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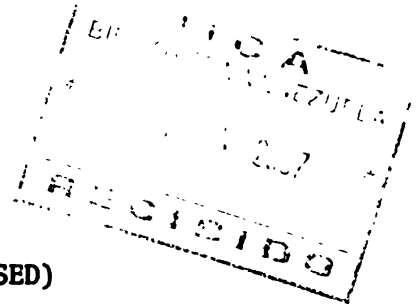
**COUNTRY LEVEL  
ACTION PLAN (REVISED)**

**IICA/JAMAICA**

1981

STATE OF TEXAS  
COUNTY OF [illegible]

ACQUIRED FROM



**COUNTRY LEVEL ACTION PLAN (REVISED)**

**IICA/JAMAICA**

01200000

**Dr. Irving E. Johnson  
Dr. Percy Aitken-Soux  
October, 1981**

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THE  
STATE OF  
NEW YORK  
IN SENATE  
January 15, 1913.

REPORT  
OF THE  
COMMISSIONERS OF THE LAND OFFICE  
IN ANSWER TO A RESOLUTION PASSED BY THE SENATE  
MAY 15, 1912.

ALBANY:  
J. B. LIPPINCOTT COMPANY,  
1913.



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## COUNTRY LEVEL ACTION PLAN (REVISED)

### 1. BACKGROUND

#### 1.1. Physical Aspects

##### 1.1.1 Location and Size

Jamaica is the third largest of the Caribbean Islands and the largest West Indian Island within the British Commonwealth. It lies between latitude 17° 45' and 18° 30' and longitude 76° 15' and 78° 15' W, and is located approximately 90 miles South of Cuba. The land area covers 4,244 square miles (11,440 Km<sup>2</sup>/2,816,000 acres/1,126,400 hectares) with a maximum transverse length of 146 miles and width varying from 22 to 51 miles (35 - 81 Km).

##### 1.1.2 Topography

Jamaica is a land of mountains, plateaux and plains. Much of the area has a rugged terrain. Almost half of Jamaica has an elevation of over 1,000 feet and about one percent (1%) of the land area lies above 5,000 feet. Five topographical zones identified are described in brief terms as follows:

- (a) The Blue Mountains. These dominate the eastern part of the island and attain an elevation of 7,400 feet (2,220m). The Metamorphic and sedimentary rocks of this high rainfall area result in very steep slopes being subjected to heavy erosion, particularly when not protected by permanent forest or tree crops.
- (b) The Central and Western Limestone Plateau. Approximately 60% of the island is derived from limestone formations which mostly occur in this plateau. It seldom exceeds 3,000 ft. (1,000m) in elevation and in part shows extreme 'Karst' landforms such as are typified in the Cockpit Country. In broader valley bottoms porous Bauxitic soils in some instances reach sufficient depth to be exploited as a mineral resource.

UNITED STATES DEPARTMENT OF JUSTICE

Washington, D.C. 20535

February 11, 1964

Mr. J. Edgar Hoover, Director

Dear Mr. Hoover: I am writing to you regarding the information that you have received from the New York State Department of Social Services concerning the activities of the Communist Party in New York State. I am sure that you are aware of the fact that the Communist Party has been active in New York State for many years and has been successful in recruiting many new members. I am sure that you are also aware of the fact that the Communist Party has been successful in recruiting many new members in New York State.

Very truly yours,

John Edgar Hoover, Director

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Problems of soil rehabilitation of mined-out land as well as soil and water conservation are important in the agricultural development of these areas.

- (c) The Central Inlier and Similar Areas. This is a limestone plateau which has been breached in 9 areas, exposing inliers or 'windows' of easily erodible sediments which are mainly of volcanic origin. The intensively cultivated steep-sided valleys have little residual forest cover, and the heavy rainfall which occurs has contributed to considerable soil erosion especially in areas in which farming has been undertaken under conditions of unsound land use.
- (d) Interior Valleys. These are mainly poorly drained alluvial inland valleys, and include St. Thomas Ye Vale, Queen of Spains Valley, and the Upper Morass of the Black River, the latter now being reclaimed.
- (e) The Coastal Plains, are best developed on the South Coast as most of the perennial rivers flow in this direction. There are many dry river beds in the limestone areas, and these are subject to flash floods during heavy rains. The Southern plains being on the leeward side of the prevailing winds often suffer from a prolonged dry season and so are dependent during those periods on irrigation water if available.
- (f) Distribution of Land according to slope categories. The land surveyed (2,485,572 acres) is distributed by slope categories as shown in Table 1.

Problems of soil rehabilitation of wind-out land as well as soil and water conservation are important in the agricultural development of these areas.

(c) The Central Inlier and Limited Areas. This is a transitionary area which has been breached in 9 areas, exposing various or a variety of easily erodible substrata which are mainly of volcanic origin. The inlier is cultivated and is a valley with little residual topsoil cover, and the heavy rainfall which occurs has contributed to erosion of the soil. Erosion is particularly in areas in which farming has been undertaken under conditions of unseasonable rain.

(b) Inlier Valleys. These are mainly poorly drained alluvial valleys, and include St. Thomas, Y. Valley, Queen of the South Valley, and the upper reaches of the River. The latter are being reclaimed.

(a) The Coastal Plains. These are best developed on the South Coast. The coastal rivers flow in this direction. There are many dry river beds in the limestone areas, and these are subject to flash floods during heavy rains. The coastal plains being formed on the seaward side of the prevailing wind often suffer from a prolonged dry season and are eroded during those periods on irrigation with a high salt content.

(1) Distribution of land according to slope categories. The land surveyed (2,481,272 acres) is distributed by slope categories as shown in Table 1.

TABLE 1. - Distribution of Land area Surveyed according to Slope Categories

Slope	Area		
	(Acres)	(Hectares)	(%)
0° - < 2°	77,445	30,978	3.1
2° - < 5°	322,395	128,966	13.0
5° - < 10°	549,046	219,618	22.1
10° - < 20°	314,087	125,635	12.6
20° - < 30°	502,231	200,892	20.2
30°+	720,368	288,147	29.0
All	2,485,572	995,236	100.0

### 1.1.3 Earthquakes

Although Jamaica lies in a seismically active region, earthquakes are comparatively rare and usually of low intensity. Two devastating earthquakes (1692, 1907) and some of lesser force have occurred. Recently (1960) through the aegis of the University of the West Indies where a seismograph unit has been operating, seismic studies have been undertaken in Jamaica. This has increased the extent and accuracy of reporting earthquakes in Jamaica. The Seismic Research Unit has collected information which may be used in the preparation of an earthquake inventory and history for Jamaica. The ravages of the 1692 and 1907 earthquakes were believed to be caused largely by inappropriate construction and the location of buildings on water-saturated sand.

### 1.1.4 Climate

The climate of Jamaica is one of the country's greatest assets. Temperatures for the most part are equable and warm

TABLE I - Distribution of earthquakes according to the magnitude

Magnitude		Number	
(M)	(Percentage)	(Number)	(Percentage)
1.0 - 1.9	77.4%	17,441	77.4%
2.0 - 2.9	18.2%	3,978	18.2%
3.0 - 3.9	2.1%	457	2.1%
4.0 - 4.9	1.3%	283	1.3%
5.0 - 5.9	0.5%	109	0.5%
6.0 - 6.9	0.2%	44	0.2%
7.0 - 7.9	0.1%	21	0.1%
8.0 - 8.9	0.0%	0	0.0%
9.0 - 9.9	0.0%	0	0.0%
All	100.0%	22,423	100.0%

TABLE II - Earthquakes

The distribution of earthquakes in Japan is a seismicity of a high degree of activity. The earthquakes are concentrated in the island of Honshu and usually of low intensity. The investigation of earthquakes (1907, 1907) and some of lesser force have occurred. Recently (1960) through the work of the University of the West Japan where a seismicity has been continuing. Seismic activity have been continued in Japan. There has increased the extent and accuracy of recording earthquakes in Japan. The data on Research Unit has collected information which may be used in the preparation of an earthquake inventory and library for Japan. The records of the 1902 and 1907 earthquakes were believed to be used largely by investigators concerned with the location of earthquakes and with estimated data.

TABLE III - Earthquakes

The district of Japan is one of the country's greatest seismicity. The earthquakes are concentrated in the island of Honshu and usually of low intensity.



throughout the year, and in average terms rainfall is relatively high. A wide range of micro-climates is found and this is due largely to topography and geographical locations.

Jamaica lies between the sub-tropical high pressure and equatorial low pressure belts of the Atlantic and its climate is influenced by the prevailing east north-easterly winds which blow regularly through the year.

The effects of the prevailing winds are modified due to the fact that:-

- the Blue Mountain (elevation 7,400 ft) in the east causes the trade winds to swing around the parish of St. Thomas in the South, to strike the Kingston area from an east and east-south-east direction;
- alternating sea breezes (on shore during the day) and land breezes (offshore during the night) occur daily; and
- occasional cold fronts, known as 'northers' reach Jamaica from the American mainland during the winter season.

The southern plains being cut off from the northern rain-bearing winds are placed in a rain shadow area in which the rainfall decreases progressively southwards. Due to its location and topography the parish of Portland in the northeast part of the island receives the highest rainfall, reaching a maximum of over 200" (5,000mm) annually. One district in this area has recorded an annual rainfall of over 300 inches. The central part of the Southern coastal plain and the coastal area between Montego Bay and Discovery Bay on the north suffer from severe dry seasons lasting 4 - 5 months of the year. The Central Plateau above the 2,000 ft. (600m) contour receives 60 - 100 inches (1,500 - 2,500mm) rain which falls over a period of 8 - 11 months. The remaining



area with an annual rainfall of 20" - 60" (500 - 1,500mm) has a marked dry period of 1 - 3 months.

Average rainfall data over a period of 90 years provide a useful general guide. However, within recent years there have been considerable variations from these averages both on annual and on monthly bases. There are two recognizable rainy periods, one peaked on May and the other on October. Rainfall is very unevenly distributed and the ability to predict its incidence has worsened over the last two decades. This sometimes results in serious crop losses through diseases, pests, drought, flood, etc. Rainfall data and information on a 90 year period is presented in Annex II Table 3.

#### 1.1.5 Hurricanes

Hurricanes are a regular threat to Jamaica. They usually occur during the period June to November annually, although there may be an occasional occurrence outside of this period. The greatest possibility of occurrence is during the months of August, September and October. They vary considerably in intensity. An analysis of Caribbean hurricanes and tropical storms recorded since 1886 indicates that 20 had tracks which hit Jamaica directly and 100, of which one-half were of hurricane force, had centres within 150 miles of the island. — The destruction of the hurricanes recorded locally have been due to winds of forces 75 to 200 miles per hour, and continuous heavy rainfall.

Temperatures on the plains average 86° - 90°F (30° - 33°C) during the day with a corresponding low of 69° - 75°F (20° - 24°C) at night. Temperatures may be 10° - 20°F (1°-6°C) cooler in the hills where the daily range is 15°F (9°C).

Variations in rainfall and temperature, availability of water from other sources e.g. springs, rivers, and irrigation schemes determine the range of crops and livestock which can be



produced economically.

1.1.5 Land Use Distribution

TABLE 2. - Distribution of Land in Jamaica by Broad Uses, 1970

Land Use	Acres	(%)
Forest	655,000	24.1
Other woodland	538,000	19.8
Agriculture including pasture	1,258,000	46.4
Natural range and grassland	103,000	3.8
Swamp	50,000	1.8
Mining	7,000	0.3
Urban including built on	100,000	3.7
Barren	4,000	0.1
All	2,715,000	100.0

With the passing of time there have been changes in the acreage associated with a particular use, but this has not changed the order of ranking according to main type of use on a percentage basis. The data presented in Table 2 show the distribution of land by broad uses, 1970.

1.1.7 Water Resources

The name Jamaica is derived from a word which means land of wood and water. The early occupation (1492-1655) of Jamaica by the Spaniards, the subsequent colonization by the British 1655 - 1962,

Table 1: Summary of Data

Year	Value	Percentage
2000	100	100%
2001	105	105%
2002	110	110%
2003	115	115%
2004	120	120%
2005	125	125%
2006	130	130%
2007	135	135%
2008	140	140%
2009	145	145%
2010	150	150%
2011	155	155%
2012	160	160%
2013	165	165%
2014	170	170%
2015	175	175%
2016	180	180%
2017	185	185%
2018	190	190%
2019	195	195%
2020	200	200%

The data shows a steady increase in the value over the period from 2000 to 2020. The percentage of the value relative to the 2000 baseline also increases correspondingly, reaching 200% by the year 2020.

Table 2: Detailed Data

This table provides a detailed breakdown of the data points for each year, showing the specific values and their corresponding percentages relative to the 2000 baseline.

and Independence since 1962, have all contributed to the high density of population on steep lands. The flat lands were used for the production of export crops by the plantocracy. After Emancipation in 1838 freedmen could only occupy parcels of poor land which they could afford to purchase or similar land on which they had effectively squatted in the hills. Unsound land use practices especially of slashing and burning and shifting cultivation have contributed to denudation of forests, severe erosion of hillsides and ultimately the drying up of streams and some rivers.

Jamaica has many rivers and springs. The largest is the Black River which has a number of tributaries. This river is 44 miles long and is navigable by small boats for about 25 miles. Many of the rivers and springs run dry for a significant part of the year. The banks of many have been denuded of trees and this serves not only to dry up streams but also to curtail rainfall within some eco-zones of Jamaica. Again, due to the extent of limestone formations which are found particularly throughout the central rocky formations of the island, much water is lost through this medium.

The larger rivers e.g. the Rio Cobre in St. Catherine, Rio Minho in Clarendon, Black River in St. Elizabeth, among others have been used as sources for irrigation water. Many wells have been bored to tap the relatively large volumes of underground water for agriculture and domestic purposes. Due to over-pumping and non-replenishment, the National Water Commission has had to restrict the extent of drilling wells. The many rivers in the limestone formations which exist combine through nature to provide scenic cascades and waterfalls (some having a potential for hydro-electric or multi-purpose utility).

A significant portion of the flat land lies in the rain-shadow area and is therefore affected by the twin problems of drought and water-logging, depending on the season of the year. Some areas have suffered from over-pumping from wells during the





past and this has resulted in a lowering of the water table. Associated with this has been a chain of chemical reactions, especially that of salinization, which have severely affected land use in general and the production of major crops (e.g. sugar-cane and improved pastures) in particular.

In spite of the natural water resource potential of the country there continues to be limitations in the harnessing of water for economic and social purposes. GOJ itself has given much consideration to this (in 1967 it started a UNDP/FAO project - Forestry Development and Water Management in the Upland Regions of Jamaica. Thirty-three (33) major watersheds were identified).

The water resource position had become so critical that legislation was enacted to enforce watershed rehabilitation. In 1951 the Land Authorities Law was enacted and in 1963 GOJ promulgated the Watershed Protection Act under which the Watershed Protection Commission was enacted. The Law and the Act are similar in many respects, providing Government with the power of declaring watersheds or areas for rehabilitation and improvement. They empower appropriate organizations to "implement compulsory land improvement schemes as well as to assist with any rehabilitation work under the declared boundaries".

According to the Watersheds Protection Act, 1963, the general policy of watershed protection and rehabilitation is 'to promote the conservation of water resources'. This has been spelled out by the Watersheds Protection Commission as follows:

- (a) Maintain and, if possible, increase the quantity of water available.
- (b) Minimize erosion and sediment hazards.
- (c) Reduce flood damage.

The Land Authority Law is slightly different in objective although the work programme may be similar to that stipulated in the Watersheds

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Protection Act. The Law is rather land-oriented, i.e. to improvement, rehabilitation and development of the area, and aims to 'encourage and secure the proper economic and efficient utilization of all lands in the declared area'.

Beginning with the Yallahs Valley (1951) and Christiana Area Land Authorities (1954), watershed rehabilitation work in Jamaica now spans more than a quarter of a century. However, during the first decade, knowledge and experience in this field were limited. Large sums of money were spent in the two Land Authorities with only partial success in physical rehabilitation or in the rationalization of land use.

In the more recent past, limited funds and a handful of trained personnel have been spread thinly throughout the seven declared watersheds and the 13 Land Authorities. The impact of rehabilitation work has, therefore, been insignificant.

In spite of the fact that both the Land Authorities Law and the Watersheds Protection Act included punitive measures for ensuring that watersheds were appropriately managed these were honoured mainly in the breach.

#### 1.1.8 Mineral Resources

Jamaica has a very favourable mineral resource base. The most important economic mineral is bauxite. As the largest earner of foreign exchange, in 1980 it earned (J)\$1718.4M or 76% total export earnings. A relatively new industry, the bauxite and alumina industry started in the early 1950's. Its potential is good both in terms of the quantity and quality of the ore produced. Jamaica is currently the world's third largest producer of bauxite/alumina, after Australia & Guinea. It has attracted involvement by all 4 major bauxite processing companies which have headquarters in the North American Continent - these are Reynolds, Alcan, Alcoa and Alpart.



Other minerals which have commercial status are gypsum, calcium carbonate (lime), marble and marl. Metalliferous minerals such as ores of copper, lead and zinc, as well as of iron ores have an economic potential. Some have been mined before and currently are being considered for re-exploitation.

Associated with the mineral resources is a number of mineral spas which have medicinal value. The Milk River Spa in the Parish of Clarendon has been assessed as the world's most radio-active mineral bath, being 54 times more radio-active than the waters of Baden Baden in Germany. The waters of the Bath Mineral Spa in St. Thomas are said to have special value for the cure of certain rheumatic and associated ailments. The Black River Spa in St. Elizabeth also has great potential, but for parochial and associated reasons has never been thoroughly investigated. On the overall the considerable potential of the mineral spas has remained largely under-developed and under-promoted.

## 1.2 Population

The population of Jamaica (unadjusted) is estimated to be 2.25 million. Data presented in Table 3 gives demographic statistics for the period 1972 - 1980. The data indicate that both the crude birth rate and the death rate have been declining steadily over the period, giving a rate of natural increase of 21.1 per 1,000 of population. Estimated increase in rate of population growth is 1%.



TABLE 3. Demographic Statistics for Jamaica, 1972-1980

Year	Population at 31st December	Mean	Crude Birth Rate (per 1,000)	Death Rate	Rate of Natural Increase (per 1,000)	Infant Mortality (per 1,000) Live Births
1972 .. ..	1,953,400	1,932,400	34.3	7.2	27.1	30.9
1973 .. ..	1,990,900	1,972,100	31.4	7.2	24.2	26.2
1974 .. ..	2,025,000	2,007,900	30.6	7.2	23.5	25.9
1975 .. ..	2,060,300	2,042,700	30.1	6.9	23.2	23.5
1976 .. ..	2,084,200	2,072,300	29.3	7.1	22.2	20.3
1977 .. ..	2,109,400	2,096,800	28.9	6.8	22.1	15.1
1978 .. ..	2,140,500	2,124,900	27.4	5.7	21.7	14.9
1979+ .. ..	2,164,500	2,152,500	27.5	6.2	21.3	12.4
1980* .. ..	2,186,100	2,175,300	26.9	5.8	21.1	n.a.

\*Provisional Estimates compiled from Registrar General's data

+Revised

Source: Economic and Social Survey, Jamaica, 1980

Net migration has been increasing over the years and this has affected the annual growth rate of the population. Data presented in Table 4 indicate that net outward migration increased from 11,200 in 1972 to 24,253 in 1980.

TABLE 4. Vital Statistics for Jamaica 1972 - 1980

Year	Live Births	Deaths	Natural Increase	Net Migration	Net Increase	Infant Deaths	Still Births
1972 .. ..	66,219	13,970	52,300	-11,200	41,100	2,048	675
1973 .. ..	61,858	14,157	47,700	-10,200	37,200	1,622	616
1974 .. ..	61,506	14,375	47,100	-12,900	34,300	1,612	622
1975 .. ..	61,400	14,000	47,400	-12,100	35,300	1,440	663
1976 .. ..	60,700	14,671	46,000	-22,200	23,800	1,229	562
1977 .. ..	60,500	14,230	46,300	-21,100	25,200	916	532
1978 .. ..	58,200	12,100	46,000	-17,800	28,200	869	478
1979 .. ..	59,100	13,300	45,800	-21,400	24,400	724	488
1980* .. ..	58,600	12,700	45,900	-24,253+	21,600	n.a.	n.a.

1. \*Provisional Estimates from Registrar General's Office

2. +Estimates from the Department of Statistics.

Source: Economic and Social Survey, Jamaica, 1980





Data presented in Table 5 show the distribution of the population by age groups, and by sex. Females outnumber males slightly, having a ratio of about 1.03 to 1. Persons under 39 years of age account for over 75% of the population, thus the population can be regarded as being a young one.

TABLE 5. Distribution of the Population, Jamaica by Sex and by Age Group, 1970, 1980

Age Group	1970 Census+				April 1980*			
			Total				Total	
	Male	Female	Number	%	Male	Female	Number	%
0- 4 .. ..	144.7	142.4	287.1	15.8	126.6	125.6	252.0	11.7
5-14 .. ..	273.8	271.2	545.0	30.1	318.3	290.8	609.1	28.1
15-19 .. ..	81.2	84.7	165.9	9.1	123.6	130.0	253.7	11.7
20-29 .. ..	108.3	119.4	227.7	12.6	158.4	173.3	331.7	15.3
30-39 .. ..	76.0	85.6	151.6	8.9	91.8	92.8	184.6	8.5
40-49 .. ..	70.3	76.3	146.6	8.1	78.8	83.2	161.9	7.5
50-59 .. ..	61.5	64.6	126.2	7.0	63.4	79.2	142.6	6.6
60-64 .. ..	25.3	27.3	52.6	2.9	35.4	32.8	68.2	3.2
65+ .. ..	44.7	56.2	100.9	5.6	75.2	85.5	160.7	7.4
<b>Total .. ..</b>	<b>885.9</b>	<b>927.7</b>	<b>1,813.6</b>	<b>100.0</b>	<b>1,068.9</b>	<b>1,095.7</b>	<b>2,164.5</b>	<b>100.0</b>

Any discrepancies are due to rounding of numbers.

\*Computed from the Labour Force Survey April, 1980

+Excludes 34,808 persons for whom incomplete data were obtained.

Source: Economic and Social Survey, Jamaica, 1980

Population censuses have been held irregularly over the period since 1844 (1861, 1871, 1881, 1891, 1911, 1921, 1943, 1960, 1970). Intercensal estimates are based upon census data, and statistics of births and deaths from the Registrar General's Department and of emigration and immigration from the Immigration Department.

The following is a summary of the results of the tests conducted on the specimens described in the preceding pages. The results are given in the following table:

The tests were conducted under the following conditions:

Specimen No.	Material	Thickness (in.)	Length (in.)	Width (in.)	Area (sq. in.)	Weight (lb.)	Yield Point (psi)	Tensile Strength (psi)	Elongation (%)
1	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
2	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
3	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
4	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
5	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
6	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
7	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
8	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
9	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100
10	Steel	0.100	2.000	1.000	0.100	0.100	30,000	60,000	100

The following is a summary of the results of the tests conducted on the specimens described in the preceding pages. The results are given in the following table:

The tests were conducted under the following conditions:

The following is a summary of the results of the tests conducted on the specimens described in the preceding pages. The results are given in the following table:

Over the decade 1970 - 1980 population increased by 1.7% per annum. Shifts occurring in the age structure of the population have been affected by changing fertility, mortality and migration. In 1970, children under 14 years represented 46% of the population. By 1980 this had fallen to 40%, one contributing factor being the increasing number of migrating children. The number of children under 14 years increased by 16,000. For the 15 - 19 age group the percentage of persons increased from 9% to 12%, reflecting the growing-up of the offspring of the high fertility period of the early sixties. This group which exceeds a quarter of a million constitutes a critical area of the labour force.

#### 1.2.1. Distribution

The overall density of population is approximately 530 persons per square mile, or 207 per square kilometre. Associated with the relatively fast rate of population growth are the increases in the population in the towns. The urban population including that for Kingston the capital and for the capitals of the other 13 parishes in 1970 accounted for 41% of the population. Currently the estimated population of Greater Kingston is 700,000 and Montego Bay which received the status of a city in 1981 has an estimated population of 100,000. .

#### 1.2.2. The Labour Force

The labour force consists essentially of the age groupings 14 - 64 years. Persons under 14 years, generally speaking are or should be in school, while it is suggested that those above 64 years are retired or unable to work, for one reason or another. However, these age specifications are not precise and often confuse the issue. Many of the 14 - 19 age group are in school, many of those over 64 years old include both the employed and the self-employed.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

Furthermore, it is noted that the records should be kept in a secure and accessible format. Regular backups are recommended to prevent data loss in the event of a system failure or disaster.

CONCLUSION

In conclusion, the implementation of a robust record-keeping system is essential for the success of any organization. By adhering to the guidelines outlined in this document, you can ensure that your financial and operational data is accurate, secure, and readily available for analysis.

It is also important to regularly review and update your record-keeping procedures to reflect changes in your business operations and technology.

APPENDIX A

Appendix A provides a detailed list of the required fields for each record entry. This includes information such as the date, amount, description, and the supporting document number.

The following table outlines the structure of the records:

Field Name	Description
Date	The date of the transaction.
Amount	The monetary value of the transaction.
Description	A brief description of the transaction.
Document No.	The reference number of the supporting document.

Labour Force statistics are determined annually by the Department of Statistics, two periods, April and October being used for undertaking labour force statistics. Surveys are carried out under the "Continuous Social and Demographic Survey Programme" (CSDSP). The Labour Force as defined includes:

- (i) All persons who were employed in any form of economic activity for one hour or more during the survey week.
- (ii) All persons who had jobs but were absent from work during the survey week.
- (iii) All persons who although they had no job or worked less than one hour during the survey week were looking for work; and
- (iv) All persons who although not looking for work wanted work and were in a position to accept work.

Labour Force statistics for October are usually higher than those for April, due to the large number of school leavers who are classified as members of the LF from July onwards each year.

For logical grouping of sub-sectors and for purposes of convenience the labour force has been distributed between 9 "industries", as shown in the Table 6 which follows. The information for the years 1943 and 1960 indicate the levels of distribution and provide a basis for comparative analyses of data for succeeding years.

1. The first part of the document is a letter from the author to the editor of the journal. The letter discusses the author's interest in the topic and the reasons for writing the paper. It also mentions the author's previous work in the field and expresses a hope that the paper will contribute to the understanding of the subject.

2. The second part of the document is the abstract of the paper. It provides a brief summary of the main findings and conclusions of the study.

3. The third part of the document is the introduction. It sets the context for the study and outlines the objectives of the research.

4. The fourth part of the document is the literature review. It discusses the existing research on the topic and identifies the gaps that the current study aims to address.

5. The fifth part of the document is the methodology. It describes the research design, data collection methods, and statistical analyses used in the study.

6. The sixth part of the document is the results. It presents the findings of the study and discusses their implications for the field.

7. The seventh part of the document is the conclusion. It summarizes the main findings and provides recommendations for future research. The author also acknowledges the limitations of the study and expresses gratitude to the funding agency and the editor of the journal.

TABLE 6. Distribution of the Labour Force, Jamaica  
by Industrial Groups, 1943 - 1960

Industrial Group	1943	1960
	(%)	(%)
Agriculture	43.8	37.9
Forestry and Fishing	1.3	1.1
Mining and Quarrying	0.1	0.7
Manufacturing	11.7	14.8
Construction	6.8	8.2
Electricity & Water Supply	0.3	0.5
Commerce	7.8	9.9
Transport & Communications	2.3	3.2
Personal Services	16.1	14.5
Other Services	4.2	7.4
Unspecified	5.6	1.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Source: Department of Statistics, Jamaica

More recent statistics indicate a change in the groupings of some sub-sectors and an alteration in the names of others. For example Agriculture Forestry and Fishing are grouped together. See Table 7.

### 1.2.3. Unemployment

One very important statistic is that of the level of employment. Quite apart from the definition used for employment and the problems in rationalizing the terminology used, there exists much disguised employment, under-employment and unemployment. Currently the level of unemployment is estimated to be not less than 30% for the entire labour force, with these levels being much higher (38%) for females than for males.

THE UNIVERSITY OF CHICAGO

NAME	DEGREE	CLASS	DATE
ALAN TURING	B.S.	1935	1935
ALAN TURING	M.S.	1936	1936
ALAN TURING	PH.D.	1938	1938
ALAN TURING	PH.D.	1939	1939
ALAN TURING	PH.D.	1940	1940
ALAN TURING	PH.D.	1941	1941
ALAN TURING	PH.D.	1942	1942
ALAN TURING	PH.D.	1943	1943
ALAN TURING	PH.D.	1944	1944
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ALAN TURING	PH.D.	1974	1974
ALAN TURING	PH.D.	1975	1975
ALAN TURING	PH.D.	1976	1976
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ALAN TURING	PH.D.	1979	1979
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ALAN TURING	PH.D.	1987	1987
ALAN TURING	PH.D.	1988	1988
ALAN TURING	PH.D.	1989	1989
ALAN TURING	PH.D.	1990	1990
ALAN TURING	PH.D.	1991	1991
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ALAN TURING	PH.D.	1994	1994
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ALAN TURING	PH.D.	2007	2007
ALAN TURING	PH.D.	2008	2008
ALAN TURING	PH.D.	2009	2009
ALAN TURING	PH.D.	2010	2010
ALAN TURING	PH.D.	2011	2011
ALAN TURING	PH.D.	2012	2012
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ALAN TURING	PH.D.	2014	2014
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ALAN TURING	PH.D.	2016	2016
ALAN TURING	PH.D.	2017	2017
ALAN TURING	PH.D.	2018	2018
ALAN TURING	PH.D.	2019	2019
ALAN TURING	PH.D.	2020	2020
ALAN TURING	PH.D.	2021	2021
ALAN TURING	PH.D.	2022	2022
ALAN TURING	PH.D.	2023	2023
ALAN TURING	PH.D.	2024	2024
ALAN TURING	PH.D.	2025	2025

ALAN TURING

ALAN TURING



TABLE 7. Levels of Employment by Industry, 1978 - 1980

Industry	1978		1979		1980		Annual Average		
	April	October	April	October	April	November	1978	1979	1980
Total Classifiable Labour Force	714.8	702.1	714.5	663.4	703.4	737.3	708.5	689.0	720.4
Agriculture, Forestry and Fishing	261.6	252.3	250.7	213.3	255.6	271.4	257.0	232.0	263.5
Mining, Quarrying and Refining	6.2	5.7	6.7	8.1	6.9	8.7	6.0	7.6	7.8
Manufacture	79.7	78.2	75.6	71.9	73.4	79.9	79.0	73.8	76.7
Construction and Installation	30.8	35.0	37.3	26.5	24.4	26.4	32.9	31.9	25.4
Transport Communications & Public Utilities	27.8	30.8	28.9	29.7	33.8	34.8	29.3	29.3	34.3
Commerce	95.0	91.5	89.0	90.8	89.6	92.7	93.2	89.9	91.2
Public Administration	114.3	103.2	110.8	109.4	106.9	110.5	108.8	110.1	108.7
Other Services	96.6	99.5	111.7	105.0	106.1	110.1	98.0	108.4	108.1
Industry not specified	2.8	5.9	3.5	8.3	6.5	2.7	4.4	5.9	4.6

Discrepancies due to rounding.

Source: Economic and Social Survey, Jamaica, 1980

In 1980, Agriculture accounted for nearly 36% of the classifiable labour force, followed by Public Administration (15%) and other services (15%). Comparative data for the years 1943 and 1960 showed that Agriculture was also the main employer followed by Personal Services. In relative terms Manufacturing accounted for a higher percentage of the labour



force in 1960, (14.8%) and 1943 (11.8%) than it does today (10.6%).

On the basis of the criteria used by the Department of Statistics the labour force profile over the last 4 years is as shown in Table 8.

TABLE 8. Labour Force, Jamaica, 1976 - 1980

Period	Total Labour Force	Employed Labour Force		Unemployed Labour Force	
	Numbers (1,000)	Numbers (1,000)	Per Cent	Numbers (1,000)	Per Cent
1980 Average	991.2	720.4	72.7	270.8	27.3
November 1980	1,006.9	737.3	73.2	269.6	26.8
April 1980	975.4	703.4	72.1	272.0	27.9
1979 Average	953.6	689.0	72.2	264.7	27.8
October 1979	962.5	663.4	68.9	299.1	31.1
April 1979	944.7	714.5	75.6	230.2	24.4
1978 Average	939.0	708.5	75.5	230.5	24.5
October 1978	949.2	702.1	74.0	247.1	26.0
April 1978	928.7	714.8	77.0	213.9	23.0
1977 Average	910.0	689.8	75.8	220.2	24.2
October 1977	917.9	699.2	76.2	218.7	23.8
April 1977	902.0	680.3	75.4	221.7	24.6
1976 Average	883.6	685.8	77.6	197.8	22.4
October 1976	895.5	679.1	75.8	216.4	24.2
April 1976	871.7	692.6	79.5	179.1	20.5

Between April 1976 and Nov. 1980 the Labour force increased from 871,700 to 1,006,900. Data presented in Table 7 stratifies the labour force by age-group for the period October 1979 to November 1980.



TABLE 10 National Indicators - Jamaica - 1974-1980 \$Million

Indicators	1974	1975	1976	1977	1978	1979	1980
Gross Domestic Product (Current values)	2270	2647	2715	2989	3754	4289	4731
Gross Domestic Product (Constant values)	2270	2212	2026	1987	1982	1953	1848
Gross National Product (C.V.)	2235	2589	2646	2891	3532	3985	4275
National Disposable Inc. (C.V.)	2057	2368	2399	2624	3212	3715	3987
National Income	2027	2349	2397	2607	3189	3592	3857

Sources: Economic and Social Survey, Jamaica by National Planning Agency 1978, 1979, 1980

TABLE 11 Per Capita Indicators - Jamaica 1974-1980

	1974	1975	1976	1977	1978	1979	1980
Gross Domestic Product (Current Prices)	1131	1296	1249.9	1375.8	1728.0	1974.5	2177.9
(Constant Prices)	1131	1083	932.7	914.9	912.4	899.3	850.7
Gross National Product (Current Prices)	1113	1268	1218.0	1330.8	1625.8	1834.6	1968.1
National Disposable Inc. (Current Prices)	1024	1159	1104.5	1207.9	1478.7	1710.4	1835.5
National Income (Current Prices)	1010	1150	1103.6	1200.0	1468.0	1653.5	1775.7

Source: Source & Economic Surveys, National Planning Agency, 1980, 1979, 1978

The economic base of the country has broadened and the changes in the sectors sometimes made it difficult to measure change. Nonetheless, although the country was originally almost totally dependent on agriculture and industries based on agriculture, the contribution of this sector to the overall economy has progressively lessened. However, the Agriculture Sector's role as the highest employer of labour, and its provision of agro-based products for the manufacturing sector, and for feeding the population, combine to make the sector the most important.

1941

1. The first part of the report deals with the general situation of the country and the progress of the war. It is a very interesting and informative account of the events of the year.

2. The second part of the report deals with the economic situation of the country. It is a very detailed and accurate account of the economic conditions of the year.

3. The third part of the report deals with the social situation of the country. It is a very thorough and comprehensive account of the social conditions of the year.

4. The fourth part of the report deals with the political situation of the country. It is a very clear and concise account of the political conditions of the year.

5. The fifth part of the report deals with the military situation of the country. It is a very well-written and detailed account of the military conditions of the year.

6. The sixth part of the report deals with the cultural situation of the country. It is a very interesting and informative account of the cultural conditions of the year.

7. The seventh part of the report deals with the educational situation of the country. It is a very thorough and comprehensive account of the educational conditions of the year.

8. The eighth part of the report deals with the health situation of the country. It is a very clear and concise account of the health conditions of the year.

9. The ninth part of the report deals with the labor situation of the country. It is a very well-written and detailed account of the labor conditions of the year.

10. The tenth part of the report deals with the foreign relations of the country. It is a very interesting and informative account of the foreign relations of the year.

11. The eleventh part of the report deals with the internal security of the country. It is a very thorough and comprehensive account of the internal security conditions of the year.

12. The twelfth part of the report deals with the international relations of the country. It is a very clear and concise account of the international relations of the year.

13. The thirteenth part of the report deals with the diplomatic relations of the country. It is a very well-written and detailed account of the diplomatic relations of the year.

14. The fourteenth part of the report deals with the economic relations of the country. It is a very interesting and informative account of the economic relations of the year.

15. The fifteenth part of the report deals with the social relations of the country. It is a very thorough and comprehensive account of the social relations of the year.

TABLE 9. Labour Force, Jamaica, by Age Group,  
October 1979 - November 1980

Age Group	Labour Force ('000)			Difference Oct.1979 - Nov. 1980	
	Oct. 79	April 80	Nov. 80	No.('000)	Percent
14-19	128.8	115.3	124.4	-4.4	-3.4%
20-29	287.5	300.2	303.5	+16.7	+5.8%
30-39	177.1	179.5	182.3	+ 5.1	+2.9%
40 and Over	369.0	389.3	396.6	+27.6	+7.5%
All Ages	962.5	975.4	1,006.9	+44.5	+4.6%

Source: Economic and Social Survey, Jamaica, 1980

### 1.3 Economic Performance

Economic policies for Jamaica over the last two decades have sought to achieve the following broad objectives:

- (i) improvement in the standard of living to levels which by international norms are regarded as acceptable;
- (ii) a more equitable distribution of income and wealth;  
and
- (iii) conservation and development of national assets and improvement in the physical environment.

Gross Domestic Product (GDP) has been declining since 1974. Although there have been annual increases in current prices, these increases have not been adequate to offset inflationary elements of the GDP. In 1974 and 1980 the corresponding values for GDP (constant values 1974) were \$2,265 million and \$1,848 million respectively.<sup>1/</sup> Per capita income for these two years was \$1,128 and \$980 respectively.

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<sup>1/</sup> Social and Economic Survey 1980





Many factors have been cited <sup>1/</sup> as being responsible for decline in the economy. Some of these include:

- (i) non-achievement of overall economic policy;
- (ii) shortage of foreign exchange, exacerbated by suspension of the IMF's Extended Fund Facility in December 1979;
- (iii) resultant shortage of critical imported raw materials and spare parts;
- (iv) increases in the price of oil and oil-based products;
- (v) increasing debt servicing obligations; and
- (vi) unprecedented levels of political violence prior to the October 1980 general elections, which stifled productive activity, reduced investment, and adversely affected the tourism sub-sector.

TABLE 12. Percentage Contribution of Industrial Sectors to GDP, Jamaica, 1976 - 1980

Industrial Sector	1976	1977	1978	1979	1980
Agriculture, Forestry & Fishing	7.9	8.3	9.0	8.3	8.4
Mining and Quarrying	6.0	7.1	7.3	7.4	8.5
Manufacture	18.0	16.9	16.0	15.7	14.3
Electricity & Light	1.2	1.2	1.1	1.2	1.3
Construction & Installation	8.0	6.8	6.7	6.8	5.0
Transportation, Storage & Communication	6.6	6.3	6.2	6.4	6.5
Distributive Trade (Wholesale & Retail)	16.5	16.0	15.0	14.8	14.9
Domestic Institutions	4.4	4.7	4.7	4.6	5.2
Real Estate	10.2	10.5	10.1	10.8	11.3
Producers of Government Services	14.7	15.9	18.0	18.3	18.7
Miscellaneous Services	5.2	4.9	4.9	4.7	4.9
Household & Private Non-profit Institutions	1.3	1.4	1.0	1.0	1.0
All	100.0	100.0	100.0	100.0	100.0

Source: Adapted from data prepared by Department of Statistics

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

The second part of the document provides a detailed breakdown of the financial data. It includes a table with columns for various categories and rows for different periods. The data shows a steady increase in revenue over the last three quarters, while expenses remain relatively stable.

The final part of the document concludes with a summary of the overall financial performance. It states that the company has achieved a significant profit margin, which is a testament to the hard work and dedication of the entire team.

Year	Q1	Q2	Q3	Q4	Total
Revenue	12000	15000	18000	20000	65000
Expenses	8000	9000	10000	11000	38000
Profit	4000	6000	8000	9000	27000
Net Income	3000	4500	6000	7000	20500
Operating Costs	7000	8000	9000	10000	34000
Depreciation	1000	1000	1000	1000	4000
Interest	500	500	500	500	2000
Taxes	1500	1500	1500	1500	6000
Other	500	500	500	500	2000

On the basis of data presented in Table 12, Producers of Government Services, Manufacture and Distributive Trade are the main contributors to GDP. These are followed by Real Estate, Mining and Agriculture. This performance profile has been the result of deliberate government policy, as well as constraints associated with the inability to procure key production inputs due to lack of foreign exchange.

#### 1.4 Roads

Notwithstanding its rugged terrain, Jamaica is well served by a network of primary secondary and tertiary roads. A number of feeder roads has been constructed to link farming areas with these roads and in some instances farm roads provide additional linkage to the road structure. Jamaica has a total of 8,200 miles of road, approximately 1.8 miles per square mile of land. This is regarded to be high by international standards. Ordinarily this would indicate a high degree of accessibility of all regions of the country. This, however, is not the case, since there are many regions especially in the hillier areas where agriculture is practiced, where unfavourable terrain prevents the construction of the roads.

In addition there are approximately 220 miles of railroad. Originally these were used for both freight and passenger services. Currently their use is largely for transport of bauxite.

#### 1.5 Telecommunications & Postal Services

The island is served by a wide network of postal and tele-graphic services as well as an all-island telephone service. Telephone services which started as far back as 1878 have now been extended to almost every important town, even though telephones are not available to many who require them. The services offered are local, long distance and overseas to most countries of the world. Cable and radio links are provided to the Caribbean and parts of Central America. Satellite communication has been used in enabling direct connection to many countries. A radio-telephone

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. This involves the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in the following section.

The fourth section discusses the implications of the findings. It highlights the key trends and patterns observed in the data and discusses their potential impact on the industry. The author also provides recommendations for future research and practical applications of the findings.

Finally, the document concludes with a summary of the main points and a statement of the author's acknowledgments. The author expresses gratitude to the individuals and organizations that provided support and resources throughout the research process.

The data shows a clear upward trend in the number of transactions over the period studied. This is consistent with the overall growth of the market. The analysis also reveals that a significant portion of the transactions are concentrated in a few key areas, indicating a high degree of specialization.

The findings suggest that there is a need for improved data collection and analysis methods. This could involve the use of more advanced statistical techniques and the development of more robust data management systems. Additionally, the results highlight the importance of ongoing monitoring and evaluation to ensure that the data remains accurate and relevant.

In conclusion, this study provides a comprehensive overview of the current state of the market and offers valuable insights into the factors driving its growth. The findings are expected to be useful to a wide range of stakeholders, including researchers, practitioners, and policymakers.

network also exists. Special services such as Telex are available. Radio and television signals are beamed islandwide. There are two radio stations, one with a television station. Almost every household by use of electricity or battery-powered transistor radios is able to keep abreast of the news.

#### 1.6 Electricity

Most urban and many rural communities are being provided with electricity. Except for electricity generated for private industrial concerns such as the bauxite industry, sugar estates and the Caribbean Cement Company, the Jamaica Public Service Company Limited is the sole supplier of electricity. Approximately 75% of the number of household lives in areas in which electricity service is available. About one-half of those in urban areas are being supplied, but only about 20% of the rural area. An installed net-work is available for rural electrification supply to some 236,000 households only about 15% of whom have obtained service.

The supply of electricity is considerably less than the demand, which is even inadequate to serve those persons already connected. There are frequent power-cuts, scheduled and unscheduled to the discomfort of electricity users. The service is now supplied on a standard frequency of 50 cycles per second and 110-220 volts. The four types of plants used to generate electricity and their approximate percentage output in 1978 were:

Thermal	79%
Diesel	3%
Hydro	8%
Gas Turbine	10%

The Electricity Authority, established as a Corporate Body under the Electricity Development Law, promotes and develops the use of electricity.



### 1.7 Water Supply

Most urban areas are supplied with some piped water, while supply in rural areas, often through roadside standpipes, is very limited. In rural areas people depend on small hillside catchment areas, individual roof catchments, tanks and springs. On the overall water for domestic usage is lacking in quantity. Depth to water levels in many hilly areas far exceeds maximum levels for economic pumping. People in many areas obtain water during the dry seasons by truckage from sources of water.

### 1.8 Housing

The Jamaican housing situation falls short of requirements in terms of the number and the standard of houses available for the population. The Population Census for 1970 revealed that there were 420,159 housing units (45% urban, 55% rural).

Many houses were deficient in terms of size, construction and amenities. Corrective measures taken since then have not been able to keep abreast of the rising population and the greater demand for improved houses.

Recently there has been a lag in private sector activity in housing construction due to higher building costs, unavailability of building materials and suspicion of the investment potential. Public sector activities through:

Ministry of Housing Projects  
Urban Development Corporation Housing Programme; and  
Sugar Industry Housing Limited

have been affected due to level of financing by Government and inability to procure key items due to shortage of foreign exchange. Potential house-owners in many respects have been unable to provide their contribution towards financing the purchase or construction of houses. Major local limiting factors have been the considerable reduction in the availability of cement and the high price of that





which is available; the high cost of steel; and the decreased number of qualified technicians in the Building and Construction industry.

### 1.9 Education

The education system is rather complex. This is indicated by the different types of training and schools involved namely:

- Infant schools; Basic Schools
- Primary Schools
- All-age Schools
- Secondary - New Secondary  
Secondary High  
Technical High  
Comprehensive High  
Vocational
- Tertiary - - Teachers Training Colleges  
College of Arts, Science & Technology  
Jamaica School of Agriculture
- University of the West Indies

In addition there is a programme for adult education. The system is in an evolutionary stage, and currently it is proposed to make a number of basic changes which are intended to streamline performance. This relates largely to public sector programmes. The relatively reduced element of purely privately operated sub-systems is expected to fall within the overall country proposals.

The main problems are due to inadequacy of accommodation for children (too few schools), substandard facilities, and the shortage of trained teachers. This situation has been exacerbated by the large numbers of persons in the age-groups under 19 years and the financial constraints of the country. External assistance has been provided for construction of schools in the past, through funding from such agencies as IBRD, IDB, CIDA, EDF, Cuba and the US/AID.

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The education programme seeks to improve existing levels and also to provide training for those who for one reason or another are not utilizing the facilities provided. The Jamaica Movement for the Advancement of Literacy (JAMAL) which replaced the former National Literacy Board is intended to provide fundamental skills of reading and writing for adults, and to lay the foundation for continuing education which will prevent students from losing their newly acquired skills.

Performance in education is also handicapped by social developments. Attendance at school continues to be marred by inability of parents to find adequate clothing for children, escalation of violence. Consideration is again being given to the question of making school attendance compulsory. However, as always has been the case, it is first necessary to ensure that appropriate accommodation inclusive of facilities is provided and the children are in fact able to attend school.

#### 1.10 Health

The general health status of the country is regarded as being reasonably satisfactory in the face of the problems which exist. The main problems continue to be the emigration of personnel of the medical and paramedical fields, mainly to Canada and the USA. Most of these persons whose training is often assisted or subsidized by Government do not spend a long enough time in the country to assist in planned health care programmes. Some of the reasons for migration include levels of payment, conditions of service, and the level of violence on a national scale. Technicians involved are mainly doctors, dentists and nurses specifically. The shortages in personnel have led to the resort to strategies for importing medical services on contractual bases.

Recently (1980) Primary Health Care Administration has been implemented in keeping with a decision to decentralize primary health care services and to establish an area health administration scheme in each of five health zones into which the island is divided.

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Based on critical needs a number of programmes have been created with a view to improving the health of the nation. These include:

- Secondary and Tertiary Health care
- Maternal and Child Health Programme (including Family Planning, Nutrition Programme, Dental Health Programme);
- Mental Health Programme

Hospital services continue to be handicapped by shortages of staff, equipment, food. Much of this stems from inadequate financing and shortage of foreign exchange. However, in some areas even when budgetary provisions are made it has been impossible to implement programmes due to the inability to secure qualified staff. On the over-all existing health statistics do not adequately indicate the critical situation facing the health of the nation.

#### 1.11 Tourism

The tourism "sub-sector" as such is not one of the "industrial sectors" of the economy, but its importance warrants special treatment.

Legislation to promote tourism was enacted in 1890 since which time it has become a major earner of foreign exchange. Associated with the development of this sub-sector has been the construction of several hotels. The sub-sector has contributed significantly to the provision of employment opportunities and has provided an outlet for agricultural products and locally manufactured craft products. Special incentives are provided and there are well defined tourist resort areas including Kingston, Ocho Rios, Montego Bay, Port Antonio, and Negril.

The United States and Canada combined, account for 80%-85% of the foreign visitors. In recent years, the industry experienced a severe decline in demand resulting in low occupancy rates, and the financial collapse and closing of some hotels. As indicated

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by Bank of Jamaica records, there was decline in foreign exchange earnings in 1975 followed by further declines in 1978 and then increases by over 85% to US\$188 million in 1980. Direct employment fluctuated between a low of 8,421 (1977) and a high of 11,707 (1979) during the period 1975 - 1980.

Many factors, some external, have influenced the performance of tourism. These include economic instability, rise in the cost of air fares, competition from other tourist areas in the region, economic and social conditions in Jamaica, and the general global recession in tourism. The decrease in occupancy levels in the hotels would have been much greater were it not for the fact that domestic tourism was expanded by the introduction of a Domestic Holiday Programme. This programme was designed by the Government to encourage public and private sector workers to spend their vacations locally. The programme was well received and when it ended in 1977 some 11,000 workers in the public sector, and 3,701 workers in the private sector had participated in it. The occupancy level of Jamaicans in hotels declined from the peak it reached of 131,089 in 1977 to 105,437 in 1980.

Currently, measures are being taken to improve the performance of tourism in Jamaica. So important is tourism that the subject has been assigned a Ministry by the Government of the country, whereas, formerly its affairs were managed largely by the Jamaica Tourist Trade Development Board.

It is evident from the data available that projections and provision of new hotel facilities far exceeded the effective demand, as the expansion of capacity in the industry occurred alongside a steady decline in the hotel occupancy rates between 1970 - 1977.

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## 1.12 Balance of Payments

There has been a global sluggishness in world economy during the better part of the last decade. There have been slow (often negative) growth of output and trade; high levels of unemployment; continuing inflation, imbalances of payments and recurrence of monetary instability.

Many problems affecting developing countries have been further aggravated by the steep price increases for petroleum which were initiated during the early 1970s. These increases are continuing to have an escalator effect as reflected in increased costs for every operation which uses fuel or energy. The near four-fold direct increase in oil price not only added to Jamaica's deficit on the merchandise account, but has also had an indirect but adverse effect by reducing sales of bauxite and alumina. A sharp rise in world market sugar prices somewhat counterbalanced the losses gained from bauxite, but this effect declined in 1976.

Jamaica has had a record of deficit trading in merchandise over a long period. The effect of this deficit, to some extent, has been softened by inflows of capital from official and government guaranteed loans and from private sources. Instability due to social factors led to flight of capital. The reduction in external and locally based capital had serious effects on production and productivity in the economy, which many regarded as providing an unsafe climate for investment.

Governments have tried to cope with the problems inherent in the above situation through policies intended to conserve scarce foreign exchange earnings for purchasing vital goods and services not available in Jamaica, by the production of substitutes and by the promotion of exports. Notwithstanding the broad base of the economy, flight of capital and of skilled man-power, the situation remains unresolved. The data indicate very clearly that success in Jamaica's economy is very sensitive to the availability of imports of raw materials which represent more than 50% of the available foreign exchange.

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Foreign exchange reserves have continued to fall and by December 31, 1980 had fallen by US\$232 to US\$45.3 million. Negotiations have been held with the IMF, other international agencies, and with individual countries on a bilateral basis, for loan assistance for financing budgetary programmes.

## 2. AGRICULTURE

Agriculture as an industrial sector, in this context will be regarded as including forestry and fishing. In totality, it includes agriculture for local and export purposes, livestock, hunting, fishing, forestry and logging. The agricultural sector is one of the most important economic sectors of the country, producing much of the food which is consumed locally, commodities for export, raw materials for agro-industry, and providing employment opportunities.

Agriculture remains the largest single employer of labour (36.7% of the labour force in 1980). In 1980 it accounted for 8.4% of the GDP (at constant prices, 1974) ranking 6th of all industrial sectors behind producers of government services, distributive trade, manufacture, real estate and mining.

The land in farms based on the 1968/69 Agricultural Census (Data for the 1978/79 census are not yet available) is 1,507,397 acres (602,958 hectares).

Agriculture has not achieved its potential development and over the last two decades although there has been improvement in the profile for domestic agriculture, there still remain gaps in production for domestic agriculture, while the performance of the export agriculture sub-sector has deteriorated considerably.

### 2.1 Land in Agriculture

The distribution of land in agriculture is shown in Table 13.

[The text in this block is extremely faint and illegible due to low contrast and blurring. It appears to be a multi-paragraph document with various lines of text scattered across the page.]

TABLE 13 Number and Size of Farms 1968

Size group in acres (ha)	Number of Farms		Size of Farms		
	Number	% of total Farms	Acres (ha)	Acreage % of total acreage	Average size of farm in ac (ha)
Under 5 (2 ha)	149,703	78.0	223,818 (89,527)	14.9	1.3 (0.6)
5 - 25 (2-10 ha)	36,881	19.9	335,548 (134,219)	22.1	9.0 (3.6)
25 - 100 (10-45 ha)	3,004	1.6±	125,104 (50,042)	8.3	4.6 (1.84)
100 - 500 (45-200 ha)	699	0.4	148,501 (59,400)	9.9	212.4 (84.96)
Over 500 (200 ha)	295	0.2	676,426	44.9	2,293.0
<b>TOTAL</b>	<b>190,582</b>	<b>100.0</b>	<b>1,507,397</b> <b>(602,958)</b>	<b>100.0</b>	<b>8.1</b> <b>(3.2)</b>

Farms of less than 5 acres (2 hectares) in size represent 78% of the number of farms and account for only 15% of the land in farms, while those over 500 acres (200 hectares) represent 0.15% of the number of farms and account for as much as 45% of the land in farms. Due to the differing policies for allocating land for agricultural purposes since the previous census (1968/69), it is not possible to state precisely the levels of change in land distribution, although preliminary information indicates little significant change.

## 2.2 Soils and Land Capability

Over 90 soils have been identified in soil surveys which were mapped in Jamaica on a parish basis, on a scale of 1:12,500 and reduced for publication to 1:50,000. The soils are conveniently classified according to their geological derivation, and each soil type is given a Map number. Each soil is typified by texture, structure, and chemical analysis, and fertilizer recommendations are made on this basis. Recommended crops for an area are specified in the Technical Guide Sheets. These recommendations take into consideration the fact that



easily erodible soils need appropriate conservation measures and that a favourable soil/crop relationship must be maintained to give a productive economic crop, regardless of slope or soil type.

All available data including information on climate and local agriculture have been used as the basis for placing lands into land capability classes (classes I - VI) based on slope (Table 14). The limitations of each class necessitate particular management. Land capability maps have been prepared from the soil survey maps by the Agricultural Chemistry Division of the Ministry of Agriculture. They have been reduced in scale to present a general Agricultural Land Capability map of the island. However, when undertaking specific feasibility and development studies for certain types of projects, more detailed surveys and land capability maps may be required, depending on the degree of precision needed and the availability of the necessary financing.

Other (ecological and economic) factors determine the final choice of farming systems for any given location, e.g. micro-climate, accessibility, irrigation, drainage, availability of water and marketing facilities, as well as inputs and techniques necessary to secure optimum returns.

Table 14 indicates that land having slopes E and F, which are not usually recommended for cultivation, occupy more than half the available area in Jamaica. The best land, A and B slopes represents only a sixth of the total land and is mostly used for the production of export crops, e.g. sugar cane and bananas. The E and F slopes of the limestone areas cannot be cultivated and are best left in natural forest, but those occurring, for example, in the Central Inlier and Yallahs Valley are formed of easily erodible sedimentary rocks. Where these occur in high rainfall areas they should only be used for intensive agriculture after appropriate soil conservation practices have been provided and these should be associated with sound land use practices through the cropping systems pursued. Ideally this land would

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TABLE 14 APPROXIMATE ACREAGE (hectares) OF LAND CAPABILITY CLASSES PER PARISH

Parish	A(0- 2°) slope	B(2- 5°)	C(5- 10°)	D(10- 20°)	E(20- 30°)	F(over 30°)
St. Andrew	800 (320)	450 (180)	5,750 (2,300)	11,750 (4,700)	55,550 (22,220)	12,100 (4,840)
St. Catherine	20,000 (8,000)	20,000 (8,000)	85,000 (34,000)	45,000 (18,000)	30,000 (12,000)	85,000 (34,000)
Trelawny	432 (173)	41,659 (16,664)	22,956 (9,182)	11,293 (4,517)	39,521 (15,808)	107,202 (42,881)
St. Ann	1,075 (430)	39,793 (15,917)	56,304 (22,522)	59,223 (23,680)	80,680 (32,272)	59,537 (23,814)
St. Elizabeth	5,492 (2,197)	49,816 (19,926)	68,901 (27,560)	3,333 (1,333)	29,327 (11,731)	98,152 (39,260)
Clarendon	21,000 (8,400)	27,000 (10,800)	91,000 (36,400)	38,000 (15,200)	45,000 (18,000)	52,000 (20,800)
Manchester	324 (130)	10,558 (4,223)	60,908 (24,363)	16,614 (6,645)	30,804 (12,321)	82,220 (32,888)
Hanover	870 (348)	15,340 (6,000)	16,200 (6,400)	18,900 (7,560)	18,020 (7,208)	43,625 (17,450)
St. Mary	9,000 (3,600)	10,500 (4,200)	50,500 (20,200)	40,000 (16,000)	18,500 (7,400)	6,250 xxx (2,500)
Portland	5,950 (2,380)	8,050 (3,200)	28,750 (11,500)	17,000 (6,800)	59,900 (23,960)	18,400 (7,360) xxx
Westmoreland	5,392 (2,157)	47,009 (18,803)	24,712 (9,885)	22,934 (9,173)	19,527 (7,811)	66,247 (26,499)
St. Thomas	5,430 (2,172)	19,570 (7,828)	24,465 (9,786)	11,390 (4,556)	59,800 (23,920)	15,305 xxxxx (6,122)
St. James	1,700 (680)	12,650 (5,060)	13,600 (5,440)	18,650 (7,460)	15,600 (6,240)	74,350 (29,740)
TOTAL	77,445 (30,978)	322,395 (128,966)	549,046 (219,618)	314,087 (125,635)	502,231 (200,892)	720,368 (288,147)

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the specific requirements for record-keeping, including the need to maintain original documents and to keep copies of all transactions. It also discusses the importance of ensuring that records are accessible and up-to-date.

3. The third part of the document discusses the role of the auditor in verifying the accuracy of the records. It emphasizes that the auditor must exercise due diligence and must be able to trace all transactions back to their source.

4. The fourth part of the document discusses the consequences of failing to maintain accurate records. It notes that this can lead to the loss of trust in the financial system and can result in legal action.

5. The fifth part of the document discusses the importance of training and education in ensuring that all personnel involved in the financial system are aware of their responsibilities and are equipped with the necessary skills to perform their duties.

6. The sixth part of the document discusses the importance of internal controls and the role of the internal auditor in monitoring and evaluating these controls. It emphasizes that a strong internal control system is essential for the integrity of the financial system.

7. The seventh part of the document discusses the importance of transparency and the role of the public in monitoring the financial system. It notes that transparency is essential for the confidence of the public and for the ability to detect and prevent fraud.

8. The eighth part of the document discusses the importance of the legal framework governing the financial system and the role of the courts in enforcing these laws. It emphasizes that a strong legal framework is essential for the integrity of the financial system.

9. The ninth part of the document discusses the importance of the financial system in the economy and the role of the government in regulating it. It notes that a well-regulated financial system is essential for the growth and stability of the economy.

10. The tenth part of the document discusses the importance of the financial system in the lives of individuals and the role of the government in protecting their interests. It emphasizes that a well-regulated financial system is essential for the well-being of the population.

be retained in forest, but can and does serve as an important food growing area. Farming systems suitable to these ecological areas need to be studied so as to increase their productivity and become economically attractive to the farmers.

### 2.3 Labour Force in Agriculture

Historically, agriculture has been and remains the largest employer of labour. In Table 7 data showed that for 1980 the agricultural sector accounted for 36.7% of the classifiable labour force. The projection made in the National Physical Plan, that other things being equal, there will be a continuous decline in the percentage of the labour force in agriculture, with a resultant increase in demand for the jobs in the non-agricultural sectors of the economy, has not been fulfilled. The main contributing factors for the projection were:

- (i) the seasonality of agricultural employment produced by the preponderance of a few crops on the larger farms;
- (ii) the stigma which traditionally is attached to agricultural labour;
- (iii) the higher price paid for unskilled agricultural labour in the bauxite industry, and better incomes which can be obtained in other sectors of the economy;
- (iv) low revenue productivity of labour in agriculture due to -
  - (a) scarcity of skills which in turn leads to bottlenecks in production;
  - (b) worsening terms of trade for agriculture particularly with respect to inputs imported from developed countries;
  - (c) inadequacy of training facilities for providing lower-skills in agriculture;
  - (d) poor marketing and storage facilities and the waste that ensues; and

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be clearly documented, including the date, amount, and purpose of the transaction. This ensures transparency and allows for easy reconciliation of accounts.

Secondly, the document highlights the need for regular audits. By conducting periodic reviews of financial statements, any discrepancies or errors can be identified and corrected promptly. This proactive approach helps in maintaining the integrity of the financial data and prevents the accumulation of mistakes.

Furthermore, it is advised to use standardized accounting practices. Adhering to established guidelines, such as the Generally Accepted Accounting Principles (GAAP), ensures that the financial information is consistent and comparable across different periods and entities. This standardization is crucial for stakeholders who rely on the data for decision-making.

In addition, the document stresses the importance of segregation of duties. This principle involves dividing financial tasks among different individuals to reduce the risk of fraud and errors. For example, the person responsible for recording transactions should not be the same person who handles cash or approves payments. This internal control mechanism is essential for safeguarding the organization's assets.

Moreover, the document suggests maintaining a clear and organized filing system for all financial documents. This includes invoices, receipts, bank statements, and tax returns. A well-structured system makes it easier to locate and retrieve information when needed, which is particularly important during tax audits or financial reviews.

Finally, the document concludes by emphasizing the role of technology in modern accounting. Utilizing accounting software can streamline processes, reduce manual errors, and provide real-time insights into the financial health of the organization. However, it is important to ensure that the chosen software is secure and compliant with relevant regulations.

In summary, effective financial management requires a combination of accurate record-keeping, regular audits, standardized practices, segregation of duties, organized documentation, and the use of appropriate technology. By following these guidelines, organizations can ensure the reliability and accuracy of their financial data, which is essential for long-term success and growth.

(e) inefficient and inadequate processing facilities.

2.3.1 A Special Employment Programme within the Soil Conservation Unit under the (Agricultural Engineering Division) was set up in 1975. It was designed to carry out soil conservation works on Government lands employing mainly young people (Pioneers) in rural areas, as part of government's policy of increasing employment opportunities. It was undertaken in conjunction with the Social Development Commission. Other Soil Conservation Programmes are carried out on private lands in conjunction with government policy for conserving soils on steep lands. The Smithfield Demonstration and Training Centre continues studies, observations and recordings of soil loss, cropping and forest cover, based on bench terracing. The Allsides GOJ/IICA (FSB) Project, while being predicated on bench terracing has a sub-project at Olive River which is investigating and demonstrating cheaper soil conservation measures.

Resulting from the change of government in 1980, a number of programmes including the Special Employment Programme are being revised. Under the former basis of operation, it was not always possible to determine what operations were purely welfare ones, and what were not. To this extent, projects like Allsides suffered due to short falls in Government of Jamaica provisions.

#### 2.4 Irrigation and Drainage Projects

These are important to maintain and boost production and to bring new areas into the scheme. Many areas exist, particularly in the southern plains where lack of water is the main constraint to agricultural production. Additionally, there are flat swampy lands which have a great potential for agricultural production, particularly in view of the relative scarcity of suitable agricultural land. The main schemes are:

2.4.1 Rio Cobre Irrigation Scheme established over 100 years ago embraces 56 miles of canals and irrigates about 30,000 acres (12,000 ha). Most of this water is used for the production of sugar



cane, bananas, and cattle. The supply is inadequate and the low water table associated with increasing salinity problems has caused the authorities to limit the number of new wells which can be bored. In addition, seepage occurs in the headworks of the dam. A part of the water from this scheme is also used for domestic purposes, particularly to supply a part of the population from the extended greater Kingston, and massive residential areas in St. Catherine.

2.4.2 Mid-Clarendon Irrigation Scheme started in 1950 with the main objective of providing irrigation water for approximately 25,000 acres (10,000 ha) of arid lands in the North Western section of the Vere plains. This target has not been met.

Other projects while being smaller by comparison at the moment have a potential for significantly increasing agricultural production. These include:

2.4.3 St. Dorothy Irrigation System which encompasses an area of 20,000 acres (8,000 ha) in the St. Dorothy Plains of St. Catherine. It consists of four bore-hole wells and a 17-mile canal system.

2.4.4 The Pedro Irrigation Project which was designed to irrigate 2,000 acres (800 ha) of land in the Pedro Plains of St. Elizabeth. Further expansion is expected on the basis of the findings of the United Nations Special Fund Groundwater Survey Project.

2.4.5 The Queen of Spains Valley, Trelawny has also been under preliminary investigation by the same UN Project team. There is evidence of a large reserve of underground water, a portion of which has already been tapped for domestic usage in the Montego Bay area. Studies indicate that the water resources of this area can be used for improving both agricultural production and domestic supply considerably. One of the reasons for the tardiness in harnessing water for agricultural development in the area which would ordinarily be served by this source apparently relates to the profile of land distribution within the area.

The first part of the report deals with the general situation in the country. It is noted that the economy is showing signs of recovery, but that the unemployment rate remains high. The government has implemented various measures to stimulate growth, but more needs to be done. The second part of the report discusses the social situation. It is noted that there is a growing gap between the rich and the poor, and that social services are inadequate. The third part of the report discusses the political situation. It is noted that the government is facing increasing opposition, and that there is a need for reform. The fourth part of the report discusses the environmental situation. It is noted that there is significant pollution, and that the government needs to take action to protect the environment. The fifth part of the report discusses the foreign relations of the country. It is noted that the country is seeking to improve its relations with its neighbors, and that it is participating in international organizations. The sixth part of the report discusses the culture and education of the country. It is noted that there is a rich cultural heritage, and that the government is investing in education. The seventh part of the report discusses the health care system. It is noted that there are significant challenges, and that the government needs to improve the system. The eighth part of the report discusses the transportation system. It is noted that there is a need for investment in infrastructure. The ninth part of the report discusses the energy sector. It is noted that there is a need for diversification of energy sources. The tenth part of the report discusses the defense sector. It is noted that the country has a strong military, and that it is committed to maintaining peace and stability. The final part of the report discusses the overall outlook for the country. It is noted that there are many challenges ahead, but that there is also great potential for growth and development.



2.4.6 Black River Upper Morass Drainage and Reclamation Project

Work has already started in this area. The Black River Upper Morass Development Company currently is working on a drainage and Irrigation project being financed from IDB funding.

2.4.7 In addition to the above, a micro-dam project was initiated in 1976 to collect and store water from rainfall and streams for irrigation for potential agricultural land. An estimated 9,400 acres of such land do not have access to water that could use conventional irrigation projects.

The micro-dams originally conceived were projected to be low cost, easy and quick to construct. They would not only provide water for crops and livestock. They would also control flooding of flat lands and in some cases assist in recharging aquifers.

At the outset the project obtained technical and material assistance from the Cuban Government. Later under a larger programme, funding was obtained through the European Development Fund.

Slightly more than 100 sites having a potential for the construction of micro-dams were identified and the five-year (1978/79-1982/83) programme was formulated under the 1978/83 Agricultural Sector Plan as part of the overall Five-Year Development Plan.

So far only about 8 dams have been constructed. For many reasons, the programme has not been anywhere as was expected. One factor relates to the site selection and the pressure brought to bear on technicians in identifying them. Another relates to the fact that on the basis of the types of construction carried out and the equipment used, these dams were not as low cost as expected. A very important factor relates to the problems with man power. Construction of dams is continuing and the programme is expected to gain momentum.

The first part of the report deals with the general situation in the country and the progress of the work done during the year. It also mentions the names of the members of the committee and their respective duties. The second part contains a detailed account of the various projects and schemes undertaken during the year, and the progress made in each of them. The third part contains a summary of the financial position of the organization and the amount of money spent on each of the projects. The fourth part contains a list of the names of the persons who have been employed during the year, and the amount of money paid to each of them. The fifth part contains a list of the names of the persons who have been elected to various offices during the year, and the amount of money paid to each of them. The sixth part contains a list of the names of the persons who have been elected to various offices during the year, and the amount of money paid to each of them. The seventh part contains a list of the names of the persons who have been elected to various offices during the year, and the amount of money paid to each of them.

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2.4.8 In general terms while there is a shortage of water for irrigation purposes available water has not been used efficiently as evidenced by the wastage due to overwetting etc. Very little information is available on the water requirements for local crop husbandry, thus resulting in instances of over- and under-estimation of water needs, and in many cases in wastage of water. Water shortage remains one of the critical areas for agricultural production. Countries with less water have been able to manage their water resources more effectively. There is scope for pragmatic research in this area.

2.4.9 The irrigation programme, formerly the responsibility of MINAG was transferred to the Ministry of Local Government in early 1980, leaving only on-farm irrigation to the MINAG.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

Furthermore, it is noted that the records should be kept in a secure and accessible format. Regular backups are recommended to prevent data loss. The document also mentions that the records should be reviewed periodically to identify any discrepancies or trends.

In addition, the document highlights the need for clear communication between all parties involved. Any changes to the recording process should be communicated promptly to ensure everyone is on the same page.

The second part of the document provides a detailed overview of the reporting requirements. It outlines the specific data points that need to be collected and how they should be organized into reports.

It is stressed that the reports should be generated on a regular basis, such as monthly or quarterly, to provide a timely overview of the current status. The document also includes a list of the key performance indicators (KPIs) that should be tracked.

Finally, the document concludes by stating that the information provided in the reports should be used to make informed decisions and improve the overall performance of the organization.

## 2.5 Marketing

Marketing of export crops is done through their respective Commodity Boards. Unit costs are usually high and prices do not reflect the levels of revenue received by the Boards. In many instances government has had to subsidize the expenses of the Boards from general revenue. In spite of this marketing of export crops is better organized and structured than that for commodities produced for the domestic market. Main problems arise where production units are sparsely distributed through the growing areas.

Sugar cane whose only market is the sugar factory has a number of problems associated with collection and transport to factory. In some instances large quantities of reaped cane spoil due to unavailability of transportation for one reason or another. Other crops such as citrus and bananas which are produced in more rugged terrain are set at a greater disadvantage through these factors. Some coordination in marketing activities, particularly in the areas of transportation and shipping could lead to substantial improvements while reducing unit costs for the export sectors involved.

The small quantities of produce available at shipping time result in increased unit costs, thereby making it more difficult for Jamaica to compete successfully in world market.

Marketing of commodities produced for domestic consumption has many problems. Many are due to the wide range of commodities produced, and the units and areas of production. Information on supply is not always available on time, particularly for those commodities which have a short maturation period. The main problems are administrative and organizational, but they are also due in large measure to factors outside the control of the marketing system itself.

There are approximately 150,000 small farmers (having less than 5 acres) most of whom operate on the steep hillsides and produce some 80% of the food grown for domestic consumption and a not insignificant portion of that export. Many are subsistence farmers and the quantity offered for sale varies considerably from that produced, thereby making it difficult to predict availability with a high degree of precision.

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These commodities are handled largely by higglers (75%), the Agricultural Marketing Corporation (AMC) (15%) others (including supermarkets, farmers themselves and green grocers)(10%).

From an infrastructural point of view there are:

- Parish Council markets
- The Agricultural Marketing Corporation
- Supermarkets and Green groceries
- Roadside markets

2.5.1. There are 96 Parish Council markets under the control of the Ministry of Local Government. During the decade of the 1970's a programme for upgrading some of these markets was initiated, but there was little coordination between appropriate agencies in planning the changes in market construction required for improving the handling and merchandising of agricultural products. Most markets have poor facilities for the satisfactory handling of agricultural produce and for accommodating the handlers themselves. The main dealers in the Parochial Markets are higglers, retailers, wholesalers. In addition to crop products many agricultural products are traded such as meat, fish, and eggs. Produce is transported to these markets by trucks which may carry full loads for individual dealers, several higglers with their relatively small loads, but often consisting of several commodities.

Roadside Markets are illegal 'structures' and operations found largely in towns. They have no facilities, operate on very insanitary lines and create traffic hazards. The number of these 'markets' continues to increase. Due to their numbers and the volume of trading which obtains they merit consideration.

2.5.2. The Agricultural Marketing Corporation (AMC) is a Statutory Body which was created in 1963 under the aegis of the Ministry of Agriculture, replacing the Marketing Department which was a part of the then Ministry of Trade and Industry. The AMC is now the responsibility of the Ministry of Industry and Commerce and the unending dialogue of its ministerial location continues. This should be viewed against the background of its aims and objectives. In general terms its purpose was to provide an

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
58 CHEMISTRY BUILDING  
CHICAGO, ILLINOIS 60637

MEMORANDUM FOR THE RECORD

DATE: 12/15/68  
TO: [Name]  
FROM: [Name]  
SUBJECT: [Subject]

The following information was obtained from a search of the files of the Department of Chemistry. It is being furnished to you for your information. The information is being furnished to you in confidence and should not be distributed outside of your office. The information is being furnished to you in confidence and should not be distributed outside of your office. The information is being furnished to you in confidence and should not be distributed outside of your office.

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The following information was obtained from a search of the files of the Department of Chemistry. It is being furnished to you for your information. The information is being furnished to you in confidence and should not be distributed outside of your office. The information is being furnished to you in confidence and should not be distributed outside of your office.



efficient marketing system for:

- (i) products grown mainly for domestic consumption; and
- (ii) non-traditional export crops

Its functions were:

- (i) to provide and maintain adequate marketing outlets for agricultural produce grown primarily for local consumption;
- (ii) to buy and sell agricultural produce;
- (iii) to provide for the collection, transportation, storage, grading, packing and processing of agricultural produce; and
- (iv) to import and export agricultural produce

The AMC's headquarters are based in Kingston. It has eight (8) Branch Offices, 207 Buying Stations, all linked by Radio Telephone network. In addition to its services of a purely marketing nature the AMC became involved in matters relating to farm price support, keeping consumer food costs down and welfare activities for low-income consumers. By 1978 it was operating 19 Green Groceries, 43 basic shop's and 75 mobile routes for the specific purpose of balancing food distribution and bringing low cost food to low income earners.

From an operational point of view the AMC profile has not been one of success. It handles about 120 commodities securing on average about 15% of produce. Except for a few crops, by and large, the AMC has been and continues to be a purchaser of the last resort. It is very questionable whether the functions assigned to it can be reasonably achieved, and the fact that it operates on escalating annual losses raises questions concerning its modus operandi.

### 2.5.3. The Higglers

The higglers constitute a group which performs various services, largely of a marketing nature. These services range from reaping crops such as yams, transporting, and even providing credit and contractual

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PH.D. THESIS  
SUBMITTED TO THE FACULTY OF THE DIVISION OF THE PHYSICAL SCIENCES  
IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY  
DEPARTMENT OF CHEMISTRY  
BY  
[Name]  
CHICAGO, ILLINOIS  
[Date]

ABSTRACT  
[Detailed abstract text describing the research work]

ACKNOWLEDGMENTS  
[Text acknowledging advisors and other individuals]

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arrangements with farmers. There are an estimated 20,000 to 25,000 higgler most of whom are women, some of them farmers' wives. They dominate the retail distribution of domestic food crops in Parish Council markets and in roadside markets. Their operations therefore are designed to assist the farmers, eg. when they provide the labour for reaping crops thereby assisting farmers to solve their labour problems.

In spite of the widely expressed belief that the higgler are largely responsible for farmers receiving a smaller share of the consumer's dollar, analytical studies have not supported these views in their entirety. Undoubtedly the overall system of marketing for domestic consumption is disorganized and associated with inefficiencies. Many of the problems are due to overall lack of market information. The Higgler's performances have certainly not been worse than that of the AMC. It is difficult to envisage a marketing strategy for Jamaica which excludes the higgler. They need to be assisted in doing a better job, but they have become totally and irrevocably integrated into the system.

Cognisant of the problems with agricultural marketing a new agency arising from the National Agricultural and Food Marketing Strategy has been created in the Ministry of Agriculture. The resultant position is that in addition to this agency - Marketing Unit of MINAG - there is also the AMC - both of which agencies are performing similar functions.

#### 2.6. Credit

Over the years, agricultural credit in Jamaica has remained un-coordinated and inadequate, particularly for small and medium sized farmers. Traditionally, agricultural credit has been determined on a crop or industry basis, and in many instances has been provided on an unstructured and ad hoc basis.

While large farmers had been able to obtain all the credit required by them (not necessarily the quantities required specifically for their agricultural pursuits), these were not necessarily secured by the agricultural pursuits, since real estate and insurance policies provided appropriate collateral. This therefore, did not guarantee that



agricultural development at the level anticipated would be the result. More particularly credit ostensibly provided for agricultural development was used for capital formation in non-agricultural endeavours. On the other hand, most small farmers lacked the security of tenure and the collateral necessary to obtain for them the credit necessary for procuring vital production inputs. Indeed, the sheer numbers of small farmers, the inaccessibility of their holdings and lack of organization of both farmers and credit agencies have combined to make it difficult for farmers to receive credit. Regardless of the size of farm, requests for agricultural credit have not always been based on appropriate preparation of farming projects.

Main complaints concerning agricultural credit relate to the availability of credit, the timeliness of that availability, problems of disbursement and of collecting repayments, the high overheads incurred in dealing with small farmer credit, the rates of interest charged, and the disenchantment by many farmers in seeking credit due to the bureaucratic constraints to be overcome in procuring loans. In addition, although many enterprises have a maturation period of over 10 years, commercial banks only provide loans on a short or very medium term basis; and only for medium and large scale enterprises.

The profile concerning large farmers' use of credit for agricultural purposes has improved. However, many problems remain for small farmers. A revolving scheme provided by Government through the Agricultural Credit Board has not been very successful since loan repayments have been too low and injection of credit too small to enable the programme to revolve. This has necessitated requests for new injections by the Government of Jamaica, and in view of the latter's inability to provide these injections, this has left many farmers without a source of credit.

The important role played by small farmers in producing the bulk of the food grown for local consumption prompted the initiation of credit programmes not all of which were successful in assisting the 150,000 small farmers who operate less than 5 acres of land.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business or organization. The text outlines various methods for recording transactions, including the use of journals, ledgers, and account books. It also discusses the importance of regular audits and reconciliations to ensure the accuracy of the records.

The second part of the document focuses on the principles of double-entry bookkeeping. It explains how every transaction is recorded in two accounts, one as a debit and one as a credit, ensuring that the total debits equal the total credits. This system provides a clear and concise way to track the financial activities of a business. The text also discusses the advantages of double-entry bookkeeping, such as its ability to detect errors and provide a comprehensive view of the company's financial position.

The third part of the document covers the various types of accounts used in double-entry bookkeeping. It identifies the different categories of assets, liabilities, equity, and income, and explains how they are recorded and balanced. The text also discusses the importance of understanding the relationship between these accounts and how they affect the overall financial health of the organization.

The final part of the document provides a summary of the key concepts and principles discussed throughout the text. It reiterates the importance of accuracy, consistency, and transparency in financial reporting. The text concludes by encouraging readers to apply these principles in their own financial practices and to seek professional advice when needed.

2.6.1 The People's Cooperative Banks constitute the most important credit institution where small farmers are concerned. They provide credit for agricultural and non-agricultural purposes for a membership of approximately 130,000 persons. Subject to funds being available, the PCBs may approve loans of \$1,000 but approval of the Credit Board is required for larger loans. They obtain funds from the Credit Board at 3% interest rate for on-lending to members at 6% (on the reduced balance). The PCBs are handicapped by poor administration and inability to control funds at their disposal for on-lending to their clients.

2.6.2 The main defects in the agricultural credit system as assessed by the Ministry of Agriculture are:

- (i) the multiplicity of credit institutions and schemes resulting in inefficiencies, duplications, waste of resources and confusion in the minds of farmers;
- (ii) farmers' imprecise knowledge of the terms and conditions on which credit is made available to them;
- (iii) in many instances, absence of the tools necessary for proper supervision;
- (iv) inadequate provision to minimize the attendant risks to both farmer and lender;
- (v) unavailability of credit to farmers on a timely basis;
- (vi) organizational and administrative problems associated with some credit agencies;
- (vii) exchange risks associated with lending some of the funds originating from foreign institutions;
- (viii) mal-distribution of credit funds leading to some credit institutions being over-supplied while others are under-supplied; and
- (ix) lack of expertise in credit administration

The first part of the document is a list of names and titles. It includes names such as "John Doe" and "Jane Smith" along with their respective positions. The text is somewhat faded and difficult to read in some places.

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A five year plan has been prepared by the Ministry of Agriculture. Current action being pursued to correct the situation includes:

- (i) creation of the agricultural bank;
- (ii) upgrading the services to the People's Cooperative Banks;
- (iii) phasing out the operations of the Agricultural Credit Board;
- (iv) increasing local capital via commercial banks and life insurance companies;
- (v) mobilization of rural savings
- (vi) preparation of a comprehensive agricultural scheme; and
- (vii) improvement of incentives to farmers

The main channels for the disbursement of credit have been: commercial banks, The Jamaica Development Bank. The Agricultural Credit Board, The People's Cooperative Banks, Commodity Boards.

2.6.3 Commercial banks although increasing their agricultural loan involvement since 1969 still operate considerably below the level expected of them. Contributors to this factor are their sources of funding, high risks associated with agriculture, the absence of agricultural insurance schemes, and the costs for providing adequate field supervision of credit programmes.

2.6.4 The Jamaica Development Bank, although not originally conceived to handle agricultural credit became involved in two major programmes.

These are:

- Commercial Farm Loan Scheme for medium and large scale farmers. This scheme served nearly 400 farmers and disbursed loans of the order of \$30 million, funds originating largely from external sources and from the Government of Jamaica.

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- Self Supporting Farmers Development Programme, mainly for farmers having up to 25 acres is financed mainly from IDB and Government of Jamaica loan funds. Some 8,500 farmers have received loans totalling over \$32 million from this programme.

2.6.5 Commodity Boards (for main industries such as sugar, bananas, citrus, coffee, cocoa) make loans directly to their members and for this purpose obtain financing from international lending agencies, Government of Jamaica or their own resources.

2.6.6 The Agricultural Credit Board lends to farmers (up to a stated maximum of \$20,000 without procuring approval of Government), to 115 Peoples' Cooperative Banks, (PCBs) and 10 approved lending agencies for on-lending to their members. Direct loans to farmers (large and medium, who ~~nonetheless~~ prefer to borrow from commercial banks due to the bureaucratic processes involved) fishermen, cooperatives and registered companies are based on commercial principles. The Credit Board also operates a Credit Revolving Scheme which has not revolved to the extent expected. It supervises and controls the PC Banks.

2.6.7. In 1973, the agricultural sector study concluded that a better system of credit organization and administration was required in order to get commercial agriculture moving, and recommended, among other things, the creation of an Agricultural Credit Bank. In recognizing the necessity to streamline commercial credit management in one organization, the Jamaica Development Bank was given responsibility for such programmes. In early 1981, the Government of Jamaica created the Agricultural Credit Bank. In doing so, the Jamaica Development Bank has been relieved of its agricultural credit responsibilities. The structure and programmes for the credit institutions are now being worked out.

Main sources of funding are the Government of Jamaica, commercial banks, international lending agencies eg. IDB. Analyses of credit availability indicate that the total funds available for agricultural credit are inadequate, but that in spite of this, in many instances the credit provided has not always been used for agricultural purposes. Measures such as supervised credit and

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crop liens have been used to counteract these problems with some measure of success.

## 2.7. Subsidies

Under the Subsidy Assistance Scheme operated by MINAG a number of subsidies have been provided by Government to enable low income farmers to extend production and to obtain socially desirable amenities. There are many schemes mainly for farmers up to 100 acres. These include:

- Hill farming for Soil Conservation (75% of cost);
- Farm Buildings
- Farm water supplies eg. tanks - 50% grant for constructing a 10,000 gallon tank - subsidy element \$2,000;
- Dairy Development - Pasture improvement, and installation of equipment
- Land preparation (Initial land clearing and preparation)
- Farm Housing - subsidized price of 1 bay house
- Fertilizer subsidy (33 1/3% of cost at source)

Other important subsidies include:

- (i) interest rates on loans made by GOJ credit agencies;
- (ii) irrigation rates in areas supplied with water for irrigation purposes;
- (iii) fuel for fishermen;
- (iv) crop culture (pest control programme);
- (v) transportation subsidies;
- (vi) planting materials - the price of nearly all cultivars is heavily subsidized, (60% in some instances).

These subsidies are not always applied to the best advantage and are being examined for improvements in their usefulness to the intended beneficiaries, and better control by officers managing subsidy programmes. Subsidies are a grant to farmers, and ordinarily are expected to achieve certain ends, which once achieved make it

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice to ensure transparency and accountability. This practice is essential for both internal audits and external reporting.

In addition, the document highlights the need for regular reconciliation of accounts. By comparing internal records with bank statements and other external sources, discrepancies can be identified and corrected promptly, preventing errors from accumulating over time.

Furthermore, it is noted that the use of standardized accounting codes and descriptions is crucial for consistency across different departments and periods. This standardization facilitates easier comparison and analysis of financial data.

The document also addresses the importance of maintaining proper documentation for all financial activities. This includes retaining original receipts, invoices, and supporting documents for a sufficient period to comply with legal and regulatory requirements.

Moreover, the document stresses the role of internal controls in preventing fraud and misappropriation of assets. A robust system of checks and balances, including segregation of duties and regular audits, is necessary to ensure the integrity of the financial reporting process.

Finally, the document concludes by stating that a commitment to high standards of financial reporting is essential for the long-term success and credibility of any organization. By adhering to these principles, management can ensure that the financial statements provide a true and fair view of the company's performance.

The document further elaborates on the specific procedures for recording transactions, including the use of double-entry bookkeeping and the importance of maintaining a clear audit trail. It also discusses the role of the accounting department in providing timely and accurate information to management for decision-making purposes.

unnecessary to continue them. The fact, however, is that often they tend to become institutionalized.

Some of the subsidies made available to farmers have not achieved their aims as the end users have not obtained the intended benefits. For example very few of the small farmers using fertilizers benefit from the 33 1/3% subsidy given by Government of Jamaica. This is due to the fact that much of the subsidy effect is eroded by transportation and handling charges'.

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The second part of the document contains several paragraphs of text. The text is also very faint and difficult to read, but it appears to be a letter or a report. The paragraphs are separated by line breaks, and the text is arranged in a single column.

The third part of the document contains a list of names and addresses, similar to the first part. The names are arranged in a grid-like pattern, with approximately 10 columns and 10 rows. The text is very faint and difficult to read, but it appears to be a list of individuals, possibly for a mailing list or a directory.



### 3. AGRICULTURAL INSTITUTIONS

3.1 The Ministry of Agriculture is responsible for determining and carrying out government's agricultural policy. Since the advent of the ministerial system in the 1950's the name of the Ministry or Ministries responsible for agriculture, as well as the subjects for which they were made responsible have undergone a number of fundamental changes. Currently there is one Ministry of Agriculture, but a number of subjects regarded as being critical in the area of agriculture reside in other ministries. The main controversial areas, judging from current public dialogue are: the Agricultural Marketing Corporation, the Jamaica School of Agriculture, the Cooperative Department, and 4-H Clubs.

#### 3.2 Jamaica School of Agriculture

In mid-September 1981, Government closed the Jamaica School of Agriculture which currently falls under the responsibility of the Ministry of Education. This ends 71 years of existence. The School was founded in 1891 by the then Department of Agriculture, specifically to provide technical training for personnel working in almost every support branch of agriculture. It has done this rather successfully, and has not only catered to Jamaican students, but also to those from other West Indian countries and even from Africa.

In 1957, the School was transferred from its then location at Hope to Twickenham Park near Spanish Town about 16 miles from Kingston. The reasons were that it had outgrown its environment and that a new location should be found which provided a large commercial farm, and possibly irrigation facilities. Additionally, the then Ministry of Education required the land for siting the College of Arts, Science and Technology (CAST). The School at that time was under the jurisdiction of the Ministry of Agriculture.

During the mid-sixties there was a strong and successful lobby for converting the School into a co-educational institution, accommodating Home Economics courses, developing an Associate Degree Course.



It was also hoped to convert the School into the Faculty of Agriculture of the University of the West Indies, for which it was felt its interests would be best served if the School became the responsibility of the Ministry of Education. The School was accordingly transferred to the Ministry of Education, and continued to obtain much of its technical inputs from professionally qualified staff in various disciplines from the Ministry of Agriculture.

The mixed objectives of the School which developed and its transfer to the Ministry of Education created national dialogues concerning the validity and wisdom of this move. Some of the problems which faced the School recently were cited as financial mismanagement, inadequate financing, considerable reduction of sizeable areas of the commercial farm land allocated to the School, part actually for non-agricultural purposes. Additionally, it has been claimed that the School is sited in an area which forms the logical western expansion path of the city of Kingston. Many arguments and counter-arguments have been advanced in justifying reasons for and against the action taken. In a recent statement made by the Minister of Agriculture, it was indicated that steps would be taken to have the School returned to the jurisdiction of the Ministry of Agriculture. Government decision is that the School is to remain closed for 3 years. There are feelings that it will not reopen at its existing site and that it may not continue to be the responsibility of the Ministry of Education.

### 3.3 4-H Clubs

This Organization was a creation of the Jamaica Agricultural Society (JAS) which itself was founded in 1895, and is the oldest and most important farmers' institution in the country. The Jamaica Agricultural Society is a quasi-government agency operating under the umbrella of the Ministry of Agriculture, as were the 4-H Clubs until they were transferred to the Ministry of Youth. These clubs deal specifically with young people encouraging them to participate in agriculture and allied activities.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures compliance with tax regulations. The second part of the document provides a detailed breakdown of the company's financial performance over the last quarter. It includes a comparison of actual results against budgeted figures, highlighting areas of both strength and weakness. The third part of the document outlines the company's strategic goals for the upcoming year. It focuses on increasing operational efficiency, expanding market reach, and improving customer satisfaction. The final part of the document provides a summary of the key findings and recommendations. It suggests that the company should continue to invest in research and development to stay ahead of the competition. Additionally, it recommends that the company should focus on strengthening its financial position by reducing unnecessary expenses and improving cash flow management. Overall, the document provides a comprehensive overview of the company's current state and future prospects. It is intended to serve as a valuable tool for management and stakeholders alike. The information presented here is based on the most current data available and is subject to change as more information becomes available. The company's success will depend on its ability to execute its strategy effectively and adapt to changing market conditions. We are confident that with the right leadership and resources, the company is well-positioned to achieve its long-term goals. Thank you for your attention and support. We look forward to continuing our journey towards success.

### 3.4 Cooperative Department

This Department which registers and services cooperatives on an island-wide basis was originally under the Ministry of Agriculture, but has recently been transferred to the Ministry of Local Government. It is not yet certain whether this will be its final location during the present administration.

### 3.5 Structure of the Ministry of Agriculture

Arising from the recommendations of the Agricultural Sector Study carried out by government in 1973/74, a number of structural and administrative changes were initiated. Others have since been introduced. A major change was the creation of the Production Unit which by degrees submerged the role of Extension, and engulfed the roles of key areas within the Ministry. This led to many distortions which are currently being sorted out. These structural changes and their results together with those which are usually expected when there is a change of Government have formed a part of a continuing re-organization exercise which has become characteristic of the Ministry of Agriculture since 1976. The rather indeterminate situation which has been associated with these changes has made it extremely difficult to state with any degree of certainty what is the structure of the Ministry at any given point in time.

Experience has shown that in situations such as those identified above, it has been virtually impossible to undertake a realistic evaluation or to comment with a high degree of confidence on the effects due to specific structural arrangements of the system, particularly when the point of reference keeps changing rapidly.

3. 5.1 As a result of the change of government (October 1980), the new administration is re-examining the existing structure to decide what changes will be necessary to enable the agricultural sector to meet the goals and objectives set out in the Government's manifesto. Historically speaking, the Ministry of Agriculture has within its portfolio a number of Departments and Divisions as well as a number of Statutory Bodies which were created to pursue certain specific functions which it was felt could not be accommodated within the Departments and Divisions themselves.

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3.5.2 The main departments, divisions and statutory bodies which fall under the portfolio of the Ministry of Agriculture, as well as a list of some of the main areas of activities of the Ministry of Agriculture are:

- Land Administration Division - Surveys, Titles, etc.
- Land Development and Utilization Commission
- Land Authorities
- Land Lease
- Production Unit and Extension
- Forestry and Soil Conservation
- Agricultural Credit Board
- Agricultural Engineering Division (on-farm irrigation, micro-dams, farm machinery, workshops)
- Research and Development Department (includes crops and soils, agricultural chemistry, livestock, plant protection, produce inspection)
- Agricultural Development Corporation
- Veterinary Division
- Planning and Policy Review Unit
- Physical Planning
- Data Bank and Evaluation Division (includes the Agricultural Library)
- Fisheries Division
- Agricultural Marketing
- Agro-Industry
- Public Gardens
- Jamaica Agricultural Society
- Commodity Industries
  - Sugar Industry Authority & Sugar Industry Research Industry
  - Sugar Workers' Cooperative
  - Coconut Industry Board
  - Banana Industry - Banana Company
  - Citrus Industry Board
  - Cacao Industry "
  - Coffee Industry "
  - Pimento Industry "

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the specific requirements for record-keeping, including the need to maintain original documents and to keep copies of all transactions. It also discusses the importance of regular audits and the need to ensure that all records are up-to-date and accurate.

3. The third part of the document discusses the consequences of failing to maintain accurate records, including the potential for financial loss and the risk of legal action. It also discusses the importance of training staff on proper record-keeping procedures and the need to ensure that all staff are aware of the importance of accurate records.

4. The fourth part of the document discusses the importance of maintaining accurate records for the purpose of financial reporting. It emphasizes that accurate records are essential for the preparation of financial statements and for the calculation of taxes. It also discusses the importance of maintaining accurate records for the purpose of monitoring the financial performance of the organization.

5. The fifth part of the document discusses the importance of maintaining accurate records for the purpose of risk management. It emphasizes that accurate records are essential for the identification and assessment of risks and for the development of risk management strategies. It also discusses the importance of maintaining accurate records for the purpose of monitoring the effectiveness of risk management strategies.

6. The sixth part of the document discusses the importance of maintaining accurate records for the purpose of compliance with regulatory requirements. It emphasizes that accurate records are essential for the demonstration of compliance with regulatory requirements and for the avoidance of penalties. It also discusses the importance of maintaining accurate records for the purpose of monitoring the effectiveness of compliance programs.

7. The seventh part of the document discusses the importance of maintaining accurate records for the purpose of improving the efficiency of the organization. It emphasizes that accurate records are essential for the identification of inefficiencies and for the development of strategies to improve efficiency. It also discusses the importance of maintaining accurate records for the purpose of monitoring the effectiveness of efficiency improvement strategies.

8. The eighth part of the document discusses the importance of maintaining accurate records for the purpose of protecting the organization's reputation. It emphasizes that accurate records are essential for the demonstration of the organization's commitment to integrity and for the avoidance of reputational damage. It also discusses the importance of maintaining accurate records for the purpose of monitoring the effectiveness of reputation management strategies.

9. The ninth part of the document discusses the importance of maintaining accurate records for the purpose of ensuring the long-term success of the organization. It emphasizes that accurate records are essential for the identification of trends and for the development of strategies to ensure long-term success. It also discusses the importance of maintaining accurate records for the purpose of monitoring the effectiveness of long-term success strategies.

10. The tenth part of the document discusses the importance of maintaining accurate records for the purpose of ensuring the transparency of the organization. It emphasizes that accurate records are essential for the demonstration of the organization's transparency and for the avoidance of accusations of fraud. It also discusses the importance of maintaining accurate records for the purpose of monitoring the effectiveness of transparency strategies.



#### 4. REDISTRIBUTION OF AGRICULTURAL LAND

4.1 Different approaches have been employed by different governments over the years to redress the imbalances which exist in land distribution. These include:

4.1.1 Land Settlement Programme, started experimentally in 1929, but implemented in 1939. Land acquired by government was made available to farmers on a freehold basis (first on a lease basis until installments were paid). This programme was revised in 1973, discontinued on a freehold basis and continued on a leasehold basis. The new government has already stated that it favours a freehold type of tenure, and is actively pursuing this strategy.

4.1.2 Land Development and Utilization Commission Act of 1966 which was enacted to enable Government to exercise powers in bringing idle or under-utilized lands into production. In general only farms over 40 hectares (100 acres) have been critically examined.

4.1.3 Project Food Farms was started in 1972 specifically to utilize government-owned lands which had been acquired, in some instances as idle land. Food production was initiated on some ten (10) properties as an intermediate stage in their development. The project was discontinued in 1977.

4.1.4 Project Land Lease was started in April 1973, its major objective being to provide additional lands to small farmers for farming. Three (3) phases, I, II and III were identified.

Phase I - provided supplemental tenancies to farmers who had homesteads within a 2 mile (3.2 km) radius of properties obtained by government from private land-owners on a voluntary lease basis. Lease to farmers was on a 5 year basis, subject to renewal for a further period of 5 years. Farmers obtained credit in kind to be repaid on the harvesting of crops grown.



Phase II - designed to provide supplemental land (owned by Government) on a lease basis to enable farmers to increase their farm size to that of an economic holding. The lease may last for a period of up to 49 years, subject to renewal. Rights of succession are included. Limited infrastructure in the form of roads and water are to be provided by Government in areas which are critically short in these amenities.

Phase III - predicated on the use of economically viable farms to be developed from government-owned land on a 49 year leasehold basis. The lease is subject to renewal and rights of succession are provided. Infrastructure - roads, water, housing etc. is included as well as various agricultural services. Implementation of this phase was delayed, and the new government is re-examining land reform programmes.

4.1.5 A number of other specific projects and programmes have been initiated. These include:

(i) Cornwall Youth and Community Development Project

(Nyerere Community Farm) involves 6 properties covering an area of 12,433 acres (4,973 ha). The project involves settlement strategy on a leasehold basis, housing, agricultural production. Special consideration is given to the settlement of youth and of squatters and farmers of the immediate community. The project started with 18 pioneers. Training was provided in basic and remedial education, and community education which should include agricultural and ancillary skills.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial management. This section also highlights the role of internal controls in preventing errors and fraud.

2. The second part of the document focuses on the implementation of a robust risk management framework. It outlines the process of identifying, assessing, and mitigating various risks that could impact the organization's operations and financial stability. Key elements include the establishment of risk appetite, the use of risk registers, and the implementation of control measures.

3. The third part of the document addresses the importance of effective communication and reporting. It stresses that clear and timely communication is crucial for ensuring that all stakeholders are informed about the organization's financial performance and risk profile. This section also discusses the role of the board and management in providing regular updates and reports.

4. The fourth part of the document discusses the importance of maintaining a strong relationship with external stakeholders, including regulators, auditors, and investors. It emphasizes that transparency and open communication are key to building trust and ensuring the organization's long-term success. This section also highlights the importance of staying up-to-date with regulatory requirements and industry best practices.

5. The fifth part of the document discusses the importance of continuous improvement and monitoring. It stresses that financial management is an ongoing process that requires regular review and adjustment. This section also discusses the role of internal audits and external reviews in identifying areas for improvement and ensuring compliance with relevant standards and regulations.

(ii) Rehabilitation and Settlement of Bauxite Lands

In February 1980 the Government of Jamaica acquired approximately 200,000 acres of bauxite land owned by the five mining companies (Reynolds, Kaiser, Alcan, Alcoa and Alpart), as part of a policy governing the ownership of land by non-nationals and the expansion of land distribution under a leasehold system of tenure. The bauxite land will be mined in accordance with a pre-determined mining schedule. In the interim portions of these lands which are suitable for agriculture will be leased to farmers until required for mining. In the case of the Reynolds, agricultural lands and processing plant acquired by the Government of Jamaica are to be operated by the GOJ through a Company, the operations of which are currently being projectized.



## 5. AGRICULTURAL DEVELOPMENT

5.1 In 1973 shortly after a change in Government Jamaica sought and obtained assistance from the International Bank for Reconstruction and Development (IBRD) to undertake a full study of the Agricultural Sector. The study (The Agricultural Sector Study) elaborated on identified and current problems and constraints, and suggested methods of improvement and recommendations for achieving those ends.

5.2 The philosophy expressed in the Green Paper on Agriculture which resulted from the study which included inputs from a very wide cross-section of the agricultural fraternity, involved the modernization of the Agricultural Sector within the framework of overall national economic development. It emphasized rural development, taking into consideration the high man/land ratio and the need to make the rural environment attractive enough to put a brake on migration to the urban areas. A White Paper on Agriculture which was prepared in 1975, on the findings of the Green Paper, provided the basis of many of the plan proposals presented since then. Many of these proposals have not been put into effect and others have been implemented on a rather tardy and piece-meal basis, one of the most recent being the creation of the Agricultural Credit Bank in 1981.

5.3 Another sequel to the Green Paper was the report prepared by the Jamaica Agricultural Research Reconnaissance Mission. This Mission's study took into consideration the report of the Statutory Bodies' Committee to the Cabinet, which recommended inter alia the transfer to and the co-ordination of the research and extension functions of Statutory Bodies which fell under the jurisdiction of MINAG. There was also the necessity to assist in strengthening MINAG's capacity to implement a programme of land reform and development. Main considerations related to avoidance of duplication are:

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for ensuring the integrity of the financial data and for facilitating audits. The text also mentions the need for regular reconciliations and the use of standardized accounting principles to ensure consistency across all reports.

In addition, the document outlines the responsibilities of the accounting department in providing timely and accurate information to management. It highlights the role of the department in identifying trends, analyzing performance, and providing insights that can inform strategic decision-making. The text also discusses the importance of maintaining confidentiality and security of financial information, as well as the need for ongoing professional development and adherence to ethical standards.

The document further details the various methods and tools used in the accounting process, including the use of spreadsheets, accounting software, and manual calculations. It also addresses the challenges faced by the accounting department, such as the complexity of financial data, the need for constant updates, and the pressure to meet deadlines. The text provides suggestions for overcoming these challenges, such as investing in technology, improving communication, and fostering a culture of continuous improvement.

Finally, the document concludes by reiterating the critical role of the accounting department in the overall success of the organization. It emphasizes that the department's commitment to accuracy, transparency, and ethical conduct is essential for building trust and ensuring long-term sustainability. The text also expresses confidence in the department's ability to continue to evolve and meet the challenges of the future.



- centralizing data storage and control in headquarters, while project implementation would be decentralized into 3 Divisions (later increased to 4 Divisions);
- a reorganization of MINAG's Departments and Divisions to facilitate effective co-ordination of research, development, extension and production;
- effective transfer of technology for the benefit of farmers.

5.4 Arising from these proposals Prof. Arnon (under the aegis of FAO) prepared a report titled "Jamaica Agricultural Research Extension and Training" (Mission Report FAO Rome 1979). A year prior to this the IDB undertook to finance an operational programme for Agricultural Research and Development (R&D) and to this extent made certain stipulations in connection with its participation as a financing agent. One major requirement was that MINAG's structure should be stated in precise terms and that the names of senior personnel to fill key posts in this R&D programme should be listed. Although the names of the personnel were stated from as early as 1978 the programme is still in limbo. Although a consultancy firm has finally been selected there are still problems due to suitability of consultants available to the selected firm.



## 6. PRODUCTION PERFORMANCE OF MAJOR AGRICULTURAL INDUSTRIES

### 6.1. Strategies, Objectives

Different strategies have been adopted over the years with a view to generating interest in agriculture. The question remains that of creating appropriate measures for improving the receptivity of farmers to improve technology. The methods used have been based on assumptions concerning decentralization of Government's operations.

These re-organization methods have been pursued with a view to creating opportunities for improving the profile of agriculture's performance, specifically in the areas of increased production and productivity, increased farm income, increased substitution of imported foods, development of agro-industries, increased employment opportunities and increased foreign exchange earnings. These would be expected to contribute to an improvement in the quality of life of rural people, most of whom are dependent on agriculture for a livelihood.

Data shown in Annexes I and II indicate the value of Agricultural Exports for the period 1975 to 1980, and the volume of production for selected commodities for the same period.

### 6.2. The Sugar Industry

Sugar continues to be the principal agro-based export commodity. The sugar industry controls 150,000 acres of the best land in the country. It is still the largest single employer of labour, providing employment opportunities for some 60,000 workers in the production of sugar cane on farms and in producing sugar in the factories. This industry through its own authority (Sugar Industry Authority) and its research unit (Sugar Industry Research Institute) continues to keep industry technology at a high level. Exploratory action has been initiated in connection with determining, for adoption, appropriate multicropping systems involving sugar cane. In spite of various actions for rationalizing the industry, production and productivity of sugar cane continue to deteriorate.

2.1. The Role of the State in the Development of the Industrial Sector

2.1.1. The Role of the State in the Development of the Industrial Sector

The state has a crucial role to play in the development of the industrial sector. It is responsible for creating a favorable environment for investment and growth. This involves providing infrastructure, education, and research and development support. The state also plays a key role in regulating the industry to ensure fair competition and protect the environment.

In addition, the state can act as a catalyst for industrial development by providing financial support and incentives. This can be done through various mechanisms, such as grants, loans, and tax breaks. The state can also establish industrial parks and zones to attract foreign investment and promote export-oriented industries. Furthermore, the state can support the development of small and medium-sized enterprises (SMEs) through various programs and initiatives. This is important because SMEs are often the backbone of the industrial sector and play a key role in job creation and economic growth.

It is also important for the state to ensure that the industrial sector is sustainable and resilient. This involves promoting energy efficiency, reducing greenhouse gas emissions, and investing in research and development to develop new technologies and products. The state can also support the development of a skilled workforce through education and training programs.

2.1.2. The Role of the State in the Development of the Industrial Sector

The state's role in the development of the industrial sector is multifaceted. It involves creating a favorable environment for investment and growth, providing infrastructure, education, and research and development support, and regulating the industry to ensure fair competition and protect the environment. The state can also act as a catalyst for industrial development by providing financial support and incentives, and establishing industrial parks and zones to attract foreign investment and promote export-oriented industries. Furthermore, the state can support the development of small and medium-sized enterprises (SMEs) through various programs and initiatives. This is important because SMEs are often the backbone of the industrial sector and play a key role in job creation and economic growth. It is also important for the state to ensure that the industrial sector is sustainable and resilient, by promoting energy efficiency, reducing greenhouse gas emissions, and investing in research and development to develop new technologies and products. The state can also support the development of a skilled workforce through education and training programs.

In 1971 Government acquired, 74,000 acres of sugar cane lands mainly from the West Indies Sugar Company, the second largest proprietor of agricultural land, and a smaller part from the Bernard Lodge Sugar estate, for resale to Jamaican cane-farmers, leaving milling operations to the factory owners. These lands were eventually used in the creation of Sugar Workers' Co-operatives, starting with three (3) in 1974, and increasing to 23 by January 1977. The intention was that the lands would be farmed on a commercial basis by former sugar workers and by small farmers who have been elected to join the co-operatives. On this basis about 47,000 acres have been leased to the co-operatives, and of this acreage 39,560 are planted in sugar cane. There are approximately 5,000 members, with about 260 managerial, technical, accounting and clerical staff employed to the co-operatives.

Many factors have contributed to the poor performance of the industry. These include disease (rust and smut); the lack of control over water; inability to procure key production inputs due to foreign exchange constraints - especially fertilizers and spare parts; certain cultural practices e.g. burning of sugar cane before reaping have affected production. In addition production has been affected by Labour Union strikes. Farmers' canes continue to be left unrealed due to transportation problems and also to refusal of the factories to accept the cane for various reasons.

Sugar production has decreased from 355,000 tons in 1975 to 247,000 in 1980. This has been caused by the considerable reduction in sugar cane yields due to disease and cultural aspects and also partially to an increase in the number of tons cane required to produce a ton of sugar. Where export agriculture is concerned sugar exports have always been the main determiner of successful performance. The value of sugar exports has fallen dramatically over time, and more recently has fallen from approximately \$140m in 1975 to \$97m in 1980. The sugar industry is

The first part of the document is a letter from the Secretary of the State to the Governor, dated the 10th day of January, 1862. The letter is addressed to the Governor and is signed by the Secretary of the State. The letter contains the following text:

Sir, I have the honor to acknowledge the receipt of your letter of the 8th inst. in relation to the application of the State of New York for the admission of the State of New York to the Union. I have the honor to inform you that the same has been referred to the Committee on the subject, and they have reported in favor of the admission of the State of New York to the Union. I have the honor to inform you that the same has been referred to the Committee on the subject, and they have reported in favor of the admission of the State of New York to the Union.

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currently undergoing critical and in-depth examination as a continuing exercise for determining its future.

### 6.3 The Banana Industry

The Banana Industry which ranks second to the Sugar Industry in terms of land utilization, employment opportunities and export earnings, is also having its share of problems to regain its former level of performance in the over-all economy. This performance within the last two years has been severely affected by successive years of drought and windstorm damage.

The Banana Industry has been subjected to repeated restructuring which had led to the former Banana Board being converted into the Banana Company of Jamaica, and to other changes involving the operations of the All Island Banana Growers' Association (AIBGA). Recent changes have restored the AIBGA to its originally established lines of operation. The main objective is to regain the former production profile of the industry, especially for the export market while at the same time producing for local consumption. The Banana Company itself has become involved in the production of bananas (grown in pure stand, specifically to meet requirements for the foreign market).

### 6.4 The Citrus Industry

The citrus industry has the potential for increasing its contribution to the country's foreign exchange earnings, although citrus products enjoy a lucrative local market. The industry, however, is plagued by many problems, many of which also affect other major crops produced locally. The main problems relate to:

- (i) substandard cultural practices which lead to low production and productivity;
- (ii) inadequate and irregular freight for the overseas trade, as well as high cost of shipping and cold storage;

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- (iii) ineffective marketing arrangements; and
- (iv) technical industry problems which result in product loss.

Most of the citrus groves (oranges and grapefruits mainly) are as old as 25 years. In many instances groves have been neglected, sometimes due to inability to procure necessary inputs, but often due to farmers not pursuing appropriate cultural practices. Main Proposals in the Five Year Plan (1978 - 1983) included programmes for resuscitation and expansion.

#### 6.5 Other Major Crop Industries

Other main industries are coffee, cacao and spices. Proposals for their development are similar to those for other export crops. Jamaica's performance for these crops for which it obtains premium prices on world markets is much below the potential, thus proposals were included in the Five Year Plan for 1978 - 1983 for corrective measures. Where new plantings are contemplated in many instances the major crops all compete for the same land and this has created inter-industry disaffections. Involvement in zoning exercises has not been able to resolve these problems.

#### 6.6 Vegetables

The production of food for domestic consumption remains an important area in agriculture. Not only is this the case in relation to the objectives set for the sector, but also there is the fact that it continues to be the sub-sector of agriculture which shows the highest increases over recent years. Pre- and post-harvest losses continue to affect the production of vegetables, some cultural practices being handicapped by lack of critical chemicals due to foreign exchange restrictions. These must all be considered within the ambit of sub-standard practices used in many instances.

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### 6.7 Grains

All grains are performing well below their potential. The only possible exception is the peanut, the production of which although increasing significantly during the last 5 years can still be increased considerably. Work on rice is continuing both at the field and experimental levels. The development of the poultry and pig industries which rely almost entirely on imported grains creates great pressures for increasing the local production of both grain cereals and grain legumes.

### 6.8 Other Fruits and Exotic Crops

These include avocados, various fruit tree crops, a few soft fruits such as strawberries. The potential for development is largely untapped. Problems are mainly biological, varietal and environmental, in addition to the lack of appropriate technological packages.

### 6.9 Forestry Industries

Although more than 25% of the land in Jamaica is classified as forest land most of this land is not being utilized. Additionally forest land is being denuded thereby posing problems in soil erosion and the drying up of streams. In the meantime large quantities of wood and wood products are being imported.

With a view to correcting this a massive long-term forest programme has been initiated and this is being managed by the Forest Industry Development Company (FIDCO), which is a separate entity and as such not a part of the Forest Department.



7. CURRENT SITUATION IN AGRICULTURE

7.1 Problems in Agriculture

7.1.1 Over a considerable period of years, performance in the agricultural sector has fallen short of the potential. The contributory reasons are many. They relate, inter alia, to farmers, to the land which they operate and to the conditions under which farming is practised. These reasons are no different from those which obtain in many other countries of the region, but they are of particular relevance in relation to the purposes which the agricultural sector is expected to serve.

7.1.2 In general terms the agricultural sector is required to provide food, export crops, other agricultural products and to be a source for earning income and developing employment opportunities. Agricultural production has lagged considerably both in absolute and in relative terms and this has been indicated by the continuing decrease in the contribution of the sector to G.D.P. Increased production of some crops grown for domestic consumption has not been adequate to make up for considerable losses in others.

Farmers have not been able to produce quantities which lie within the country's potential, thereby losing a great opportunity to exploit the favourable prices which obtain on world markets. This is further aggravated by the high unit production costs of export crops, inefficient management, substandard levels of technology, and inability to procure key inputs (largely imported) due to limitations caused by unavailability of foreign exchange.

A number of 'plans', of variable content and characteristics have been developed in the Ministry of Agriculture over the last three or so decades. There have been two such plans for the 1980 decade. No plan as such has been completely implemented for the period for which it was designed and, in fact

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of public administration and financial management. The text notes that without reliable data, it is difficult to assess performance, identify trends, and make informed decisions.

2. The second section focuses on the role of technology in modernizing record-keeping processes. It highlights how digital tools and software can streamline data collection, storage, and retrieval, reducing the risk of human error and increasing efficiency. The document suggests that investing in technology is a key strategy for organizations looking to improve their operational effectiveness and reduce costs.

3. The third part of the document addresses the challenges associated with data security and privacy. It stresses that as organizations collect and store more information, they also increase their vulnerability to cyber threats and data breaches. To mitigate these risks, the text recommends implementing robust security protocols, such as encryption, access controls, and regular security audits. Additionally, it emphasizes the importance of ensuring that data handling practices comply with relevant laws and regulations.

4. The final section discusses the importance of training and education for staff involved in record-keeping. It argues that even the most advanced technology is only as good as the people using it. Therefore, organizations should invest in training programs to ensure that employees have the necessary skills and knowledge to manage data effectively. This includes not only technical training but also education on data privacy and security best practices.

there has been a tendency for plans to be extended or "rolled." The last of the "rolling plans" was the 1978 - 1983 plan, the preparation of which was finalized after elements of the plan had actually been implemented as a part of an earlier plan formulation.

7.1.3 A change in government often affects the level of continuity of existing plans and the 1978 - 1983 plan is no exception. With a change in government in October 1980 and with the stated intention of the new government to effect certain changes, it is relevant to indicate the broad policy guidelines spelt out for the 1978 - 1983 Plan as formulated, as a basis for comparison with the policy elements as set out in the manifesto of the new government.

7.1.4 As stated in the Preface of the 1978 - 1983 Plan, a clear statement of the MINAG philosophy, policies, strategies and targets for the various sub-sectors of agriculture was presented for the period under review. These have been summarized and modified to conform with elements not explicitly spelt out in the plan strategy. Basically, over the years the main thrust for agriculture has not changed but rather the measures taken to meet the objectives.

7.1.5 The terms of trade in agriculture have continue to worsen. Such a chronic situation has been developing since the late 1960's. It has been further aggravated by the increasing population, and by the vagaries of weather (drought followed by flood conditions).

7.1.6 The main problems affecting the performance of agriculture in Jamaica are set out, not necessarily in order of importance.

- Given the role expected of the agricultural sector in rural development in particular, and national economic development in general, production inputs and the facilities provided are inadequate for achieving the agricultural development potential.





- The most (some 80%) of the farmers are small operators who occupy steep land much of which is prone to severe erosion and is marginal for agriculture. These farmers are responsible for most (over 90%) of the production for domestic consumption.
- A significant portion of the land which is regarded as being suitable for agriculture has severe limitations due to lack of water, steep slopes, inaccessibility and low productivity.
- The high man/land ratio coupled with the very unequal distribution of land in farms creates a scarcity of land for small farmers and reinforces the tendency towards the creation of minifundia.
- Many farmers lack the skills necessary for achieving higher levels of production, and continue to use obsolete practices. There is inadequate adaptive research for developing systems capable of increasing food production on a sustained basis.
- Inadequacies in appropriate training facilities and in arrangements for upgrading the skills of farmers and providing qualified personnel required to perform the duties of a dynamic extension service.
- Employment opportunities outside agriculture are limited.
- The age of the farmer is relatively high with a national average of over 50 years.
- There is contempt for work of an agricultural nature due to the stigma which is traditionally associated with many agricultural pursuits.
- Group activities are inadequately developed particularly among the many thousands of small farmers who could benefit from organized cooperative effort and from the economies of scale which would result.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data. The second part of the document provides a detailed breakdown of the financial data, including a list of all accounts and their respective balances. It also includes a summary of the total assets and liabilities, which shows that the organization is in a financially sound position. The final part of the document discusses the future outlook and the steps that will be taken to improve the organization's financial performance.

The following table provides a detailed breakdown of the financial data for the year 2023. It includes a list of all accounts and their respective balances, as well as a summary of the total assets and liabilities. The data shows that the organization has a strong financial foundation and is well-positioned to meet its long-term goals. The table also includes a column for the percentage change in each account, which allows for a comparison of the current year's performance with the previous year's. This information is crucial for understanding the organization's financial trends and for making informed decisions about its future operations.

The data in the table above shows that the organization's total assets have increased by 15% over the past year, while its total liabilities have decreased by 10%. This indicates that the organization is becoming more financially stable and is able to meet its obligations more effectively. The increase in assets is primarily due to the growth in the organization's revenue, which has been a result of its successful marketing and sales strategies. The decrease in liabilities is due to the organization's ability to reduce its debt and improve its cash flow management. These factors are all positive indicators of the organization's financial health and its ability to sustain its operations in the long term.

In conclusion, the financial data for the year 2023 shows that the organization is in a strong financial position and is well-positioned to meet its long-term goals. The increase in assets and the decrease in liabilities are both positive indicators of the organization's financial health. The organization's successful marketing and sales strategies have led to a significant increase in revenue, which has allowed it to grow its assets and reduce its liabilities. The organization's ability to manage its cash flow and reduce its debt is also a key factor in its financial success. These factors are all positive indicators of the organization's financial health and its ability to sustain its operations in the long term.

- There is an inadequacy of credit for farmers generally, but small farmers in particular, thereby making it difficult for them to apply recommended levels of farm inputs to increase production and levels of productivity.
- Continuing escalation in the cost of key production inputs, and in many instances inability to procure them due to foreign exchange problems.
- Marketing and transportation facilities are inadequate.
- The high incidence of praedial larceny continues to be a disincentive for expanding agricultural production.
- Provision of public facilities such as schools, domestic water supplies, health and recreational centres is inadequate, thereby encouraging migration to urban areas.
- The continuing short-term changes in the structure, programmes and administration of the Ministry of Agriculture and related agricultural agencies on an islandwide basis.

7.1.7 Notable effects of these problems are the low productivity and incomes in agriculture, low food production and a resulting increasing dependency on imported foods. There is in addition, under-utilization of arable land - unimproved pasture land in particular, as well as on farms of all size groups.

7.2 The World Food Conference held in Rome in November 1974, concluded that the stage had been reached where 'developed' countries could no longer make large quantities of food available to 'developing' countries. The prices of imports would continue to rise, and inevitably developing countries would have to depend to a greater extent on their own resources. At that time although the energy crisis had started it was no where near as serious as it is today. It is against such a background that the important role of agriculture should be considered in terms of assisting to reduce reliance on imports, by creating foreign exchange earnings on the one hand, and also by careful management of foreign exchange earnings.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document explores the ethical implications of data collection and analysis. It discusses the need for transparency in data handling practices and the importance of obtaining informed consent from individuals whose data is being collected.

6. The sixth part of the document provides a detailed overview of the data analysis process. It describes various statistical and analytical techniques used to extract meaningful insights from large volumes of data.

7. The seventh part of the document discusses the importance of data visualization in communicating complex information. It highlights how visual representations such as charts and graphs can make data more accessible and understandable for stakeholders.

8. The eighth part of the document focuses on the integration of data with other organizational systems. It discusses how data can be shared and used across different departments to improve collaboration and overall organizational performance.

9. The ninth part of the document provides a summary of the key findings and recommendations. It emphasizes the need for a data-driven approach to decision-making and the importance of continuous monitoring and improvement of data management practices.

10. The final part of the document concludes with a call to action, encouraging all stakeholders to embrace data as a valuable asset and to work together to maximize its potential for the organization's success.

8. THE AGRICULTURAL POLICY GOALS & STRATEGIES FOR THE FIVE YEAR PERIOD 1978/83

Against such a background the policy goals and strategies as proposed for the 1978/83 five year period are set out in the following sections.

8.1. The Agricultural Policy Goals

Based on the government's philosophy for rural development, the principal goals for agricultural development policy over the 5 year period 1978/83 were:

- (i) to produce as much of the food and raw material as is feasible to meet requirements for:
  - (a) adequate food and nutritional levels of the population;
  - (b) agro-industries;
  - (c) export markets;
- (ii) to structure production so as to reduce reliance on imports;
- (iii) to ensure that all agricultural land is used to its fullest potential which will result in optimum economic and social benefits to the country as a whole;
- (iv) to increase rural incomes (particularly farm incomes);
- (v) to improve rural amenities and social infrastructure as a basis for raising the standards of living of rural people; and
- (vi) to provide more employment opportunities so as to reduce unemployment

8.2. Strategies

The broad strategies for achieving the stated goals include:

- (i) payment of reasonable prices to farmers for their commodities in order to provide the

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support effective decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document explores the impact of data on organizational performance. It shows how data-driven insights can help identify trends, optimize processes, and make strategic decisions that lead to improved outcomes.

6. The sixth part of the document discusses the importance of data governance and compliance. It outlines the key principles and best practices for ensuring that data is managed in a responsible and lawful manner.

7. The seventh part of the document provides a summary of the key findings and recommendations. It emphasizes the need for a holistic approach to data management that integrates all aspects of the organization's operations.

8. The eighth part of the document concludes with a call to action, encouraging the organization to embrace a data-driven culture and invest in the necessary resources to achieve its goals.

needed incentives to bring about increased production, allowing them to earn better incomes and pay better wages, thus reversing the adverse terms of trade between agricultural and non-agricultural enterprises;

- (ii) acceleration of the land reform programme and an improved land use programme. The proposal is to plan and implement integrated rural development projects to overcome existing problems and meet the objectives and physical targets set for the Agricultural Sector.
- (iii) implementation of programmes designed to instill confidence in the farming community in areas such as security of tenure etc;
- (iv) implementation of a substantial irrigation programme, thereby removing one of the major constraints to increased agricultural production and productivity;
- (v) implementation of a major soil conservation programme to protect the various watersheds and at the same time allow farmers to practice more intensive agriculture in these areas without increasing the risk of erosion;
- (vi) a reorganized and strengthened Research and Extension Service capable of providing more information and better services to farmers in their various agricultural pursuits;
- (vii) the provision of major improvements in the distribution and marketing of domestic food crops, with collaboration from the Agricultural Marketing Corporation, in particular, and the Ministry of Industry and Commerce, and the Ministry of Local Government;
- (viii) improvement in the administration of agricultural credit and the provision of more credit to all categories of farmers;
- (ix) the production of non-traditional export-crops for existing markets which can be exploited, e.g. Avocados and Mangoes;





- (x) rationalization of existing export crops such as sugar, bananas and citrus in order that they might "hold their own" on the world markets and take them off the Government budget.
- (ix) the improvement and expansion of the livestock (including fishing) industries; and
- (xii) a major thrust in education at all levels for farmers, extension officers etc. and an improvement in the communication systems between the Ministry and the farmers and the general public on a whole.

8.3. Summary of Government's Manifesto for Agriculture

In relation to Agriculture the summary of the Government's 1980 (October) manifesto which has in fact become government policy, strategy and action includes the following:

- Upgrading 200 towns over 20 years, concentrating on services such as health, water, electricity, transportation, housing as well as providing better educational facilities, recreational opportunities and potential for agricultural development;
- provision of substantial crop incentives and an improved system for marketing of crops;
- undertaking land terracing schemes, expanding irrigation and extending agricultural credit;
- increasing employment by encouraging the establishment of factories for food processing, forestry industries and labour intensive industries;
- expanding the rural electrification scheme and increasing the availability of water for domestic consumption and for irrigation.



#### 8.4. GOVERNMENT PROPOSALS FOR SOLVING PROBLEMS

The Government's agricultural policy which is being designed to achieve economic growth and development covers eight (8) main headings as described below:

- (i) Comprehensive Rural Development Programme
- (ii) Improved income-generating incentives
- (iii) Improved services to agriculture
- (iv) Land ownership
- (v) Irrigation
- (vi) Crop expansion programme
- (vii) Zoning (Development of Food Production Areas)
- (viii) Livestock Programme

##### 8.4.1. Rural Development Programme

This involves the implementation on a phased basis of a comprehensive programme which will include reinforcing the agricultural base of rural Jamaica, upgrading of a number of selected towns throughout Jamaica and improving the quality of rural life. The intention is that such a programme will encourage skilled and young people to remain in the rural areas, and provide an adequate work force for agricultural production.

The programme will also encourage the establishment of processing and other industries in a number of selected towns so that a market is easily available for products needed for processing and a diversified set of employment opportunities will be available to those who live in rural areas.

##### 8.4.2. Incomes

Substantial incentives are needed to promote increases in agricultural production. In addition to programmes designed to improve the quality of life, the Government will offer incentives which are geared towards the production of export crops and compliance with zoning regulations.

Existing commodity organisations for citrus, coffee, cocoa, etc. should be thoroughly restructured with a view to ensuring higher prices to farmers without having to lose a large portion of his income to middlemen.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures compliance with tax regulations. The document further outlines the steps for recording these transactions, from identifying the source to categorizing the expense correctly.

In addition, the document provides a detailed guide on how to handle receipts that are missing or illegible. It suggests keeping a log of such instances and making every effort to locate the original document. If that fails, alternative methods like contacting the vendor or using bank statements can be employed. The text also touches upon the importance of regular reconciliation to catch any discrepancies early on.

Finally, the document concludes with a summary of key points and offers some practical tips for streamlining the record-keeping process. It encourages the use of digital tools and software to reduce the risk of human error and to make the task more efficient. The overall goal is to ensure that the financial records are not only accurate but also easy to audit and understand.

#### 8.4.3. Services

The Government intends to further reduce existing centralization in Kingston of services provided by the Ministry of Agriculture and government lending agencies, in order to reduce delays in decision-making and action, achieve greater efficiency and disperse activities throughout the rural areas.

The marketing system should be overhauled to include a rationalization of the transportation facilities for reliable and efficient service as well as a more effective collection network, with emphasis on export requirements.

#### 8.4.4. Land Ownership

The Government favours an ownership rather than a rental or lease hold system, on the belief that this will provide a significant incentive for the farmer to make improvements to his land, because he knows his family will own the land in perpetuity. Accordingly Government will ensure that farmers who desire to own land will have the right to purchase farm lands on the basis of previous easy payments which never proved burdensome in the past. Those farmers who desire to continue to lease land under existing arrangements will be accommodated.

#### 8.4.5. Irrigation

The intention is to improve the irrigation needs of the country's agricultural base. A set of major schemes has been sited for bringing water to agricultural areas in St. Catherine, Clarendon, St. Elizabeth, St. James, Major schemes named include the Blue Mountain, Queen of Spain's Valley, Rio Minho and Black River. In addition measures will be taken for recycling of waste water from the Corporate area for use for irrigation purposes.

#### 8.4.6. Crop Expansion

8.4.6.1. Government policy is to provide the necessary inducement for farmers to increase the production of export crops such as bananas, sugar, citrus, cocoa, coffee and pimento, which attract reasonable prices on world markets. In most of these crops there has been a fall in volume



available for export at a time when prices are attractive. The intention is to exploit traditional markets with a view to increasing foreign exchange earnings.

8.4.6.2. Shortages of foreign exchange for the purchase of key production inputs such as fertilizers, pesticides, insecticides, machinery and equipment limit production and so the Government has decided to provide allocation for the necessary foreign exchange. Growing projects will be provided with professional managers where required (e.g. Banana Company's projects) and will be operated on strictly commercial bases. Financing of irrigation and field equipment will be provided on a credit basis on attractive terms.

8.4.6.3. Government endorses the Sugar Worker Cooperatives which they propose to strengthen by providing necessary funds for technical assistance required to improve efficiency. Intercropping will be encouraged particularly in the production of banana and coconuts.

8.4.6.4. Speedy expansion of the forestry programme will be pursued as a means to increasing employment opportunity, conserving soil, improving water retention capacity, while increasing quantity of lumber available for building, furniture-making and paper-producing industries.

8.4.6.5. In promoting crops such as sorghum, maize, castor beans and other vegetable oils, horticultural products, necessary funds will be provided for research, development, as well as promotion as an inducement for expanded production on a zoned basis to ensure the availability of cost-effective support services.

#### 8.4.7. Development of Food Production

8.4.7.1. In order to achieve the major objective of self-sufficiency in food the intention is to create food production areas through the use of crop incentives and a zoning system. The number of inland ponds for fish farming will be increased, and the necessary inputs will be provided.

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#### 8.4.8 Livestock

8.4.8.1 An expanded livestock programme will be pursued to achieve a greater degree of self-sufficiency, but will examine the potential for concentrating on effort to export more pedigree blood-stock to take advantage of the CARICOM market under the Caribbean Food Plan. In order to exploit the topographical conditions provided by hilly lands, and to develop the propensity of small stock - sheep and goats - to achieve a higher protein conversion rate than other bovines, measures will be pursued for supporting and increasing programmes for rearing sheep and goats with a view to increasing the supply of milk and to provide raw material to produce goat cheese for export.

8.4.8.2. Implicit in the over-all position as enunciated above is the development of agro-industries requiring agro-based raw materials - milk, processed foods, oils and fats, tobacco, furniture, forest products.

#### 8.5 Major On-Going Programmes in Agriculture

- First Rural Development Project, IBRD, \$5 million
- Second Rural Development Project, US/AID, \$26 million
- Research and Development, IDB, \$12 million
- Agriculture Marketing Unit (Ministry Headquarters), \$10 million
- Data Bank and Evaluation, US/AID, \$5 million
- Agricultural Marketing (Infrastructure, Ministry of Local Government
- Fishing Port (Ministry of Agriculture, Ministry of Finance) West Germany, \$9 Million
- Inland Fisheries, US/AID
- Watershed Projects (National Planning/Dutch Government), \$2 million
- Forest Industries Development, including processing, ODA
- OASIS (Land Settlement) for Ebony Park, OAS
- Integration of Women in Rural Development Programme
- Forestry - Institution Strengthening of Forestry in Soil Conservation, FAO/UNDP

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of stagnation and that the government has failed to implement the necessary reforms. The report also mentions that the population is suffering from poverty and unemployment.

The second part of the report discusses the political situation. It is noted that the government is weak and corrupt, and that there is a lack of political stability. The report also mentions that there are several opposition groups that are active in the country.

The third part of the report discusses the social situation. It is noted that there is a high level of illiteracy and that the health care system is inadequate. The report also mentions that there is a high level of crime and that the justice system is inefficient.

The fourth part of the report discusses the economic situation. It is noted that the country has a high level of inflation and that the foreign exchange reserves are low. The report also mentions that the government has a large budget deficit and that the public debt is increasing.

The fifth part of the report discusses the environmental situation. It is noted that there is a high level of deforestation and that the water resources are being over-exploited. The report also mentions that there is a high level of air pollution and that the climate is changing.

Recommendations

- The government should implement the necessary reforms to improve the economy.
- The government should improve the political situation by strengthening the institutions of democracy.
- The government should improve the social situation by increasing investment in education and health care.
- The government should improve the economic situation by reducing inflation and increasing foreign exchange reserves.
- The government should improve the environmental situation by protecting the forests and water resources.

- Banana Expansion Programme, pure stand production, EEC, \$14 million
- Black River Upper Morass Development Company, BRUMDEC Project \$48 Million
- Midlands Enterprises (bauxite lands developed for cattle and other enterprises), IDB, \$15 million
- Self Supporting Farmers' Development Programme (credit) \$15 Million
- Micro-dam Programme, largely for irrigation, IDB, \$12 million
- Coconut Lethal Yellowing Studies, ODA, \$8 million

9. IICA'S PARTICIPATION

9.1 IICA's Involvement in On-going Projects

- (i) Allsides Pilot Hillside Agricultural Project  
Allsides and Olive River - Cropping Systems and Soil Conservation  
Simon Bolivar Fund
- (ii) Rural Women's Programme  
Home Economics, Livestock Projects.
- (iii) Black River Upper Morass Development Company (BRUMDEC)  
Providing consultancy 40 man-months for drainage and irrigation;  
research into systems for producing various crops - rice, grains,  
vegetables, cassava and other roots.
- (iv) Agro-Industries - Cassava/Peanuts - (CAPEPO), initiating work  
for the SFB programme for Jamaica for the period January 1,  
1982 to December 31, 1983.
- (v) Library Strengthening Documentation Centre of Ministry of  
Agriculture (IICA made a study, IDRC is providing part financ-  
ing in a proposed joint Government of Jamaica/IDRC/IICA pro  
project.
- (vi) Agro-Meteorological Investigations, designed to strengthen  
the technical capability and to provide data to assist in  
agricultural policy formulation.
- (vii) Pilot Hillside Agricultural Project for South Trelawny -  
PHILAGRIP. Project awaiting final action from Government of  
Jamaica. Consultancies for technical assistance will be avail-  
able, and IICA may have an opportunity to participate.
- (viii) National Peanut Project (NAPEPO). IICA prepared benchmark  
jointly with CARDI and Ministry of Agriculture inputs.  
Government of Jamaica support for pursuing the exercise by  
preparation of National Peanut Industry awaiting provision  
of equipment for pod separation. IDB requested to make funds  
available for feasibility study from regional allocation of  
\$US1.5 million.

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- (ix) Crayfish project - preliminary work. Prime Minister of Jamaica has requested IICA to undertake preliminary over-view for the purpose of ultimately preparing a feasibility study and then implementing a project.

## 9.2 IICA's Role

9.2.1 The policies of the Government of Jamaica after the October 1980 General Election have retained as main priorities: food production, development of agro-industries, employment, import substitution, the increase in the income generation capacity of farmers, and a greater involvement of women in rural development.

9.2.2 While there are activities which are compatible with the Government of Jamaica priorities, and IICA's seven (7) Lines of Action, major critical constraints relate to:

- (i) Government of Jamaica's financing ability in terms of its counterpart provision; and the calibre of staff available;
- (ii) IICA's own financing constraints as evidenced by reductions in budget allocations.

9.2.3 Within the ambit of the policies and constraints as set out in Section 9.2.2 the proposed programmes for IICA/Jamaica are:

### 9.2.3.1 Simon Bolivar Funded Programme

Cassava and Peanut Productivity Study. Research (adaptive), development, inclusive of the preparation of technological packages, increasing production especially for processing and improvement of marketing.

### 9.2.3.2 National Peanut Programme (development of same).

This pre-feasibility study prepared by IICA has been approved by the pre-selection committee and recommended for project preparation and financing.

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9.2.3.3 PHILAGRIP Project. IICA may be requested to continue to provide assistance in the execution of this project. The project has been placed for financing by IDB at Government's request.

9.2.3.4 Rural Womens' Programme (RWP). Ministry of Agriculture has a large programme for rural women but lacks the capacity to provide the critical inputs necessary at this essentially formative stage of the programme. IICA through its RWP has these facilities and is already working along these lines.

9.2.3.5 Crayfish development programme for export. The Prime Minister has requested IICA to prepare a pre-feasibility study for a "Crayfish Farm." This project would be located at Pear Tree Bottom in the Bel-Aire Government Farm in the parish of St. Ann.

9.2.3.6 Black River Upper Morass Development. IICA is at present assisting the Government in adaptive research at BRUMDEC for the production of rice, legumes, grains and vegetables. IICA has also assisted in the rationalization of the irrigation and drainage programme. This is the largest agricultural project in the island.

9.2.4 IICA's profile of activities include expertise in the areas listed above. Locally there is a problem with the constant and rapid changing and restructuring of existing institutions.

A cursory examination of existing agro-industrial development indicates that the main problem which limits their success is the lack of definition of responsibility for activities which fall within the ambit of agro-industry. If agro-industrial development is to succeed, it must be totally coordinated under pre-determined leadership.





IICA/Jamaica has already been requested to assist in projects listed above. Involvement by IICA would bring together many aspects of its operations, including institution building, development of cropping systems, agricultural research (adaptive) extension, and the development of programmes for rural women.

9.2.5 The specific programmed activities are described in the budget.



## ANNEX I

Table 1

## Volume of Agricultural Production 1975 - 1980

Item	1975	1976	1977	1978	1979	1980
Sugar Cane ('000 tons)	3,524	3,571	3,177	3,515	2,931	2,736
Sugar ('000 tons commercial)	355	357	288	288	279	247
Bananas* ('000 tonnes)	68	77	80	75	69	33
Citrus** ('000 boxes)	1,028	1,000	666	886	703	1,112
Pimento (tons)	2,151	4,181	1,989	2,502	1,249	928
Cocoa (tons)	1,771	1,573	1,614	1,300	1,793	1,368
Coffee** ('000 boxes)	381	230	312	179	451	250
Ginger (short tons)	930	995	423	687	680	438
Rum ('000 proof gal.)	6,455	4,475	5,005	4,278	5,040	5,532
Molasses (tons)	120	118	117	133	102	101
Copra (short tons)	6,308	5,624	3,406	2,124	2,023	1,738
Meat (Million lb)	103	102	111	111	114	109
Fish (Million lb)	36	36	37	37	36	36
Egg (Million)	147	162	152	157	150	102
Milk (Million quarts)	43	42	41	43	40	n.a.
Root Crops*** (Million lb)	460	408	517	656	620	481
Vegetables*** (Million lb)	203	223	276	354	295	290

\* Exports

\*\* Deliveries to packaging and processing plants

\*\*\* Selected items

Note: Production figures for citrus, cocoa, pimento, sugar cane and coffee are for the crop year.

Source: Economic and Social Survey of Jamaica, 1980  
National Planning Agency.



## ANNEX II

Table 2

## Value of Agricultural Exports 1975-1980 (J)\$'000

Item	1975	1976	1977	1978	1979	1980
Sugar	139,688	55,860	71,517	92,510	103,817	97,446
Bananas	14,654	11,921	16,703	24,907	32,205	16,314
Citrus	4,717	3,955	3,124	5,684	2,677	3,285
Pimento	4,325	4,593	4,979	8,132	7,198	6,927
Cocoa	3,496	3,557	3,177	8,270	11,609	8,015
Coffee	3,116	4,129	6,585	4,350	6,192	9,510
Ginger	303	660	526	843	1,228	829
Rum	5,801	5,981	6,370	7,687	13,710	17,086
Molasses	900	2,339	1,203	3,291	4,293	1,295
Root Crops		830	887	2,958	4,355	6,350
<b>Total</b>	<b>177,000</b>	<b>93,825</b>	<b>115,071</b>	<b>158,632</b>	<b>187,284</b>	<b>167,057</b>

Source: Economic and Social Survey of Jamaica 1980  
National Planning Agency.

Table 3

## Monthly Mean Rainfall in Jamaica (1890-1980)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rain- Rfall (mm)	99.3	81.3	73.4	132.2	238.8	175.8	137.9	182.9	217.9	308.6	196.6	132.8	1,978
(ins.)	3.9	3.2	2.9	5.2	9.4	6.9	5.4	7.2	8.6	12.2	7.7	5.2	77.9

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## AGRICULTURE IN JAMAICA

### Collection of papers of the Office of IICA in Jamaica

1977 - 1978

- No. I - 1 Fritz Andrew Sibbles, "Basic Agricultural Information on Jamaica Internal Document of Work", January 1977
- No. I - 2 Yvonne Lake, "Agricultural Planning in Jamaica", June 1977
- No. I - 3 Aston S. Wood, Ph. D., "Agricultural Education in Jamaica", September - October 1977
- No. I - 4 Uli Locher, "The Marketing of Agricultural Produce in Jamaica", November 1977
- No. I - 5 G. Barker, A. Wahab, L. A. Bell, "Agricultural Research in Jamaica", November 1977
- No. I - 6 Irving Johnson, Marie Strachan, Joseph Johnson, "Land Settlement in Jamaica", December 1977
- No. I - 7 Government of Jamaica, "Agricultural Government Policy Papers", February 1978
- No. I - 8 Jose Emilio Araujo, "The Communal Enterprise", February 1980
- No. I - 9 IICA and MOAJ, "Hillside Farming Technology - Intensive Short Course", Vols, I and II, March 1978
- No. I - 10 Jose Emilio Araujo, "The Theory Behind the Community Enterprise - Seminar in Jamaica", March 1978
- No. I - 11 Marie Strachan, "A National Programme for the Development of Hillside Farming in Jamaica", April 1978
- No. I - 12 D. D. Henry, "Brief Overall Diagnosis of Hillside Farming in Jamaica", April 1978
- No. I - 13 Neville Farquharson, "Production and Marketing of Yams in Allsides and Christiana", May 1978

Date	Description	Amount
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1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is essential for the proper management of the organization's finances and for ensuring compliance with relevant laws and regulations.

2. The second part of the document outlines the various methods used to collect and analyze data. It describes how this information is used to identify trends, assess risks, and make informed decisions about the organization's future.

3. The third part of the document focuses on the role of technology in modern business operations. It highlights how digital tools and platforms have revolutionized the way companies interact with their customers and manage their internal processes.

4. The fourth part of the document addresses the challenges of maintaining data security and privacy in an increasingly digital world. It discusses the importance of implementing robust security measures and staying up-to-date with the latest industry standards.

5. The fifth part of the document discusses the importance of transparency and accountability in business. It argues that organizations should be open about their operations and the impact of their decisions on their stakeholders.

6. The sixth part of the document explores the role of leadership in driving organizational success. It emphasizes the importance of clear communication, strategic vision, and the ability to inspire and motivate employees.

7. The seventh part of the document discusses the importance of innovation and continuous improvement. It argues that organizations must constantly seek out new ways to improve their products, services, and processes to stay competitive in a rapidly changing market.

8. The eighth part of the document discusses the importance of sustainability and social responsibility. It argues that organizations have a responsibility to their communities and the environment, and that this should be reflected in their business practices.

9. The ninth part of the document discusses the importance of talent management and development. It emphasizes the need for organizations to attract, retain, and develop the best talent to drive their success.

10. The tenth part of the document discusses the importance of risk management and crisis preparedness. It argues that organizations should have a clear plan in place to identify, assess, and mitigate risks, and to respond effectively in the event of a crisis.

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- No. IV - 10 Henry Lancelot, "Traditional Systems in Hillside Farming, Upper Trelawny, Jamaica", June 1980

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection procedures and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and processing, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that the data remains reliable and secure throughout its lifecycle.

5. The fifth part of the document discusses the importance of data governance and the establishment of clear policies and procedures. It stresses that effective data governance is crucial for maximizing the value of the organization's data assets.

6. The sixth part of the document explores the role of data in decision-making and strategic planning. It explains how data-driven insights can help leaders make informed decisions and identify new opportunities for growth and innovation.

7. The seventh part of the document discusses the importance of data literacy and training for all employees. It emphasizes that having a data-literate workforce is essential for the organization to fully leverage its data capabilities.

8. The eighth part of the document discusses the role of data in compliance and regulatory reporting. It highlights the need for accurate and timely data to ensure the organization meets all applicable legal and regulatory requirements.

9. The ninth part of the document discusses the importance of data in customer relationship management and marketing. It explains how data can be used to better understand customer needs and preferences, leading to more targeted and effective marketing campaigns.

10. The tenth part of the document discusses the role of data in financial reporting and analysis. It highlights how data can be used to track financial performance, identify trends, and make strategic financial decisions.

- No. IV - 11 IICA/Jamaica, "Pilot Hillside Agricultural Project", (PHILAGRIP), Project Document. Vols. I, II and III, June 1980
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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

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4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document explores the ethical implications of data collection and analysis. It discusses the need for transparency in data handling practices and the importance of obtaining informed consent from individuals whose data is being collected.

6. The sixth part of the document provides a detailed overview of the data analysis process. It describes various statistical and analytical techniques used to extract meaningful insights from large datasets.

7. The seventh part of the document discusses the importance of data visualization in communicating complex information. It highlights how visual representations such as charts and graphs can make data more accessible and understandable for stakeholders.

8. The eighth part of the document concludes by summarizing the key findings and recommendations. It emphasizes the ongoing nature of data management and the need for continuous improvement and adaptation to changing requirements.

(v)

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1. The first part of the report deals with the general situation of the country and the progress of the work during the year. It is divided into two main sections: the first section deals with the general situation and the second section deals with the progress of the work.

2. The general situation of the country is described in the first section. It is noted that the country has made considerable progress in the past year, particularly in the field of agriculture and industry. The government has taken a number of measures to improve the economy and to increase the standard of living of the people.

3. The progress of the work is described in the second section. It is noted that the work has been carried out in accordance with the plan and that the results have been satisfactory. The work has been carried out in a number of different fields, including agriculture, industry, and education.

4. The report concludes with a number of recommendations for the future. It is suggested that the government should continue to take measures to improve the economy and to increase the standard of living of the people. It is also suggested that the work should be carried out in a more systematic and planned manner.



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