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Report No. P-1331-RW

REPORT AND RECOMMENDATION

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED CREDIT

TO

THE REPUBLIC OF RWANDA

FOR AN

AGRICULTURAL DEVELOPMENT PROJECT

October 25, 1973

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CURRENCY EQUIVALENT

Units:	=	Rwandese Franc
US\$ 1	=	RwF 82.9
RwF 1	=	US\$ 0.01
RwF 1,000	=	US\$ 12.06
RwF 1,000,000	=	US\$ 12,062.73

INTERNATIONAL DEVELOPMENT ASSOCIATION

REPORT AND RECOMMENDATION OF THE PRESIDENT TO THE EXECUTIVE
DIRECTORS ON A PROPOSED CREDIT TO THE REPUBLIC OF
RWANDA FOR AN AGRICULTURAL DEVELOPMENT PROJECT

1. I submit the following report and recommendation on a proposed development credit to the Republic of Rwanda for the equivalent of US\$3.8 million on standard IDA terms to help finance an agricultural development project.

PART I - THE ECONOMY

2. A report entitled "Recent Economic Developments and Prospects of Rwanda" (AE-23a) was distributed on April 20, 1972. Country data are given in Annex I. An economic mission is now in Rwanda to update our information.

3. Rwanda became independent in 1962. In July 1973 the army took power and ended the regime which had been governing the country since independence. A new government has been formed in which several high officials of the former regime have been maintained. The change in government was not violent and economic activity has not been affected. In late August a Bank mission visited the country to review the relations between Rwanda and the Bank Group. The Government has confirmed that it is determined to pursue policies favorable to economic and social development. Aid agencies active in Rwanda are continuing their activities and are satisfied with project implementation.

4. Rwanda is one of the poorest countries in Africa with about \$60 per capita income, and is included in the UN list of the 25 Least Developed countries. The economy is predominantly agricultural. Subsistence production accounts for more than half of GDP. Coffee has been for several decades the most important cash crop and currently accounts for more than half of export earnings. Tea and pyrethrum were introduced recently and their production is increasing. Prospects for livestock development are also good. The only significant non-agricultural resources are limited quantities of cassiterite and wolfram ore which are being exploited for export.

5. The population density in Rwanda is 144 per square kilometer, one of the highest in Africa. Nearly all the arable land is occupied except for areas where settlement has been hampered by the tsetse fly. The available farmland is about one hectare per family and pastures are over-grazed. The population is increasing at a very high rate of over 3% per year, thus putting further pressure on land. Over 90% of Rwanda's population is rural; most live close to subsistence level and protein-caloric malnutrition is widespread. The country has only limited domestic resources available for investment.

6. Apart from land scarcity, another constraint to development in Rwanda is the shortage of trained and experienced manpower, particularly in the civil service. Until independence in 1962 Rwanda was administered jointly with Burundi as part of the Belgian Trust Territory of Ruanda-Urundi. After the departure of the Belgians, the Government administration was staffed anew and for a number of years suffered from a lack of competent executives. As a result of greater efforts in education and training, the shortage of qualified manpower is gradually being alleviated.

7. Another significant constraint to economic development in Rwanda is its landlocked situation and distance from the sea, with resulting high transport costs. Most external trade is through Mombasa, some 1,700 km away, on the Indian Ocean, the rest being directed to Dar-es-Salaam.

8. The economy, which had been adversely affected after independence by social disturbances and a slow down in coffee production, recovered rapidly after 1964. Real GDP grew by about 6% per year in the 1965-1970 period. This growth represented increases in incomes due to good coffee crops combined with rising export prices for coffee and wolfram. Income growth slowed down to 3.5% in 1971, mainly owing to a decline in world market prices for the major export products and particularly coffee. In 1972, coffee production probably fell to 13,000 tons as compared to 15,700 tons in 1971, and a further slow down in GDP growth probably took place despite favorable export prices for coffee. In view of the existing constraints and the uncertainties of future coffee prices, the rate of growth of the economy over the next few years will probably not exceed 5%.

9. Rwanda's first development plan for 1966-70 is still being implemented as a number of projects have yet to be completed. The Government has completed the draft of a second five-year plan. In this plan, the Government continues to give priority to diversifying the economy and increasing exports. In agriculture, emphasis is placed on further expansion of tea and pyrethrum cultivation where arable land is still available. Coffee production is expected to increase through yield improvements and concentration in areas most suitable to coffee growing. High priority is also given to increasing livestock production. Livestock raising and ranching will be encouraged on non-

arable lands, particularly in the eastern regions. In the transport sector, the Government plans to improve road maintenance and to upgrade road connections with the major export routes towards the Indian Ocean.

10. The success of the new development plan, once it is approved, and future economic performance in general, are largely dependent on the volume, nature and utilization of external aid. In view of the poverty and the slow growth of the economy, the Government will not be able, in the near future, to generate sufficient revenue to finance even its recurrent expenditures, for which it receives budgetary support from Belgium, especially for education, public health, agriculture and transportation. Public investment will therefore have to be financed almost entirely by foreign aid. The Government can reasonably expect to receive an increasing volume of foreign assistance, particularly from Belgium and the European Development Fund (FED). Foreign assistance disbursements increased from \$6 million in 1968 to \$10 million in 1971. The main constraint to investment is not likely to be the availability of project aid but the difficulties the Government may encounter, owing to shortages of appropriately trained manpower, in building up and staffing institutions geared to efficient preparation and implementation of investment projects. Technical assistance should continue to be provided on a large scale, while increasing emphasis should be put on training local personnel.

11. Rwanda is too poor to borrow on conventional terms, and all aid should be provided on very soft terms. Most of the aid so far afforded to Rwanda has, in fact, been in the form of grants so that its external debt is small. Disbursed debt amounted, at the end of 1971, to \$2.4 million; including undisbursed, external debt amounted to \$11.5 million, of which \$9.3 million was accounted for by the IDA credit for the Kigali-Gatuna road project. Debt service represented less than 2% of export earnings in 1971 and this ratio is not expected to increase over the next few years.

PART II - BANK GROUP OPERATIONS IN RWANDA

12. Since Bank Group assistance to Rwanda started in 1970, the country has received two IDA credits, totalling \$12.3 million. Annex II contains a summary of the two IDA credits as of August 31, 1973 and notes on the execution of ongoing projects. There have been no Bank loans or IFC investments.

13. The Bank Group's initial development efforts in Rwanda have focussed on the improvement of the road sector on which the country is almost entirely dependent for the movement of its domestic and foreign trade. The first IDA credit, of \$9.3 million, was made in June 1970 for a road construction project linking the capital, Kigali, with the Uganda border at Gatuna. The second, of \$3.0 million, was made in March 1972 for a highway maintenance project, based on a UNDP-financed maintenance study for which the Bank was Executing Agency. The first project is cofinanced by Belgium and the second by the Federal Republic of Germany and the UNDP. Despite some delays in project implementation, both projects are now progressing satisfactorily.

14. The program for future IDA operations emphasizes transport and agriculture which are crucial for increase in production exports and employment. A third highway project to reconstruct the Ruhengeri-Gisenyi road will be presented to the Executive Directors this fiscal year. In addition, we are currently assisting in preparing an integrated agricultural development project to improve production of food crops. Assistance to agricultural education is also envisaged.

PART III - THE AGRICULTURAL SECTOR

15. Agriculture is the principal source of employment, production and exports. In 1970-71 it contributed about US\$120 million or 55% to GDP. The value of agricultural exports amounted to about \$15 million, or 65% of export earnings, with coffee accounting for about 87% of total agricultural exports.

16. Most of the farmland is used to grow food, such as bananas, beans and sweet potatoes, mainly for peasant subsistence. Farming is predominantly carried out on small family holdings. Half of the holdings also grow cash crops, principally coffee and also tea and pyrethrum. Yields are low and primitive production methods and inadequate extension services hamper intensification of agricultural production. Total production per farm household is about \$200 annually of which about \$40 is cash income. Although per capita income in Rwanda averages about \$60, per capita income in the agricultural sector is less.

17. Due to the heavy population pressure and the resulting lack of arable land, increases in farm production can only be achieved by improving farming methods. The Government attaches high priority to the improvement

of farm productivity. With the assistance of foreign aid, mainly from the European Development Fund (FED) and Belgium, the Government has engaged in the establishment of "paysannats," which are Government-organized settlements of farmers, to intensify agricultural production. To establish a paysannat, an appropriate area is chosen and investments are made in infrastructure such as roads and water supply and in advisory services. A suitable cash crop is selected and plots of 1.5 to 2 ha are located on both sides of a central roadtrack which forms the axis along which the community is built. A Paysannat Authority appointed by the Government is put in charge of the community. The farmers enter into a contract with the Paysannat Authority under which each receives a plot under perpetual usufruct, with land ownership remaining with the State. In return, farmers commit themselves to follow the paysannat's rules regarding crop rotation and maintenance, supervised by the Paysannat Authority.

18. To date, over 36,000 families have been established in more than 30 paysannats. The majority of paysannats are growing coffee as cash crop; pyrethrum, tea and groundnuts are also grown. Income per family in paysannats is generally higher than average. However, crop yields remain below what could be achieved, as farmers still use traditional tools and techniques. Emphasis in future paysannat projects should therefore be placed on the improvement of production methods through better extension services and agricultural education.

19. To reduce the country's dependence on coffee as the major foreign exchange earning crop, the Government is making serious efforts to diversify agricultural production. This aim is reflected in the proposed project. With the assistance of FED and the UNDP, the Government has increased the production of tea and pyrethrum, an ingredient for insecticides derived from dried flowers which is in high demand. However, although tea and pyrethrum yields are increasing, production is still too limited for any significant diversification of Rwanda's agriculture and exports.

Livestock Subsector

20. Animal husbandry has been a traditional activity in Rwanda. Over 700,000 head of cattle, mainly of the long-horn Ankole type, feed on about 820,000 ha of overgrazed pasture land spread over the country. The greater part of the national herd consists of small herds owned by Hutu tribesmen. The annual growth rate of the national herd has been less than 0.8% during the last two decades, as compared to the population growth of over 3% per year.

21. Livestock and milk production contribute about 6% of GDP. Total annual beef production is about 12,000 tons, of which 9,200 tons are consumed domestically, which is only 2.5 kg per capita. This compares with about the same amount in Burundi and 1.8 kg in Zaire. About 20,000 head of cattle, representing some 2,800 tons of beef, are exported on the hoof each year. Annual milk production is about 35,000 tons, and is mainly used for the subsistence of the farming families; together with meat, it provides an important protein source to the population.

22. Although beef prices are fairly low, demand is limited by the low level of incomes. Demand may increase as a result of population growth and is expected to rise by at least 1500 tons by 1975. Since beef production is stagnant, some of this increase may have to be met from cattle heretofore exported. Due to the scarcity of pasture land, any significant increase in production would have to come from improved methods of animal husbandry.

23. Rwandese cattle suffer from malnutrition and disease, mainly East Coast Fever and trypanosomiasis. These diseases can be controlled by regular dipping and eradication of the tsetse fly. The Ankole breed is fairly resistant to these diseases and provides an adequate basis for livestock improvement.

PART IV - THE PROJECT

Background

24. A report entitled "Appraisal of an Agricultural Development Project, Rwanda" (No. PA-112b) is being circulated separately to the Executive Directors. A Credit and Project Summary is provided at Annex III.

25. The project, which would be IDA's first for agriculture in Rwanda, was prepared by the Government with the assistance of the FAO/IBRD Cooperative Program. It was initially appraised by an IDA mission in June 1971. A \$3.3 million credit for this project was negotiated in February 1972. The Government's delegation was headed by the Rwandese Ambassador in Washington, Mr. Nkundabagenzi.

26. After negotiations, the Government rejected the agreement reached on the establishment of an autonomous agency for the organization and management of the project. Instead, the Government proposed to appoint a foreign consulting firm to help execute the project within existing Government institutions. However, as the organization and management of the proposed project involve a variety of complex functions which require efficient day-to-day management (see paragraphs 41-43), in addition to technical expertise, the Association sought to convince the Government that an independent Rwandese agency should be established in order to achieve adequate implementation of the project. Following IDA missions in May and October 1972, and in May and August 1973, the Government and the Association reached final agreement on establishing an autonomous project authority named "Office pour la Valorisation Pastorale et Agricole du Mutara" (OVAPAM). The organization formula agreed upon, that of creating a national office, or board, is not new to Rwanda and is, for instance, successfully used in the case of coffee marketing.

27. The proposed project consists of the development, over a period of five years, of food and cash crops and livestock production through organized cropping and ranching settlement in the Mutara region, west of the Akagera National Park in the northeast of Rwanda.

28. Specifically, the project would comprise:

a) the establishment of a "paysannat" comprising 4250 plots and about 120 group ranches, including infrastructure consisting of plot and grazing area lay out, road construction, water supply, staff housing and cattle handling facilities;

b) technical and marketing services for project participants;

c) the establishment and operation of a bull-breeding ranch; and

d) tsetse fly eradication from the project area and a study of the feasibility of completely eradicating the tsetse fly from Rwanda.

Project Area

29. The Mutara region (see map attached) is a rolling savannah at an average altitude of 1400 m. Average rainfall is 800 mm per year with a three-month dry season occurring between June and September. Temperature averages around 21 degrees C with a maximum of 33° and a minimum of 12°. The area has good arable soils for crop production and also good grazing land. The project area, about 45,000 ha, would provide organized settlements for about 5,700 families and grazing facilities for about 28,000 head of cattle. A quarter of the area would be for the development of small family farms for food and cash crops production (paysannats) while the remainder would be allotted to small group ranches.

Paysannat Subproject

30. The paysannat subproject would be located in the 12,000 ha southern part of the project area. About 400 km of dirt roads would be constructed in the area where the plots would be sited; two simple bridges would be built over small rivers. A water supply system would channel water from various springs to the inhabited areas. Staff housing and vehicles would be provided for the Project Authority, OVAPAM.

31. Two cash crops have been selected for cultivation by the Paysannat, principally groundnuts and coffee. Groundnuts are becoming an increasingly valuable cash crop and are sold as raw material for groundnut oil. Coffee, which is still the largest source of monetary income

for the rural population, would be produced in the higher areas of the Mutara region. Plot size and cropping rotation would be adapted to the growing of these cash crops with a cropping program that would yield a net cash income per family of about \$120 at full development, five years after project inception. Part of each plot would be used for subsistence farming.

32. The project area is one of the few areas of Rwanda which contain good arable soils and are under populated. Cattlemen and farmers currently living in the area would have priority in the selection of settlers. We do not expect the project to displace any current inhabitants, since those we are aware of meet the main selection criteria of cattle raising or farming experience, physical fitness and good repute. Furthermore, in cooperation with the UN High Commission for Refugees, the Government would settle about 1500 refugee families from Burundi in the area. According to the rules of the paysannat system, plots will be given in usufruct. Settlers would be provided with working tools, selected seeds and house building materials. They would also regularly receive technical and marketing advice. The plotholder would have to pay an annual settlement fee of 1200 RwF (about \$14.50) and undertake to carry out prescribed cropping practices and communal works. Rights and obligations of the settlers would be specified in a contract between each of them and OVAPAM. During negotiations the Government has agreed that the form of these contracts would be submitted to IDA for approval prior to any resettlement in the Paysannat area.

Group Ranch Subproject

33. Three fourths of the project area, mainly hilltops and valley bottoms, comprising about 31,000 ha, are suitable for cattle grazing. This area would be used for the development of about 120 ranches for groups of about 12 graziers, each with a herdsiz permitting efficient management for each group. The subproject provides for road construction, water supply, cattle dipping and handling facilities as well as vehicles and staff housing.

34. To make use of the arable land available in the group ranches, these would also include a number of cropping plots of about 1.3 ha each for subsistence farming on which participants would have individual usufruct rights. Each cropping plot would carry an inseparable grazing right entitling the plot holder to graze a specified number of cattle on adjacent communal grazing land. Participants in a group ranch would retain individual ownership of their cattle, but the cattle in the group would be managed as one herd.

35. A typical herd would be about 230 head including 65 cows and two bulls, which is adequate for good management in Rwanda. The 120 ranches would have a total of about 1,440 participants. Annual net cash income per grazier family is estimated at \$240 at full development five years after project inception.

36. The Mutara region is at present occupied by nomadic cattlemen, who are good herdsman and own the better cattle. They would be eligible for participation in the project. Each group of graziers would be supplied with cattle, fencing material, cultivation tools and other equipment, and would have access to cattle dips. Veterinary services would be available at an annual charge of 265 Rw. Frs. (about \$3) per head of cattle. All groups would follow the herd management practices prescribed by OVAPAM under the latter's supervision.

37. Under a contract with OVAPAM, the graziers would obtain cropping and grazing rights including a plot usufruct similar to that of the paysamat. In addition, each grazier would enter into a partnership agreement to form a group ranch, and each group ranch would agree with OVAPAM to practice good livestock and pasture management. Graziers would pay an average annual fee of 3900 RwF (about \$47) for their participation in this project. Holding of the land by beneficiaries would be subject to continuation of good management practices. During negotiations the Government has agreed that standard forms for these agreements would be submitted to IDA for approval prior to any resettlement in the Group ranching area.

38. To improve cattle, a bull-breeding ranch would be established on 480 ha in a suitable part of the project area. The ranch would cross Sahiwal bulls and Ankole cows. The Ankole foundation herd would be purchased from a government ranch and the Sahiwal bulls would be purchased from Kenya on a negotiated contract basis. Young bulls would be sold at cost to the group ranches. The bull-breeding ranch would also require investment in infrastructure such as roads, fencing, water distribution, cattle dipping and handling facilities, and staff housing.

Tsetse Fly Eradication

39. About 12,000 ha in the south of the project area are infested with the tsetse fly which lives on acacia trees. Eradication of the fly would start by felling trees so as to create a 3 km wide barrier across the fly belt. Acacia trees in the remaining part of the fly belt in the project area would then be sprayed from the ground with a suitable insecticide. The eradication would be carried out by project staff under technical guidance from ISAR ("Institut des Science Agronomiques du Rwanda"), which has eradicated the tsetse fly successfully in other parts of Rwanda. To this end, ISAR and OVAPAM would enter into a contract which is to be submitted to the Association for approval.

40. To improve human and animal health in the eastern part of Rwanda and to permit further agricultural development, complete tsetse fly eradication is necessary. For this, a feasibility study is required to determine the location and intensity of the fly, as are some field trials on methods of extermination. An aerial photographic survey of

the area is necessary to identify areas of tsetse fly implantation. ISAR would carry out the feasibility study, but IDA funds for the study would only be released once arrangements for the aerial photographic survey have been finalized. Belgium has agreed to finance the aerial photography.

Organization and Management

41. The project would be executed by OVAPAM; its establishment under statutes acceptable to IDA, would be a condition of effectiveness of the credit. During negotiations, a draft decree for OVAPAM was discussed and agreed upon between the Government and IDA. OVAPAM would be directed by a Board of Directors chaired by the Minister of Agriculture or his delegate, and would include representatives of the Ministries of Finance and Commerce, Planning, Social Affairs, and of the Central Bank. OVAPAM's management would comprise a Project Director, a Ranching Manager, a Paysannat Manager, a Marketing Officer, a Chief Development Officer, a Chief Accountant, and a Chief Mechanic. OVAPAM's technical staff would mainly comprise veterinary technicians and agronomists who would be seconded by the Government. The Project Director and two representatives of the participants would also be members of the Board.

42. OVAPAM would have four divisions dealing with the paysannats; the grazing ranches and bull breeding ranch; marketing; and general services. OVAPAM would be responsible for construction and maintenance of infrastructure and provision of technical and marketing services. It would also supervise the participants' management practices, including the collection of settlement and grazing fees.

43. The settlers would be selected by a committee consisting of representatives of local authorities, the Project Director and members of OVAPAM's staff. Settlers would be farmers selected according to customary rules applied in other paysannats such as good conduct, physical fitness and landlessness (see also para. 32).

Technical Assistance

44. During negotiations the government agreed that the employment of the Project Director and the Chief Development Officer would be a condition of credit effectiveness. As a result of the experience obtained with paysannats in Rwanda, the Government will be able to recruit the Paysannat Manager locally. However, due to the shortage of managerial skills in Rwanda, it is likely that other senior staff of OVAPAM will have to be recruited abroad. Therefore, the credit provides funds for the foreign cost of technical assistants whose

tasks would include training local counterparts. During negotiations assurances were obtained that qualifications and functions of the senior staff of OVAPAM and the terms and conditions of their employment would be subject to IDA approval.

Production and Marketing

45. All cash crops and cattle produced under the project would be marketed by OVAPAM. Groundnut production would be sold principally to local oil mills. Incremental production of edible oil is estimated at 600 metric tons a year at full development after five years, which would substitute for about one fifth of present oil imports. Coffee produced by the Paysannat, which would be only about one percent of Rwanda's present production (about 14,000 tons) is expected to be sold without difficulty. The annual incremental beef production would be 800 tons carcass weight at full development. Most of the cattle would be sold on the domestic market and the rest would be exported on the hoof to the Kivu region of neighboring Zaire, a traditional and growing market for Rwandese cattle. No export difficulties are expected, as the products of the Kivu herd cover only a small part of local demand and are unlikely to increase substantially in the short to medium term. During negotiations, assurances were obtained that, in order to facilitate the transfer of project cattle to Zaire, the Government would assign to OVAPAM three holding grounds of about 20 ha each located near the Zairian border.

Proposed Financing

46. The total cost of the project is estimated at \$4.3 million including a foreign exchange component of \$2.1 million. The proposed IDA credit would amount to \$3.8 million, or about 88% of total project cost. The Government would contribute \$260,000 equivalent or 6% of total project cost, including \$80,000 for taxes and duties, and participating graziers would contribute \$240,000 equivalent for veterinary supplies.

47. Out of the credit funds, the Government would lend \$2.7 million to OVAPAM, while the remainder of \$1.1 million would be used to finance foreign and local staff seconded to OVAPAM. The subsidiary loan would be repayable to OVAPAM in 35 years, including a five-year grace period, without interest. OVAPAM would repay these funds out of settlement and grazing fees and commissions from sales. The settlement and grazing fees would represent about 12% of the income of paysannat settlers and 24% of graziers' income. These proposed fees are judged the maximum that can be expected from the project beneficiaries. At full development five years after project implementation, each farmer would pay about \$14 equivalent to OVAPAM in settlement fees, and each grazer about \$95 equivalent in settlement and grazing fees. During negotiations, the Government and IDA

agreed on a draft subsidiary loan agreement between the Government and OVAPAM, covering the above terms of financing. The signature of this agreement would be a condition of credit effectiveness.

48. In addition to its financial contribution the Government would provide the project area with schools and medical facilities in line with national standards, and would pay for losses incurred by OVAPAM as a result of possible defaults in fee payments by participants.

Procurement and Disbursement

49. Goods would be procured as follows: (i) contracts expected to cost less than \$2,000 equivalent would be placed upon the authorization of the Project Director in accordance with normal Government procedures; (ii) contracts expected to cost between \$2,000 and \$20,000 equivalent would be tendered among local suppliers; (iii) contracts estimated to cost \$20,000 or more would be awarded after international competitive bidding in accordance with IDA guidelines. Items suitable for international competitive bidding include building and water supply materials and wire fencing, totalling about \$150,000 equivalent. Sahiwal bulls for the bull breeding ranch would be purchased on a negotiated contract basis, mainly from Kenya, while Ankole cows would be obtained from a Government ranch.

50. The credit would be disbursed over a period of 7 years, against 100% of foreign expenditures and 95% of local expenditures for infrastructure and equipment for OVAPAM, and tsetse eradication; 100% of foreign expenditures for consultants for tsetse eradication and for expatriate staff; and 90% of total expenditures for local staff and initial operating expenses.

Economic Benefits

51. A major benefit of the project would be that beef production, including the beef equivalent of breeding stock sold, would increase the estimated annual national beef production of about 12,000 tons by 7%; cattle would be improved through crossing with bulls bred the Project's bull-breeding ranch. Groundnut production would substitute for about 20% of current edible oil imports.

52. At full development about five years after project implementation, farmers would earn annual cash incomes of RwF 10,000 (about \$120) and graziers about RwF 20,000 (about \$240). This would be four to twelve times their estimated present cash incomes, in addition to RwF 15,000 (about \$180) per year for products used for the participants' own consumption. The total annual income of the settlers, who are now barely above

subsistence levels, would be raised to about \$54 per capita for farmers and to about \$77 per capita for graziers, or on average, \$60 per capita, which is the national average. In addition, settlers would obtain substantial social benefits such as security of land tenure, better housing and water supply, health and education facilities. Moreover, the project would generate employment equivalent to about 10,000 man-years, or about three times the labor input utilized in the project area at the present time.

53. The rate of return of the project to the economy has been estimated at 12.5%. In addition, the country would derive important non-quantifiable returns such as the conservation of scarce arable land and grazing pastures and the development of local managerial skills. Furthermore, implementation of the principle of fee collection in return for the provision of infrastructure and services would create a useful precedent which the Government could extend to similar projects. The feasibility study of total tsetse fly eradication may lead to improving health and livestock production in the East of Rwanda.

PART V - LEGAL INSTRUMENTS

54. The Draft Development Credit Agreement between the Republic of Rwanda and the Association, the Recommendation of the Committee provided for under Article V, Section I (d) of the Articles of Agreement and the text of a resolution approving the proposed development credit are being distributed to the Executive Directors separately.

55. The Draft Development Credit Agreement reflects the normal pattern for credits for agricultural development projects. The relending of proceeds of the credit will be governed by a subsidiary loan agreement between the Government and OVAPAM, satisfactory to the Association.

56. The following conditions of effectiveness are specified:

- (i) establishment of OVAPAM with a charter satisfactory to IDA;
- (ii) execution and delivery of the subsidiary loan agreement between the Government and OVAPAM satisfactory to IDA;
- (iii) employment of key management staff satisfactory to IDA; and
- (iv) transfer of an initial amount equivalent to \$100,000 to OVAPAM's project account.

57. I am satisfied that the proposed development credit would comply with the Articles of Agreement of the Association.

PART VI - RECOMMENDATION

58. I recommend that the Executive Directors approve the proposed credit.

Robert S. McNamara
President

Attachments

Washington, D.C.
October 25, 1973

COUNTRY DATA - RWANDA

<u>AREA</u> 26,340 km ²	<u>POPULATION</u> 3.8 million (mid-1971) Rate of Growth: 3.5 (1960 to 1971)	<u>DENSITY</u> 144 per km ² 450 per km ² of arable land
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POPULATION CHARACTERISTICS (1971)
Crude Birth Rate (per 1,000): 50
Crude Death Rate (per 1,000): 22
Infant Mortality (per 1,000 live births): 133

HEALTH (1971)
Population per physician: 62,787
Population per hospital bed: 796

INCOME DISTRIBUTION
% of national income, highest quintile: ..
lowest quintile: ..

DISTRIBUTION OF LAND OWNERSHIP
% owned by top 10% of owners: ..
% owned by smallest 10% of owners: ..

ACCESS TO PIPED WATER
% of population - urban: ..
- rural: ..

ACCESS TO ELECTRICITY
% of population - urban: ..
- rural: ..

NUTRITION (1970)
Calorie intake as % of requirements: 80
Per capita protein intake: 50 gr.

EDUCATION (1969)
Adult literacy rate %: ..
Primary school enrollment %: 73

GNP PER CAPITA in 1971^{1/}: US \$ 60

GROSS NATIONAL PRODUCT IN 1971^{2/}

ANNUAL RATE OF GROWTH (% constant prices)

	<u>US \$ Mln.</u>	<u>%</u>	<u>1960-65</u>	<u>1965-70</u>	<u>1971</u> ^{3/}
GNP at Market Prices	224.9	100.0	..	6.0	3.5
Gross Domestic Investment	..	..	..	..	..
Gross National Saving	..	..	..	..	..
Current Account Balance	-7.6	3.4	..	..	..
Exports of Goods, NFS	22.7	10.1	..	..	-15.0
Imports of Goods, NFS	32.2	14.3	..	..	8.7

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1971

	<u>Value Added</u> ^{4/}		<u>Labor Force</u>		<u>V. A. Per Worker</u>	
	<u>US \$ Mln.</u>	<u>%</u>	<u>Mln.</u>	<u>%</u>	<u>US \$</u>	<u>%</u>
Agriculture	120.8	54.1	..	..	..	..
Industry	43.5	19.5	..	..	..	..
Mining & Processing	5.6	2.5	..	..	..	..
Services	53.3	23.9	..	..	..	..
Total/average	223.2	100.0	..	100	..	100

GOVERNMENT FINANCE

	<u>General Government</u>			<u>Central Government</u> ^{5/}		
	<u>(Mln.)</u>	<u>% of GDP</u>		<u>(RwF. Mln.)</u>	<u>% of GDP</u>	
	<u>1971</u>	<u>1971</u>	<u>1969-71</u>	<u>1971</u>	<u>1971</u>	<u>1969-71</u>
Current Receipts	.	.	.	1,843	8.2	8.1
Current Expenditure	.	.	.	2,029	9.1	8.6
Current Surplus	.	.	.	-186	-8	-5
Capital Expenditures	.	.	.	186	.8	.6
External Assistance (net)

1/ The Per Capita GNP estimate is at 1971 market prices, calculated by the same conversion technique as the 1973 World Atlas. All other conversions to dollars in this table are at the average exchange rate prevailing during the period covered.

2/ Preliminary

3/ In current prices

4/ At market prices

5/ Excluding external assistance

COUNTRY DATA - RWANDA

MONEY, CREDIT and PRICES

	1969	1970	1971	1972
	(million of RwF outstanding end period)			
Money and Quasi Money	1,926	2,304	2,676	2,631
Bank Credit to Public Sector	1,329	1,104	1,400	2,042
Bank Credit to Private Sector	360	495	607	423

(Percentages or Index Numbers)

Money and Quasi Money as % of GDP	10.2	10.7	12.0	..
General Price Index (1967 = 100) ^{1/}	102.1	105.2	108.3	116.6
Annual percentage changes in:				
General Price Index	.6	3.0	2.9	7.7
Bank credit to Public Sector	20.0	-16.8	26.8	45.9
Bank credit to Private Sector	23.4	61.8	22.6	-30.3

BALANCE OF PAYMENTS

	1969	1970	1971
	(Millions US \$)		
Exports of Goods, NFS	17.1	26.7	22.7
Imports of Goods, NFS	24.6	29.6	32.2
Resource Gap (deficit = -)	-7.5	-2.9	-9.5
Interest Payments (net))			
Workers' Remittances)			
Other Factor Payments (net))	1.4	.8	1.9
Net Transfers)			
Balance on Current Account	-6.1	-2.1	-7.6
Direct Foreign Investment	.5	-.2	1.7
Net MLT Borrowing			
Disbursements	.7	.2	.1
Amortization	.2	.2	.1
Subtotal	.5	-	-
Capital Grants	2.9	6.4	5.7
Other Capital (net)	...	2.5	2.0
Other items n.e.i	.3	.1	-0.7
Increase in Reserves (+)	-1.9	6.7	1.1
Gross Reserves (end year):	3.5	8.6	7.1
Net Reserves (end year):	-3.2	3.5	4.6

MERCHANDISE EXPORTS (AVERAGE 1969-71)

	US \$ Mln	%
Coffee	10.6	52.5
Tea	1.0	4.9
Pyrethrum	.4	2.0
Cassiterite	4.5	22.3
Wolfram	3.0	14.8
All other commodities	.7	3.5
Total	20.2	100.0

EXTERNAL DEBT, DECEMBER 31, 1971

	US \$ Mln
Public Debt, incl. guaranteed	2.4
Non-Guaranteed Private Debt	..
Total outstanding & Disbursed	..
<u>DEBT SERVICE RATIO for 1971^{2/}</u>	%
Public Debt, incl. guaranteed	1.8
Non-Guaranteed Private Debt	..
Total outstanding & Disbursed	..

RATE OF EXCHANGE

Dec. 1971 - Feb. 1973
US \$ 1 = RwF 92.1

Since Feb. 1973
US \$ 1 = RwF 52.9

IBRD/IDA LENDING, July 1973 (US \$ Mln.)

	IBRD	IDA
Outstanding & Disbursed	-	2.7
Undisbursed	-	9.8
Outstanding incl. Undisbursed	-	12.5

1/ Kigali and Nyambirambo General Consumer Price Index
2/ Ratio of Debt Service to Exports of Goods and Non-Factor Services

FOREIGN ASSISTANCE DISBURSEMENTS TO RWANDA
(in million \$) 1/

	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
<u>Multilateral</u>	<u>1.9</u>	<u>2.1</u>	<u>2.7</u>	<u>3.3</u>
- U.N.	.2	.3	.1	.1
- E.D.F. (FED)	1.7	1.8	2.5	3.0
- I.D.A.	-	-	.1	.2
<u>Bilateral</u>	<u>4.1</u>	<u>5.0</u>	<u>5.7</u>	<u>6.7</u>
- Belgium	2.0	2.3	3.4	3.7
- France	.1	.5	.7	.7
- Germany (F.R.)	.8	.4	.3	.4
- Other	1.2	1.8	1.3	1.9
<u>Total</u>	<u>6.0</u>	<u>7.1</u>	<u>8.4</u>	<u>10.0</u>

1/ Includes assistance in kind, technical assistance and scholarships

STATUS OF BANK GROUP OPERATIONS IN RWANDA

A. STATEMENT OF BANK LOANS AND IDA CREDITS TO RWANDA

(as of September 30, 1973)

<u>Loan or Credit No.</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>Amount</u>		
				<u>Bank</u>	<u>IDA</u>	<u>Undisbursed</u>
196-RW	1970	Rwanda	Kigali-Gatuna road Construction	-	9.30	6.81
299-RW	1972	Rwanda	Highway Maintenance	-	3.00	2.99
	Total			-	12.30 ^{1/}	9.80
	of which has been repaid:			-	-	-
	Total now outstanding			-	12.30	9.80
	Amount sold:			-	-	-
	of which has been repaid:			-	-	-
	Total now held by Bank and IDA ^{1/}			-	12.30	9.80
	Total undisbursed					9.80

^{1/} Exclusive of exchange adjustments of \$0.17 million

B. STATEMENT OF IFC INVESTMENTS

There have been no IFC investments in Rwanda

C. PROJECTS IN EXECUTION

Credit No. 196-RW Kigali-Gatuna-Highway Project: \$9.3 million, of June 11, 1970; Closing Date: September 30, 1974.

The project consists of the construction and maintenance for one year of a paved road between Kigali and Gatuna (82 km); the purchase of maintenance equipment; consulting services and supervision of construction. The project is cofinanced by the Belgian Government (\$0.6 million) to cover part of the local cost of the project.

The road construction is being hampered by unforeseen technical problems, resulting in a delay of at least 10 months. To overcome these problems, a cost overrun of about 50% of the construction cost is expected. However, since the contract awarded for construction work amounted to about \$5 million as against an estimated \$7.7 million at the time of appraisal, financing will be available for the additional cost of about \$2.5 million.

Credit No. 299-RW Highway Maintenance Project: \$3 million, of March 21, 1973; Closing Date: December 31, 1976.

The project is the first phase of a highway maintenance program, providing for reorganizing and strengthening the Directorate General of Roads and Bridges to enable it to maintain the national road system, the purchase of maintenance equipment and supplies, the construction and equipping of maintenance workshops, and the improvement of maintenance operations over the 2,200 km national road network. The project is cofinanced by the Federal Republic of Germany (\$0.5 million), which covers the foreign costs of a central workshop at Kigali, and the UNDP (\$1.1 million) for the provision of foreign technical assistance. The project is proceeding satisfactorily.

RWANDA - AGRICULTURAL DEVELOPMENT PROJECT

CREDIT AND PROJECT SUMMARY

CREDIT SUMMARY

Borrower: The Republic of Rwanda

Beneficiary: The Project Authority, "Office pour la Valorisation Pastorale et Agricole du Mutara" (OVAPAM).

Purpose: To settle, in the Mutara region in the Northeast of Rwanda, about 5,690 families and provide them with employment and better living conditions, and to increase the productivity of cash crops and animal husbandry and improve cattle in the area.

Amount: US \$3.8 million equivalent in various currencies.

Terms: Standard.

Onlending Terms: US\$2.7 million equivalent of credit proceeds will be onlent to OVAPAM for 35 years, including 5 years' grace, at no interest, while the remainder of \$1.1 million will be used to finance foreign and local staff seconded to OVAPAM.

Brief Description: The proposed project would comprise:

- (a) the establishment of a "paysannat" and 120 group ranches, including infrastructure consisting of plot and grazing area lay out, road construction, water supply, staff housing and cattle handling facilities;
- (b) technical and marketing services for project participants;
- (c) the establishment and operation of a bull-breeding ranch;
- (d) tsetse fly eradication from the project area and a feasibility study of complete eradication of tsetse from Rwanda.

In \$'000

<u>Estimated Cost:</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
<u>Project Components:</u>			
- Infrastructure and Equipment	936	317	1,253
- Facilities for Headquarters of OVAPAM	222	150	372
<u>Staff</u>			
- Local	340	-	340
- Expatriates	36	796	832
<u>Initial Operating Expenses</u>	285	596	881
<u>Tsetse Eradication</u>			
- Project Area	157	26	183
- Studies	24	65	89
<u>Contingencies</u>	200	150	350
	-----	-----	-----
Total Project Cost	2,200	2,100	4,300
<u>Financing Plan:</u>			
	(\$ '000)	%	
- IDA Credit	3,800	88	
- Government	0,260	6	
- Participating Farmers and Graziers	0,240	6	
	-----	-----	
Total	<u>4,300</u> =====	100	

Procurement Arrangements

Procurement of goods estimated to cost \$20,000 or more would be through international competitive bidding in accordance with IDA guidelines. Purchase of goods costing between \$2,000 and \$20,000 would be by local tender; goods and services costing less than \$2,000 would be procured from local sources without advertising for bids. Project infrastructure will be constructed to the extent possible by participants in the project. Sahiwal bulls will be purchased from Kenya on a negotiated contract basis.

Estimated Disbursements (US\$'000)

<u>FY 1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>Total</u>
150	1550	500	700	400	400	100	3,800

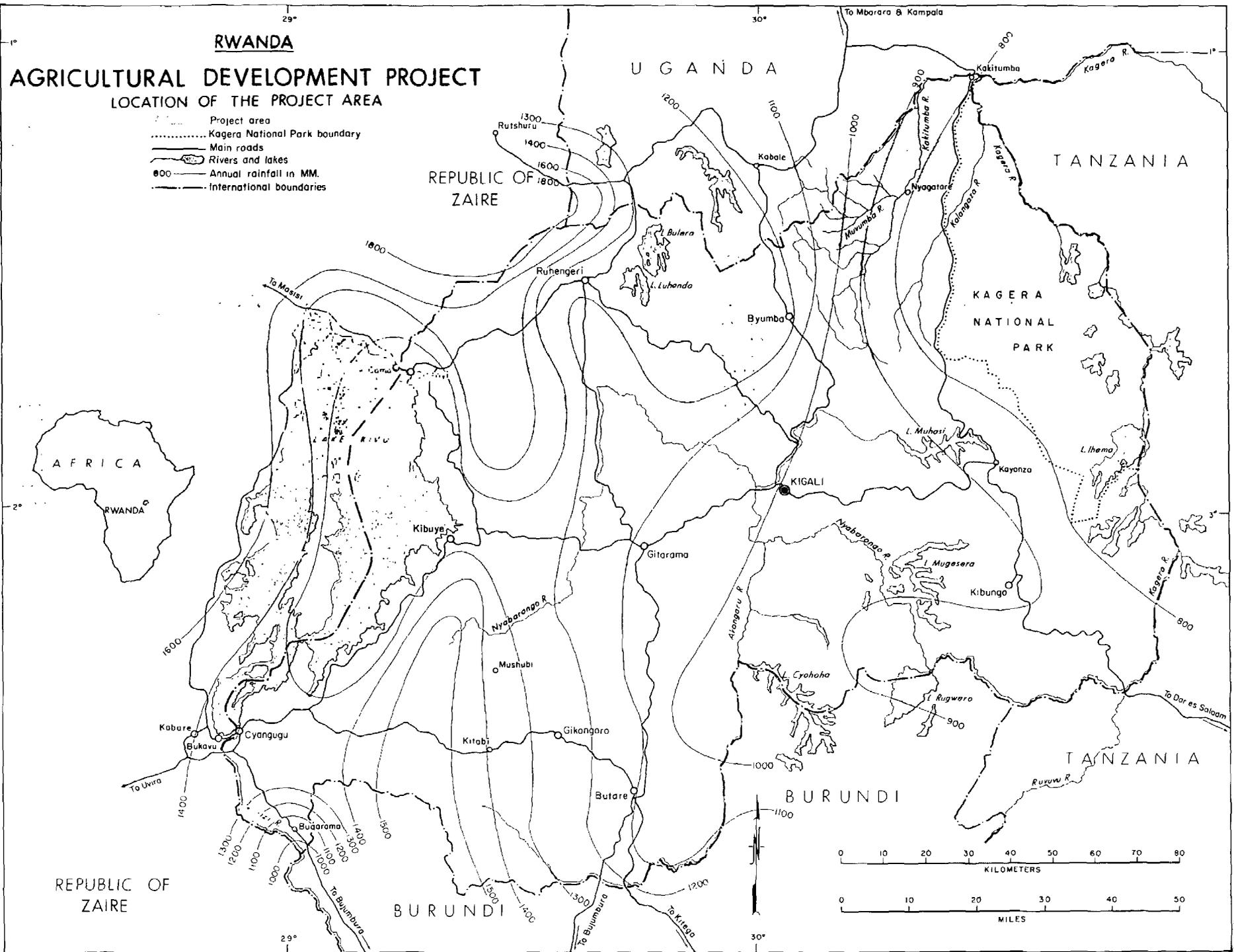
Project Management

OVAPAM will be created by the Government to manage the project. Management staff, including the Project Director, will be recruited for OVAPAM for a period of five years to the extent experienced and qualified staff are not locally available.

Economic Rate of Return: 12.5%

Estimated Project Completion Date: June 30, 1979

Appraisal Report:



RWANDA

AGRICULTURAL DEVELOPMENT PROJECT

The Project Area

- Project area boundary
- Ranching area
- Paysannat area
- Tsetse belt
- Tsetse barrier
- Roads
- Bridges
- Rivers
- International boundary

