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A 2020 Vision for Food, Agriculture, and the Environment in Latin America

Edited by James L. Garrett

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"A 2020 Vision for Food, Agriculture, and the Environment" is an initiative of the International Food Policy Research Institute (IFPRI) to develop a shared vision and a consensus for action on how to meet future world food needs while reducing poverty and protecting the environment. It grew out of a concern that the international community is setting priorities for addressing these problems based on incomplete information. Through the 2020 Vision initiative, IFPRI is bringing together divergent schools of thought on these issues, generating research, and identifying recommendations.

This discussion paper series presents technical research results that encompass a wide range of subjects drawn from research on policy-relevant aspects of agriculture, poverty, nutrition, and the environment. The discussion papers contain material that IFPRI believes is of key interest to those involved in addressing emerging Third World food and development problems. These discussion papers undergo review but typically do not present final research results and should be considered as works in progress.

Food, Agriculture, and the Environment Discussion Paper 6

A 2020 Vision for Food, Agriculture, and the Environment in Latin America

Edited by James L. Garrett

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Foreword

The 2020 Vision for Food, Agriculture, and the Environment initiative of the International Food Policy Research Institute (IFPRI) has two primary objectives: 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 through the generation of information and discussion.

The 2020 Vision initiative has conducted analyses and syntheses on many topics related to food, agriculture, and the environment. In a series of topical workshops, it brought together researchers, analysts, and technical experts to expand the frontiers of knowledge and bring that knowledge to bear on action. The initiative facilitated three workshops in Sub-Saharan Africa, South Asia, and Latin America. In these workshops, policymakers and researchers from the regions debated problems and challenges and developed regional strategies to achieve the 2020 Vision.

The workshop on Latin America, jointly sponsored with the Centro Internacional de Agricultura Tropical (CIAT) and the Instituto Interamericano de Cooperación para la Agricultura (IICA), was held in Cali, Colombia, March 20–22, 1995. Two dozen Latin American researchers, technical experts, and policymakers from nine countries in the region engaged in three days of intensive discussion. They focused on the challenges the nations of the region confront in efforts to reduce poverty and malnutrition and improve food security at a time when the region is experiencing dramatic social, economic, and political change.

The workshop began with a discussion based on papers prepared especially for the workshop. These papers took a forward-looking view of food and agricultural issues in Latin America and represent statements by Latin American analysts on Latin American problems. These papers considered issues of technological change, urbanization, rural institutions, and the development of the food and agricultural system as they relate to food, agriculture, and the environment in Latin America. They are available as working papers or discussion papers in the 2020 series.

Participants then divided into three working groups, wherein they developed their own analyses and strategies for facing the future challenges of food, agriculture, and the environment in the region. In their strategies, the participants paid special attention to the potential of the food and agriculture system to contribute to economic and social development as the region enters the twenty-first century. This document represents a synthesis of the documents prepared by the three working groups. It also incorporates the comments of participants on an earlier draft of that synthesis. We believe the end result is a thoughtful statement representing a genuine Latin American perspective of the goals and strategies relating to food, agriculture, and the environment as we head toward the year 2020.

Although editor James Garrett has taken great care to maintain the tone and substance of the documents prepared by the working groups, we know that some participants would have emphasized one point over another or stated a perspective more strongly or differently. No synthesis document can fully capture the vitality of the exchanges among

workshop participants or the richness and nuances of participants' comments. Nevertheless, just as the discussions among participants in Cali were vigorous and exciting, we hope that this paper will contribute to continued analytical debate within the region on the future trends, critical choices, and opportunities for action facing the countries of the region.

Per Pinstrup-Andersen
Director General, IFPRI

Acknowledgments

IFPRI appreciates the outstanding collaboration received from IICA and CIAT, who provided superb conference facilities and warm hospitality for all participants. We also are grateful to the participants for their time and efforts. This document, an extremely important contribution to the 2020 Vision for Food, Agriculture, and the Environment, represents their ideas and perspectives. It simply would not exist without them.

As part of its 2020 Vision for Food, Agriculture, and the Environment initiative, the International Food Policy Research Institute (IFPRI) held workshops in three developing regions of the world. The workshop on Latin America, jointly sponsored by the Instituto Interamericao de Cooperación para la Agricultura (IICA), the Centro Internacional de Agricultura Tropical (CIAT), and IFPRI, was held in Cali, Colombia, March 20–22, 1995. This paper is based on discussions among some 30 Latin American researchers, technical experts, and policymakers who participated in the workshop. The facts and figures herein are gleaned from papers presented at the workshop, and the goals and strategies are those reached by the workshop participants.

The 2020 Vision

The nations of Latin America are currently undergoing dramatic economic, political, and social change. The effects on poverty, food security, and the environment are uncertain. Change, however, offers opportunity. Latin America now has a historic opportunity to achieve by the year 2020 a vision where extreme poverty, hunger, and severe malnutrition have been eradicated; where income, wealth, and opportunity are more evenly and fairly distributed; and where all citizens enjoy clean, healthful environments and work together to use and protect the region's natural resources for themselves and for future generations.

Current Conditions

Poverty Fails to Decline

In the past 25 years, Latin America has made no progress in reducing the overall level of poverty. Forty-six percent of the Latin American population is poor, and the number of poor has increased from 120 million in 1970 to 196 million today (Table 1). Sixty-one percent of the rural population is poor, compared with 39 percent of the urban population, but with increasing levels of urbanization, poverty is assuming an urban face. Seventy-five percent of the region's population now lives in cities and 35 million more poor people live in urban than in rural areas. The numbers of absolute poor are divided about equally between urban and rural areas.

Millions Are Malnourished

Almost 60 million people in the region suffer from food insecurity, meaning that they do not get enough food to lead a healthy, active life. Six million of these are children. At the same time, and sometimes in the same households with undernourished children, "lifestyle" diseases such as heart disease and hypertension are increasing. This trend is especially noticeable among adults in urban areas, who tend to have a more sedentary lifestyle and a greater intake of sugar and fats.

Agricultural and Natural Resources Are Crucial to Development

The dynamic potential of agriculture and natural resources to contribute to social progress in

Table 1—Changes in the magnitude of poverty in Latin America, 1970–90

Year	Poor[a]			Absolute Poor[b]		
	Total	Urban	Rural	Total	Urban	Rural
	(percent)					
1970	45	29	67	24	13	40
1980	41	30	60	19	11	33
1990	46	39	61	22	15	37
	(thousands)					
1970	119,800	44,200	75,600	63,700	19,900	43,800
1980	135,900	62,900	73,000	62,400	22,500	39,900
1990	195,900	115,500	80,400	93,500	44,900	48,600

	Absolute Poor as Percentage of Poor		
	Total	Urban	Rural
1970	53	45	58
1980	46	36	55
1990	48	39	60

Source: Comisión Económica para América Latina y el Caribe (CEPAL). 1994. *Panorama social de América Latina, 1994*. Santiago: CEPAL.

[a]A "poor" individual is one whose income is inadequate to meet minimum daily nutritional requirements as well as other basic needs, such as sufficient hygiene, clothing, education, and transportation.

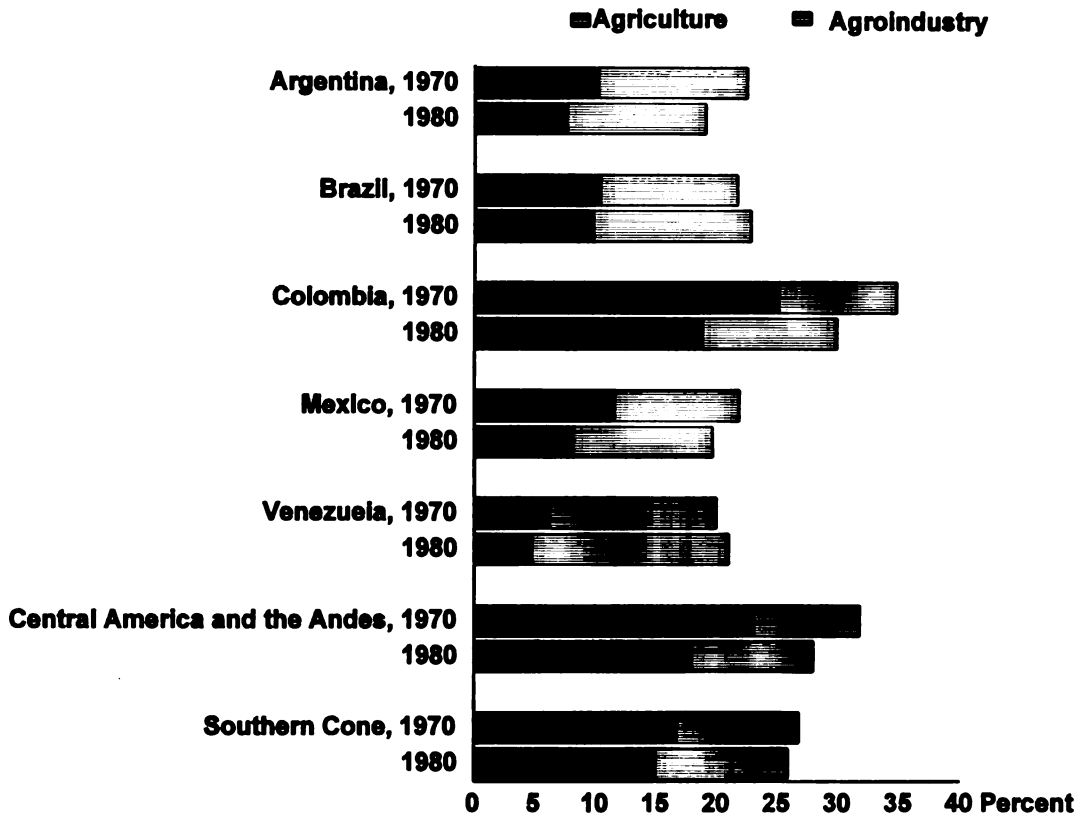
[b]The "absolute poor" are those individuals whose income is inadequate to satisfy minimum daily nutritional requirements, even if other basic needs are forgone.

Latin America has often gone unrecognized. Many have the false impression that the role of agriculture in the economy has become unimportant, especially as the region has become more urbanized. The relative contribution of agriculture to the economy has declined in recent years, but the food and agricultural system, which includes agro-industry, still accounts for 25 percent of all economic activity, on average (Figure 1). Agricultural production alone is worth more than US$90 billion and contributes more than 10 percent to the region's gross domestic product (GDP). During the 1980s, agricultural output in Latin America and the Caribbean actually grew faster than the overall economy.

The vitality of the food and agricultural system is of critical importance to the economies of the region's poorest countries, such as Bolivia, Guatemala, Honduras, and Paraguay, where 50 percent or more of the population still lives in rural areas. It is also important to the more urbanized economies. Urban dwellers depend on agriculture for food and textiles, and a healthy agriculture sector generates employment in other sectors as rural incomes rise and create demand for additional goods and services. It has been estimated that in Latin America every increase in agricultural output of US$1 increases overall economic output by almost US$4.

As for natural resources, Latin America is one of the wealthiest regions in the world. With 8 percent of the world's population, Latin America has 23 percent of the world's potentially arable land, 12 percent of its cultivated land, 46 percent of its tropical forests, and 31 percent

Figure 1—Agriculture and agro-industry as a percentage of GDP, 1970 and 1980



Source: Instituto Interamericano de Cooperación para la Agricultura (IICA). 1992. *La agricultura de América Latina y el Caribe*. San José, Costa Rico: IICA.

of its fresh water. The Amazon, one of the richest tropical biospheres, contains about half the world's species of plants and animals.

Because of deforestation, overgrazing, and overexploitation, these natural resources are endangered. Today, 200 million hectares of land in Latin America are moderately or severely degraded, almost a third of total vegetated land (Table 2).

During the past 25 years, every Latin American country except Argentina has lost more than 5 percent of its forests. Since 1960, almost 50 percent of the Central American forests have been destroyed. The losses are astounding, and they continue today.

The Foundation of the Strategy: Unleash the Potential of the Region's Resources

Latin American governments are now pursuing economic growth based on free trade, free prices, and a relatively unfettered private sector. In an effort to create true, participatory democracies and to make programs more congruent with local needs and capacities, many countries are decentralizing financial and administrative decisions to the local level.

Latin America's success in realizing the vision depends on its ability to generate broad-

Table 2—Extent and causes of human-induced soil degradation in Latin America since 1945

	Central America and Mexico	South America	World
Degraded area (million hectares)			
Moderate to extreme	61	139	1,215
Light	2	105	749
Degraded area share of vegetated land (percent)			
Moderate to extreme	24.1	8.0	10.5
Light	0.7	6.0	6.5
Causes of soil degradation			
Deforestation	22	41	30
Overexploitation	18	5	7
Overgrazing	15	28	35
Agricultural activities	45	26	28
Industrialization	...	...	...

Source: Oldeman, L. R., V. W. P. van Engelen, and J. H. M. Pulles 1990. The extent of human-induced soil degradation. In *World map of the status of human-induced soil degradation: An explanatory note*, ed. L. R. Oldeman, R. T. A. Hakkeling, and W. G. Sombroek. Wageningen, The Netherlands: International Soil Reference and Information Centre.

Note: These results are from a three-year study that asked more than 250 soil scientists and regional coordinators for their estimates of human-induced soil degradation since World War II.

based growth in this new environment. The abundance and diversity of Latin America's agriculture and natural resources provide the region with an enormous comparative advantage with which to compete on world markets, and thereby generate broad-based growth throughout the economy, for urban and rural dwellers alike. More attention to agriculture and other natural resources will help solve the problems of poverty, food insecurity, malnutrition, and environmental degradation. The increase in agricultural production will help achieve not only higher levels of food security within Latin America but also increase the food supply of the world as Latin America becomes a net food exporter.

If the vision is to be attained, serious attention must be paid to the management of these resources. Programs of economic adjustment and liberalization called for a reduction in the involvement of the state in productive sectors like agriculture and an increase in involvement in the social sectors like health and education. Productive and social sectors are synergistic, not competing. Just as investments in health and education can increase productivity and help achieve economic goals, investment in the development of agriculture and natural resources can help achieve social goals.

A strong and vibrant food and agricultural system thus forms a primary pillar in the strategy to make the vision a reality. The region must make full use of its resources and promote social objectives at the same time. It must ensure significant investment in human resources as well, especially in rural areas. Economically, governments must create the policy and regulatory framework necessary for the private sector to respond to the market. Politically, governments and communities must create new institutional arrangements that effectively

allow citizens to participate in the making of decisions that affect their lives.

Specific Goals and Strategies

The sweeping changes now occurring in Latin America present the region with the opportunity to pursue novel strategies to achieve the vision. Specific goals and strategies consonant with the present and future reality of Latin America are developed here for four areas: poverty, food security and nutrition, agriculture and natural resources, and the political and institutional environment. Although the analysis recognizes the differences among and within the countries of Latin America, the strategies described are predicated principally on the points these countries have in common.

Poverty

Analysis. The distressing lack of progress in reducing the level of poverty in Latin America has its roots in the historical scarcity and inefficiency of investment in the social sector and in basic infrastructure. It is now widely recognized that investments in human capital are needed to increase the productivity of physical and financial capital. Without this investment in the people of the country, poverty will intensify as low economic growth fails to absorb the increasing supply of labor, causing subsequent increases in unemployment and underemployment. This will slow economic growth even more, spiraling back to deepen poverty even further.

The liberalization programs that characterized government responses to the economic crises of the past decade presumed economies could respond quickly to the challenges of competition. Unfortunately, while the previous development strategies may not have been sustainable, the inefficiency of the public sector; the inadequacy of communication, transportation, and energy systems; and often poorly trained labor meant that the economies were not as flexible in responding to the new challenges of the market as one might have hoped. High levels of trade protection in many developed countries inhibited the success of the export orientation implicit in the adjustment strategies.

Goals.

- Increase per capita incomes by at least 3 percent a year.
- Reduce the poverty level to 15 percent.
- Eliminate extreme poverty.
- Provide universal access to basic services, primary and secondary education, preventive health care, sanitation, and clean water.

Strategy. Appropriate exploitation of Latin America's agricultural and natural resources will generate growth and higher incomes not only in rural areas but throughout the economy, not only among agricultural producers, who receive only a relatively small part of the final value of the product, but also among those who work to store, process, transport, and sell agricultural goods.

To enjoy the high, sustained levels of economic growth necessary to reduce poverty, Latin America must strengthen the ability of the private sector to take advantage of these resources and respond quickly to changing market conditions. With the lowering of barriers to trade, this is true even for countries with large domestic markets. Those markets will be taking their pricing and investment cues from the international market as well.

These new strategies, however, should not repeat the mistakes of the past and fail to provide for investment in human resources and basic infrastructure. The governments of the region must carefully review their overall development strategies, especially their macroeconomic policies, to ensure that they result in growth with social equity.

Governments must improve the quality of education, health care, and sanitation, especially in rural areas. So that all benefit from growth, everyone must be guaranteed access to these basic services. Additionally, the public sector must support the needs of the private sector.

Government must become more efficient in delivering public services and in making decisions, and it must install and maintain the level of public goods (such as communications and sanitation infrastructure or agricultural research and extension) necessary for national economies to be globally competitive. These investments will help to increase productivity and employment.

Still, it must be recognized that, just as industrial growth is not sufficient to eliminate urban poverty, agricultural growth is not in and of itself sufficient to eliminate rural poverty. Specifically targeted social programs must complement a strategy of income generation through agricultural growth. Social agencies must develop effective mechanisms to identify and reach the poor. Local participation in the design and management of programs must be encouraged so that these programs respond to local needs.

Household Food Security and Nutrition

Analysis. The level of household income clearly affects food security and nutrition, but good nutrition also depends on the care received within the household and access to health services and sanitation. Latin America is currently undergoing a demographic and epidemiologic transition. Although millions of children still suffer from undernutrition, as incomes and urbanization increase, more and more people, especially adults, are falling prey to chronic diseases related to diet. Unbalanced diets and a sedentary lifestyle have increased the prevalence of chronic nontransmissible diseases, even among the poor.

In many countries, planners and policymakers are unsure about how to design and target effective programs to respond to the health, nutrition, and food needs of a population exposed to risk factors for undernutrition and obesity. Most experts agree, however, that the local community must be more involved in program design than before.

Goals.

- Guarantee everyone enough food to lead a healthy, active life.
- Eliminate severe malnutrition and reduce moderate malnutrition.
- Diminish micronutrient deficiencies.
- Improve diet variety and quality.
- Establish an efficient food production and distribution system to ensure that markets have an adequate supply of economical, nutritious, and culturally acceptable foods.
- Guarantee adequate health care to the population by providing universal access to basic social services and promoting programs to prevent and control infectious and noncommunicable "lifestyle" diseases.

Strategy. Food security means having access to enough food to lead an active, healthy life. Good nutrition depends not only on getting enough food to eat but also on staying healthy. Thus, access to adequate sanitation, clean water, and health care, within and outside the home, is important, so that the body can fully use the nutrients in food. Often the woman is primarily responsible for food preparation and child care, and issues affecting her ability to carry out these activities effectively are critical.

The ability to acquire enough food or to obtain adequate health care depends to a large extent on price and income levels. Consequently, a basic element of the strategy to achieve these goals is to alleviate poverty, following the strategies described in the previous section.

More specifically, transportation, storage, and communication infrastructures must be improved to better link production areas and markets, both international and domestic. This will help producers to know about market demand and prices so they can adjust their actions accordingly. An efficient processing and distribution system will also decrease per unit costs of food, improving food access and availability.

Governments and businesses, particularly at the local level, should work together to increase the production and consumption of nutrient-rich foods and to educate the public about the health risks of an unbalanced diet. They should cooperate to provide the appropriate infrastructure and services to encourage breast-feeding and to guarantee the consumption of an adequate diet, especially by preschoolers, pregnant women, and working mothers. Fortification of foods with micronutrients (iron, vitamin A, and iodine) should be required.

Access to primary health care, clean water, and sanitation and control of infectious diseases should be improved. Management of health care services should be sufficiently decentralized to the local level so that services are compatible with local needs, local skills, and the local resources necessary to sustain them in the long term. Governments, nongovernmental organizations, and civil society may need to work to strengthen local skills and to generate resources to finance local programs.

Agriculture and Natural Resources

Analysis. The region's natural resources are crucial to making Latin America a significant player in the international economy. But ill-conceived policies and institutional arrangements have often encouraged behavior that has caused environmental degradation and undermined the sustainability of agricultural production.

A lack of attention to oppressive rural conditions has contributed to the plight of poor farmers who, trying to eke out a living day by day, exhaust the productivity of the natural resource base. In the long run, their production systems are not sustainable. Even for larger farmers, the availability of credit at negative interest rates has fueled land speculation that encourages deforestation. Construction of penetration roads (as opposed to farm-to-market roads) into ecologically vulnerable areas and poor enforcement of property rights have only worsened the situation.

Although this environmental deterioration has not yet had a significant effect on overall regional production, action to address environmental concerns is required now. CIAT studies show that soil compaction in the savannahs is already decreasing yields for monocropped rice. The economic and social costs of inaction will be high, especially if poverty, environmental deterioration, and global demand for food and timber products increase, straining the region's natural resources even more.

Many policymakers and the general public do not understand or fully appreciate the close connection between agriculture and natural resources. They perceive agriculture as a threat to the environment, and they fail to understand that natural resources are part of a productive system. In actuality, the producer's livelihood demands the preservation and wise use of natural resources, and so, given adequate incentives and technologies, the farmer will work to protect the environment.

Alternatively, some policymakers see agriculture and natural resources as just another sector of the economy, not requiring special understanding or specific policies. They believe that stable macroeconomic policies founded in the free market are sufficient for optimal sectoral growth. But an unrestricted confidence that free-market mechanisms will work to protect these resources will only lead to increased destruction of the region's most valuable renewable resources.

The failure of some policymakers to appreciate the role of sustainable productive agriculture in protecting the environment and reducing poverty reflects the limited political influence that agriculture and agricultural producers generally have. These policymakers see agriculture as a means of producing cheap food for urban dwellers or as an important source of government revenue. The majority of producers are small farmers, and their political organization is weak.

Development of Markets and Production: Infrastructure and Services. The failure of both the

public and private sectors to invest in the infrastructure and human resources of rural areas in Latin America has inhibited the ability of agriculture and natural resources to realize their maximum potential for growth.

This lack of attention has left these rural areas impoverished, isolated, and economically depressed. Human and financial capital are drained as rural dwellers migrate to the cities. Often those who leave are the better educated. They have the greatest chance of finding employment in the city, but they also have the most to contribute to the growth of rural areas.

Government often fails to encourage investment and growth in agriculture or rural areas or in the intermediate-size cities in a nation's interior, where agroindustries might grow. Neither have governments shown much ability to effectively regulate, protect, and appropriately exploit agriculture and natural resources.

Transportation and communications in rural areas are poor, making it difficult for producers to participate in the market. Because they are less aware of market conditions, these producers are more susceptible to exploitation by intermediaries. Lack of infrastructure and services such as irrigation or credit raises farmers' production costs, increasing the price they must charge for their product and potentially making them less competitive.

In many instances, production policies intended to promote agriculture were actually biased against smallholders, who make up the great majority of producers. Instead, government policies gave generous benefits to the well-off, usually favoring certain types of land or landowner classes, including special access to subsidized credit or inputs and generous support prices. In a related area, governments have failed to provide an adequate framework for determining and enforcing property rights in many countries. This deficiency discourages the consolidation of the smallest farms into larger plots that are more economically viable.

Protectionist and agricultural support policies in developed countries have also discouraged investment in food and agricultural systems. These measures, often under the pretext of sanitary regulations and demands for natural resource conservation, have prohibited access by the region to important developed-country markets. Countries also pursue politically motivated systems of subsidies that generate large agricultural surpluses, depress and destabilize world markets, and distort resource allocation at home and abroad from what it would be if countries specialized according to their comparative advantage.

Technological Development. Available technologies and technical assistance have often not responded to the needs of small or resource-poor farmers. These technologies have often favored the use of capital, reducing the demand for low-cost, abundant labor. In these cases, support of ongoing research is necessary, particularly at the farm-level, to understand the resource constraints and ecological conditions faced by farmers and to generate technologies that best meet their needs. Research into indigenous or traditional agricultural practices, which are often well-adapted to the ecological conditions, also offers promising new developments.

In other cases, appropriate low-cost, labor-using technologies are available, but economic and institutional conditions militate against their adoption. The historical tendency to underinvest in agricultural research and development has been accentuated by the fiscal stringency of the 1980s that continues to the present. This underinvestment, along with an overeagerness to adopt developed-country technologies shaped for different economic and environmental conditions, has exacerbated this problem. As new technologies are developed, the incentives and constraints that macroeconomic policies impose on technological adoption should be considered. Policymakers must also ensure that mechanisms exist to link the supply and demand for these technologies. If not, technological development in the laboratory or the experiment station will have little effect.

Goals.

- Manage the environment to the benefit of people without compromising the productive capacity of the earth and its biodiversity in the future.
- Develop sustainable systems of agricultural production.
- Transform smallholder agriculture into a modern, competitive, productive, sustainable enterprise.
- Improve management and conservation of soils and water, especially in hillside, waterlogged, and other fragile areas.
- Reduce the unnecessary use of pesticides, fertilizers, and other agrochemicals.
- Reduce the rate of deforestation and protect from exploitation when appropriate.
- Protect zones of biodiversity of flora and fauna.
- Develop income-generating alternatives to agricultural production, such as agroindustry, in rural areas and intermediate cities.

Strategy. Two main concepts underlie the strategy as it relates to agriculture and natural resources. First, agricultural development and preservation of the environment are not conflicting goals. Indeed, farmers can only survive if their agricultural practices are environmentally friendly and sustainable. Clearly, natural resources are also productive resources that can and in some cases should be incorporated into the production system.

Second, the impact of growth in the agriculture sector extends far beyond producers. The food and agricultural system includes those who harvest, store, transport, process, and sell agricultural products, including food and textiles. Large numbers of relatively unskilled workers in both rural and urban areas depend on the health of agriculture.

The strategy to achieve the stated goals concentrates on four areas. First, highly productive, sustainable systems of agricultural production must be developed for all viable producers, large and small, so that they may compete effectively in the international marketplace, increase their own incomes, and protect the environment. Governments, development agencies, and the private sector must cooperate to provide the necessary institutional and legal framework, supporting services, and technologies to establish these systems, especially for small farmers who make up the majority of producers.

Ways must be found to protect the natural resources that support the farmer's way of life. Public and private sector investment in research and extension should be increased, especially in developing and transferring new biotechnologies, so that the producers of the region remain up-to-date and do not lag behind. The public and private sectors must cooperate to develop and promote the use of "win-win" production technologies that increase productivity while maintaining or improving the natural resource base. This may involve exploring the contributions of indigenous technologies. Farmers should be encouraged to use knowledge-intensive technologies, such as better management techniques, not only the more common means of increasing yields like improved seeds.

So that all producers can increase productivity and respond to the market, governments and the private sector must work to improve productive infrastructure, including irrigation, roads, telecommunications, financial services, and the supply channels for inputs. Governments must also provide the regulatory and policy framework conducive to the development of financial systems that allow timely access to sufficient amounts of production credit and encourage rural savings. Land markets should be made more flexible, and laws and regulations governing property rights should be revised so that they provide incentives for environmental protection and sustainability.

Second, governments and the private sector must work together to develop the components of the food and agricultural system beyond agricultural production. Governments must promote and, where necessary, regulate the private

sector so that private agents take the lead in developing a dynamic food and agricultural system.

Governments must provide stable and transparent macroeconomic policies so that the private sector can confidently make production and marketing plans. They must also be vigilant in their support of a competitive market. They should ensure that an appropriate legal and regulatory framework, including attention to property rights and environmental protection, is in place and is enforceable to achieve that end. Governments and the private sector must work together to ensure that high-quality human resources are available to support agro-industrial development. And they must ensure that the conditions exist to promote the development of a dynamic class of agricultural entrepreneurs willing to invest in all aspects of the food and agricultural system, including services, agribusinesses, and agro-industries.

Third, for those producers who must leave farming as a result of competitive pressures, productive employment or programs to facilitate the transition from farming must exist. Just as with the urban poor, their problems should be dealt with as a social issue. Training, employment, or other social programs should be available to ease the transition. Without such programs, rural poverty will only intensify or shift to the cities as the rural poor further exhaust natural resources and move to join the urban poor.

Finally, it should be recognized that responsible exploitation and protection of natural resources can generate substantial economic and social benefits. Programs to develop a consensus about the need to protect these resources should be directed toward producers in particular as well as the general public, especially children. Among other environmental concerns, these programs should focus on how to improve pesticide and water management and the need to protect ecologically sensitive areas. Where relevant, an evaluation of environmental impact should accompany proposals for policies, programs, and investments. National accounts should incorporate the value of natural resources, explicitly recognizing them as part of the nation's wealth. Latin American nations should work with the rest of the international community to obtain effective commitments to protect the region's natural resources.

Political and Institutional Environment

Analysis. In the past decade, the region has undergone significant structural changes. National economies are now more open less regulated, and rely to a greater extent than before on market mechanisms to allocate resources. The market is the institutional space within which private initiative becomes the engine of growth.

Within this context, the role of the state is not yet clearly defined. The region has abandoned a development model in which the state had the lead responsibility for promoting development. This uncertainty provides an opportunity to explore the introduction of institutional innovations that support equitable and sustainable growth.

The excessive centralization of financial control and decisionmaking power in national governments in the past has complicated the transition to a less state-centered economy. The historical weakness of the state in enforcing regulations and maintaining consistent, coherent policies over time, often because of corruption and an ill-trained, ineffectual bureaucracy, has exacerbated the problem. Additionally, the scarcity of data and sound analyses to assist policymaking has also inhibited reform.

The economic, political, and institutional changes of the 1980s have caused a great deal of uneasiness and uncertainty among the people. The distinction among social classes has become sharper with the growing concentration of property, income, and knowledge in the hands and minds of a few. This increasing polarization of society presents an additional challenge to public institutions that have not yet learned to deal with the economic and political challenges of the present, much less the future.

Institutional mechanisms do not yet exist to strengthen the processes of decentralization intended to assure that the interests of all members of society are considered in the making of public policy. Indeed, the experience of the past decade has led to the weakening of political and cultural organizations, such as indigenous or campesino groups, just when their participation is most needed. In other cases, such as discrimination against women, historical patterns of exclusion persist. A principal concern is that, in spite of structural adjustment, these challenges will combine with the weakness of the state to propel the government back to unjust patterns of authoritarianism and paternalism in its relationship with civil society.

The violence endemic to the region compounds these difficulties. Although in many cases this violence is born of historical social, economic, and political inequities, in others it reflects the rising influence of those associated with the illegal drug trade. This influence has infiltrated the societies of every Latin American country. It undermines the confidence of citizens in their public servants and their system of justice, distorts the economic and social development of rural areas, and ultimately threatens to undermine the entire political system.

Goals.

- Promote and strengthen inclusive, participatory democracy.
- Establish a fair, honest, and transparent system of laws and regulations.
- Use market mechanisms to energize and guide economic growth and, insofar as possible, achieve social goals.
- Institutionalize stable and transparent macroeconomic policies.

Strategy. Two basic principles, implicit in the preceding discussion, should guide actions in this area. The government should (1) move decisionmaking and financial control from the central to the local levels where appropriate, and (2) strengthen market forces.

Centrally directed and financed programs have often failed to achieve their goals or to be sustainable because of an inability to identify local needs or adapt to local conditions. New institutions must be created to allow local communities to identify their needs and design and administer programs in ways congruent with locally available financial and human resources. Public participation in decisionmaking processes should be encouraged, and the finance, design, and administration of policies and programs should be decentralized to the lowest possible level of government. Programs must be developed to enhance the local capacity to undertake this responsibility.

To gain the confidence of the private sector, governments must ensure macroeconomic stability as well as continuity and complementarity in macroeconomic and sectoral policies. They should work toward transparency in decisionmaking, designing policies whose applications and effects are clearly understood.

To the greatest extent possible, governments should avoid setting market prices. Government intervention should occur only when necessary to ensure the proper functioning of the market. Even then, insofar as possible, governments should design policies that rely on market incentives rather than coercion to change the behavior of private agents. For example, instead of regulations, the government could create a system of tradable pollution permits, that allow businesses to continue to respond to market incentives rather than go against them, while at the same time cleaning the air. Some cases, such as nature preserves or national parks, may require the state to monitor and regulate activities that can harm the environment. Where such regulations are required, governments must ensure adequate financing for supervision and enforcement.

With greater reliance on markets, the critical role of the government in providing public goods and promoting competition must be recognized. To ensure that the private sector can be an engine of growth, the public sector must also guarantee a competitive market environment; the development of infrastructure, along with appropriate regulation, will help the public sector to achieve this goal, preventing the rise of

monopolies and oligopolies. Institutional and legal frameworks should be strengthened to direct private initiatives toward shared public goals.

Finally, to make appropriate decisions, individuals and governments must be able to understand the consequences of their actions. The ability of governments to collect, analyze, and use relevant economic and social information must be strengthened. The promotion of intersectoral initiatives that develop action plans to address problems of poverty, food insecurity, and malnutrition should be encouraged.

Conclusion

As 2020 approaches, poverty will continue to affect the food security and nutrition of millions in Latin America, with commensurate negative effects on the environment. Sustainable and appropriate exploitation of the region's natural resources in the ways outlined here can help the region to capture the winds of economic and political change to overcome poverty, food insecurity, and environmental degradation in Latin America in the next 25 years.

Appendix 1: Agenda

Workshop: A 2020 Vision for Latin America

Organized by
International Food Policy Research Institute (IFPRI)
Centro Internacional de Agricultura Tropical (CIAT)
and
Instituto Interamericano de Cooperación para la Agricultura (IICA)
March 20–22,1995
Cali, Colombia

AGENDA

SUNDAY, MARCH 19
Arrival of Workshop Participants

MONDAY, MARCH 20

Morning Session: 08:00 – 12:15
Chairperson: Douglas Pachico, Associate Director, CIAT

08:00–08:10	Opening Remarks — Fritz Kramer, Acting Director General, CIAT — Lizardo de las Casas, Director, Socioeconomic Policy Analysis Unit, IICA
08:10–08:30	The 2020 Initiative and Latin America — Per Pinstrup-Andersen, Director General, IFPRI
08:30–08:35	Introduction to Program—Douglas Pachico
08:35–09:00	Food, Nutrition, Agriculture, and Environment in Latin America: A Review, 1970–1995 — James L. Garrett, Special Assistant to the Director General, IFPRI
09:00–09:15	Comments — Rubén G. Echeverría, Senior Economist, Environment Division, Inter-American Development Bank

09:15–09:45	Discussion
09:45–10:05	Problems and Implications of New Models of Economic Development for Agriculture, Food, the Environment, and Rural Poverty — Gerardo Escudero, Consultant, IICA
10:05–10:15	Comments — Antônio Brandão, Getulio Vargas Foundation, Brazilian Economic Institute
10:15–10:45	Discussion
10:45–11:15	Coffeebreak
11:15–11:35	Institutional Reforms in Rural Latin America Toward the Year 2020 — José María Peña Vázquez, Advisor, Subsecretariat of Agrarian Organization and Development, Mexico
11:35–11:45	Comments — Javier Escobal, Director of Research, Grupo de Análisis para el Desarrollo (GRADE), Peru
11:45–12:15	Discussion
12:15–13:30	Lunch Break

Afternoon Session: 13:30–19:30

Chairperson:	Absalón Machado, Rural Development Specialist, IICA
13:30–13:50	Agriculture, Technological Change, and the Environment: Notes for a 2020 Perspective — Eduardo J. Trigo, Executive Director, ArgenINTA Foundation, Argentina
13:50–14:00	Comments — Sam Fujisaka, Researcher, Soil Management, CIAT
14:00–14:30	Discussion
14:30–15:00	Coffeebreak
15:00–15:30	Food Security and Social Strategies: Their Contribution to Nutritional Security in Urban Areas of Latin America — María Inés Sánchez-Griñan, Associate Researcher, Institute for Nutrition Research, Peru
15:30–15:45	Comments — Susana Hintze, Professor, University of Buenos Aires, Argentina
15:45–16:30	Discussion
16:30–17:00	Food and Nutrition Security in Rural and Urban Households: Experiences from Central America — Hernán Delgado, Director, Institute of Nutrition of Central America and Panama (INCAP)

17:00–17:15	Comments — Maarten Immink, Research Fellow, IFPRI
17:15–19:30	Discussion
19:30	Welcome Reception and Dinner

TUESDAY, MARCH 21

08:00–08:15	Charge to Working Groups — James L. Garrett, IFPRI
08:15–10:30	Working Group Sessions

I. Facilitator: María Isabel Remy, Adjunct Director General, Bartolomé de las Casas Center for Andean Regional Studies, Peru

II. Facilitator: Edelmira Pérez, Director, Master's Program in Rural Development, Pontificia Universidad Javeriana, Colombia

III. Facilitator: Renato Maluf, Director, Post-Graduate Course in Agricultural Development, Universidade Federal Rural de Rio de Janeiro, Brazil

10:30–11:00	Coffeebreak
11:00–12:30	Working Group Sessions
12:30–13:45	Lunch Break
13:45–15:30	Working Group Sessions
15:30–16:00	Coffeebreak
16:00	Working Group Sessions

WEDNESDAY, MARCH 22

08:00–08:20	Working Group I — Presentation
08:20–08:40	Working Group II — Presentation
08:40–09:00	Working Group III — Presentation
09:00–10:30	Consolidation of Presentations and Comments for Synthesis Documents— Per Pinstrup-Andersen, IFPRI
10:30–11:00	Break
11:00–11:45	Discussion of Follow-Up Activities — Per Pinstrup-Andersen

11:45–12:00	Closing Remarks — Douglas Pachico, CIAT — Lizardo de las Casas, IICA — Per Pinstrup-Andersen, IFPRI
12:00	Lunch and Afternoon Departure of Participants

Appendix 2: Participants

Workshop: A 2020 Vision for Latin America

Organized by
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Centro Internacional de Agricultura Tropical (CIAT)
and
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March 20–22,1995
Cali, Colombia

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Susana Hintze
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University of Buenos Aires
Consultant
United Nations Development Programme (UNDP)
Buenos Aires

Eduardo J. Trigo
Executive Director
ArgenINTA Foundation
Buenos Aires

Bolivia

David Haquim
Coordinator
Program of Food and Nutritional Surveillance and Action
La Paz

Brazil

Antônio Brandão
Getulio Vargas Foundation
Brazilian Economic Institute
Rio de Janeiro

Renato Maluf
Director
Post-Graduate Course in Agricultural Development
Universidade Federal Rural de Rio de Janeiro

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Lizardo de las Casas
Director, Socioeconomic Policy Analysis Unit
Coronado, Costa Rica

Gerardo Escudero
Consultant
Coronado, Costa Rica

Absalón Machado
Rural Development Specialist
Bogotá, Colombia

Appendix 3: Terms of Reference for the Working Groups

Objective of the Workshop

The aim of this workshop is to provide a forum for the discussion and exchange of ideas regarding the future of food, agriculture, and the environment in Latin America.

It is hoped that the format of the workshop will encourage participants to

- think creatively about what factors will have the greatest impact on food, agricultural, and environmental conditions in the next 25 years in Latin America, especially those factors that decisionmakers have perhaps not yet considered;
- develop a strategy that outlines actions to achieve by the year 2020 a world with less poverty, less hunger, and with better management of our natural resources;
- identify follow-up activities to generate discussion and action with regard to the problems of the region.

Objective of the Working Groups

Each working group should write a strategic document that focuses on four areas:

- development of the agriculture sector;
- protection of natural resources;
- alleviation of rural poverty and rural food and nutrition insecurity; and
- alleviation of urban poverty and urban food and nutrition insecurity.

Specifically, the objectives of each working group are to

- develop as a starting point the vision for Latin America that the group has with respect to poverty, food, nutrition, agriculture, and the environment;
- establish the principal goals that the peoples of the region should achieve for food security, nutrition security, agriculture, and the environment over the next 25 years;
- identify the economic, political and institutional, social and/or technological obstacles that could frustrate the achievement of these goals, paying special attention to the effects of the current processes of liberalization, decentralization, privatization, and democratization; and
- develop a strategy and a plan for action for the short, medium, and long terms that identifies specific measures for governments, the private sector, nongovernmental organizations, communities, and other social actors to take to overcome these obstacles and achieve the stated goals.

Each group should

- produce a written document in accord with the above description, and
- present the document in the plenary session of the third day.

In the plenary session, the documents of the working groups will be consolidated in a synthesis document to be presented, as the contribution of Latin America, to the global 2020 Vision initiative conference in June.

To facilitate the consolidation of the presentations into one synthesis document, each group should summarize its document on chart paper and present this in the plenary session as well.

Working Group Participants

Meeting Room Quimbaya	*Meeting Room Calima*	*Meeting Room Tumaco*
A. Brandão	J. Escobal	G. Escudero
L. de las Casas	J. Garrett	R. Echeverría
H. Delgado	S. Hintze	S. Fujisaka
D. Haquim	A. Machado	M. Immink
F. Jaramillo	E. Pérez*	R. Maluf*
P. Pinstrup-Andersen	L. Reca	P. Morales
M. Remy*	E. Trigo	J. M. Peña-Vázquez
J. Smith		M. Sánchez-Griñan

*Group facilitator.

Environment Discussion Papers

lgriculture, and Effectively Managing
p-Andersen and Rajul Pandya-Lorch, 1994

echnologies in Developing Countries, by

evelopment Strategies: Past and Present
re, by Christopher L. Delgado, 1995

re, and the Environment in Sub-Saharan
e and Christopher L. Delgado, 1995

by Mark Rosegrant, Mercedita Agcaoili-
995

James L[illegible] at the International Food
Policy Research Institu[illegible]

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