensification of agriculture in developing countries; forge effective partnerships between developing-country research systems, international research institutions, and private- and public-sector research institutions in industrialized countries, and provide incentives for the private sector to undertake biotechnology research focused on the problems of developing-country farmers.

International assistance agencies should:

- ▶ **Increase financial support for national and international agricultural research for developing countries;**
- ▶ **Facilitate biotechnology research, sharply focused on developing-country problems, in public-sector research institutions of industrialized countries; and**
- ▶ **Strengthen partnerships among national agricultural research institutions in developing countries, international agricultural research institutions, and relevant public- and private-sector institutions and companies in industrialized countries to expand research of critical importance for developing countries.**

4. Promote sustainable agricultural intensification and sound management of natural resources, with increased emphasis on areas with fragile soils, limited rainfall, and widespread poverty.

Natural resource degradation in developing countries often results from or is exacerbated by poverty, inadequate property rights, inappropriate technology, and lack of access to markets and credit. Rural poverty is often caused by inadequate opportunities to intensify agricultural production. Thus, sustainable agricultural intensification is essential for alleviating poverty and managing natural resources.

Although data on environmental degradation are poor and need to be improved, it appears that about a fifth of the world's soils are degraded; about 1 percent of the tropical forests are converted to other uses every year; the world's marine fisheries are being unsustainably exploited; water scarcities are growing locally, regionally, and nationally; waterlogging and salinization affect large areas of land; soil fertility is low and declining in many countries, including most of Sub-Saharan Africa; and past practices of pesticide use are no longer acceptable. Achieving the 2020 Vision will require action to better manage natural resources and agricultural inputs.

A large share of existing poverty, food insecurity, and degradation of natural resources is found in rural areas with limited or unreliable rainfall and fragile soils ("low-potential areas"). Achieving the 2020 Vision will require large private and public sector investments in these areas, as well as secure property rights and improved market operations.

Immediate action is recommended to:

- ▶ **Expand public- and private-sector investments in infrastructure, market development, natural resource conservation, and agricultural research in "low-potential areas";**

- ▶ Provide incentives to farmers and communities to implement integrated soil fertility programs in areas with low soil fertility, including the application of organic and inorganic fertilizers, through
 - policies to assure clear long-term property rights to land, access to credit, improved crop varieties, and information about production systems;
 - effective and efficient markets for plant nutrients, and investments in roads and rural transportation systems; and
 - temporary fertilizer subsidies where prices are high due to inadequate infrastructure or poorly functioning markets.
- ▶ Establish and enforce clearly specified systems of rights to use and manage natural resources, including land, water, and forests, in close collaboration with nongovernmental organizations and local communities;
- ▶ Provide incentives, such as partial cost coverage, to farmers and communities to undertake activities needed to restore degraded lands;
- ▶ Strengthen local control over natural resources, enhance local capacity for organization and management, and provide incentives for private and community investment in and protection of natural resources;
- ▶ Explore arrangements for cofinancing of natural resource management activities among local communities, government, private corporations, and downstream water users;
- ▶ Promote integrated pest management programs as the central pest management strategy to reduce use of chemical pesticides, remove pesticide subsidies, and increase farmer participation in developing effective and appropriate strategies for pest management; and
- ▶ Undertake comprehensive water policy reform to make better use of existing water supplies by providing appropriate incentives to water users and improving procedures for water allocation.

International assistance agencies should provide long-term low-interest loans to support investments in low-potential areas and to support credit for integrated soil fertility and drainage programs.

5. Develop effective, efficient, and low-cost agricultural input and output markets.

Marketing costs for agricultural inputs and outputs are high in many developing countries, particularly in low-income, food-deficit countries. Many developing countries are currently privatizing their markets for agricultural inputs (such as fertilizers) and outputs. It is essential for the 2020 Vision that these efforts result in efficient and effective markets for at least three reasons: (i) gains from improved efficiency and reduced costs of marketing staple foods can significantly improve food security through lower consumer prices and higher producer prices; (ii) the expected doubling of the urban population in developing countries in the next 25 years will put strong pressure on food marketing to be efficient and effective; and (iii) expanding

domestic and foreign markets due to rapid increases in demand for processed food expected in developing countries in the next 25 years and international trade liberalization will provide considerable opportunities for competitive agricultural systems to expand employment in agricultural processing, packaging, and other such activities. Agricultural systems will be competitive only if all components of the system—input markets, production, and output markets—are efficient and effective.

Each developing-country government should:

- ▶ Complete ongoing efforts to phase out inefficient state-run firms in agricultural input and output markets and create an environment conducive to effective competition among private agents in order to provide efficient and effective services to all producers and consumers;
- ▶ Identify its role in agricultural input and output markets and strengthen its capacity to perform these roles while disengaging itself from functions to be undertaken by the private sectors;
- ▶ Remove policies and institutions that favor large-scale, capital-intensive market enterprises over small-scale, labor-intensive ones;
- ▶ Develop and maintain market infrastructure of a public-goods nature, such as roads, electricity, and communications facilities, by direct public-sector investment or effective regulation of private-sector investment;
- ▶ Develop and enforce standards, weights and measures, and regulatory instruments essential for effective and efficient functioning of markets;
- ▶ Facilitate the development of small-scale credit and savings institutions and provide technical assistance and training to create or strengthen small-scale, labor-intensive competitive rural enterprises in trade, processing, and related marketing activities; and
- ▶ Facilitate private-sector seed multiplication and distribution through the necessary regulations to assure quality control, competition, and access to improved seeds by small farmers.

The international assistance community should assist through technical advice and selective financial support of, for example, revolving funds for small-scale credit programs.

6. Expand International Assistance and Improve its Efficiency.

The current downward trend in international development assistance must be reversed, and industrialized countries currently giving less than the United Nations target of 0.7 percent of their gross national product (GNP) should rapidly move to that target. It is in the self-interest of donors to provide development assistance, not only to address important humanitarian considerations in developing countries, but also to enhance employment and trading opportunities in the donor countries. Developing countries are the largest potential market in the world, but that potential must be developed. The faster these countries grow, the more they import. By

helping them to grow, development assistance creates export markets and economic growth for donor countries.

International development assistance is an important complement to national efforts, but it will cover only a small fraction of the resources needed. Therefore, it must be allocated to effectively complement national and local efforts. Official government-to-government assistance should be made available primarily to countries that have demonstrated commitment to reducing poverty, hunger, and malnutrition and to protecting the environment—goals embodied in the 2020 Vision. To improve effectiveness of aid, each recipient country should develop a coherent strategy for achieving its goals related to food security, poverty, and natural resources, and should identify the most appropriate uses of foreign assistance.

International development assistance must be realigned to low-income developing countries, primarily in Sub-Saharan Africa and South Asia. The potential for deteriorating food security, nutrition, and health, and further degradation of natural resources is considerable in these two regions. In higher-income developing countries, concessional aid such as grants should be replaced by internationally available commercial capital, freeing resources for the low-income countries.

In addition to the above-mentioned actions, international development assistance should focus on:

- ▶ Activities with large international benefits, such as international agricultural research and investment to address global environmental problems;
- ▶ Investment in public goods with high and long-term payoffs for broad-based economic growth, poverty alleviation, and malnutrition reduction;
- ▶ More efficient and effective allocation of resources across countries, such as water; and
- ▶ Efforts to assure that low-income developing countries realize the potential benefits from trade liberalization and international integration.

A 2020 VISION FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

The Vision, Challenge, and Recommended Action

INTRODUCTION

The 2020 Vision for Food, Agriculture, and the Environment is an initiative of the International Food Policy Research Institute (IFPRI), in collaboration with several national and international institutions. Its objectives are to develop and promote a vision for eradicating hunger and malnutrition while protecting the environment and to influence action by national governments and international development institutions to achieve the Vision by generating information and encouraging debate.

The 2020 Vision Initiative was launched in 1993. It builds on past and ongoing food policy research by IFPRI and others and relies on data from many sources, most notably the Food and Agriculture Organization of the United Nations (FAO). In addition to conducting analyses and syntheses on a large number of topics related to food, agriculture, and the environment, the 2020 Vision Initiative has brought together policymakers, analysts, and officials of governments, nongovernmental organizations (NGOs), and the private sector in workshops and consultations to share their knowledge on selected topics and bring that knowledge to bear on recommendations for action. Besides topical consultations, regional workshops have been held in Sub-Saharan Africa, South Asia, and Latin America to facilitate the development of regional strategies by select groups of policymakers, advisers, analysts, and others knowledgeable on the issues in each of these regions.

Results from the 2020 Vision Initiative are disseminated in policy briefs, discussion papers, news articles, and books, and through a series of conferences, symposia, and press briefings in several countries, including an international conference in Washington, D.C., on June 13-15, 1995. The 2020 Vision Initiative offers a forum for debate through a bimonthly newsletter, *News and Views*. The written output is distributed to more than 3,000 individuals and institutions in 125 countries.

The 2020 Vision Initiative is directed by a steering committee of IFPRI staff chaired by the director general and guided by an international advisory committee of distinguished individuals chaired by H.E. President Yoweri Museveni of Uganda. Communications and public awareness activities are guided by an expert advisory committee, and discussion papers are reviewed by a committee of reviewers from outside IFPRI as well as by selected IFPRI staff. The 2020 Vision Initiative receives financial support from 20 countries, international organizations, development institutions, foundations, and private companies.

THE VISION

IFPRI's 2020 Vision is a world where every person has economic and physical access to sufficient food to sustain a healthy and productive life, where malnutrition is absent, and where food originates from efficient, effective, and low-cost food and agricultural systems that are compatible with sustainable use and management of natural resources.

The 2020 Vision is based on the principle affirmed by the United Nations and its members that freedom from hunger is a human right and that it is the responsibility of the national governments, assisted by the international community, to create an economic and social environment in which every individual is capable of meeting his or her food needs in a sustainable manner. The Vision reflects deliberations and recommendations from recent United Nations conferences related to food, agriculture, and the environment.

Commitment to the 2020 Vision and associated actions not only will eliminate hunger, malnutrition, and poverty, but will also set the world on the road to broad-based economic development that will be sustainable for the foreseeable future. Lack of commitment, however, will lead to deeper human misery, greater social and political instability that will spill over national boundaries, further degradation of natural resources, and lost opportunities for improved well-being of people in both developing and developed countries.

THE CHALLENGE

Whether the Vision is fully achieved by the year 2020 depends on all relevant parties—individuals, households, local communities, civil society, national governments, and the international community—taking appropriate actions. The world's natural resource base can support the 2020 Vision, although continued degradation and other action that reduces the ability of the earth to support an increasing population may change this capacity in the future. The extent to which the Vision is achieved depends not on resource constraints but on action taken—or not taken.

Identifying, designing, and implementing actions to achieve the 2020 Vision require a solid understanding by all parties of the problems, challenges, and opportunities for change. 2020 Vision research and consultations have identified nine key sets of issues that together provide the challenge to achieving the 2020 Vision. These are:

- ▶ Food security and nutrition;
- ▶ Poverty and economic growth;
- ▶ Human resource development;
- ▶ Population growth and movements;
- ▶ Food demand and diet changes;
- ▶ Food supply;
- ▶ Natural resources and agricultural inputs;
- ▶ Markets, infrastructure, and international trade; and
- ▶ Domestic resource mobilization and international assistance.

These issues do not form a hierarchy of priorities but rather are interlocking problems that must be addressed together.

Sustainable improvements in *food security and nutrition* are the overall indicators of success in attaining the 2020 Vision. Food security is jointly determined by access to food and availability of food. Access to food is closely related to *poverty and income growth*: the poor do not have adequate means to gain access to food in the quantities needed for healthy, productive lives. Together with food, education, health care, clean water, and sanitation are building blocks for *human resource development*, improving human productivity and thereby access to employment, income, and food security.

Population growth and movements, including urbanization and displacement of people, greatly influence food security and nutrition by increasing and changing the demand for food, changing dependency ratios and family sizes, and changing access to productive resources. Population pressures, in combination with poverty and insecure property rights, contribute to overuse and misuse of natural resources.

Food demand and supply trends influence food prices, purchasing power of both urban and rural poor, composition of diets, and a variety of other factors related to food security, nutrition, and sound management of natural resources. Whether food needs can be met depends on food supply, not simply for producing food but also for generating employment and incomes for poor people via agricultural growth.

Natural resources and agricultural inputs are critical determinants of food supply: degradation of natural resources—soils, forests, marine fisheries, water—undermines production capacity and access to productive resources, while availability of and access to agricultural inputs, such as water, fertilizers, pesticides, energy, and research and technology determine productivity and production levels. Policy and market incentives are essential for sound management of natural resources and agricultural inputs. Climate change is not expected to challenge global food production in the next 25 years, but human behavior during this time will influence the extent and effects of climate change well beyond 2020.

The efficient functioning of *markets*, especially agricultural input and output markets, supported by governments that have the capacity to perform their role, is of critical importance for attaining the 2020 Vision. *Infrastructure* supports efficient market operations and allows physical access to food and other inputs. The increasing integration of developing countries into the global economy through *international trade* will considerably benefit developing and developed countries through expanded markets, job creation, and income generation, making the 2020 Vision attainable.

Finally, without increased *domestic resource mobilization*—savings and investment—developing countries will not be able to accelerate the investments in economic growth and human resources that underpin the 2020 Vision. *International assistance* has a critical role to play in supporting developing countries as they implement the actions required to attain the 2020 Vision and embark upon broad-based economic development.

Each of these challenges is considered in greater detail next.

Food Security and Nutrition

About 800 million people—15 percent of the world's population—are food insecure, lacking economic and physical access to the food required to lead healthy and productive lives. Their numbers have declined from 950 million in 1970, to 800 million today, primarily due to a 50 percent reduction in the number of food-insecure people in East Asia, to 250 million. However, South Asia continues to be home to about 270 million hungry people, and Sub-Saharan Africa has emerged as a major locus of hunger following a 46 percent increase in hungry people since 1970 to 175 million.

Prospects for reducing malnutrition among the world's children are grim. Around 185 million children under the age of six years were seriously underweight for their age in 1990 and, according to the most likely 2020 Vision scenario, the proportion of malnourished children will decline from 34 to 26 percent during this period. Because of population growth, however, the number will decline only slightly to 156 million by 2020. Like food insecurity, child malnutrition is concentrated in South Asia and is growing in Sub-Saharan Africa. Between 1990 and 2020, the number of malnourished children in Sub-Saharan Africa is likely to increase by 50 percent to reach 43 million, largely offsetting expected reductions in other regions. Malnutrition in children inhibits their growth, increases their risk of morbidity, affects their cognitive development, and reduces their subsequent school performance. Malnutrition during childhood negatively affects work capacity and labor productivity in adults. And, mild to moderate malnutrition has far more powerful effects on child mortality than previously believed.

Hidden hunger, in the form of micronutrient deficiencies, is pervasive, even where food consumption is adequate. Micronutrient deficiencies have detrimental effects on human health and productivity. Nearly 2 billion people worldwide are iron deficient, resulting in anemia in 1.2 billion; more than half of the pregnant women in developing countries are anemic; 125 million preschool children suffer from Vitamin A deficiency, which has caused clinically visible eye damage to 14 million of them; and more than 600 million people have iodine-deficiency disorders.

Hunger is, and will remain, the primary challenge confronting developing countries. However, 2020 Vision research finds a paradoxical nutrition-related trend of obesity emerging in some areas, particularly in urban areas. In China's cities, for example, the prevalence of obesity is forecast to increase 15 percent by 2020. Rapid income growth and urbanization are associated with changes to diets that include more fatty foods, such as livestock products, and with shifts toward more sedentary occupations. Continuation of recent trends in obesity will contribute to increases in chronic diseases and is becoming a serious public health risk, not only in developed but also in some developing countries.

Poverty and Economic Growth

Over 1.1 billion people in the developing world—30 percent of the population—live in absolute poverty, with incomes of only US\$1 a day or less per person. In South Asia and Sub-Saharan Africa, every second person is absolutely poor. Unless concerted action is taken, poverty will remain entrenched in South Asia and Latin America and increase considerably in Sub-Saharan Africa. Only in East Asia is absolute poverty expected to decline substantially. More than 75 percent of the poor in Sub-Saharan Africa and South Asia are rural people, obtaining livelihoods from agricultural activities or from nonfarm activities that depend mostly on agriculture. Even in highly urbanized Latin America, a large share of the poor are rural.

Income levels and rates of growth vary considerably across developing countries. In 1982, per capita incomes in low-income developing countries were 18 percent of those in middle-income developing countries and 3 percent of those in developed countries. Ten years later, in 1992, these figures had dropped to 16 and 2 percent respectively, reflecting an increasing inequality. The widening gap between rich and poor is further illustrated by a dramatic decrease in the share of global incomes obtained by the poorest 20 percent of the world's population, from 2.5 percent in 1960 to 1.3 percent in 1990.

While East Asia had spectacular growth rates in per capita incomes of 6 percent or more during the 1980s and early 1990s, Africa, Latin America, and the Middle East have struggled with negative or negligible growth rates. In the absence

of significant and fundamental changes in many developing countries, disparities in income levels and growth rates are likely to continue. In the most likely 2020 Vision scenario, per capita income growth rates are expected to range from 0.4 percent per year from 1990 to 2020 in Sub-Saharan Africa to 5.2 percent in East Asia. There is, however, considerable opportunity to accelerate income growth rates in the slow-growing countries, especially those of Sub-Saharan Africa, and to raise per capita incomes.

Human Resource Development

2020 Vision research finds that rapid economic growth alone is unlikely to reduce dramatically the number of malnourished children. Increasing incomes are necessary but not sufficient to guarantee good nutrition. There is growing evidence that the control of income within the household matters: incomes controlled by women are associated with improved food security and nutrition. Women play a key role in ensuring household food security. Nonfood factors such as education, health care, child care, clean water, and sanitation are of critical importance in determining nutritional status and must be improved in tandem with incomes and empowerment of women.

Enrollment in primary education has gone up considerably in the developing world. However, dropout rates are significant; about 30-35 percent of males and females drop out by Grade 4, a share that has not changed since 1970. Almost as many girls enroll in primary school as boys, but they only complete about half as many years of schooling. Developing-country public expenditures on education as a percentage of gross national product (GNP) have doubled since 1960 to 4 percent.

About 1 billion people in developing countries lack access to health services; not surprisingly, infant mortality rates are 10 times higher than in industrialized countries. Public expenditures on health as a percentage of GNP in developing countries have doubled from 0.9 to 2.2 percent between 1960 and 1990.

About 1.3 billion people, primarily in rural areas of developing countries, are consuming unsafe water. About two-thirds of the population in developing countries has access to safe water, compared with one-third in the late 1970s. Almost 2 billion people, including more than half of the rural population in developing countries, do not have access to sanitation services.

Investments in health care, nutrition, education, clean water, sanitation, and housing, which are essential for human capital development and welfare, are far below required levels, particularly in rural areas of low-income developing countries. As a result, many people are denied the skills, capacity, and opportunity to improve

their lives and participate fully in all aspects of the economy and social and political processes.

Food Demand and Diet Changes

The extent to which food needs will be converted into effective market demand will depend on the purchasing power of the poor. 2020 Vision research forecasts that global effective market demand for foodgrains will increase by 55 percent between 1990 and 2020 and for livestock products by 75 percent. With population growth, per capita demand for foodgrains will increase by less than 3 percent and for livestock products by 17 percent.

Demand for foodgrains and livestock products will grow much faster in developing countries than in developed countries because of more rapid population and income growth. In the most likely scenario developed by 2020 Vision research, average per capita demand for foodgrains in developing countries is forecast to grow by 0.40 percent per year between 1990 and 2020 and for livestock products at 1.50 percent, compared with 0.33 percent and 0.15 percent, respectively, in developed countries.

2020 Vision research projects that between 1990 and 2020, developing countries will increase their total demand for foodgrains by 75 percent and for livestock products by 155 percent. This appears to be a substantial increase, but because of population growth, demand for foodgrains per person is expected to increase by only 11 percent to 266 kilograms in 2020, and for meat by 56 percent to 26 kilograms. In Sub-Saharan Africa, however, the amount of food demand per person will show virtually no change, which is cause for serious concern as per capita food consumption is currently low in that region.

Urbanization and rising incomes are associated with more diverse diets: people are eating more livestock products and less cereals, and they are shifting to more processed foods. Asians are eating more livestock products and shifting from eating rice to wheat. Sub-Saharan Africans are moving from eating coarse grains and roots and tubers to wheat and rice. 2020 Vision research forecasts per capita demand for rice to grow at half the rate for wheat and maize. Much of the growth in global demand for meat is driven by China. 2020 research suggests that a dramatic shift in India from a cereal-based diet to an increasingly meat-based diet would slightly raise world food prices, reducing per capita food demand in poorer Sub-Saharan African and South Asian countries.

Changes in dietary patterns place strong pressures on the livestock industry and, indirectly, on feedgrain production. Demand for feedgrain is growing rapidly in developing countries. Continued declines in the amount of feed needed to produce

livestock, because of better technologies and a shift from ruminants to poultry, will slow the rate of increase in demand for feedgrains, thereby reducing pressures on grain production.

Population Growth and Movements

Four demographic trends will influence the achievement of the 2020 Vision: population growth, urbanization, changing age composition, and involuntary displacement of people.

Between now and 2020, world population is expected to increase by about 40 percent to a total of nearly 8 billion. About 94 percent of this increase will occur in developing countries, whose share of world population will reach 82 percent. The absolute increase will be largest in Asia (1.5 billion), but growth will be most rapid in Africa, where the population will double to about 1.2 billion in 2020. From its peak of 2.1 percent in the late 1960s, the global population growth rate is expected to slow to 1.4 percent during 1990-2020. If fertility rates in developing countries decline faster than expected, as recently observed in a few African countries, following stronger support for poverty alleviation programs, reproductive health services, and education, especially for women, the population growth rate could further decline. AIDS may also significantly reduce population growth rates, by as much as half in some African countries by 2020.

The rural population in developing countries is large, 64 percent of the total population. However, most of the population increase in developing countries between now and 2020 is expected in the cities. Rapid urbanization will more than double the urban population in developing countries to 3.6 billion by 2020. By this time, urban dwellers will outnumber rural dwellers in all regions. This population pressure in urban areas will create enormous demand for services. Extreme poverty, insufficient economic growth, and lack of employment opportunities in rural areas and employment opportunities and expected access to social services in urban areas are some of the major contributing factors to rural-urban migration in many low-income developing countries.

The population of the middle- to higher-income developing countries is aging; the share of older people is growing while that of children is falling. This shift in the age composition of the population will significantly influence the design of future policy interventions to alleviate poverty and food insecurity. In the low-income developing countries, however, the population pyramid is likely to continue to be very broad at the young ages for some time, suggesting that education and employment generation will continue to be major priorities.

A 10-fold increase in the number of international refugees since 1974 to around 23 million today, along with 26 million internally displaced refugees, reflects severe social and economic hardship. Spillover effects across borders substantially extend the area of impact. Unless the underlying causes of these massive involuntary displacements of people—breakdown of civil society and governments, oppression, extreme poverty, hunger, and environmental degradation—are removed, this emerging trend will continue, with increasing human misery and disruptions of productive activities.

Food Supply

In the next 25 years, the world will be challenged to produce enough food to feed an additional 90 million people each year, as well as to meet increasing and changing food needs due to rising incomes and changing lifestyles. These needs will have to be met from more efficient use of land already under cultivation, as significant expansion of cultivated area is not an economically or environmentally sound option in most of the world. Food will have to be produced where it is most needed in developing countries, not simply to increase food supplies but also to generate incomes and employment through agriculture and economic growth.

Warning signs, however, suggest that growth in food production has begun to lag. Rises in food production did not keep pace with population growth in more than 50 developing countries in the 1980s and early 1990s. The rate of growth of global grain production dropped from 3 percent in the 1970s to 1.3 percent in the 1983-93 period, and the amount of grain produced per person has fallen in the past decade. Growth rates in yields of rice and wheat have begun to stagnate in Asia, a major producer. Production from marine fisheries has peaked at 100 million tons and is now in decline.

However, according to 2020 Vision research, the future aggregate global food supply picture is likely to be good if investment in agricultural research and infrastructure is maintained at least at the already reduced levels of the 1980s. In the most likely scenario, world foodgrain production will grow on average by 1.5 percent per year between 1990 and 2020, a rate high enough to increase global per capita availability of food and to reduce real prices for most commodities. World livestock production is projected to grow by 1.9 percent a year. Aquaculture production, which doubled between 1984 and 1992, will increase at a slower rate between 1990 and 2020, and marine fish catches are likely to be no higher than current levels in 2020.

Yield increases will be the source of most of the food production increases as cultivated area is likely to decline in many developed countries and only marginally increase in developing countries, except in Sub-Saharan Africa and Latin America

where some expansion of area is still possible. However, these yield increases depend on continued research and successful dissemination. Should public investment in agriculture, particularly in agricultural research, continue to decline, the aggregate food situation will significantly worsen and world food prices could instead rise.

The food supply picture is not good for all regions. Sub-Saharan Africa is of special concern. The gap between production and market demand for cereals is expected to triple to 27 million tons in 2020. Because of widespread poverty, the gap between food production and need will be even larger. It is unlikely that the region will have the capacity to commercially import its food needs or that enough food aid will be available to bridge this gap. Food aid is likely to be increasingly scarce as trade arrangements made through the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) are implemented, because domestic price support to agriculture and associated surplus production in industrialized countries will fall.

Sub-Saharan Africa's food economy is unlikely to have much effect on the global food situation. However, what happens in two regions—China on the one hand and Eastern Europe and the former Soviet Union on the other—will influence the global food projections. Any dramatic changes in China's food economy will reverberate around the globe. Structural changes in Eastern Europe and the former Soviet Union will determine the pace at which that region shifts from being a major cereal importer to a major exporter.

The central challenges between now and 2020 are to sustain the global capacity to produce adequate food in an environmentally sustainable manner, as well as to increase the capacity of poorer countries to produce food, not simply to increase their food supply but to generate incomes and employment through agricultural growth.

Natural Resources and Agricultural Inputs

Soils. Concerns are growing about the extent and rate of soil degradation in the world and its effect on agricultural productivity and preservation of natural resources, including biodiversity. In the past half-century, about 2 billion of the 8.7 billion hectares of agricultural land, permanent pastures, and forest and woodlands have been degraded. Of these, about 750 million hectares of mildly degraded land could be restored through good land husbandry measures, while another 900 million hectares of moderately degraded land could be restored through significant on-farm investments. Restoring the remaining 300 million hectares of severely degraded lands will be much more costly, involving major engineering investments. About 5 to 10 million hectares annually become unusable due to severe degradation. If this

trend continues, 1.4 to 2.8 percent of existing agriculture, pasture, and forest land will be lost by 2020.

Overgrazing, deforestation, and inappropriate agricultural practices account for most of the degradation. To a large extent, these problems result from or are exacerbated by inadequate property rights, poverty, population pressure, inappropriate government policies, lack of access to markets and credit, and inappropriate technology. Crop productivity losses from degradation are significant and widespread in hilly areas, dryland cropping areas, rangelands, and irrigated areas. In the absence of efforts to protect nondegraded soils and to restore currently degraded soils, increasing population and persisting poverty will hasten soil degradation between now and 2020.

2020 Vision consultations have identified various "hot spots" of concern by the year 2020 and beyond. These areas include the Indus, Tigris, and Euphrates river basins, where continued salinization could threaten regional food security; the foothills of the Himalayas, where water erosion could exacerbate poverty and food insecurity; the highland areas of East Africa, where few ready sources of further productivity increases exist; the border zone between subhumid and semiarid areas in Africa, where migrations induced by dryland degradation could add considerable pressure on the natural resource base; the forest margins of the lower Amazon, where overgrazing and nutrient loss are expected to worsen; and the periurban areas around Mexico City, where pollution from agricultural chemicals could worsen. Soil fertility is a particularly serious problem in Africa where a lack of replenishment of nutrients is leading to rapid deterioration in soil fertility.

Forests. During the 1980s, about 0.8 percent—15.4 million hectares of tropical forests worldwide—were converted to other uses every year. Latin America had the largest area of forest converted during that period—7.4 million hectares every year—but other areas, with smaller forest endowments, had higher rates of forest conversion and carry heavier risks of completely losing their forest assets. Rates of forest conversion are most rapid in continental Southeast Asia and Central America and Mexico, averaging around 1.5 percent a year. Deforestation has important local and global consequences, ranging from increased soil and water degradation to greater food insecurity (especially among indigenous and other groups depending upon forest products for food, fiber, medicines, or income), escalating carbon emissions, and loss of biodiversity.

Small-scale, poor farmers clearing land for agriculture to meet food needs accounted for roughly two-thirds of the deforestation in the 1980s. Such forest conversion, driven by food insecurity, will continue between now and 2020, particularly in Africa, unless farmers have alternative ways of meeting food needs. And these needs will accelerate with population growth in rural areas. Commercial

logging interests account for much of the remaining deforestation, especially in East Asia and West Africa. While there is no consensus on the amount or location of forest that this generation should bequeath to the next around 2020, there is evidence that the world's forests are neither being managed properly nor, when converted into other assets, proving sufficiently productive to allow future generations to meet food needs.

Marine Fisheries. The world's fisheries are in crisis. Following a period of rapid expansion of harvesting from the oceans, over a quarter of the 200 main marine fisheries worldwide are overexploited, depleted, or recovering, while another two-fifths are fully exploited. Fisheries are collapsing in some parts of the world, and international disputes over fish stocks are increasing. Resource management has failed to coordinate fishers and restrain them from exploiting natural fisheries beyond sustainable limits, leading to increasing scarcity of and conflict over fish. Even where access is restrained, most fisheries have too many fishers with legitimate access. 2020 Vision research projects that in 2020 fish catches will be, at best, no more than current levels, as losses from poor resource management and protection of some areas and species offset gains from better handling and exploitation of underused stocks. The challenge is to maintain the present levels of harvest from natural fisheries while sustainably increasing aquaculture production.

Water. Enough freshwater is available worldwide to meet needs for the foreseeable future, if it were evenly distributed and appropriately used. But water is poorly distributed across countries, across regions within countries, and across seasons. Virtually all developing countries, even those with adequate water in the aggregate, suffer from debilitating seasonal and regional shortages. About 30 countries today are water stressed, with major problems in drought years. Of these, 20 are absolutely water scarce, with annual internal renewable water resources below the threshold required for socioeconomic development and environmental quality. By 2020, it is likely that the number of water-scarce countries will approach 35. Competition for water is becoming more acute, increasing the potential for water conflicts between sectors and water wars between countries.

2020 Vision research has identified several major water-related challenges. Development of new water resources has slowed considerably since the late 1970s. New sources of water are increasingly expensive to exploit as a result of high construction costs for dams and reservoirs and of concerns about environmental effects and displacement of people. Efficiency of water use in agriculture, industry, and urban areas is generally low. There are mounting pressures to degrade land and water resources through waterlogging, salinization, and groundwater mining. About 0.3-1.5 million hectares of land are lost each year worldwide owing to waterlogging and salinization. Pollution of water from industrial effluents, poorly treated sewage,

and runoff of agricultural chemicals is a growing problem. Unsafe water, compounded by inadequate or nonexistent sewage and sanitation services, is a major cause of disease and death, particularly among children, in developing countries. Inappropriate policies, distorted incentives, and massive subsidies provide water at little or no cost to rural and urban users, encouraging overuse and misuse of water. Water for irrigation, the largest use, is essentially unpriced. The overarching challenge between now and 2020 is to treat water as the scarce resource it is.

Fertilizers. According to 2020 Vision research and consultations, the use of mineral fertilizers will have to be substantially increased to meet food needs by 2020, especially in developing countries, although organic sources can and should make a larger contribution to supply plant nutrients. Fertilizers also have a key role in enhancing the natural resource base. 2020 Vision research forecasts that between 1990 and 2020, global fertilizer demand will grow, on average, by 1.2 percent per year to 208 million tons in 2020, a significantly lower rate than the 2.8 percent rate in the 1980s. Average annual growth rates are projected to be around 1.8-2.4 percent in Africa, Asia, and Latin America. Asia will account for over half of the global growth.

Depletion of soil nutrients is a critical constraint to food production in Sub-Saharan Africa. The projected growth in fertilizer use will be inadequate, given nutrient requirements for food production and for resource conservation. Fertilizer applications are low because of high prices (resulting from thin markets, lack of domestic production capacity, poor infrastructure, and inefficient production systems), insecure supplies, and the greater risks associated with food production in marginal areas.

Raw materials, capital investment, or technology do not appear to be critical constraints to future fertilizer production. Negative environmental and health consequences of fertilizer use and production must be avoided. However, in most developing countries the problem is not excessive, but insufficient, fertilizer use. The major challenge is to promote a balanced and efficient use of plant nutrients from both organic and inorganic sources at farm and community levels to intensify agriculture in a sustainable manner.

Pesticides. Since 1945, global pesticide use has increased 42-fold to about 2.5 million tons today. Concerns are multiplying in both developed and developing countries that pesticides compromise human health; contaminate soils and water and damage ecosystems; exterminate species; and lead to pesticide resistance, pest resurgence, and evolution of secondary pests. Evidence shows that overuse of pesticides also leads to decreased food production; in Indonesia, an integrated pest management program that combined biological controls and host-plant resistance with reduced use of chemical pesticides in the late 1980s was associated with an

increase in rice yields. According to 2020 Vision consultations, it is clear that past practices of pesticide use cannot be sustained and that environmentally sound alternatives must be developed and adopted. The challenge is to combine available pest control means to achieve effective pest control with little or no negative environmental effects or health risks.

Energy. Agriculture consumes only 5 percent of global commercial energy. However, energy use in agriculture has significantly grown in recent decades because of increases in cropped and irrigated area; rising mechanization in irrigation, land preparation, and harvesting; and use of chemical fertilizers and farm machinery. Chemical fertilizers alone account for almost 70 percent of developing-country energy use in agriculture. Increasing agricultural production and agroprocessing in developing countries will call for substantial increases in use of commercial energy. Still, agriculture will continue to be a minor user of energy.

Research and Technology. Low-income developing countries are grossly underinvesting in agricultural research compared with industrialized countries, even though agriculture accounts for a much larger share of their employment and incomes. Their public sector expenditures on agricultural research are typically less than 0.5 percent of agricultural gross domestic product, compared with about 1 percent in higher-income developing countries and 2-5 percent in industrialized countries. Developing countries have far fewer agricultural researchers relative to the economically active population engaged in agriculture or to the agriculture acreage. Growth in public sector expenditures on agricultural research in developing countries has slowed to 2.7 percent per year in the past decade, compared with 7.0 percent in the 1960s. Many developing countries are even reducing their support for agricultural research. This trend has been under way for several decades in Africa (agricultural research expenditures per scientist have fallen by about 2.6 percent per year since 1961) and is more recent in Latin America.

Existing technology and knowledge will not permit production of all the food needed for 2020. The baseline scenario of the 2020 global food projections assumes a continuation of public investment in agricultural research and infrastructure at the already reduced levels prevailing in the late 1980s. Further reductions in public investment in agricultural research will have severe consequences for global food production by reducing yield growth: projected world food price declines will be reversed and the number of malnourished children will increase.

Climate Change. A trend toward global warming is evident, but it will not significantly affect global food production in the next 25 years. This does not imply, however, that considerations related to climate change should be set aside. Human behavior in the next quarter century—the carbon dioxide and fluorocarbons injected into the atmosphere, the forests burnt down, the pollution added to the

atmosphere—will determine the extent, longevity, and effects of climate change. Foresight is essential: while the effects of climate change may not be felt immediately or for some years to come, once it is set in motion, climate change may take a very long time to be reversed.

Markets, Infrastructure, and International Trade

In recent years, many countries have embarked upon market reforms to move away from state-controlled, or parastatal, organizations toward reliance on private firms operating in free markets. The need for such reforms is apparent in former Communist countries, but is also evident in a number of mixed economies in the developing world. While clearly desirable, such reforms must be undertaken with care, taking into account the organizational structure of the affected markets. In many cases, inefficient parastatals are being replaced by oligopolistic or monopolistic private firms, with little or no improvement in performance. The ongoing and unprecedented transition from controlled to market economies and from patrimonial to open political systems has generated confusion about the appropriate role of government and weakened the capacity of governments to perform needed functions. "Free" markets are not necessarily the same as "competitive" markets, and government policy has an important role in ensuring the emergence of efficient, competitive markets as part of the reform process.

In many regions, especially Sub-Saharan Africa, food marketing costs are extremely high. Lowering these costs through investment in improved transportation infrastructure and marketing facilities (which also increase competition) may be as important in lowering food prices to consumers as increasing agricultural productivity.

Infrastructure conditions in many developing countries are dismal. Road, rail, port, and storage infrastructures are inadequate, while telecommunications, electricity, piped water, and sanitation reach only certain segments of society. Past investments have tended to favor urban areas. Many countries have made considerable improvements in recent years, but investments in infrastructure, especially transport and communication, which are considered the leading elements, are far below needed levels. This is surprising given that rates of returns from infrastructure investments are high. African countries, in particular, generally lag significantly behind Asian and Latin American countries in terms of their basic infrastructure and investments in creating and maintaining infrastructure.

The rapid growth of world trade and the increased integration of developing countries into the global economy since World War II have changed the nature of the development process. No country can insulate itself from the world economy—trade policy and development policy must go hand-in-hand. The value of world exports

grew, on average, by 11 percent per year between 1950 and 1990, far faster than world income. The share of developing countries in world trade rose to 26 percent in 1992-93, doubling in just over 20 years. Many developing countries have gained enormously from increased participation in world markets as world trade has become increasingly liberalized, largely through a series of major rounds of trade negotiations under the GATT, including the recently completed Uruguay Round. More recently, there has also been a proliferation of regional trading arrangements, such as the North American Free Trade Association (NAFTA), MERCOSUR in Latin America, and a proposed Asia-Pacific free trade area. All indications are that these trends will continue into the future.

The results of 2020 Vision research and other work indicate that increased regional integration and further global liberalization are good for most developing countries. World trade in agricultural goods will continue to increase, implying that developing countries should not seek food self-sufficiency but should pursue self-reliance through specialization and increased trade in agricultural and manufactured goods for which they have comparative advantage. 2020 Vision research also shows that developing countries benefit from regional trade arrangements that include one or more developed economies, but that they gain little from integration with other developing countries alone. For the low-income, food-importing countries, global trade liberalization and policy reform in agricultural subsidy policies in developed countries is a mixed blessing. They gain from increased access to developed-country markets, but they are less able to compete in those markets than other, better situated, developing countries. And they lose from increased food prices that may occur in the medium term with cutbacks in agricultural subsidies in the developed countries.

Domestic Resource Mobilization and International Assistance

The major source of aggregate investment in all countries is domestic savings. For the low-income countries, the vicious circle of poverty still exists—low income leads to low savings, low investment, low growth, continued poverty, and continued low savings. Developing countries vary widely in their ability to mobilize savings and achieve high rates of investment. Over the past 20 years, several countries in Asia and Latin America has become economic successes, with rising investment rates and rapid growth. For example, investment rates now exceed 35 percent of GDP in Indonesia, Malaysia, and Thailand. In Sub-Saharan Africa, however, the share of GDP devoted to investment has fallen in the past two decades from 20 to 16 percent, while the domestic savings rate has fallen from 18 to 15 percent. These rates are not high enough to bring about target economic growth rates.

Foreign private investment, loans from international organizations, and official development assistance (ODA) have long been seen as ways to increase investment

in developing countries and so break out of the poverty cycle, although there is widespread recognition now that such foreign investment must be accompanied by complementary domestic policy reforms if it is to be successful. Private flows to developing countries have increased substantially since the late 1980s. In 1993, these flows, which include direct investments, international bank lending, and bond lending, constituted 56 percent of total net resource flows to developing countries, up from 39 percent in 1989. Most of these flows, however, go to a small number of medium-income, semi-industrial countries in Latin America and Asia. Poorer countries, especially in Sub-Saharan Africa, are left out and depend much more on aid flows.

ODA to developing countries is slowing. ODA from the 21 members of the Organization for Economic Cooperation and Development (OECD) grew at an annual rate of 3 percent in real terms from the early 1970s to 1992, peaking at \$60.9 billion in 1992. Driven by cuts in foreign assistance in 17 countries, ODA dropped by more than 6 percent in 1993. Its share of GNP fell to a 20-year low of 0.3 percent. Assistance from non-OECD countries has dropped even more significantly; Arab OPEC countries provided 25 percent of world ODA in the early 1980s but contributed less than 2 percent in 1993. While foreign aid budgets rose during the 1980s, assistance to developing-country agriculture declined in real terms from \$12 billion to \$10 billion. Agriculture's share of total development assistance declined from 20 to 14 percent during the same period. Given observed trends in aid availability, developing countries are challenged to devise strategies for accomplishing their goals with less aid.

RECOMMENDED ACTION

The above review of problems and challenges suggests that the 2020 Vision will be achieved only if broad-based economic growth is accelerated, particularly in the low-income developing countries, along with gender equality in decisionmaking and improved access by low-income people, especially women, to productive assets, markets, employment, education, clean water and sanitation, and primary health care including reproductive health care.

The agricultural sector's dual contribution in fostering broad-based sustainable economic growth and meeting future food needs must be better recognized and exploited. Agriculture is a major contributor to overall economic growth in developing countries, especially the lowest-income ones where it provides three-quarters of employment, nearly half of GDP, and more than half of all export earnings. Reducing investments in agriculture because the global food supply situation is sufficient to meet current market demand fails to recognize that many people go hungry because they are too poor to convert their food needs into

effective market demand. It also fails to recognize the tremendous opportunities the agricultural sector offers for accelerating broad-based economic growth and reducing poverty in both rural and urban areas, thereby improving food security.

Opportunities for enhancing efficiency and effectiveness, and reducing costs in the food system (including production, processing, and distribution) must be pursued through research, technology, infrastructure, and competitive markets. Sound management of natural resources is critical to assure sustainable intensification of food production, prevent or minimize environmental degradation, and maintain biodiversity. Efforts must be made to alleviate the conditions that lead to involuntary migration and displacement of people, such as civil strife and armed conflicts, poverty, and environmental degradation.

Achieving the 2020 Vision will require joint efforts by individuals, households, local communities, civil society, national governments, and the international community. The private sector must play an increasing role. As further discussed below, the most important way in which governments can support such efforts is to invest in critical public goods and assure correct incentives for each of the parties involved.

Priority for sustained action should be given to the following general areas. Specific recommendations for action are provided below for each of these areas:

1. Strengthen the capacity of developing-country governments to perform their appropriate functions;
2. Enhance productivity, health, and nutrition of low-income people and increase their access to employment and productive assets;
3. Strengthen agricultural research and extension systems in and for developing countries;
4. Promote sustainable agricultural intensification and sound management of natural resources, with emphasis on areas with fragile soils, limited rainfall, and widespread poverty;
5. Develop effective, efficient, and low-cost agricultural input and output markets; and
6. Expand international assistance and improve its efficiency.

Strengthen the Capacity of Developing-country Governments to Perform Their Appropriate Functions

In most developing countries, governments should play a different role than they did in the 1970s and 1980s, but they must be strengthened to perform these roles better. A transition in the role of governments has been under way in a number of countries in the past several years, but considerable confusion and disagreement about what this role should be still remain. While the specifics will vary among countries and over time, current efforts to replace the public sector by private enterprise where appropriate must parallel appropriate institutional changes and a strengthening, rather than a weakening, of the capacity of governments to undertake the activities they should undertake. If the public sector loses credibility and funding is cut, there is a serious risk that governments will be unable to play their appropriate role effectively.

An effective public sector is needed to maintain law and order; enforce property rights; develop and enforce rules, regulations, standards, and measures for the private sector; promote and assure competition in private-sector markets; and produce or facilitate the production of public goods such as primary education, primary health care, certain types of agricultural research, basic infrastructure, and a variety of other goods.

Policy predictability and transparency in policymaking are critical. Lack of one or both will hamper private investment, entrepreneurship, and broad-based economic growth. Continuity in policy design and implementation is important.

Policies to support the 2020 vision should be guided by a long-term national strategy for food security, human nutrition, agricultural development, and management of natural resources. The agricultural system (including production, processing, distribution, and related activities) is likely to be the most appropriate cornerstone of such a strategy, especially in low-income developing countries, given its pivotal role in employment provision, export earnings, and general economic growth. Countries should strive for sustainable self-reliance in food (ability to produce or import enough food to meet economic demand and needs at reasonable prices) rather than national self-sufficiency (ability to produce enough food to meet economic demands and needs). Furthermore, countries should facilitate food security for all households and individuals. Many countries have agreed on various occasions that freedom from hunger is a basic human right. Governments should live up to this commitment, not by physically delivering needed foods to all citizens but by facilitating a social and economic environment that provides all citizens with the opportunity to assure their food security.

In many developing countries, NGOs and other parts of civil society have come to play a much more important role in a number of areas traditionally covered by government, such as poverty relief and other transfer programs for low-income people, health care and nutrition programs, income-generation schemes, credit programs for low-income rural households, management of natural resources, and agricultural research and extension. NGOs have also been effective in influencing government action through advocacy. For the 2020 Vision to be achieved, the efforts and contributions by NGOs must be fully recognized and supported and a more effective coordination and distribution of labor between government and civil society must be achieved.

Delegation of policy responsibility and authority by national governments to provincial and local governments and fuller participation by local people in local decisions will make government policies and public sector spending more effective and responsive to local needs while providing a better foundation for interaction between government and civil society.

An appropriate macroeconomic environment is of critical importance to achieve the 2020 Vision. Countries must maintain exchange rates and monetary and fiscal policies appropriate for accelerated broad-based economic growth. Explicit and implicit subsidies and other policies and regulations that reduce the cost of capital relative to labor and that promote capital-intensive growth where labor is relatively cheap should be avoided. Macroeconomic reforms and structural adjustment programs should be continued, but redesigned where needed to promote enhanced access by the poor to income-generating assets and to protect the poor from negative effects. Countries and international agencies should pay more attention to identifying the most appropriate role of the state during and after adjustments.

Developing-country governments should facilitate the transition to more open international markets and increased trade. This might include investing in market information facilities and other infrastructure; adopting policies and regulations to facilitate diversification in agricultural production to better reflect the emerging markets and changing relative prices; improving the competitiveness of agricultural systems; and developing and expanding small-scale, labor-intensive, private-sector agricultural processing in both rural and urban areas. Countries that expect to increase food imports, such as China and several other countries in East and Southeast Asia, should invest in port facilities and encourage the private sector to prepare for expansions of storage, transfer, transport, and marketing services.

Developing countries should push for full and timely implementation of the recently concluded GATT agreement and should devise strategies for a new round of multilateral trade negotiations in the not too distant future, perhaps within the World Trade Organization (WTO), to ensure increasing access to markets on a

nondiscriminatory basis. They should press for further reform of global trade in agriculture and other sectors to accelerate income growth and assure that the increasing trend toward regional trade or economic arrangements is compatible with subsequent international trade liberalization. At the same time, they should implement existing regional integration agreements in a manner that does not preclude subsequent global integration.

Enhance Productivity, Health, and Nutrition of Low-income People and Increase Their Access to Employment and Productive Assets

The 2020 Vision will be achieved only if the productivity of poor people is increased and their access to employment and productive assets improved. Poor education, limited skills, poor health, and malnutrition among adults leads to low productivity. Similarly, malnutrition in children is associated with poor educational achievement and low adult productivity. Investment in education, health, and nutrition not only improves the well-being and productivity of individuals, but also accelerates economic growth and poverty alleviation, unlike certain other programs aimed at the poor, such as food subsidies and poverty relief programs, which may be warranted to deal with immediate problems. Because the results of such investments are largely public goods—that is, a large share of the benefits are captured by society rather than the individuals or firms who make the investments—and they yield high rates of return it is strongly in the interest of society to expand investments in these areas beyond what the private sector is willing to do.

Thus, governments should accelerate investment in public goods necessary to reduce poverty and improve the health and productivity of people, including (1) primary education, eliminating discrimination against female and rural children; (2) primary health care and nutrition programs, with emphasis on women and children; (3) clean water and sanitation for poor people; (4) reproductive health services, including family planning; (5) technical assistance and skill-development programs for low-income people; and (6) empowerment of women in decisionmaking.

Investments to increase the productivity of rural people should take high priority in most developing countries, partly because the majority of the poor are found in rural areas and partly because failure to increase productivity of rural people can result in excessive out-migration and associated increases in urban poverty as well as further degradation of natural resources in areas receiving the migrants. Increased access by the rural poor, especially women, to productive resources through land reforms and sound property rights legislation, strengthened credit and savings institutions with effective access for the poor, more effective rural labor markets, and technical assistance and skill-development programs are of critical

importance. Labor-intensive infrastructure programs have proven effective in reducing poverty and food insecurity and creating needed rural infrastructure.

At least in the short term, direct transfer programs, including programs for poverty relief, food security, and nutrition intervention, are needed in many countries. Governments should improve the targeting of programs to the poor, as well as the monitoring of the food security effects of policies and programs in general. Social safety nets for the rural poor are urgently needed. The most appropriate design, content, and implementation procedures of these safety nets will vary among locations. To assure success, however, the intended beneficiaries and the communities where they are located should play a major role in the design, implementation, and monitoring. The national capacity of most developing countries for identifying and targeting vulnerable individuals, households, and communities should be strengthened. Governments must maintain support for effective famine early warning systems and other disaster preparedness and management systems.

While national governments will continue to have a critical role in supporting the policies and programs described, the contributions of local communities and NGOs must be strengthened. A better integration of the various actors and their responsibilities is urgently needed. Governments should find ways to transfer public funds to NGOs and local communities for programs best handled by them. Governments and NGOs should identify low-cost methods for providing social services to rural areas and seek opportunities for financing through user fees and other means of community-based resource mobilization.

Strengthen Agricultural Research and Extension Systems in and for Developing Countries

To achieve the 2020 Vision of access to low-cost food by all people, developing countries, especially the low-income ones, must increase the productivity of agricultural production per unit of land and per agricultural worker and decrease unit costs in food production, processing, and distribution. Significant production and productivity increases must be stimulated in Eastern Europe and the former Soviet Union within the next few years.

Expanded investments in agricultural research aimed at developing-country agriculture are essential for such productivity increases to occur. In many developing countries, especially the low-income ones where agricultural research is urgently needed, private-sector agricultural research is virtually nonexistent and is unlikely to increase significantly in the near future because of limited opportunities for capturing the benefits from such research. In developing countries, a large share of the needed research with high payoffs to society is of a public-goods nature and must be

undertaken by the public sector. If appropriate laws on intellectual property rights are designed and enforced, some of the required research will be undertaken, or at least financed, by the private sector, but it is likely that the private-sector agricultural research will continue to play a much more important role in higher-income than in lower-income developing countries.

The appropriate amount of investment in agricultural research will vary among countries and over time, for it depends on expected economic benefits and the benefits forgone by not investing the funds elsewhere. As noted earlier, low-income developing countries typically spend 0.5 percent or less of the value of their agricultural output on agricultural research, while higher-income developing countries spend 1-2 percent, and OECD countries spend 2-5 percent. Available evidence suggests that most developing countries should invest at least 1 percent of the value of their total agricultural output in agricultural research, with a long-run (5-10 year) target of 2 percent. A large share of the increases in research funding should be used to redress the balance between scientific personnel and other expenses; in many low-income countries, including most of those in Sub-Saharan Africa, available funds per agricultural researcher are insufficient to assure effective and efficient use of the human resources.

Each country should develop a portfolio of research activities that conform to the needs of the country and the expected social returns. Research activities should aim to reduce unit costs in agricultural production, processing, and distribution; increase the quantity and improve the quality (including the nutritional quality) of food produced; assure sustainability in production through sound use of natural resources; reduce risks and losses in production, processing, and distribution; and reduce the use of chemical pesticides where possible.

While expanded agricultural research is urgently needed for all ecoregions, added emphasis should be placed on sustainable productivity increases in areas that combine some or all of the following characteristics: significant agricultural potential; low or irregular rainfall; fragile soils; large populations of poor people; and high risks of land degradation, deforestation, and loss of biodiversity. Although specific research priorities should be determined separately for each region, additional research is necessary to develop drought-tolerant and pest- and disease-resistant crops, biological pest control, nitrogen fixation, more effective use of locally available organic materials, intercropping systems, and perennial crops, including agroforestry.

Interaction between public-sector agricultural research systems, farmers, private companies that conduct research, private enterprises in food processing and distribution, and NGOs should be strengthened to assure relevance of research and appropriate distribution of responsibilities among the various groups.

National agricultural research must be supported by a vibrant international agricultural research system that undertakes strategic research of a public-goods nature and with international externalities. Because the benefits of such research can be captured by many countries, it is carried out most effectively and efficiently by international and regional, rather than national, research systems. Current investment in international and regional agricultural research is grossly insufficient to provide the support needed by national systems. Such investments should be substantially increased in real terms to contribute to achieving the 2020 Vision.

Biotechnology research by private companies and public-sector agricultural research institutions in industrialized countries is producing significant gains. However, this research is focused on temperate-zone agriculture. With some notable exceptions, such as the work on rice sponsored by the Rockefeller Foundation and the work done by some member centers of the Consultative Group on International Agricultural Research (CGIAR), most of the advances in biotechnology are bypassing developing countries, particularly the low-income ones located in tropical regions, because the results are irrelevant for their agricultural problems. It is therefore urgent to bring an appropriate portfolio of research tools, including biotechnology, to bear on the agricultural problems of developing countries.

Each developing country should develop a clear policy on and research agenda for biotechnology based on existing and potential future research capacity and opportunities for regional cooperation and partnerships. To enhance the social benefits of agricultural research, including biotechnology, developing countries should develop clear intellectual property rights and biosafety regulations and remove inappropriate legal and institutional barriers to private investment in research needed to achieve the 2020 Vision.

Since the tools and techniques of modern molecular biology are being developed primarily in OECD countries, new partnerships need to be established between private- and public-sector research in these countries, developing-country research institutions, and international agricultural research centers.

International assistance is needed to support these various activities, with emphasis on (1) supporting a research portfolio appropriate for each developing country; (2) increasing support for international agricultural research; (3) facilitating biotechnology research in OECD countries that is sharply focused on developing-country problems; and (4) strengthening partnerships among national agricultural research institutions in developing countries, international agricultural research institutions, and relevant public and private sector institutions and companies in OECD countries for the purpose of expanding research of critical importance for developing countries.

Effective interactions between farmers and research institutions are essential for disseminating research results and technology and assuring that research priorities reflect the needs of farmers. In some countries, the private sector and farmer cooperatives effectively perform these extension functions. Because of its public-goods nature, however, agricultural extension for small-scale farmers producing staple foods must continue to be provided primarily by the public sector. Public-sector extension has had a mixed performance record, and innovative strategies and techniques are required to assure effectiveness in the future. Extension services must strengthen communications with farmers. The importance of information for the agricultural system will increase dramatically between now and 2020. Strong mass media components can help transmit to farmers technical and market information adapted to their regions or farming systems. Extension programs should help local farmers or groups to improve land husbandry, make community investments, coordinate farm investments, obtain access to other sources of information, experiment with farming techniques, and share local innovations.

Promote Sustainable Agricultural Intensification and Sound Management of Natural Resources, with Increased Emphasis on Areas with Fragile Soils, Limited Rainfall, and Widespread Poverty

Much of the poverty, food insecurity, and malnutrition that exist in developing countries occur in rural areas with limited and unreliable rainfall and fragile soils. These areas, often referred to as "low-potential areas" because current agricultural productivity tends to be low, are also home to much land degradation and deforestation. The 2020 Vision will not be achieved without large increases in public- and private-sector investments in infrastructure, market development, natural resource conservation, soil improvements, agricultural research, reproductive health services and family planning, primary education, and primary health care and nutrition programs for these areas. While the long-term solution for some of these areas may be out-migration, most countries are not in a position to accommodate the movement of such large numbers of mostly poor and poorly educated people to other areas between now and 2020. Failure to address the problems effectively in the low-potential areas themselves will accelerate degradation of natural resources and increase poverty, food insecurity, and malnutrition at the same time as out-migration puts added population pressures on and transfers poverty to urban areas and rural areas with better natural resources.

In areas of low current productivity but significant agricultural potential, public policy and public-sector investment should promote sustainable use of existing natural resources to enhance the productivity of agriculture and other rural enterprises. The interaction between agricultural and nonagricultural rural activities should be explicitly considered in efforts to accelerate growth in rural areas.

Efforts at natural habitat preservation should be pursued where critical to protect biodiversity, preferably in areas that are sparsely populated, have little or no infrastructure, and are of a size that can be effectively policed. Intensified agricultural production may be inappropriate for these areas. In cases where protecting such areas presents clear international benefits, international contributions should help support alternative sources of livelihood for populations in and around the areas.

Management of natural resources to create sustainable livelihoods for people in low-potential areas should be based on enhanced and enforced local control over resources and strengthened local capacity for organization and management. Public institutions responsible for managing and regulating publicly and privately owned natural resources must be reformed to increase user participation in management and to provide incentives for private and community investment in and protection of resources. Such community involvement might include tree planting and forest management. New forms of land- and other resource-improving investments, such as cofinancing between local communities, government, private corporations, and downstream water users should be explored. Because of the effects of upstream land management on downstream water users, including the effects of soil erosion on irrigation systems, governments and NGOs should facilitate watershed management.

Low and declining soil fertility is a widespread and serious problem in many developing countries, including most of those in Sub-Saharan Africa. Past and current failures to replenish soils with nutrients removed must be rectified through the balanced and efficient use of plant nutrients from both organic and inorganic sources and through improved soil management practices. In view of the magnitude and seriousness of the soil fertility problem in many low-income food-deficit developing countries, policies providing incentives for farmers to intensify fertilizer use and adopt integrated plant nutrient management systems are urgently needed. Such policies should focus on assuring clear long-term property rights to land; access to credit, improved crop varieties, and relevant information about production systems; efficient and effective markets for plant nutrients; and investments in roads and rural transportation systems. In the short run, while these policies are taking effect, deficiencies in rural infrastructure and poorly functioning markets will continue to result in excessively high fertilizer costs to farmers. Policymakers must therefore seek ways to lower the price of fertilizers to farmers and to reduce farmers' risk in using fertilizers. Subsidizing fertilizers may be the only way to have an immediate impact. Longer-term steps should include investing in distribution infrastructure, providing innovative ways to share risks and finance, and encouraging regional cooperation for country-level fertilizer production facilities and procurement.

As concerns build about the environmental and health consequences of chemical pesticides, alternative pest management techniques must be developed to lower the substantial crop losses that occur every year due to pests. Developing countries should adopt national policies to reduce the use of chemical pesticides and the negative effects of such pesticides. One of the most important such policies is promotion of integrated pest management (IPM) programs, which rely on safe and environmentally sound alternatives such as biological control, host-plant resistance, and biopesticides, while maintaining chemical pesticides as necessary. Extending IPM, which has been successfully implemented for rice in Southeast Asia, to other crops and regions, should receive both national and international support. Other recommended policies for developing-country governments are removing pesticide subsidies; increasing investment in research on safe and environmentally sound alternatives to chemical pesticides; retraining research and extension staff to adopt participatory research and extension; and ensuring farmer participation to encourage development of effective and appropriate strategies of pest control that are easily adopted by farmers.

Other major management-related problems also require government policy solutions. One is the problem of externalities, in which the costs of a decision made by a person or group of persons may have to be borne by others. Poor soil management upstream that results in damage to irrigation systems downstream is one such example. Such externalities, including failure to fully account for the effects of actions on future generations, may lead to another problem: inappropriate pricing of resources. Finally, lack of clarity about ownership and open access to natural resources are almost certain to result in levels of exploitation that are undesirable for society. In close collaboration with communities and NGOs, governments should establish and enforce clear systems of rights to use and manage natural resources, and mechanisms to mediate conflicts among multiple users and other affected parties. Land tenure arrangements should be revisited, and legal and enforceable water rights should be established for farmers or groups of farmers through water markets, user associations, and other arrangements. Other measures are likely to be needed to increase water use efficiency, including improved management of irrigation systems, drip irrigation, and more efficient use of wetlands.

On the basis of 2020 consultations, it appears that a large share of existing land degradation is technically reversible, but the cost of doing so is likely to be high. For example, large investments are needed to drain waterlogged areas and to replenish soil nutrients. In most cases, neither market nor policy incentives are presently strong enough for farmers or other private sector agents to undertake the necessary investments. Thus, either the government makes the investments or the land will be left in its current or further deteriorated state until incentives are right, which may occur, for example, when prices for productive agricultural land increase.

prices for food or other agricultural commodities rise, or technological improvements create a potentially profitable situation. Another option is to increase productivity of degraded land through, for example, research to develop crop varieties with higher salt tolerance for planting in salinized soils. However, even though some kinds of damage from degradation can be overcome, avoiding degradation in the first place is usually much less expensive.

Natural fisheries are another resource for which government action is urgently needed to avoid unsustainable exploitation. Recognizing that natural fisheries are open access areas, the international community must develop and enforce a global program of coordination and restraint to prevent exploitation of these areas beyond sustainable limits. International codes and regulations must allow for recovery of fisheries that have been overexploited and for halting more intensive use in areas where fisheries are fully exploited. Since marine fishing capacity is far in excess of that required for sustained yield and economic efficiency, governments should move to reduce this capacity in the short run and help fishers move to alternative occupations.

Growing national, regional, and local water scarcities will depress agricultural production, worsen water-related health problems, degrade land and water resources, and catalyze water conflicts between users in a country and water wars between countries. Water scarcities can be addressed by developing new water resources and making better use of existing water supplies. National governments should invest in carefully selected, economically efficient development of new water from impoundment of surface water and from sustainable exploitation of groundwater resources.

Because developing new water resources is expensive, may have harmful environmental consequences, and may displace people from dams and reservoir sites, new sources of water will meet only a portion of increasing water demands. A larger share of water to meet growing demands will have to come from more efficient use of water in agriculture, industry, and urban areas. National governments must embark on comprehensive water policy reform to improve incentives facing water users, to improve procedures for water allocation, and to develop and disseminate improved technology for water supply and delivery. Policy reforms must provide secure water rights vested in individual water users or groups of water users to empower these users, provide investment incentives, improve water use efficiency, reduce incentives to degrade the environment, and increase flexibility in resource allocation. In some countries and regions, these rights should be tradable, which will further increase the incentives to conserve water. Irrigation infrastructure and management should be turned over to water user associations where well-defined water rights provide incentives for user groups to economize on water use. Governments must reform distorted price incentives and reduce or remove subsidies

on water to prevent overuse or misuse of water. Regulatory instruments and market incentives should be introduced for water conservation as well as for protecting the land and water resources. Governments should help make appropriate water conservation technology available.

The precise nature of water policy reform will vary from country to country, depending on underlying conditions such as level of economic development and institutional capability, relative water scarcity, and level of agricultural intensification. Water policy reform must also transcend national boundaries. In many regions, long-term solutions will require international cooperation between countries sharing scarce water resources.

Develop Effective, Efficient, and Low-cost Agricultural Input and Output Markets

Many developing countries are in the process of privatizing their agricultural input and output markets. Inefficient, poorly functioning state marketing companies and excessive, inappropriate government regulations are being replaced by private-sector marketing agents. It is essential that this process result in effective, efficient, and competitive markets. In many countries, this has not yet happened. To facilitate a successful transition, the new role of the state must be clearly identified. Although this role will vary among countries and over time, the most critical role of the state in many countries is to create an environment that assures competition among private-market agents while assuring access to productive resources by the poor to enable them to compete on equal terms. In particular, governments should remove explicit and implicit subsidies, institutions, policies, infrastructure bottlenecks, and other factors that favor large-scale, capital-intensive market agents over small-scale, labor-intensive ones. Governments should either invest in or regulate private-sector investment in market infrastructure that serves the public good, such as market information, roads and other rural transportation facilities, electricity, and communications facilities. Governments should also develop and enforce standards, weights and measures, and regulatory instruments essential for effective and efficient functioning of markets. The failure of governments to invest in such public goods will result in lack of competition and in fewer and larger market agents, because larger agents are more likely to be able to fill the government's role in situations where these basic public goods are absent.

Other tasks for government include removing institutional barriers to the creation and expansion of small-scale credit and savings institutions and facilitating their development for labor-intensive market agents such as small traders, transporters, and processing enterprises. Such institutions have also been shown to be effective in many countries in helping the poor to bear risk and enhance their income-generating abilities. Governments should provide technical assistance and training to create or strengthen small-scale, competitive, private-sector market

arrangements. Policies and practices that increase distribution costs, such as formal and informal road tolls associated with the transportation of agricultural commodities, should be abolished except when justified to cover the costs of constructing or maintaining the facility. High distribution costs in agricultural input and output markets in low-income developing countries offer large opportunities for reducing unit costs of food to consumers without reducing producer incomes.

Governments should allocate the resources necessary to develop and maintain infrastructure, especially in rural areas; develop and revitalize local governments in rural areas; and create institutions that will facilitate the local development and coordination of new infrastructure. To improve efficiency, governments should recover costs through users fees, select projects based on careful evaluation of potential demand for services, and involve private contractors in executing projects.

As international trade becomes more open and more countries join regional economic arrangements, countries that do not reduce high transactions costs will fail to be competitive in both domestic and foreign markets. Efficient and competitive markets for agricultural goods are also important for supporting developing countries' efforts to expand employment and export earnings by producing and processing high-value products. Expanded agroprocessing can be an important source of additional rural and urban employment. While agroprocessing itself should be undertaken by the private sector, governments should facilitate the expansion.

Last but not least, effective seed multiplication and distribution systems, critical for disseminating improved seeds from agricultural research, are absent in many developing countries. While the multiplication and distribution activities may be undertaken by either the public or the private sector, the government should assure a conducive environment for the private sector to enter these activities and should develop and enforce regulations to assure quality control, competition, and access to improved seeds by small farmers.

Expand International Assistance and Improve Its Efficiency

The 2020 Vision will be achieved only if individuals, households, communities, civil society, and local and national governments undertake the required action. International development assistance can help, but such help will be successful only if national and local commitment and actions are forthcoming. Therefore, donors of international development assistance should focus their official government-to-government assistance on countries where governments have demonstrated commitment to the goals of the 2020 Vision: eradication of poverty, food insecurity, and malnutrition; maintenance of an efficient, effective, and low-cost agricultural sector; and sustainable management of natural resources. Even in these countries, however, international development assistance will make up only a

small fraction of the resources needed to undertake required action. Each country should develop a coherent, detailed, and operationally useful strategy for achieving the goals underlying the 2020 Vision and identify the most appropriate use of international assistance. Where such a strategy already exists, it should be reviewed periodically. The role of international assistance should be clearly specified.

The amount of international development assistance required to support the actions described here will exceed development assistance currently available. Therefore, both donor and recipient countries must renew their efforts to assure that whatever assistance is available is put to the best possible use. International development assistance should focus on (1) activities with large international benefits, such as international agricultural research and investments to address environmental problems with global significance; (2) investments in public goods with high long-term payoffs for broad-based economic growth and poverty alleviation, such as primary education, primary health care, nutrition programs, agricultural research, and physical and institutional infrastructure; (3) programs to foster more efficient and effective use and allocation of resources between countries, such as allocation of water from a given river basin among countries bordering the basin; and (4) efforts to assure that potential gains from international trade liberalization materialize, with emphasis on helping low-income developing countries realize their potential share of the benefits.

The current downward trend in international assistance from the OECD countries must be reversed, and industrialized countries currently giving below the agreed-upon target of 0.7 percent of their GNP should move toward that target as fast as possible. Furthermore, in higher-income developing countries, international grant and loan assistance should be replaced by internationally available commercial capital, thus increasing the share of international assistance going to lower-income developing countries.

As international trade liberalization expands, the amount of food aid available for developing countries is likely to fall. The international community will thus need to reassess how gaps between countries' food needs and their economic ability to meet these needs are to be filled.

International emergency assistance has increased dramatically during recent years at the expense of development assistance. Future emergency assistance should be linked with development to help prevent future emergencies and to enhance the ability of households to withstand future emergencies.

A FINAL NOTE: WHAT IF WE DO NOT TAKE ACTION?

Existing resources are sufficient to achieve the 2020 Vision if take appropriate action, including the necessary reallocation of resources. If appropriate action is not taken, a time will come when natural resource constraints will dictate our future. Therefore, we must act now. Failure to do so will result in more human misery and more degradation of natural resources, which in turn will impose misery on future generations and cause continued misallocation of scarce resources. The benefits of appropriate action will not be limited to poor people in developing countries. Our action or lack of action will affect us all. A world of extreme poverty on the part of many and overt material excesses on the part of some is an unstable world. A continuation of the dramatic widening of the gap between rich and poor experienced during the past 30 years will lead to more social and political instability, poor use of available resources, and falling living standards for all. We must act while we still have choices.

Challenges, trend modifications, and highlights of actions required to achieve the 2020 Vision

VARIABLE	CURRENT STATUS OR FUTURE TRENDS	TREND MODIFICATION	HIGHLIGHTS OF ACTIONS REQUIRED
Food Security and Nutrition			
<ul style="list-style-type: none"> • Food security 	Number of food-insecure people declining, but 800 million still lack access to sufficient food for healthy, productive lives	Enhance	Alleviate poverty, generate employment and incomes, and improve food distribution systems
<ul style="list-style-type: none"> • Malnutrition 	Bleak prospects for reducing malnutrition among children in Sub-Saharan Africa; reductions expected in other regions	Reverse trend in Sub-Saharan Africa; enhance trend elsewhere	Increase incomes, especially of women; enhance access to education, health care, clean water, and sanitation
<ul style="list-style-type: none"> • Obesity 	Emerging in some areas, notably cities; likely to increase in coming years	Reverse	Change underlying behavioral trends; improve eating habits
Poverty and Economic Growth			
<ul style="list-style-type: none"> • Poverty 	Likely to persist in South Asia and Latin America, and increase considerably in Sub-Saharan Africa	Reverse	Accelerate broad-based economic growth, with agriculture as the engine of growth in low-income countries
<ul style="list-style-type: none"> • Economic growth 	Growth rates expected to improve in Africa and Latin America, but disparities likely to continue as Sub-Saharan Africa lags behind	Enhance	Accelerate income growth in slow-growing countries through macroeconomic stabilization, market reforms, and improved human resources
<ul style="list-style-type: none"> • Income disparities 	Income gap widening between the rich and poor within and across countries	Reverse	Narrow gap by removing disparities in access to markets, assets, and human development resources

Challenges, trend modifications, and highlights of actions required to achieve the 2020 Vision

VARIABLE	CURRENT STATUS OR FUTURE TRENDS	TREND MODIFICATION	HIGHLIGHTS OF ACTIONS REQUIRED
Human Resource Development			
• Education	Enrollment rates increasing little change in dropout rate; and girls still complete fewer years of schooling than boys	Reverse	Assure access to and support for completing primary education for all children, especially female and rural children
• Health care	Improving, but 1 billion still lack health care	Enhance	Assure access to primary health care for all, especially women and children
• Clean water	Improving; 70 percent have access to safe water now compared with 36 percent in late 1970s	Enhance	Improve access to clean water
• Sanitation	Improving, but almost 2 billion people do not have access to sanitation services	Enhance	Improve access to sanitation and sewage services
Food Demand and Diet Changes			
• Food demand	Global per capita demand for foodgrains forecast to grow 4 percent and for livestock products 18 percent between 1990 and 2020; demand growing faster in developing than developed countries; not expected to increase in Sub-Saharan Africa	Enhance	Generate employment and incomes, especially in Sub-Saharan Africa
• Diet changes	Diets becoming more diverse: demand for livestock products growing faster than for foodgrains; demand for wheat and maize growing faster than for rice	Subdue trend in feedgrain demand	Improve feed conversion rates, i.e. feed needed for each unit of animal product produced, to reduce pressure on grain production

Challenges, trend modifications, and highlights of actions required to achieve the 2020 Vision

VARIABLE	CURRENT STATUS OR FUTURE TRENDS	TREND MODIFICATION	HIGHLIGHTS OF ACTIONS REQUIRED
Demographic Variables			
• Population growth	World population likely to increase by about 2.2 billion between now and 2020, 94 percent of it in the developing world	Subdue	Reduce population growth rates, particularly in Africa; alleviate poverty; increase education, especially for women; and strengthen reproductive health services
• Urbanization	Urban population of developing countries expected to more than double to 3.6 billion by 2020	Subdue	Alleviate conditions in rural areas causing excessive migration; invest in both urban and rural areas to respond to migration
• Age composition	Shifting toward older people in middle-income countries, while remaining very broad at young ages in low-income countries		Invest in education and income generation
• Displacement of people	50 million people displaced inside or outside their countries; rapidly growing trend during past 10-20 years likely to continue	Reverse	Address sources of displacement: breakdown of civil society, poverty, and environmental degradation; enforce mechanisms for conflict resolution and laws protecting civilians during conflicts
Food Supply			
• Food production	Growth rate of food production lagging, but foodgrain production likely to grow by 1.5 percent per year, and livestock by 1.9 percent; relatively good global food situation masks serious food problems in Sub-Saharan Africa	Enhance	Invest in agricultural research; encourage efficient, low-cost, and effective agricultural systems

Appendix 1

Challenges, trend modifications, and highlights of actions required to achieve the 2020 Vision

VARIABLE	CURRENT STATUS OR FUTURE TRENDS	TREND MODIFICATION	HIGHLIGHTS OF ACTIONS REQUIRED
• Food prices	Likely to remain stable or decline for most foods	Enhance	Increase food production; reduce marketing, distribution, storage, and processing costs
• Yields	Stagnation or slowdown in rate of growth of major cereals	Reverse	Invest in yield-enhancing research and technology
Natural Resources and Agricultural Inputs			
• Soils	2 billion hectares degraded in past 50 years, much of which can be restored; 5-10 million hectares lost annually to severe degradation	Reverse	Prevent soils from becoming degraded by alleviating poverty, removing distorted resource policies, and securing property rights. Restore degraded soils through land husbandry measures and on-farm investments
• Forests	15.4 million hectares of forests annually converted to other uses, two-thirds by small-scale, poor farmers seeking food security; such forest conversion likely to continue	Reverse	Help small-scale farmers obtain alternative ways of meeting food security; reforestation
• Marine fisheries	World's fisheries are overexploited; production is at upper limits and is not likely to be higher in 2020	Reverse	Develop mechanisms to prevent exploitation beyond sustainable limits; intensify aquaculture production; improve resource management of natural fisheries

Challenges, trend modifications, and highlights of actions required to achieve the 2020 Vision

VARIABLE	CURRENT STATUS OR FUTURE TRENDS	TREND MODIFICATION	HIGHLIGHTS OF ACTIONS REQUIRED
• Water	Growing shortages of water across seasons, regions, and countries; competition for water becoming more acute between sectors and countries	Reverse	Reform water rights and water laws; improve procedures for water allocation between sectors; improve incentives for appropriate water use; improve technology for efficient water supply and delivery; improve international cooperation in sharing water
• Fertilizers	Deteriorating quality and increasing pollution of water	Reverse	Adopt regulatory and market mechanisms to discourage pollution; invest in provision of clean water and sanitation services
• Pesticides	Global fertilizer use projected to grow annually by 1.2 percent between 1990 and 2020 compared with 2.8 percent in the 1980s	Enhance	Promote balanced and efficient use of plant nutrient from both organic and inorganic sources
• Energy	Increased recognition of need to reduce chemical pesticides to protect human and environmental health	Reverse	Adopt environmentally sound alternatives such as integrated pest management
• Research and technology	Increasing agricultural production likely to call for increased energy use	Subdue	Develop additional sources of energy, especially renewable sources, and improve efficiency of energy use
Fragile areas, where a large share of poor reside, neglected in past research priorities	Low-income countries underinvesting in agricultural research and cutting back on it; declining support to international agricultural research	Reverse	Expand support to national and international agricultural research systems
Fragile areas, where a large share of poor reside, neglected in past research priorities	Fragile areas, where a large share of poor reside, neglected in past research priorities	Reverse	Direct more research to fragile areas

Appendix 1

Challenges, trend modifications, and highlights of actions required to achieve the 2020 Vision

VARIABLE	CURRENT STATUS OR FUTURE TRENDS	TREND MODIFICATION	HIGHLIGHTS OF ACTIONS REQUIRED
• Climate change	Global warming unlikely to change global food production in next 25 years, but could have varying regional effects	Subdue	As investment in longer-term future, change human behavior that is contributing to global warming
Markets, Infrastructure, and International Trade			
• Market reforms	Growing trend in developing countries, but often there is insufficient competition in private sectors; considerable confusion over role of governments	Enhance	Improve sequencing of market reforms; strengthen capacity of governments to perform needed functions
• Distribution costs	High in developing countries, especially Africa	Subdue	Invest in improved transportation, infrastructure, and marketing facilities
• Infrastructure	Infrastructure conditions and coverage poor; past investments have favored urban areas	Reverse	Invest in infrastructure construction and maintenance, especially in rural areas
• International trade	Increased integration of developing countries into regional trading arrangements and world markets likely to continue	Enhance	Encourage increased regional integration and further global trade liberalization
Domestic Resource Mobilization and International Assistance			
• Domestic savings	Falling in low-income developing countries; too low to support investments needed to achieve the 2020 Vision	Reverse	Improve savings and credit markets
• International assistance	Official development assistance to developing countries is slowing; assistance to agriculture declined in 1980s	Reverse	Increase assistance, especially to agriculture and agricultural research; improve effectiveness of aid

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Pobreza Rural en los Países Andinos

por: Adolfo Figueroa

Santafé de Bogotá, 26, 27 y 28 de marzo de 1996

POBREZA RURAL EN LOS PAISES ANDINOS*

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INTRODUCCION

Este estudio tiene por objeto analizar la pobreza rural en los países andinos (Bolivia, Colombia, Ecuador, Perú y Venezuela). Desde el punto de vista de la actividad agrícola, los Andes determinan un contexto físico particular. La biodiversidad es uno de los beneficios, como dotación de recursos naturales; pero también hay costos, como son la alta erosión de los suelos y los altos costos de transporte entre las regiones creadas por esta cordillera. La biodiversidad y los microclimas implican ámbitos muy diferenciados, y estos ámbitos exigen que las innovaciones tecnológicas tengan que ser específicas.

La sociedad rural de los países andinos no sólo se caracteriza por la diversidad regional, sino también por la diversidad cultural y étnica. El funcionamiento de la agricultura, y de la economía rural, de estos países debe ser analizada bajo este contexto.

En este trabajo se busca entender las causas de la pobreza rural, establecer sus perspectivas y proponer las medidas que podrían aplicarse para reducirla.

I. CARACTERISTICAS DE LA POBREZA RURAL

Medida como falta de acceso a ciertos servicios básicos, el nivel de la pobreza rural en los países andinos es significativo (Cuadro 1). Medida como cantidad de gente (head counting), la pobreza tiene el problema que su magnitud depende de donde se ponga la línea de pobreza. Más que para medir niveles de pobreza, esta forma de medición tiene sentido analítico para mirar los cambios en la pobreza, dada una línea de pobreza. Los datos disponibles señalan un aumento en la pobreza rural en los países andinos entre 1965 y 1988, a excepción de Colombia (Cuadro 2).

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Los cambios hacia fines de los años ochenta e inicios de los noventa es más difícil de establecer. En un estudio reciente, Lustig (1995) argumenta que hay muy poca información comparable dentro de cada país de América Latina para conocer los cambios ocurridos en estos años. Sobre pobreza rural, hay datos comparables sólo para Venezuela, los cuales muestran un aumento de la pobreza con relación a 1981.

Se argumenta usualmente que la crisis de los ochenta aumentó en mayor proporción la cantidad de pobres urbanos que rurales. Los pobres rurales se habrían defendido mejor debido a que parte de su ingreso viene de su propia producción. No hay evidencia empírica muy sólida sobre esta relación, como lo muestra el esfuerzo hecho por Altimir (1994), pero adoptaremos este argumento también aquí.

Las familias que operan en pequeños predios agrícolas constituyen la mayoría de la población rural en los países andinos. Los datos censales usualmente así lo revelan. También varios estudios han mostrado que la pobreza rural se concentra en este grupo de familias. Los minifundistas y los grupos indígenas son los más pobres en el medio rural de cada país andino.

En base la información estadística disponible se puede resumir la situación de la pobreza rural en los países andinos de la siguiente manera:

- (a) La incidencia de la pobreza en el medio rural es superior a la urbana.
- (b) La proporción de pobres rurales dentro de los pobres totales decrece con el tiempo.
- (b) El perfil de la pobreza rural: el mayor grupo social lo constituyen los productores agrícolas en pequeños predios.

II. ORGANIZACION DE LA ECONOMIA CAMPESINA

Si el grupo social más significado en el medio rural de los países andinos, y donde se concentra la pobreza rural, es el conformado por las familias que conducen pequeños predios agrícolas, reducir la pobreza rural implica, entonces, elevar el nivel de vida de este grupo. Y antes de proponer medidas, es fundamental comprender el contexto institucional en el que opera este grupo de familias, así como la organización y la lógica económica de este grupo social. Hay que comprender los mecanismos que reproducen la pobreza rural.

Para dar una explicación del funcionamiento de la economía rural se requiere de teoría. Sobre el contexto, la proposición teórica que se propone aquí es que la economía rural operaría dentro de una sociedad mayor, la cual es capitalista,

sobrepoblada y cuasi-democrática. La sobrepoblación es una condición necesaria y suficiente para la existencia de formas de producción no capitalistas. El sistema político es cuasi-democrático en el sentido que no tiene instituciones que distribuyan derechos en la sociedad a fin de reducir la pobreza y la desigualdad que se generan por el mecanismo del mercado.¹

Para fines de análisis, supondremos aquí que la pequeña agricultura en los países andinos opera como si fuera un sistema de producción campesino. Este sistema se define por las siguientes características de sus unidades productivas: (a) la mano de obra familiar es la principal fuente de oferta laboral; (b) la agricultura es la principal fuente de ingreso; (c) la productividad es tan baja que no hay capacidad de generación del excedente económico.

La economía campesina operaría bajo condiciones de incertidumbre (originadas en el clima, mercados, inestabilidad política). Bajo este contexto, y dada la limitación de sus recursos, la lógica económica campesina sería la de buscar la minimización de riesgos, pues su capacidad para absorber pérdidas es bien limitada. A esta lógica se le denominaría la "lógica de la aversión al riesgo." Los campesinos buscarían asegurarse de no sobrepasar un umbral de pérdidas que los llevara al desastre económico. Dada su pobreza, este umbral es pequeño. Tratarían de no poner en juego su supervivencia realizando actividades de alto riesgo, aunque con ello estuvieran renunciando a la posibilidad de obtener grandes beneficios (Figuroa, 1993).

Una consecuencia empírica de esta lógica económica es que las unidades campesinas tendrían que diversificar sus actividades. Diversos estudios han mostrado, en efecto, una gran diversificación en la pequeña agricultura de América Latina y le dan sustento a la hipótesis de la aversión al riesgo. Otra consecuencia es que no adoptarían nuevos insumos que fueran muy riesgosos. Los datos empíricos también son consistentes con esta predicción: los campesinos no adoptan variedades de semillas que sean de alto rendimiento pero también de alto riesgo, como si lo hacen los agricultores con predios grandes (Figuroa, 1993).

Otra proposición teórica es que la economía campesina es un sistema productivo estático. A través del tiempo, por prueba y error, la producción ha sido cuidadosamente adaptada a sus restricciones, tanto en recursos como en conocimiento tecnológico. Pero también las proporciones de los recursos mismos han sido adaptados a fin de evitar alguna redundancia significativa: las unidades campesinas no están sobre-dotadas ni de tierra, ni de capital físico, ni de capital

¹ Okun (1975) señaló que estos derechos son fundamentales para el funcionamiento del capitalismo democrático, pues así se podría resolver la contradicción bajo la cual opera el capitalismo democrático: el sistema de mercado genera desigualdad pero el sistema político pregona igualdad.

humano. Han logrado así un equilibrio, un balance, en su dotación de recursos, donde nada les sobra y todo les faltaría si quisieran aumentar su producción. El único factor que pueden tener en exceso es la cantidad de mano de obra. Pero este equilibrio es de bajo nivel, implica pobreza.

En la organización de la producción campesina se pueden reconocer varios sectores: agricultura, ganadería, manufactura y el sector de los hogares. Dado que la unidad campesina es una unidad de producción y consumo a la vez (a diferencia de la empresa capitalista, que es sólo de producción), las actividades del hogar son parte integral del sistema productivo. Esta es la "industria" que reproduce la fuerza laboral. Aquí se incluye la actividades de preparación de alimentos, reparación de vivienda y vestimenta, así como la atención a los niños. Entre estos sectores hay una interrelación productiva importante. La organización de este sistema de producción se basa en una cierta división del trabajo entre los miembros de la familia. Esta división (que no implica necesariamente especialización) obedece a criterios de eficiencia relativa de los miembros de la familia en las tareas del sistema productivo.

Bajo esta perspectiva, el papel de la mujer en la economía campesina toma una significación distinta a la que usualmente se le atribuye. Primero, juega un papel central en la viabilidad y reproducción del sistema productivo campesino, y no sólo en la reproducción de la mano de obra familiar (en la "industria" del hogar). Segundo, sus actividades no pueden ser vistas de manera aislada, sino como partes de un todo integrado. No se podría modificar las actividades de la mujer, introduciendo otras nuevas, sin generar una reorganización importante en la división del trabajo en todo el sistema productivo de la unidad campesina. Igual principio se aplicaría al caso de los niños.

Sea porque los bienes que se producen en la pequeña agricultura son mayormente transables, o sea porque en los no transables su participación es pequeña, podemos suponer que las acciones de estos agricultores no tendrán mayor efecto sobre los precios en los mercados agrícolas del país (incluyendo aquí los mercados ganaderos). Los precios en estos mercados serían, entonces, exógenos al comportamiento de la pequeña agricultura.²

La lógica económica campesina enunciada arriba se puede presentar de forma más compacta así: la unidad campesina busca que maximizar su bienestar sujeto a tres tipos de restricciones. Estas son: su restricción presupuestaria, su función de producción y su capacidad de absorber pérdidas originadas de los riesgos que enfrenta. Aquí, a diferencia de la teoría convencional, la aversión al riesgo no es parte de las preferencias sino de las restricciones.

² Este supuesto no tendría validez si se quisiera analizar todo el sector agrícola. Por ejemplo, un aumento en la oferta agrícola (debido a un buen clima o a un programa de innovaciones tecnológicas) modificaría los precios relativos.

Las variables exógenas que tendrían efecto en la producción y en el ingreso de la pequeña agricultura serían las siguientes:

(a) Dentro de las restricciones presupuestarias estarían los precios del mercado y las reglas de racionamiento, según los mercados sean walrasianos o no walrasianos.³

(b) Dentro de las restricciones en las relaciones técnicas de producción, estarían el conocimiento tecnológico y los costos de aprendizaje tecnológico, así como la cantidad y calidad de los recursos productivos de la unidad.

(c) Dentro de las restricciones para absorber riesgos estarían su dotación inicial de activos y las formas institucionales de asegurar riesgos (acciones colectivas).

Para establecer las causas de la pobreza rural, y discutir las políticas para superarlas, se necesita establecer relaciones de causalidad. En la sección siguiente se hará una revisión de las hipótesis más conocidas sobre la determinación de los ingresos de la población rural.

III. HIPOTESIS SOBRE LAS CAUSAS DE LA POBREZA RURAL

La teoría estructuralista intenta explicar la pobreza rural por la excesiva concentración de la propiedad agrícola. El sistema de latifundios y minifundios sería una limitación al desarrollo rural (Rodríguez, 1980). La política a seguir es obvia: había que hacer la reforma agraria. En efecto se hicieron reformas agrarias importantes en Bolivia y Perú; aunque con menos alcance también se hicieron en el resto de los países andinos. En efecto, los datos muestran que el grado de concentración de la propiedad agraria ha disminuido a través del tiempo en todos los países (Cuadro 3). Pero la pobreza rural no parece haberse reducido significativamente.

En realidad, la potencialidad de la reforma agraria es muy limitada para reducir la pobreza rural. La razón es simple y tiene que ver con la estructura económica: los datos agregados muestran que en cada país el ingreso agrícola per

³ Un mercado es walrasiano cuando los individuos intercambian en el mercado toda la cantidad que pueden y desean a los precios del mercado, pues de lo contrario el precio se moverá hasta eliminar cualquier exceso de demanda o de oferta. Un mercado es no walrasiano cuando al precio de mercado hay exceso de demanda o de oferta, donde estas diferencias se resuelven por el mecanismo del racionamiento de las cantidades y no por un movimiento del precio (Figueroa, 1992).

capita es muy bajo comparado al ingreso nacional per capita. Luego aun si se llegara a la completa igualdad en el campo la pobreza no se reduciría mucho. Redistribuir ingresos dentro del campo parece llevar a redistribuir pobreza. La redistribución para tener efectos importantes sobre la pobreza rural tendría que ser muy selectiva, tanto sobre el grupo del cual se obtiene el ingreso como sobre el grupo al que se le transfiere.

La otra teoría a considerar es aquella que supone que la economía rural de los países andinos opera como si fuera una economía neoclásica. Esta proposición significa que los intercambios son esencialmente de mercado y que todos los mercados son walrasianos. Podrían ser mercados de competencia perfecta o imperfecta, pero walrasianos. Si esta teoría fuera verdadera las causas de la pobreza rural estaría en las variables exógenas que enfrentan las unidades campesinas. La escasa dotación de sus recursos, su tecnología tradicional y los precios relativos estarían en la base de su pobreza. Para salir de ella habría que aplicar políticas de modernización de la agricultura campesina, pues los campesinos serían "pobres pero eficientes" (Schultz, 1964). Las políticas estatales que distorsionan los mercados también estarían entre los factores que explicarían el atraso rural. Habría que liberalizar los mercados, tal como se ha hecho con los ajustes estructurales recientes.

Sin embargo, las predicciones de la teoría no calzan con los hechos. Si la teoría neoclásica fuera cierta deberíamos observar que todos los que desean y pueden intercambiar deberían hacerlo. No deberíamos observar gente excluida de algunos mercados, como los desempleados o los que no logran obtener crédito. Tampoco las políticas económicas seguidas han mostrado el efecto que predecía la teoría. Se ha dado un proceso de modernización en la agricultura capitalista pero no así en la agricultura campesina. El nivel educativo de las familias campesinas ha aumentado con la expansión de la escuela rural y sin embargo no se ha dado la modernización tecnológica. Finalmente, las políticas macro y comerciales, así como la intervención del Estado, han cambiado de dirección en todos los países en las últimas décadas, y la pobreza rural no parece haberse modificado mucho (Figuroa, 1991).

Otra formulación teórica consistiría en suponer una economía donde coexisten mercados walrasianos y no walrasianos. Entre estos últimos estarían los mercados laborales y los de crédito, los cuales funcionarían con racionamiento cuantitativo. Así podríamos explicar las exclusiones que se observan en estos dos mercados. Pero tampoco esta teoría es consistente con el hecho de que en el medio rural de los países andinos no existen ciertos mercados. Aquí no existen algunos mercados a pesar de que hay una necesidad visible; por ejemplo, hay mucho riesgo y sin embargo no hay un mercado de seguros. Otro hecho que contradice esta teoría es que existen transacciones que no son de mercado; es decir, transacciones que se basan en relaciones personales y en redes sociales (Figuroa, 1984).

Cualquier teoría que intentara explicar esta realidad tendría que dar cuenta del hecho de que los intercambios toman formas variadas: que hay transacciones a través de mercados (walrasianos y no walrasianos) junto a transacciones que no son de mercado. ¿Por qué los mercados rurales son poco desarrollados? ¿Sería este poco desarrollo una causa de la pobreza rural?

La teoría institucional ha desarrollado la proposición de que las diferencias en el comportamiento de las economías se debe a las diferencias en sus instituciones (North, 1990). Luego, la pobreza rural que se observa en los países andinos sería un resultado de la ineficacia de las instituciones con las que opera la economía rural. En particular, con el poco desarrollo de los intercambios del mercado.

La proposición teórica es que la forma de intercambio depende de los costos de transacción. Prevalecerá aquella forma de intercambio que tenga los costos menores. Aquí definiremos "costos de transacción" como aquellos que están asociados a los riesgos del intercambio, debido a que el intercambio incluye promesas. Entre los componentes de estos costos tenemos: costos de información, búsqueda, negociación, selección, monitoreo, coordinación y cumplimiento de los contratos. Los costos de transporte no se considerarán parte de los costos de transacción.

La pobreza rural se podría explicar con la teoría institucional de la manera siguiente. Las transacciones de mercado no son muy desarrolladas debido a los costos de transacción. El mercado es la institución más eficiente para lograr el desarrollo. Las unidades campesinas sufren discriminaciones y exclusiones del intercambio del mercado, y así se explicaría la pobreza. Si esta teoría fuera consistente con los datos, la política a seguir para reducir la pobreza consistiría en llevar a cabo innovaciones institucionales y tecnológicas que desarrollaran los intercambios de mercado.

Si la economía campesina se encuentra en un equilibrio estático, su estructura productiva ha sido ya adaptada, por prueba y error, a sus restricciones, tales como su conocimiento de la tecnología y sus dotaciones de tierra, capital físico, capital financiero y capital humano. Es un sistema productivo donde no hay redundancia de ningún factor, excepto la mano de obra. No hay un único factor limitante, es decir, no hay un único factor cuyo aumento o provisión sea una condición necesaria y suficiente para aumentar la producción. Para aumentar la producción habría que modificar varios factores.

Uno de esos factores limitantes para lograr la modernización tecnológica en una economía campesina, que opera dentro de una sociedad capitalista, lo constituiría el desarrollo de los mercados. No se trata de un factor limitante físico, sino institucional. Esta sería la hipótesis que emerge de la teoría institucional. El mercado es una institución con reglas y organizaciones que contribuye a la eficiencia en el desempeño de un sistema económico porque introduce un juego

de incentivos que favorece el progreso económico. Sólo el desarrollo de los mercados no llevaría al desarrollo rural, pero sin mercados desarrollados no habría forma de llegar al desarrollo rural.⁴

Uno de los hechos que caracteriza a las aéreas rurales del tercer mundo es, en efecto, el poco desarrollo de los mercados. Algunos mercados no existen (mercados de seguros) y otros son escasamente desarrollados (mercado financiero, de mercancías, de asistencia técnica). Los intercambios de mercado coexisten con los de no mercado.⁵ En la sección siguiente, se desarrollará esta hipótesis, analizando para ello tres mercados de servicios que son fundamentales en la economía rural: el de asistencia técnica y aprendizaje tecnológico, el de crédito y el laboral.

IV. LOGICA CAMPESINA EN MERCADOS POCO DESARROLLADOS

A. Mercados de asistencia técnica y aprendizaje tecnológico

En el corto plazo, donde el conocimiento tecnológico es constante, los agricultores tendrían necesidades de asistencia técnica. Habría una demanda para el control de plagas y enfermedades en el proceso productivo. En el largo plazo, donde hay nuevos conocimientos tecnológicos, los agricultores tendrían necesidades de capacitación, de aprendizaje, para adoptar y adaptar las innovaciones tecnológicas.

En el caso de los servicios de asistencia técnica, la proposición que se postulará aquí es que la demanda dependería del aporte del servicio al incremento de la producción y del precio del servicio. Cuanto mayor el aporte del servicio mayor la demanda; cuanto menor el precio mayor la cantidad demandada del servicio, aunque la capacidad económica del productor puede ser tan baja que no demande estos servicios en un rango amplio de precios del servicio.

La demanda campesina por servicios de capacitación dependería de los rendimientos esperados que lograría con la innovación tecnológica, el tipo de

⁴ Esta proposición está explícitamente indicada en el libro de North (1990): "The success stories of economic history describe the institutional innovations that have lowered the costs of transacting and permitted capturing more of the gains from trade and hence permitted the expansion of markets" (p.108).

⁵ de Janvry y Sadoulet (1995) han señalado: "[In less developed countries] many markets fail either because they do not exist or because there are such high transaction costs associated with their use that it is more advantageous for agents to effect transactions through arrangements other than the market" (p.254).

riesgo involucrado (soportable o insoportable) y del precio del servicio. Cuanto mayor el rendimiento esperado y menor el riesgo, mayor la demanda por el servicio pues los nuevos conocimientos serían respuestas tecnológicas útiles a los problemas que enfrentan los pequeños agricultores. La modernización tecnológica generaría una demanda derivada de servicios de capacitación agrícola. Cuanto más bajo el precio del servicio mayor la cantidad de servicios que desearía tener el agricultor, aunque, de nuevo, la capacidad económica de un pequeño agricultor puede ser muy limitada para pagar por esos servicios dentro de un rango amplio de precios.

Los datos estadísticos no hacen la distinción entre estos conceptos. Pero en cualquier caso, las informaciones censales muestran que la demanda por ambos es de bajo nivel. Esta observación indicaría que (a) no hay muchas novedades tecnológicas para la agricultura campesina; (b) la capacidad económica de la economía campesina es muy limitada para generar una demanda importante. Oferta y demanda se encontrarían pero en un equilibrio de bajo nivel. Para reducir la pobreza rural habría que expandir ambos componentes: nuevos conocimientos tecnológicos para los campesinos y acceso al crédito para financiar la inversión en conocimiento tecnológico. Aquí, implícitamente, se reconoce que existe un costo de información y de aprendizaje para elevar el stock de conocimiento tecnológico. Se abandona así el supuesto en la teoría neoclásica de que el mercado entrega a los individuos la información tecnológica sin costo alguno.

B. Mercado crediticio

Todo proceso de producción requiere reponer su capital, tanto el fijo como el circulante. En el caso de la agricultura el capital circulante, llamado también capital de trabajo, es el principal tipo de capital a reponer. Debido al supuesto de que las unidades campesinas se encuentran en un equilibrio estático, el sistema productivo es de auto-reemplazamiento, y no hay demanda de capital, ni físico ni circulante. En este sistema estático, el campesino tiene la capacidad de reponer su capital circulante, tomando parte de su propia producción, período tras período.

Supondremos que cuando el agricultor campesino enfrenta innovaciones tecnológicas, sus necesidades de financiamiento se elevarán. Hay que financiar la compra o construcción de bienes de capital. El otro efecto de una innovación es que el nivel del capital de trabajo aumentará. Así surge una demanda de crédito anual. Luego, una hipótesis plausible diría que cuanto mayor es el grado de modernización tecnológica mayor es el nivel del capital fijo y de trabajo requerido por la unidad campesina y también mayor será su demanda de crédito. El crédito es una demanda derivada.

Los datos estadísticos no hacen la distinción entre demanda de crédito para capital físico o para capital circulante. Pero en cualquier caso, los datos censales muestran que el nivel de demanda de crédito de los campesinos en los mercados de crédito bancario es muy reducido.

La visión usual que se tiene sobre el funcionamiento del mercado financiero rural es que hay muy poco acceso de los agricultores al crédito bancario; es decir, el problema está en la restricción institucional a la demanda. Si se observa que solo 10% de los campesinos obtuvieron crédito bancario se concluye usualmente que el 90% restante constituye el exceso de demanda.

Se podría decir que la teoría implícita en este argumento, que es muy común en la literatura, es que el mercado de crédito bancario opera como si fuera un mercado walrasiano, donde la oferta de crédito es perfectamente elástica a una tasa de interés dada y la cantidad demandada a esa tasa es muy vasta, de la cual sólo una pequeña fracción obtiene crédito, que son aquéllos que pueden presentar garantías, es decir, que tienen títulos de propiedad. Tomando en cuenta esta restricción institucional, la demanda relevante se referiría sólo a aquellos agricultores que tienen títulos de propiedad y el mercado sería walrasiano. Luego, si todos los agricultores tuvieran sus títulos de propiedad todos obtendrían crédito. Es decir, el crédito a la agricultura se podría multiplicar por varias veces, sin ningún problema por el lado de la oferta. Esta teoría tiene predicciones que no parecen ser consistentes con los datos que usualmente observamos, tales como:

(a) En los bancos no hay tanto exceso de fondos no prestados como sugiere la teoría. No sabemos exactamente cual es la magnitud de este exceso, pero ciertamente los bancos no podrían expandir sus préstamos en ocho o diez veces si la demanda así lo dictará (si se extendieran títulos de propiedad).

(b) A las condiciones en que se ofrecen los créditos, la demanda tampoco parece ser tan vasta. Como veremos más adelante, ni siquiera es cierto que todos los que tienen títulos de propiedad obtienen crédito bancario.

¿Cómo funciona, entonces, el mercado de crédito rural? La hipótesis que quisiera proponer aquí es que, bajo las condiciones actuales de producción, no todos los agricultores campesinos demandarían crédito bancario. La demanda de crédito depende de la introducción de innovaciones tecnológicas. Como la mayoría de las unidades campesinas operan con una tecnología tradicional, la demanda de crédito se limita solo a los innovadores. Luego, hay agricultores que aunque tuvieran títulos de propiedad no demandarían crédito bancario, pues su auto-financiamiento es suficiente para su escala de producción y su conocimiento tecnológico; o aunque fueran innovadores y tuvieran necesidad de crédito no estarían dispuestos a tomar crédito bancario por su lógica de aversión al riesgo.

Entre los que demandan crédito en el mercado, algunos no tienen suficientes activos que le sirvan como colateral requerido por los bancos. El concepto de

exceso de demanda se aplicaría, por lo tanto, sólo a las solicitudes de crédito denegadas dentro de las que satisfacen los requisitos de colateral que piden los bancos. El exceso de oferta dependería de las condiciones bajo las cuales se ofrece el crédito bancario. Y este exceso no sería tan grande; ciertamente, no podría ser de diez veces.

¿Cuál es la lógica de la banca comercial frente a la unidad campesina?

Una hipótesis sobre la lógica de la banca comercial frente a la pequeña agricultura se puede expresar así. El principal problema con los préstamos a la pequeña agricultura es que el costo relativo (relativo a prestatarios de mayor tamaño) es más alto. El costo unitario de llevar a cabo la operación, así como los costos unitarios de supervisión y de ejecución de la garantía, son relativamente más elevados para el banco; es decir, los costos de transacción son más altos. La mora en la pequeña agricultura no tiene por que ser muy distinta de la que existe para los demás prestatarios del banco. La lógica de aversión al riesgo del campesino le llevaría a evitar sobre-endeudarse. El crédito al pequeño agricultor no tiene que ser más riesgoso. La diferencia parece estar en el mayor costo de transacción con una unidad de pequeña escala de operación.

Las prácticas usuales de los bancos son que usualmente racionan el crédito, no otorgan préstamos de libre disposición y supervisan el uso del dinero para asegurarse el repago.⁶

¿Por qué ocurriría este racionamiento entre los elegibles? Una teoría reciente sostiene que el mercado de crédito bancario es un mercado no walrasiano. Los precios y cantidades que se transan actualmente son de equilibrio con exceso de demanda. Este mercado operaría con racionamiento de cantidades. La tasa de interés no podría subir para eliminar el exceso de demanda porque a mayores tasas de interés los préstamos tendrían un mayor riesgo, haciendo que los beneficios esperados de los bancos no sean los máximos (Stiglitz y Weiss, 1981). Tampoco la solución podría ser con exceso de oferta porque en ese caso se puede bajar la tasa de interés y tener préstamos con menores riesgos. La tasa de interés operaría como screening device.

Bajo esta teoría se debería observar que una mayor demanda de crédito no daría lugar a un aumento en la tasa de interés, pero sí a cambios en las cantidades a racionar. Una reducción en la cantidad de crédito que los bancos

⁶ La otra cuestión interesante es que la cantidad de depósitos bancarios, así como el nivel de actividad de la región, el empleo agrícola y los salarios, depende positivamente de los precios de los bienes agrícolas. Aún más, se puede decir que para precios agrícolas dados, un aumento en el crédito tendría el mismo efecto. Bajo estas condiciones la cantidad de depósitos que obtendría el banco dependería de la cantidad de crédito que decidiera otorgar.

pueden ofrecer no daría lugar a una subida en la tasa de interés, sino a variaciones en el racionamiento.

Los bancos agrícolas estatales fueron creados en todos los países andinos como una forma de resolver esta falla del mercado. Para que llegaran a los pobres del campo. Una hipótesis sobre la lógica de los bancos estatales frente a los pequeños agricultores también se puede proponer aquí. Este es un banco formalmente especializado en la pequeña agricultura. Pero atender a este sector significa incurrir en costos unitarios mayores que el que enfrentan los bancos comerciales. Bajo estas condiciones el banco estatal trataría de evitar el trabajar con la pequeña agricultura y buscaría, más bien, maximizar el número de unidades de mediana propiedad, sujeto a la restricción del tope de crédito autorizado por prestatario. A ello se une los costos que tiene para el prestatario los trámites burocráticos y lentos de este banco que para el caso del pequeño agricultor, con reducido tamaño de su producción, eleva sus costos unitarios de manera significativa. El crédito del banco estatal tampoco es de libre disponibilidad.

Aunque el banco estatal tiene topes para los préstamos, lo cual lo obliga a especializarse en la pequeña y mediana agricultura, no tiene incentivos para llegar a los más pequeños agricultores porque ello incrementaría sus costos unitarios y reduciría su desempeño financiero global. Por razones puramente económicas la pequeña agricultura quedaría excluida. En este sentido, un banco estatal operaría con la misma lógica de un banco comercial, con la diferencia que está sujeto a topes en el monto de los préstamos individuales. Si se le agregan objetivos políticos, que también son parte de su racionalidad, esa exclusión posiblemente se refuerce. Pero en la práctica el banco estatal llega a los pequeños agricultores en una proporción que es mayor en comparación a la banca comercial.

La fungibilidad del crédito implica que el crédito bancario (comercial o estatal) se vuelve parte del capital total del agricultor y que este total puede asignarlo a cualquier uso. A cada asignación de sus recursos, el agricultor obtendrá un resultado económico diferente. Pero no es posible atribuir un uso particular al crédito bancario, como a veces se pretende. Entonces, ¿por qué el banco no otorga crédito de libre disponibilidad al agricultor campesino y se esfuerza en otorgar crédito con un destino específico, como crédito para maíz, por ejemplo? ¿Y por qué el banco incurre en el costo de supervisión para que ese uso se cumpla?

La lógica del banco parece basarse en la idea de que si el campesino asigna el crédito al uso acordado, la devolución del préstamo está más asegurada que si lo asignara a otro uso. Si se diera un resultado adverso, el prestatario es el que asume la pérdida y la obligación de devolver el préstamo, aunque el prestamista tiene que incurrir en costos para recuperar el dinero. Si el resultado es el esperado, entonces prestatario y prestamista cierran bien el intercambio. Si el prestatario asignara el crédito de otra manera, en la evaluación del banco el riesgo de fracaso sería mayor y también el riesgo de devolución del crédito sería mayor.

La otra razón del prestamista para supervisar el crédito se basaría en su idea de que el prestatario podría desviar el crédito a un uso no productivo. Si se le dejara a su libre elección, el repago de la deuda estaría en riesgo desde el comienzo. Este sería el caso para agricultores pobres. Si el agricultor pone el crédito al cultivo señalado por el contrato y fracasa también tiene que responder por el crédito, aunque el prestamista tiene que incurrir en costos para recuperar el dinero. Luego, el prestamista, bajo condiciones de información incompleta, tiene todo el incentivo para supervisar el préstamo.

En ambos casos el costo de la supervisión se carga al prestatario. Los créditos de libre disponibilidad serían más baratos para los agricultores, pues ellos no tendrían que pagar los costos de supervisión. Pero la información incompleta lleva al problema del tipo "principal-agente" y el banco se ve en la necesidad de supervisar el crédito.

¿Y cómo reacciona la unidad campesina frente al mercado de crédito?

En general, las unidades campesinas operan fuera del mercado de crédito. Su lógica de la aversión al riesgo los llevaría a no demandar crédito, aunque tuvieran títulos de propiedad sobre sus recursos y pudieran cumplir con el colateral. No podrían poner en juego sus activos en un préstamo bancario, pues si perdieran en el juego les significaría el desastre económico: dejarían de ser campesinos. Si hay demanda vendrá de las unidades campesinas que han ingresado en el proceso de modernización tecnológica, cuyas solicitudes de préstamo serían por montos pequeños, de acuerdo a su capacidad económica de soportar riesgos.

Es este papel de la demanda de crédito de las unidades campesinas lo que se ha ignorado en los análisis sobre el mercado de crédito rural y es lo que ha dado lugar a confusiones sobre las causas de la exclusión de los campesinos del mercado crediticio. Esta exclusión se ha atribuido enteramente a las restricciones legales, como el derecho de propiedad y la falta de garantías. El factor más importante de la exclusión sería la propia lógica campesina frente a las condiciones bajo las cuales operan los bancos.

Esta proposición teórica es consistente con la observación empírica de que la proporción de unidades campesinas que obtienen crédito de los bancos estatales es superior a la de la banca comercial. El riesgo de una pérdida en el colateral es mayor en ésta que en aquélla. En ciertas ocasiones la banca estatal hasta ha condonado las deudas y su capacidad de ejecutar las garantías son menores.

En suma, hay poco crédito bancario que se otorga a las unidades campesinas porque su demanda de crédito sería reducida, tanto porque no hay innovaciones tecnológicas que puedan adoptar e inducir esa demanda, como porque sus limitaciones económicas les llevan a evitar el riesgo de incurrir en una

perdida significativa. Por el lado de la oferta, el costo de transacción para el banco es muy alto para otorgar préstamos a la agricultura campesina.

Se sabe que los campesinos recurren al crédito no bancario, al que podemos denominar "crédito informal". ¿Cual es la lógica campesina de recurrir al crédito informal? ¿Por qué el crédito bancario no hace desaparecer el crédito informal y por qué el mercado no prevalece como la institución más eficiente? La unidad campesina puede obtener crédito con menos riesgo y oportunidad de un comerciante, terrateniente, amigo o familiar porque en todos estos casos las relaciones económicas son personales. A diferencia de las relaciones de mercado que son impersonales, donde rige la ley del precio único, y donde el balance del intercambio es de corto plazo, en las relaciones personales no rige la ley del precio único y el balance del intercambio es de largo plazo. Por eso estas relaciones personales se diferencian de las relaciones de mercado (Figuroa, 1992). Analíticamente, es una contradicción en los términos hablar de "mercado de crédito informal" para referirse a los intercambios basados en las relaciones personales.

El crédito informal se basa en la confianza. Luego, el costo de transacción es más pequeño tanto para el prestamista como para el prestatario en comparación a la transacción de mercado.⁷ También el monto transado es más pequeño porque la demanda de crédito de una unidad campesina tradicional es muy reducida. Pero el intercambio es "eslabonado": se intercambia crédito conjuntamente con bienes (cosecha, insumos), trabajo, tierra. En esta forma de intercambio la tasa de interés esta calculada sólo de manera implícita.

La persistencia de los prestamistas informales parece consistente con esta teoría. Los pequeños agricultores encuentran que el crédito bancario es muy riesgoso. Ellos prefieren a los intermediarios quienes no les ejecutarán la garantía, como si lo podría hacer el banco. Así se economizan costos de intermediación y también los costos de transacción. Otra razón por la cual el crédito informal compite favorablemente con los bancos en la pequeña agricultura es que el crédito es oportuno. La tasa de interés es alta pero es también de muy corto período por lo cual el peso del costo financiero en el ingreso anual no es tan significativo. La tasa relevante para el campesino es la mensual. Pero anualizada, esta tasa está muy por encima de la que rige en el mercado de crédito.

⁷ El cumplimiento del contrato es, según North (1990), una ventaja en comunidades pequeñas: "contracts are self-enforcing [when] the parties to exchange have a great deal of knowledge about each other and are involved in repeated dealings, as ... [in] small communities. Under these conditions, it simply pays to live up to agreements. In such a world, the measured costs of transacting are very low because of a dense social network of interaction. Cheating, shirking, opportunism, all problems of modern industrial organization, are limited or indeed absent because they do not pay. Norms of behavior determine exchange and formal contracting does not exist" (p.55).

¿De dónde provienen los fondos prestables de los prestamistas informales? Ciertamente, una parte debe provenir de sus propios fondos. Pero quisiera proponer la hipótesis de que hay otra parte que proviene de préstamos que ellos obtienen de los bancos. En este caso, los prestamistas actuarían como intermediarios financieros informales en el medio rural. La evidencia empírica sobre este tema es, sin embargo, casi inexistente.

Mientras exista la economía campesina tradicional (fuera del proceso de modernización) habrá "crédito informal." El crédito informal cumple una función importante en el funcionamiento de la economía rural: satisface las necesidades de crédito de la economía campesina. Entre estas necesidades hay que incluir el crédito debido a contingencias aparte de la producción (enfermedades, viajes). Pero si se diera un proceso de modernización tecnológica masiva para la agricultura campesina, donde el crédito informal sería insuficiente, la falta de un mercado crediticio desarrollado puede ser un factor limitante que impida la adopción de innovaciones tecnológicas.⁸

C. Mercado laboral

El mercado laboral en el medio rural también muestra un escaso desarrollo. En muchos casos, el intercambio de mano de obra es parte de transacciones eslabonadas, pues se intercambia con otros bienes o servicios, como crédito, bienes agrícolas, alquiler de tierras, y no con el dinero. Bajo estas condiciones los salarios no son ni explícitos ni uniformes. Esta característica obedece al poco desarrollo de los mercados rurales en general, donde el intercambio de mano de obra no puede ser un intercambio independiente.

Otra característica se refiere a la estacionalidad del empleo asalariado. Debido a que la demanda de trabajo para la agricultura es estacional, se genera un desempleo estacional agrícola. ¿Cómo se ajusta este desempleo estacional? Los trabajadores del campo llevan a cabo migraciones temporales a otras zonas rurales o a ciudades; otros producen bienes no agrícolas en su propia unidad. El salario no parece ajustarse a las variaciones estacionales en la demanda de mano de obra. Debido al escaso desarrollo del mercado laboral rural no hay desempleo abierto. La consecuencia es que no se mantiene un mercado laboral activo en el

⁸ En la literatura se discute con frecuencia las razones que justificarían las intervenciones del Estado en el mercado de crédito rural. Esta discusión se hace bajo la concepción de los "fracasos de mercado". Una revisión reciente de esta discusión se encuentra en Besley (1994). Lógicamente, esa discusión supone que los mercados de crédito ya existen. Aquí, en cambio, el problema que se discute es la causa de que ciertos mercados no existan, o estén sólo parcialmente desarrollados.

medio rural a lo largo de todo el año. Los trabajadores rurales tienen, entonces, que incurrir en costos de transacción cuando tienen que hacer migraciones temporales para obtener empleos.

Para los campesinos la seguridad alimentaria parece ser un objetivo central dentro de su estrategia de sobrevivencia. Se puede comprender ahora que este objetivo está asociado al problema de que los mercados de bienes agrícolas y de otros bienes y servicios no están suficientemente desarrollados en el campo. Si fuera posible obtener un empleo asalariado y comprar alimentos cuando la propia producción no es suficiente no se justificaría la búsqueda de la seguridad alimentaria basada en la propia producción de granos básicos. El problema es que estos mercados no operan así. Es claro que esta estrategia implica un costo para la unidad campesina, pues podría producir otros bienes más rentables o emplearse como asalariado. Pero esto requeriría que los mercados estuvieran desarrollados.

En general, cuáles son las causas del escaso desarrollo de las relaciones de mercado en el medio rural y cuáles sus consecuencias para la reproducción de la pobreza rural? En el caso de los mercados de crédito y de asistencia técnica la causa estaría en los bajos niveles de demanda y oferta; mientras que en el caso del mercado laboral, estaría en el bajo nivel de demanda. A los bajos niveles de demanda y oferta les subyacen los factores que tienen que ver con el atraso del medio rural, tales como falta de nueva tecnología campesina, bajos ingresos, baja escala de producción de las unidades campesinas y altos costos de transacción. El grado de desarrollo de los mercados es endógeno. En economías de bajos ingresos los mercados son poco desarrollados.⁹

Bajo esas condiciones, en los intercambios de mercado las pequeñas unidades agrícolas enfrentan altos costos de transacciones y también de aprendizaje tecnológico. Los pequeños no pueden beneficiarse de las externalidades positivas de un mercado más desarrollado.

En una perspectiva del análisis dinámico, la consecuencia del escaso desarrollo de los mercados es la reproducción de la pobreza rural. No hay mercados porque hay pobreza rural y hay pobreza rural porque no hay mercados.

⁹ En la literatura hay poca referencia al papel de los mercados en el desarrollo económico. Aparte del libro de North mencionado antes, merece citar el artículo de Greenwood y Jovanovic (1990) que se refiere al mercado financiero. Ellos presentan el argumento siguiente: "In the early stages of development, an economy's financial markets are virtually non-existent and it grows slowly. Financial superstructure begins to form as the economy approaches the intermediate stage of growth cycle. Here the economy's growth and savings both increase" (p. 1078). Ellos se refieren a las economías capitalistas avanzadas de hoy. La cuestión en los países andinos, y en el tercer mundo en general, es por qué esta dinámica no se ha dado. Pero su observación final coincide con nuestra hipótesis: "In the early stages of development exchange is largely unorganized" (p. 1100).

Para salir de este círculo vicioso se tiene que entender cuáles son las variables exógenas del sistema dinámico. Según la teoría presentada aquí, estas variables exógenas serían la tecnología, instituciones y también la cantidad de bienes públicos en el campo (infraestructura de comunicaciones). Estas variables tendrían efectos sobre los costos de transacción y costos de adopción de innovaciones tecnológicas en la economía campesina.

V. ESTRATEGIAS DE LOS POBRES

¿Cuáles han sido los ajustes que han hecho los pobladores rurales para escapar de la pobreza?

La migración rural-urbana ha sido, ciertamente, un mecanismo de ajuste. Los datos son claros sobre este hecho. Aunque hay menos información, también hay que incluir en este caso la emigración hacia el exterior. Con las migraciones internas-externas y temporales-permanentes se ha diversificado aun más las fuentes de ingreso de las unidades campesinas debido al vínculo que los migrantes mantienen con la familia rural nuclear y extensa. Pero, ¿que impide que los pobres rurales no se hayan movido ya a las ciudades? Este tipo de ajuste parece tener su límite. La capacidad de las ciudades para generar ingresos no es ilimitada.

El otro ajuste ha sido la expansión de la frontera agrícola, o su intensificación, y la consecuente degradación de los recursos naturales. Enfrentado a las opciones de producir menor cantidad de productos agrícolas ahora (debido a que hay que dedicar parte de sus recursos a las actividades de mantenimiento del medio ambiente) a cambio de producir mayor cantidad en el futuro, o menor cantidad en el futuro y mayor en el presente, el campesino elegiría la segunda opción. Esto es consistente con su necesidad de sobrevivencia. Debido a su pobreza, la protección del medio ambiente no estaría entre las prioridades de la unidad campesina. Así, la expansión de la población llevaría a una degradación en la calidad de los recursos naturales, lo cual llevaría a los rendimientos decrecientes del tipo ricardiano. Debido a este efecto, este tipo de ajuste también tiene su límite.

El tercer tipo de ajuste ha sido la incorporación de muchos campesinos a los cultivos ilegales. La coca y la amapola se han expandido rápidamente en las últimas décadas. Hay cientos de miles de campesinos en esta actividad, especialmente en Bolivia, Colombia y Perú. La coca se produce en gran medida en tierras marginales, donde el costo de oportunidad de las tierras son muy bajas. Este cultivo también implica, entonces, una expansión de la frontera agrícola y la consiguiente degradación de los recursos.

El cuarto tipo de ajuste ha sido la violencia. Aquí hay que distinguir la violencia redistributiva (como el robo de cosechas y ganado, así como invasiones de tierras) de la violencia política. Las áreas más deprimidas del medio rural han sido y siguen siendo los lugares de concentración de las acciones de grupos subversivos. Pero estas acciones parecen no tener capacidad para construir sistemas económicos alternativos y viables.

Las perspectivas son que todos estos tipos de ajustes tienen sus propios límites. ¿Cuál es, entonces, la salida al problema de la pobreza rural en los países andinos? ¿Qué se puede hacer en el propio medio rural para reducir la pobreza? En las secciones siguientes se discute esta cuestión.

VI. POLÍTICAS EXPERIMENTADAS

La aplicación de políticas constituye, en cierta forma, un experimento. Aunque no son experimentos controlados, estas políticas ponen a prueba algunas de las hipótesis señaladas aquí. Como fue mencionado arriba, en los países andinos se han aplicado políticas que redistribuyeron la propiedad agrícola, que introdujeron intervenciones gubernamentales en los mercados, que luego liberalizaron mercados y redujeron el papel del Estado; pero todas estas políticas no parecen haber tenido efectos importantes en reducir la pobreza rural. Ahora se discutirán dos tipos de intervenciones que son muy frecuentes.

A. Proyectos de desarrollo rural (PDR)

Un PDR es una intervención en una zona geográfica donde el objetivo es generalmente mejorar el nivel de vida de un grupo social seleccionado, y donde los instrumentos incluyen la provisión de aquellos factores que se suponen son los factores limitantes a su desarrollo. Así, un PDR tiene una clientela seleccionada y un período definido para sus acciones. Un PDR busca cumplir con las metas propuestas, en un período definido, con la población seleccionada y sólo con ella. A esta racionalidad la definiremos como la "lógica del éxito local". Un PDR es ejecutado tanto por organismos del Estado como por organizaciones no gubernamentales (ONG). Mi hipótesis es que los actores sociales que diseñan y ejecutan un PDR están guiados por esta racionalidad: buscan el éxito local.

Pero buscar el desarrollo rural por una suma de éxitos locales es un método ineficiente. Al desarrollo rural global se puede llegar por medio de la replicabilidad del proyecto. Un proyecto exitoso localmente generaría un efecto demostración para otras regiones. El proyecto operaría como un proyecto piloto. Se convertiría en una vitrina para el desarrollo rural. La cuestión que se quiere examinar en esta sección se refiere al papel que cumplen los PDRs en el desarrollo de nuevas

"tecnologías" de desarrollo rural, es decir, nuevas formas de producción, nuevos bienes y nuevas instituciones.

Un PDR es un experimento. Se introducen cambios en una área y se pueden observar las respuestas de la población a esos cambios. Ciertamente, no es un experimento controlado, donde las condiciones de ceteris paribus, se respeten. Tampoco la respuesta de los individuos sería la verdadera porque ellos también saben que es un experimento, que el proyecto tiene una duración corta y actúan bajo ese marco. Aunque se trata de un experimento no controlado, se puede aprender algo de la lógica de los actores que es esencial para cualquier política de desarrollo rural.

La hipótesis que se propone aquí es que los PDRs no logran el desarrollo rural global. Aun si tuvieran éxito local, la diseminación de esa nueva tecnología de desarrollo rural no tendría una diseminación espontánea debido a los altos costos de información y de aprendizaje tecnológico con que opera la economía campesina. Y resolver estos problemas de costos no está entre los objetivos de los que diseñan un PDR. La razón es simple: la lógica de los PDRs es el éxito local.

En esta sección se aplicará esta hipótesis a la cuestión del desarrollo de los mercados en el medio rural. Examinaremos tres mercados: el de servicios de extensión, de crédito y el laboral. ¿Cuánta demanda y oferta de estos servicios han sido generados por los proyectos? ¿Se han desarrollado mercados locales y regionales? ¿Se han involucrado a los pobres en estos desarrollos? La creación de mercados locales puede ser considerado como una medida de la sostenibilidad económica de los proyectos. No olvidemos que las relaciones de mercado son de repetencia, son procesos sociales.

El crédito de los proyectos no son de libre disponibilidad. El monto de crédito se entrega de acuerdo al cultivo y a los costos de producción establecidos por el proyecto. Hay supervisión sobre el uso del crédito para "asegurar que devuelvan el crédito". En este punto, opera como cualquier banco comercial. Bajo estas condiciones de oferta de crédito se da un exceso de demanda. Hay que racionar. En el racionamiento no se toma en cuenta ningún criterio que prioriza a los grupos solicitantes de mayor pobreza. Se opera como cualquier banco comercial.

Los agricultores cumplen con el requisito que exige el proyecto pero sólo con el objeto de obtener el crédito. El crédito es la demanda final y el requisito, como la conservación de suelos, la demanda intermedia, un medio para obtener el crédito.

Con el programa de crédito, los proyectos no logran generar una demanda de crédito bancario. Estos créditos no han podido destruir el crédito informal. Tampoco han podido inducir nuevas formas de oferta crediticia. No se han

formado nuevas cooperativas, ni nuevos prestamistas individuales que operan como empresas financieras intermediarias.

En cuanto a otros mercados, tampoco se desarrollan mercados de bienes agrícolas. Los principales compradores de los bienes que producen los campesinos siguen siendo los intermediarios. Ellos cumplen una función importante en el funcionamiento de la economía campesina. Hacen intercambios eslabonados que incluyen crédito, compra del producto, venta de insumos, etc. Los campesinos se quejan de los intermediarios, pero al realizar intercambios con ellos revelan que no tienen mejores opciones.

También se observa ciertas acciones colectivas de los agricultores campesinos en el intercambio de mercado. Por ejemplo, ellos forman cooperativas organizadas por los campesinos para escapar del sistema de los intermediarios. Pero las cooperativas de servicios no tienen un contador, ni llevan cuentas de las operaciones de la empresa. En ausencia del gerente, los campesinos no pueden explicar ni la situación de la empresa ni sus perspectivas. Claramente juntar campesinos no hace una empresa. El factor limitante parece ser la falta de empresarios junto a la falta de educación necesaria de los socios para el manejo empresarial. Parece darse también el problema del free-rider en estas acciones colectivas.

Una vez concluido un PDR parece que mueren las iniciativas y terminan los grupos que se formaron. Las expectativas (racionales) de los campesinos parecen haber sido que estos proyectos son temporales y que una vez concluido un proyecto no habrá continuidad. Debido a que estos proyectos no parecen llevar a ninguna transformación importante en el funcionamiento de la economía rural, en especial en los mercados rurales, la lógica campesina es aprovechar las oportunidades que ofrece el proyecto. Para que cambiar un sistema de producción y de intercambio de equilibrio, aunque fuera de bajo nivel, pero cuidadosamente organizado y probado por las ofertas de un proyecto cuya duración es corta. La lógica de la aversión al riesgo los llevaría a mirar con desconfianza un PDR.

El efecto local sólo puede referirse a la introducción de innovaciones tecnológicas o institucionales. Se trata de romper, con estos proyectos, el equilibrio de bajo nivel en el que se encuentra la economía campesina. Se puede así esperar cambios en la productividad, en la tasa de degradación de los recursos naturales, en la organización local. Pero, no se puede esperar que los proyectos eleven los ingresos de la economía campesina. La razón es simple: los ingresos dependen no sólo de las cantidades producidas sino de los precios del mercado. Y estos precios no dependen del proyecto. En una economía pequeña y abierta al comercio internacional, como es el caso de los países andinos, esos precios dependen de los precios internacionales y de la política macroeconómica del gobierno.

El papel de los proyectos en el desarrollo rural debe ser claramente comprendido para evaluarlos de manera correcta. Un proyecto, aparte de su éxito local, juega un papel heurístico en el desarrollo rural. Es una forma de aprender sobre los factores causales que limitan el desarrollo rural. Actualmente los agentes que promueven y ejecutan los proyectos actúan bajo la lógica de buscar el éxito local. Una innovación importante consistiría en que esa racionalidad fuera transformada a la búsqueda del éxito local y global a la vez.

El contexto económico y político tiene también un efecto importante en el objetivo global del proyecto. La eficiencia con que se llegue a las metas establecidas depende de la organización del Estado, de las restricciones que enfrente, y de las prioridades que establezca. De manera similar, el papel heurístico depende de estos mismos factores. En particular, si el Estado no entiende que un proyecto es una forma de desarrollar nuevas tecnologías para el desarrollo rural (productivas e institucionales), la capacidad de llevar a cabo la replicabilidad del proyecto será muy limitada.

Al parecer, la lógica del Estado consiste en utilizar los proyectos como una forma de compensar a la población rural de los efectos negativos que tienen sus otras políticas. Con esta lógica no se puede lograr ni siquiera el efecto local de los proyectos y mucho menos el efecto global; con esta lógica no se puede lograr el desarrollo rural, entendido principalmente como la eliminación de los factores que subyacen a la pobreza rural. La ejecución de un proyecto tiene que estar inscrita en el marco de una política estatal de desarrollo rural. El proyecto no puede ser una acción aislada del Estado (como ocurre hoy). Las políticas macroeconómicas, como la del gasto público, tendrían que ser consistentes con el éxito local de los proyectos, y también con su replicabilidad a una escala mayor.

En suma, en los países andinos no se puede mencionar casos de PDRs que se hayan constituido en paradigmas para el desarrollo rural. La hipótesis propuesta aquí parece, pues, tener sustento empírico.

B. Políticas macro y sectoriales

En el contexto internacional cada país andino constituye una economía pequeña. Luego, los precios internacionales de la mayoría de sus bienes transables (aquellos que participan en mercados de bienes homogéneos) pueden considerarse como exógenamente determinados. Entre estos bienes se encuentran un subconjunto de bienes que produce la economía campesina. Pero los precios relativos entre bienes transables y no transables llevarán a los campesinos a decidir su estructura productiva. Luego, el tipo de cambio real sería una variable importante en la determinación de esa estructura productiva.

Cual es el efecto de las modificaciones en el tipo de cambio real sobre el ingreso campesino? Este efecto depende de la estructura de ingresos: cuanto mayor sea la proporción del ingreso que proviene de los transables mayor será el beneficio de un tipo de cambio real elevado sobre el ingreso campesino. Pero también hay bienes transables en el lado de los gastos de la restricción presupuestaria de la unidad campesina. Bajo estas condiciones, sería difícil tener una conclusión clara sobre el efecto neto del tipo de cambio real sobre el ingreso campesino.

Sobre las políticas sectoriales, las variables exógenas que ellas pueden modificar y que influyen en el comportamiento de las unidades campesinas son: la estructura de la propiedad, los derechos de propiedad, el uso del gasto público para ofrecer subvenciones a los agricultores a través de los precios agrícolas y de los servicios públicos de extensión agrícola e investigación, y el crédito agrícola. La experiencia con estas políticas es que se deja de lado a una parte importante de la economía campesina. La política sectorial beneficia principalmente a la agricultura comercial.

VII. POLITICAS NUEVAS

Todas las acciones de política llevadas a cabo tanto en el medio rural como en el plano macroeconómico no parecen haber tenido efectos significativos en reducir la pobreza rural. Más Estado no ha servido de mucho; menos Estado y mayor confianza en el mercado tampoco. Cambios de precios relativos en distinta dirección tampoco.

Una hipótesis básica de este estudio es que a la agricultura campesina le falta de todo para desarrollarse. Tal vez por ello las políticas específicas mencionadas no han dado resultados. ¿Qué políticas quedan por aplicar y por qué tendrían efectos importantes? En esta sección discutimos estas cuestiones.

A. Invertir en el desarrollo de los mercados

En un contexto de modernización tecnológica, la demanda de crédito aumentara. Para que la modernización se lleve a efecto en la pequeña agricultura, habrá necesidad de aplicar políticas para crear y desarrollar el mercado financiero rural. Bajo las condiciones actuales, no hay manera de llegar con crédito a la pequeña agricultura a través de los bancos, sean estos privados o estatales. Simplemente el sistema de incentivos de los bancos no lo permite. La lógica de las cooperativas de crédito y ahorro no es muy distinta tampoco. Las ONGs también tienen limitaciones. Bajo las condiciones actuales en que opera el

mercado financiero rural, la mayor demanda de crédito no podría generar su oferta.

Por todas estas fallas del mercado es que existe el crédito informal. No se trata entonces de buscar la desaparición del crédito informal, pues cumple una función en el actual sistema económico rural; se trata, más bien, de transformarlo, de echar a andar un proceso de evolución que lo lleve a operar como un mercado, con mayor eficiencia.

El crédito informal tiene la ventaja de que sus costos de transacciones son bajos comparados a los de las empresas financieras. La desventaja para el agricultor es la alta tasa de interés. Esta tasa es fundamentalmente implícita y el prestamista informal lo obtiene del conjunto de intercambios eslabonados que hace con el prestatario. Estos intercambios no se dan bajo relaciones de mercado sino bajo relaciones personales. Los pequeños agricultores quedan así atrapados en un sistema del cual les es difícil salir, aún si tuvieran innovaciones tecnológicas rentables que poner en práctica. El crédito puede convertirse en el factor limitante para salir de la pobreza.

¿Qué hacer entonces para reducir las altas tasas de interés del crédito informal? Una posibilidad es crear más prestamistas informales a fin de acrecentar la competencia entre ellos. Pero, si las tasas son tan altas y el negocio es tan bueno, ¿por qué no entran ahora más prestamistas al negocio y destruyen las grandes ganancias de los prestamistas actuales? La hipótesis es que tal proceso ya se ha dado en el medio rural y, bajo las condiciones actuales, ésta es la situación de equilibrio. Habría, entonces, que cambiar esas condiciones.

Un factor que determinaría la tasa de interés en el crédito informal es la cantidad de fondos prestables que tienen los prestamistas, la cual a su vez dependería de la cantidad global de estos fondos que hay en la economía rural. Si se pudiera aumentar esta cantidad global, ¿no se reducirían las tasas de interés? Si se aceptara la hipótesis de que la cantidad de los fondos prestables que tienen los prestamistas informales depende de la oferta de fondos prestables que viene del mercado de crédito, la respuesta sería afirmativa. Pero, entonces, habría que reconocer que la política monetaria, tanto en precios (la tasa de interés y de redescuento) como en la cantidad (encajes, incluida la no estacionalidad), tiene efectos en el crédito informal al que accede el campesino.¹⁰

¹⁰ Hay una discusión en la literatura sobre el papel que tiene la tasa de interés subsidiada (o la tasa de interés real negativa) en la expansión del mercado financiero rural. Pero esta literatura se refiere a mercados ya existentes. Para aclarar más, aquí la cuestión en discusión es otra: ¿cuál es la vinculación entre el crédito formal y el informal y cuáles sus consecuencias para la creación y desarrollo de los mercados financieros rurales?

En muchos casos, el Banco Central no toma en cuenta la estacionalidad agrícola en su política de control del crédito, en especial del encaje. Para un banco que trabaja con la agricultura esta rigidez es costosa. Para atender las épocas de punta en la actividad agrícola, el banco comercial tiene que dejar de cumplir con el encaje legal y pagar la multa correspondiente. Habría que asegurar algún mecanismo para que la oferta crediticia a la agricultura fuera de acuerdo al ciclo agrícola.

Una política alternativa consistiría en formar empresas no bancarias de intermediarios financieros. Se puede dedicar parte de los fondos financieros a la formación de estos intermediarios financieros. Habría que crear empresas financieras de segundo piso cuyo objetivo fuera otorgar préstamos a estos intermediarios financieros. Esas empresas tendrían que ofrecer asistencia técnica a los potenciales intermediarios. En principio, cualquiera pudiera ser intermediario. Se buscaría formar un mercado de intermediarios financieros.

Estos intermediarios podrían tomar la forma de empresas individuales o colectivas, según la evaluación de la propia gente. Esta sería una manera de transformar el sistema de prestamistas informales en un mercado de crédito no bancario, con una gran competencia a nivel de los intermediarios. Las relaciones de naturaleza personal entre los prestamistas y los agricultores no tendrían que modificarse, al menos en el corto plazo; en el largo plazo, sin embargo, este mecanismo aceleraría la expansión del mercado financiero.¹¹ Los costos de transacción para los bancos podrían reducirse con un mercado de intermediarios.¹²

Este mecanismo no garantizaría que los más pobres fueran los intermediarios financieros. Seguramente que serían los agricultores más ricos, y otros grupos de poder local, los que terminarían siendo los intermediarios, como ocurre ahora. Pero habría una cantidad mucho mayor de prestamistas que ahora. Y los pobres enfrentarían un conjunto más amplio de opciones entre los prestamistas y

¹¹ En algunos casos, el banco comercial ha introducido una innovación para reducir estos costos: utilizan a los buenos agricultores, clientes del banco, como garantes de los pequeños. Para que este sistema funcione el garante posiblemente toma, a su vez, garantías al pequeño agricultor y obtiene algún beneficio por su papel de garante ante el banco.

¹² El proceso evolutivo de los mercados que se ha estudiado más es el caso de los mercados laborales. En la primera etapa, de escaso desarrollo capitalista, los trabajadores solo intercambian trabajo en el mercado local, y mayormente en la forma de reciprocidad. En la siguiente etapa, aparecen los intermediarios o contratistas, que llevan mano de obra a otras regiones. En la etapa más desarrollada, los mismos trabajadores se movilizan en los mercados regionales, y desaparecen los intermediarios. La reducción en los costos de información y de transacciones estaría a la base de esta evolución.

podrían obtener crédito a más bajo interés y con menos racionamiento cuantitativo.

No hay estudios sobre el ahorro financiero rural en los países andinos. Lo único que sabemos es que el ahorro en empresas o cooperativas financieras es muy pequeño. Aun si el campesino tuviera fondos y quisiera depositarlos en una cuenta de ahorros no hay un banco cercano en donde hacerlo. El costo de transporte sería muy alto si tuviera que hacerlo en el banco de la ciudad más cercana. Los intermediarios financieros podrían operar, en el largo plazo, como tales: también captando fondos de ahorristas locales. Habría que crear las instituciones necesarias para reducir el riesgo de esos depósitos (organizaciones de supervisión, organizaciones que sean los prestamistas de última instancia).

Habría que introducir innovaciones tecnológicas para reducir los costos de transacciones. En particular los costos de información se podrían reducir con el uso de la tecnología basada en la informática y las comunicaciones.

En otros mercados, algunas medidas para llegar a las unidades campesinas mediante la creación de mercados no han funcionado. Este es el caso de los servicios de extensión agrícola.

Frente al fracaso de los programas públicos de extensión agrícola, en muchos países se ha buscado sustituirlos por programas privados. Se ha intentado desarrollar un mercado de asistencia técnica. El caso más conocido fue el que se aplicó en Chile en 1978-83. El Estado otorgó un subsidio a los precios por la entrega del servicio de asistencia técnica que hiciera una empresa privada a los pequeños agricultores. Se buscaba así la creación de muchas empresas y por el lado de la demanda, los campesinos tenían los incentivos para solicitar los servicios de extensión agrícola a un precio más bajo; se esperaba que el subsidio estatal sería sólo un gasto inicial para lograr el desarrollo del mercado. Una vez que el mercado estuviera desarrollado se reduciría o eliminaría el subsidio y el campesino pagaría el precio total del servicio.

Este programa no fue exitoso. El mercado no se desarrolló y no pudo sustituir de manera significativa a la extensión agrícola pública. Las razones del fracaso serían: la falta de un programa coherente en lugar de las acciones independientes y desordenadas que realizaban las empresas; la falta de evaluación, fiscalización y control de las acciones de las empresas por parte de estado y de las organizaciones campesinas. A partir de 1983 se logró mejorar el sistema de fiscalización estatal. Pero esto tampoco resolvió el problema. Esta fiscalización a nombre de los campesinos era sólo una formalidad. Y más bien la competencia entre las empresas privadas por la obtención del subsidio estatal condujo a la politización del programa (Gómez, 1991).

Para aplicar una política que busque desarrollar un mercado de servicios de extensión agrícola para campesinos hay que comprender los factores que

determinan el desarrollo de esos servicios. Un factor que limita ese desarrollo es el bajo poder adquisitivo de los campesinos, quienes demandarán sustitutos de menor calidad, los llamados "bienes inferiores". El otro factor es de oferta: ¿qué tendría para ofrecer una empresa privada en materia de solución técnica a los problemas específicos de la agricultura campesina?

Y aún si la empresa privada tuviera respuestas que ofrecer y el campesino tuviera el poder adquisitivo necesario, el desarrollo del mercado estaría limitado por los costos de transacción. Contratar un servicio en el mercado tiene costos. En el caso del campesino, los costos de transacción incluye el riesgo de no obtener el servicio deseado a plena satisfacción, así como los costos de información.

Estos factores explicarían por que un mercado de asistencia técnica para campesinos de los países andinos es casi inexistente. En realidad este mismo problema se da en otros mercados. ¿Por qué el campesino no demanda el servicio de un médico y más bien utiliza los servicios de un boticario o curandero? ¿Por qué el campesino no compra los servicios de un abogado y acude más bien a un tinterillo? Los factores explicativos parecen ser los mismos. El campesino no compra los servicios de un ingeniero agrónomo o de una empresa consultora sino que acude al vendedor de insumos del pueblo (el equivalente al boticario) o al extensionista estatal.

Un argumento central de los teóricos de la economía institucional es que los derechos de propiedad son esenciales para el funcionamiento eficiente del mercado. Es una fuente de los altos costos de transacciones. Luego, el desarrollo de los mercados en los países andinos requiere que los derechos de propiedad estén claramente establecidos. Aquí hay innovaciones institucionales que hacen tanto en asegurar estos derechos en cuanto a títulos de propiedad, cuestión que no está resuelta en un gran segmento del medio rural, y también asegurar un sistema judicial eficiente.

B. Invertir en elevar la productividad

Para un segmento importante de las unidades campesinas parece viable lograr su desarrollo. Allí donde la dotación de recursos no sea muy limitada, donde no se pida "peras al olmo", habría posibilidades de transformar a las unidades campesinas en unidades capitalistas. Los Andes han creado un contexto físico favorable para este desarrollo, pues la biodiversidad y los microclimas le dan a las economías rurales ventajas absolutas -los países andinos deberían exportar productos andinos- y también ventajas relativas en el comercio internacional.

El desarrollo de la economía campesina implica introducir innovaciones tecnológicas. Nuevas practicas agrícolas, nuevos insumos, nuevos productos. Así se podría elevar la productividad global. Para ello la oferta y demanda de innovaciones tecnológicas deben encontrarse. Esto no ocurre hoy. En la agenda de investigación de los institutos privados y estatales no están presentes las restricciones que enfrentan las unidades campesinas (Figueroa, 1993).

De otro lado, las diferencias que se observa en la tecnología que utilizan unidades campesinas de la misma región indican que hay nuevas técnicas que están disponibles para los campesinos (cuadro 4). Las potencialidades de la agricultura campesina para desarrollarse son, por lo tanto, significativas. Pero el proceso de modernización de la economía campesina es muy lento. El problema consiste en acelerar este proceso. Los factores que explican la viscosidad parecen encontrarse en la calidad de capital humano, pues la nueva tecnología es más intensiva en manejo numérico. También la nueva tecnología es más intensiva en capital, y el mercado de crédito no esta desarrollado. Estos resultados también se aplicarían al caso de los países andinos. Las políticas que emergen son claras: hay que invertir en capital humano y en el desarrollo del mercado crediticio para acelerar el proceso de modernización de la agricultura campesina.

Habría que desarrollar un sistema innovativo de investigación y capacitación campesinas, donde se logre la integración de la investigación con la educación de los campesinos. Una suerte de escuelas campesinas para formar lideres tecnológicos. Estos lideres (que incluiría también a las mujeres) harían luego la extensión en sus comunidades de manera privada. La investigación tecnológica debería resolver las restricciones que enfrenta la pequeña agricultura para elevar su productividad de largo plazo. Esta investigación tecnológica tendría que reducir la degradación de los recursos naturales¹³. Hay experiencias sobre las formas de experimentación y diseminación de nuevos conocimientos tecnológicos a los campesinos (Bunch, 1985; FAO, 1991). La formación de lideres tecnológicos se puede financiar en la forma de becas e infraestructura de la escuela.¹⁴

¹³ Los estudios de IFPRI destacan que los pobres rurales operan en áreas agrícolas de bajo potencial, pero que estas áreas se deben y pueden desarrollar. La clave está en la tecnología a crear (IFPRI, 1994). Coincido con este argumento. Sólo quiero indicar que la investigación tecnológica es una actividad con resultados inciertos y, por lo tanto, un método de investigación como el propuesto aquí puede reducir esa incertidumbre.

¹⁴ Sobre la escuela misma, la idea de la "finca humana" desarrollada en varias aéreas de Honduras (como es el caso del centro del Sr. Elías Sánchez) es una experiencia que debería ser analizada y perfeccionada. Otra experiencia a estudiar es la primera etapa de la Escuela Agrícola Panamericana en Zamorano (Rosengarten, 1995; capítulo XII).

Hay una variedad de ONGs que operan sin coordinación, todas buscando desarrollo rural. Habría que reforzar la capacidad de los gobiernos municipales para que puedan cumplir estas nuevas funciones con eficiencia. Se tendría que desarrollar su capacidad de operar con proyectos, desde la identificación y formulación hasta la evaluación. Para ello, las municipalidades requerirán, entre otras cosas, de empresarios del desarrollo regional. Habría que financiar la formación de este tipo de capital humano, que es tan escaso en la subregión.

Hay que reconocer que la economía rural no es solo agricultura. Todas las actividades no agrícolas son susceptibles de ser desarrolladas. El enfoque del desarrollo rural o regional puede ser mucho más promisorio que el del desarrollo agrícola. Por ejemplo, habría que promover la industrialización rural de los productos producidos principalmente por la pequeña agricultura. Estos bienes industriales deben ser de buena calidad para escapar del mercado de "bienes inferiores" e ingresar al de los "bienes superiores". Las ventajas absolutas y relativas pueden ser mejor explotadas de esta manera.

También en este caso la participación de la mujer es importante, pues son las mujeres las que usualmente se encargan de las actividades de procesamiento. Debe ser evidente que aquí no se propone tareas específicas y autónomas a las mujeres rurales; se busca más bien que sus nuevos roles sean parte de la nueva división del trabajo dentro del sistema de producción campesino. El mismo principio se aplicaría a los jóvenes.

Aunque se han hecho avances en la educación rural, la tasa de analfabetismo (y el monolingüismo no castellano) es todavía alta en el medio rural de los países andinos, especialmente entre mujeres. Habría que pensar en un programa innovativo de alfabetización, diseñado por profesionales de la educación de adultos. Con el nivel actual de educación de las mujeres es difícil esperar cambios importantes en la productividad campesina.

La inversión en salubridad es otro requisito para el desarrollo económico del medio rural de los países andinos.

En el largo plazo, la formación de capital humano tiene una secuencia muy particular. El bienestar infantil determina la capacidad de aprendizaje del individuo adulto. Luego, la desnutrición infantil y la falta de una correcta estimulación intelectual temprana significarán una limitada productividad de la fuerza laboral cuando sean adultos¹⁵. En la teoría del capital humano no se reconoce que formar capital humano implica the right inputs at the right time.

¹⁵ La evidencia empírica de esta proposición proviene de un estudio en comunidades campesinas de Guatemala. (Brown y Pollit, 1996).

La sobrepoblación implica, entre otras medidas, la aplicación de políticas para reducir el crecimiento demográfico. El ajuste que han hecho los pobres rurales ampliando la frontera agrícola ya parece haberse agotado. Los recursos naturales ya no tienen capacidad para mantener una mayor población. Ni las innovaciones tecnológicas podrán darle mucha elasticidad en la productividad de esa base de recursos en el largo plazo, especialmente en la agricultura de ladera. La mayor educación de la mujer es, según la literatura, un factor importante para el cambio en las tendencias demográficas. Mayor razón para elevar la educación de la mujer rural.

C. Programas de empleo rural

El desempleo agrícola estacional se puede reducir con programas de empleo público (public works). Estos programas podrían cumplir el papel de una política de ingresos mínimos para la familia rural, concentrando su atención en el empleo de mujeres, por ejemplo. Las familias pobres rurales tienen que absorber todo el costo de la seguridad económica; ellos mismos se autoaseguran con la diversificación de sus actividades. No tienen mecanismos para transferir parte de estos costos al mercado, pues para ello se necesitaría un mercado de seguros, que no existe en el medio rural. Pero podrían transferir parte de sus costos de seguridad a la sociedad, a través de la política de empleo en obras públicas.

Sobre los programas de empleo rural, hay varias preguntas que resolver. ¿En qué actividades se utilizaría el empleo? ¿Cuál sería el efecto agregado, tanto sobre la economía rural, como sobre la economía nacional? ¿Cómo se financiaría?

El empleo público se podría utilizar en actividades que tienen efecto sobre la productividad rural. Con el mejoramiento de la sanidad ambiental (agua, desagüe, basura) se puede elevar los índices de bienestar en salud rural. Programas de construcciones en infraestructura elevarían la cantidad de bienes públicos. Programas de mantenimiento del medio ambiente (construcción de terrazas, reforestación) podría reducir la degradación de los recursos naturales.

Sobre el efecto agregado de estos programas de empleo público sólo puedo presentar algunas intuiciones. No hay estudios sobre este tema. Se puede esperar un mayor efecto multiplicador del empleo. Este efecto se dará en el mismo campo y también en el resto de la economía. Sería de esperar que el multiplicador del empleo fuera mayor en el campo que en la ciudad debido a que la economía rural es más cerrada que la urbana y también debido a que probablemente la propensión marginal a consumir sea mayor entre los pobres del campo. Así, el programa de empleo en el campo tendría un efecto multiplicador mayor que si el programa de empleo fuera en la ciudad.

Pero, esto supone que en el campo hay capacidad productiva no utilizada. Hemos propuesto aquí que en el campo hay exceso de mano de obra pero no de otros recursos. Luego, el efecto multiplicador podría multiplicar más los precios que las cantidades. Lo más probable es que un programa de empleo público aumente también 'importaciones' a la economía rural. Estas importaciones tendrán un componente urbano y un componente importado de otros países. Se crearía indirectamente empleo urbano pero también más presión sobre la balanza comercial. Pero, nuevamente, esta presión sería menor que la que se generara con un programa de empleo urbano.¹⁶

El financiamiento puede tomar diversas formas y la elección entre ellas depende de las restricciones macroeconómicas que se enfrenten. Si hubiera una restricción, en el sector externo, por ejemplo, entonces el nivel del producto agregado no podría cambiar y el programa de empleo rural tendría un efecto redistributivo solamente. Se tendría que aplicar políticas tributarias para lograr ese cambio en la estructura del ingreso. Si no hubiera una restricción de oferta, se podría elevar el ingreso de todos, pero preferentemente la de los pobres rurales. En este caso las fuentes de financiamiento podrían ser otras.

También se puede esperar que un aumento exógeno en el empleo rural tenga el efecto de inducir la creación o expansión de las actividades no agrícolas. Se podría inducir, por ejemplo, la industrialización rural. Pero más análisis teórico y empírico se hace necesario.

VIII. CONCLUSIONES

La economía rural de los países andinos puede ser vista como la combinación de dos formas de producción: la capitalista y la campesina. La economía campesina constituye el mayor grupo social donde la pobreza se encuentra concentrada. Esta economía se caracteriza por unidades donde la dotación de recursos es muy limitada y la tecnología es estática. Estas unidades operan en un contexto donde los intercambios toman diversas formas, transacciones de mercado y transacciones que no son de mercado.

¹⁶ **El único estudio que conozco sobre el efecto multiplicador en el campo es el de Morley (1988) para el caso de Indonesia. Allí el autor sostiene la hipótesis de que las familias rurales consumen la mayor parte de sus ingresos en bienes y servicios producidos en el mismo campo y que el grueso de las actividades rurales están limitadas por el nivel de la demanda. La evidencia empírica que presenta tiende a confirmar sus hipótesis. Pero parece ser que en Indonesia las actividades no agrícolas tienen mayor importancia en la economía rural de lo que sucede en los países andinos.**

Si aceptamos la teoría de que la economía campesina opera en un equilibrio de bajo nivel, sus factores limitantes serían varios. Luego, no se puede esperar que la pobreza rural se pueda reducir con el suministro de un único factor. No habría un solo factor cuyo aumento fuera una condición necesaria y suficiente para reducir la pobreza. La hipótesis es que a los campesinos les falta de todo. Habría, pues, que aplicar una política que contenga varios factores.

La concentración de la propiedad agrícola, los precios relativos, la escasa dotación de recursos y la tecnología estática de las unidades campesinas serían los factores que explicarían, al menos en parte, la pobreza rural en los países andinos. Sin embargo, se observa que la agricultura se ha modernizado en los predios medianos y grandes, y aun en un segmento de la economía campesina; la educación rural se ha expandido notablemente; se han llevado a cabo programas de reforma agraria, pero, con todo esto, no se ha logrado reducir la pobreza rural. Las políticas de liberalización del comercio exterior tampoco parecen tener haber tenido efectos positivos. Basadas en esas hipótesis, se han aplicado varias políticas para lograr el desarrollo rural pero no se ha logrado este objetivo. Claramente, hay algo esencial que esas hipótesis explicativas han dejado fuera.

En este estudio se ha propuesto la hipótesis que la economía campesina enfrenta altos costos de transacción para sus intercambios en varios mercados básicos. Esta hipótesis parece ser consistente con la observación empírica: las áreas rurales más conectadas al mercado son las más desarrolladas. Luego, las intervenciones en el medio rural para reducir la pobreza tendrían que incluir intervenciones para el desarrollo de los mercados rurales; es decir, medidas que reduzcan los costos de transacciones. Como sostienen los teóricos de la economía institucional, el mercado es la institución que ayuda al mejor desempeño de una economía porque genera un sistema de incentivos que promueve el crecimiento.

Sin embargo, la visión convencional es que los mercados rurales están allí y que lo único que hay que hacer para que esos mercados funcionen bien es eliminar las intervenciones estatales. La proposición central de este estudio ha consistido en mostrar que las relaciones son otras: no hay mercados que liberar en el medio rural; más bien, hay que crearlos.

A pesar de que hay innovaciones tecnológicas disponibles, lo cual le da posibilidades de desarrollo, la economía campesina se encuentra atrapada en medio de recursos escasos, tecnología estática y mercados poco desarrollados. A diferencia de lo que postula la teoría neoclásica, los campesinos no obtienen toda la información que necesitan a través del mercado y de forma gratuita, incluida la información tecnológica. Por el contrario, en sus relaciones con el mercado el costo de transacción es elevado. Para escapar de este círculo vicioso, las políticas públicas tienen que inducir innovaciones tecnológicas e institucionales en la economía rural, como las que se han sugerido en este estudio. Hay que invertir en esas innovaciones.

También hay que invertir en reducir los costos de transportes. Si bien los beneficios que han creado en términos de bio-diversidad son enormes, los Andes también han creado un contexto físico donde el costo de transporte es elevado.

Se puede argumentar que invertir en el desarrollo de la economía campesina tiene un retorno económico bajo; mejor sería invertir en los sectores de mayor productividad potencial de la economía, y los pobres se beneficiarían de manera indirecta. Pero la experiencia histórica muestra que este efecto indirecto no lleva a una reducción significativa de la pobreza rural. El desarrollo de la agricultura capitalista no parece generar externalidades positivas a la agricultura campesina.

Ese argumento supone, además, que la productividad de un país es independiente de su situación de equidad. En efecto, la teoría económica convencional sólo considera relaciones físicas en la función de producción. Pero la experiencia de los años ochenta y noventa ha mostrado que la pauperización de las masas lleva a una inestabilidad socio-política y a una caída en la productividad global de la economía. Luego, la productividad del sistema productivo, así como la competitividad internacional, no parecen ser independientes de la equidad.

La escuela institucionalista ve en el mercado la institución idónea para el crecimiento económico, pero deja de lado su efecto negativo sobre la equidad. Teóricamente se muestra que el sistema de mercado lleva a la desigualdad; y si ésta desigualdad es excesiva, la sociedad debe incurrir en costos significativos para mantener el orden social. En este caso, la desigualdad devendría en otra falla del mercado. La experiencia de la última década en América Latina es, como se dijo arriba, un sustento empírico de esta teoría.

La tasa de retorno de la inversión dirigida a reducir la pobreza rural es, por lo tanto, mucho mayor de lo que usualmente se cree. Sin embargo, se observa una cierta miopía de parte del sector privado y del estado sobre esta relación. Cuando la equidad deje de ser vista por la clase dirigente como un problema puramente ético y sea vista, más bien, como un problema económico, que crea costos a la sociedad entera, tal vez entonces se busque seriamente la reducción significativa de la pobreza y la desigualdad.

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Cuadro 1. Países Andinos: Población rural sin acceso a servicios básicos (porcentajes)

	<u>Salud</u> 1980-87	<u>Agua Potable</u> 1985-87	<u>Saneamiento</u> 1985-87
Bolivia	64	87	90
Colombia	58	24	87
Ecuador	70	69	71
Perú	83	83	88
Venezuela	35	35	95
América Latina y Caribe	61	54	83

Fuente: IFAD (1992), Appendix, Table 3, pp. 394-395.

Cuadro 2. Países Andinos: Población rural por debajo de línea de pobreza (porcentajes)

	<u>Circa 1965</u>	<u>1988</u>
Bolivia	85	97
Colombia	54	45
Ecuador	65	65
Perú	68	75
Venezuela	36	58
América Latina y Caribe	s.i.	61

Fuente: IFAD (1992), Appendix, Table 2, pp. 386-387.

Cuadro 3. Países Andinos: Cambios en la concentración de la propiedad agraria

	<u>Coefficiente de Gini</u>
Bolivia	
1952	0.79
1970	0.60
1978	0.55
Colombia	
1970	0.74
1983-84	0.70
Ecuador	
1954	0.72
1974	0.71
1987	0.69
Perú	
1961	0.74
1972	0.70
1984*	0.61

* Excluye cooperativas.

Fuente: IFAD (1992), Appendix, Table 10, pp. 414-415.

Cuadro 4. Productividad y modernización tecnológica en la pequeña agricultura de Perú, Brasil, México y Paraguay

Países/Producto	Microrregiones		
	Moderna	Media	Tradicional
Perú: papa			
Rendimiento medio (ton./ha.)	8.3	4.0	3.7
Adopciones de innovaciones:			
porcentajes de productores			
pesticidas	97	99	53
Fertilizantes	98	99	35
Semillas híbridas	92	36	3
Brasil: frijol			
Rendimiento medio (ton./ha.)	1.1	0.4	0.1
Adopciones de innovaciones:			
porcentaje de productores			
Fertilizantes	100	90	0
Otros insumos	92	46	0
México: maíz			
Rendimiento medio (ton./ha.)	3.1	2.0	0.9
Adopciones: porcentaje			
de productores:			
Insumos químicos	53	55	47
Semillas mejoradas	78	65	0
Paraguay: algodón			
Rendimiento medio (ton./ha.)	1.1	1.1	0.7
Adopciones de innovaciones: gasto			
en			
fertilizantes, semilla mejorada			
y pesticidas, media (miles de			
guaraníes)	22	23	6

Fuente: Figueroa, 1986.

