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The World Bank

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Report No. P-2091-KE

REPORT AND RECOMMENDATION

OF THE

PRESIDENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN AND CREDIT

TO THE

REPUBLIC OF KENYA

FOR AN

IRRIGATION SETTLEMENT PROJECT

May 25, 1977

CURRENCY EQUIVALENTS

Kenya	=	US$0.12
US$1.00	=	KSh8.35

(As the Kenya Shilling is officially valued at a fixed rate of 9.66 KSh to the SDR, the U. S. Dollar/Kenya Shilling exchange rate is subject to change. Conversions in this report were made at US$1.00 to KSh8.35 which is close to the short-term average exchange rate.)

FISCAL YEAR

July 1st - June 30th

ABBREVIATIONS

CDC - Commonwealth Development Corporation

CLSMB - Cotton Lint and Seed Marketing Board

NIB - National Irrigation Board

NYS - National Youth Service

TRDA - Tana River Development Authority

KENYA

BURA IRRIGATION SETTLEMENT PROJECT

LOAN/CREDIT AND PROJECT SUMMARY

BORROWER: Republic of Kenya

AMOUNT: Loan: US$34 million
Credit: US$6 million

TERMS: Loan: Terms of 20 years including 4-1/2 years grace with interest at 8.2% per annum.
Credit: Standard terms.

PROJECT DESCRIPTION: Bura Irrigation Settlement Project: The project would be implemented over a 5-1/2 year period and would provide for: the construction of an irrigation system to service 6,700 ha; the settlement of 5,150 families (36,000 people) on this land with the necessary social, educational and administrative services; the agricultural management of the scheme; the establishment of research facilities; and feasibility studies of a possible future site for irrigation and settlement and food producing opportunities in the Bura area. The project would have an impact on 65,000 people by 1985.

COST ESTIMATES: The estimated total cost of the project is about US$91.7 million, including local taxes and duties estimated at US$9.2 million. Foreign exchange costs would be equivalent to about US$49.3 million (54%). The cost estimates are detailed below:

	US$ Million (Equivalent)		
	Local	Foreign	Total
Irrigation Works	8.9	10.9	19.8
Wildlife Conservation Works	0.1	0.1	0.2
Roads and Airfields	0.9	0.9	1.8
Buildings and Village Infrastructure	10.5	5.2	15.7
Public Health	0.3	0.4	0.7
Afforestation	2.6	0.6	3.2
Plant, Machinery, Vehicles and Equipment	0.6	3.0	3.6
Ginnery	0.9	4.0	4.9
Operation and Maintenance			
- NIB	2.7	2.8	5.5
- Other	0.8	0.1	0.9
Incremental Farm Inputs	0.2	1.6	1.8
Training	-	0.5	0.5
Consultancy Services	0.8	3.4	4.2
Agricultural Management	0.7	1.1	1.8
Total Base Cost	30.0	34.6	64.6
Physical Contingencies	4.0	4.8	8.8
Price Contingencies	8.4	9.9	18.3
Total Project Cost	42.4	49.3	91.7
Interest During Construction	-	6.7	6.7
TOTAL	42.4	56.0	98.4

FINANCING PLAN:

The project costs, including taxes and duties of $9.2 million, would be financed as follows:

	US$ Million	
IDA Credit	6.0	
World Bank Loan	34.0	
European Development Fund	12.0	
Government of the Netherlands	8.8	
Government of the U.K.	8.5	
Commonwealth Development Corporation	8.5	
Total External Financing	77.8	
Government of Kenya		
Contribution to Project Costs	13.9	
Interest during construction on CDC and IBRD Loans	6.7	
	20.6	
Total Financing Requirements		$98.4

The terms of non-Bank Group financing would be as follows:

	Interest	Grace Period	Repayment Period
EDF	equivalent to 90% grant		
Netherlands	3.75%		30 years
UK		Grant	
CDC	6-8.5%	5 years	20 years

DISBURSEMENTS:

Bank/IDA Fiscal Year	Disbursements			
	Bank		IDA	
	For Year	Cumulative	For Year	Cumulative
1977/78	-	-	5.2	5.2
1978/79	9.3	9.3	0.8	6.0
1979/80	11.8	21.1	-	6.0
1980/81	7.4	28.5	-	6.0
1981/82	5.5	34.0	-	6.0

PROCUREMENT:

On the Bank/IDA financed components procurement through international competitive bidding would be for goods and services valued at about $35 million including contingencies. It would include civil works for the major irrigation structures, the excavation of the supply canal and part of the main canal, land levelling, buildings and ginnery. The construction of the Project's internal roads, civil works for part of the main canal and irrigation and drainage network, and bush clearing (total value about

US$6.5 million) would be undertaken on a force account basis by the National Youth Service (NYS), a Kenya Government agency. Contracts for traditional building materials for settlers' houses (US$2 million) would be awarded after competitive bidding, advertised locally and in accordance with normal Government procurement procedures. Contracts for the purchase of goods would be bulked as far as possible and orders for goods of US$100,000 or more would be procured through international competitive bidding, in accordance with Bank Group guidelines. In the evaluation of bids, local manufacturers would be allowed a preference of 15% or the existing rate of duty, whichever is lower. Civil works (other than for the construction of tenants' and teachers' housing, primary schools, social halls, roads, afforestation, land clearing and minor irrigation works, or contracts costing less than US$200,000) would be carried out by contractors selected following international competitive bidding in accordance with Bank Group guidelines. In the evaluation of bids for civil works, local contractors would have a 7-1/2% preference margin. Civil works with contracts or items costing less than US$200,000 would be done by contractors selected in accordance with Government procedures. Draft tender documents for all contracts expected to cost in excess of US$300,000 would be submitted to the Bank Group for approval before invitations are issued, and bid analysis for comment, before contracts are awarded. The construction of tenants' and teachers' housing, primary schools and social halls would be done by the NIB under force account and the plantation of forests would be carried out by the Forest Department under force account. For project components financed on a parallel basis by the other cofinancing organizations, procurement would be in accordance with their guidelines.

MANAGEMENT AND CONSULTANTS: An experienced agricultural management firm or organization, expected to be the Commonwealth Development Corporation, would provide agricultural management services for the project. A consortium of consultants, headed by Sir M. MacDonald and Partners, including Hunting Technical Services, Ltd. and East African Engineering Consultants (Kenya), prepared the Project Planning Report, reviewed project designs and will prepare tender documents and supervise Project implementation. The consultants for the feasibility study for the development of the Tana River East Bank have not yet been hired. Some 50 man-months is required for this study. Also, a sociologist or team of sociologists would be required to assist NIB during a 5-year period (36 man-months at the minimum).

RATE OF RETURN: 13.0%.

APPRAISAL REPORT: Report No. 1446-KE, dated May 24, 1977, entitled "Kenya-Bura Irrigation Settlement Project".

MAP: Bank Map Nos. 12225R and 12226R1.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

REPORT AND RECOMMENDATION OF THE PRESIDENT TO THE EXECUTIVE DIRECTORS FOR A PROPOSED LOAN AND CREDIT TO THE REPUBLIC OF KENYA FOR AN IRRIGATION SETTLEMENT PROJECT

1. I submit the following report and recommendation on a proposed Loan to the Republic of Kenya for the equivalent of US$34.0 million, and a proposed Credit of US$6.0 million on standard IDA terms, to help finance the Bura Irrigation Settlement Project. The Loan would have a term of 20 years including 4-1/2 years grace at an annual interest rate of 8.2%. The grant element of the combined IDA Credit and Bank Loan is about 13%. In addition, the Republic of Kenya has obtained a loan from the Netherlands of US$8.8 million equivalent and is negotiating a "special loan" from the Commission of European Communities of US$12.0 million equivalent, a loan from the Commonwealth Development Corporation (UK) of US$8.5 million equivalent and a grant from the United Kingdom of US$8.5 million equivalent to be applied towards the project.

PART I - THE ECONOMY[1/]

Background

2. A report entitled "Current Economic Position and Prospects" (Report No. 1284a-KE, dated October 15, 1976) was distributed to the Executive Directors in October 1976. The report provided background documentation for the Consultative Group Meeting on Kenya, held in November 1976.

3. With an average per capita income of $220 in 1975, Kenya still belongs among the poorest countries in the world, despite an excellent rate of growth of 6.6% per year from Independence until 1973. But growth slowed down in 1974 and was brought to a near standstill in 1975, as accelerating world inflation (including rising oil prices) coupled with persistent drought reduced Kenya's import capacity and economic activity. The country now faces two basic challenges in its development strategy: how to resume rapid growth, and secondly, how to ensure at the same time that the lowest-income earners share in economic and social progress. Weather conditions improved in 1976 bringing growth back to about 5% and unusually high coffee prices as well as depressed import growth helped to reduce the deficit on the current account of the balance of payments, thus providing some temporary relief. However, this does not eliminate the problem of a structural balance of payments constraint.

1/ This section is the same as that of the President's Report on the Kenya Third IDB Loan dated May 18,1977.

4. Economic development will have to follow a different path in the future in order to combine rapid growth including progress for the lower income groups with a lower import dependency. Promotion of rapid growth was the major instrument through which the Government sought to achieve economic as well as social objectives in the first decade. More investment was to create better employment opportunities and higher production was to widen the tax basis thus allowing more public outlays for educational and health facilities. However, Kenya's Third Development Plan FY74-78 already recognized that past economic performance had brought significant benefits to the lower-income groups, but the poor had not yet benefitted as much as desired. The slowdown in economic growth in 1974-75 made it difficult for the Government to promote equity because maintaining production required its full attention. Kenya's development strategy should balance the reliance on high growth rates to bring about improved employment and income-earning opportunities to lower-income groups with a more direct approach to enhance the productivity of the poor. The Bank intends to give particular attention to this question in its future economic work.

5. The Government is now restructuring its development strategy and implementing the restructuring program. The restructuring will have to be brought about first and foremost in agriculture, the largest sector in Kenya's economy. In the past, agriculture contributed in significant ways to rapid growth, increases in productivity of lower-income earners and distribution of development benefits; not only did the sector grow at an average annual rate of 4.7% in total and 6% in monetary agriculture, the Government also brought several hundred thousand small farmers into the market economy through special programs in coffee, tea, pyrethrum and dairy production. Nevertheless, this still left the majority of the rural population (those living in areas with lower agricultural potential) in poverty. To assist effectively many of these people in raising farm productivity and incomes, agricultural support services have to be progressively extended from high and medium to low and marginal potential agriculture.

The Economic Crisis of 1974 and 1975 and Recovery in 1976

6. In 1974, Kenya experienced with many other countries a serious setback to its development efforts when soaring world inflation, increasing oil prices and stagnating export demand coupled with adverse weather resulted in a large balance of payments deficit and growth slowed down to around 4%. The terms of trade dropped sharply, the widening trade gap led to an overall deficit and Kenya had to use part of its foreign exchange reserves, notwithstanding IMF assistance. At the same time, domestic inflation rose to 15%. In 1975, GDP hardly grew at all (0.7%) due mainly to disappointing performance in the agricultural sector where the incentives of higher producer prices were frustrated by adverse weather for all crops except maize. Employment in the modern sector declined while inflation continued at a high level of 19%. The terms of trade deteriorated further but due to low levels of economic activity, imports declined and the current account deficit as well as the overall deficit were considerably smaller than in 1974. Economic activity resumed with a 5% growth of GDP in 1976, thanks to an 8% growth in agriculture following fair weather and higher prices for several major crops. Also, manufacturing growth improved to 7%. Employment grew by 4%, while inflation slowed down considerably. Imports grew only slowly, while exports increased sharply thanks to exceptionally high coffee prices. The deficit on current account decreased and Kenya's overall balance of payments showed a surplus in 1976.

7. Throughout the period 1974-1976, the Government has managed to maintain Kenya's relatively high investments and savings levels, by containing in particular private consumption growth. Public consumption has, however, increased as government tasks are expanding steadily. Kenya's budget policy had traditionally been conservative. Until the early 1970's, Kenya managed to boost public savings, thus allowing public investments to increase with a relatively small supplement from foreign financing and very little short-term credit. The effort to maintain the same investment momentum in the face of high inflation led to a change in this favorable situation. The overall budget deficit increased from $101 million in FY74 to $249 million in FY76 and even somewhat higher in FY77. Larger financing by short-term credit and increasing recourse to foreign sources became necessary.

Restructuring Program

8. The Government responded to the economic crisis in 1974, first, by introducing measures which minimized the loss of reserves and controlled domestic demand, including sales taxes, credit restrictions, passing on the increases in oil prices to users and a freeze in government recruitment. Secondly, since the Development Plan had been overtaken by events, it formulated a medium-term Restructuring Program with more modest growth and equity targets. Achieving these targets requires restraining consumption in favor of investments lowering Kenya's high import-dependence and making the economy more export-oriented. For the manufacturing sector, this means reorientation of industrial growth towards greater use of domestic instead of imported resources and promoting efficiency in production for the local market and, increasingly, for exports

9. The Government has begun to implement the Restructuring Program. With regard to budgetary policies, procedures to ensure proper controls on expenditure have been strengthened. In order to enhance the production and employment impact of public investments, the Government has shifted resources from infrastructure outlays which increase production only gradually to more directly productive sectors, such as agriculture and manufacturing. The latter sector's share in the development budget increased from 29% in FY74 to 45% in FY76. Simultaneously, in highway construction which so far has been highly capital-intensive, projects have now been started using more labor-intensive technology. In its efforts to influence private sector development, in particular agricultural production and incomes, the Government has introduced substantial farmgate price increases in 1975 and 1976. A continuing and systematic review of these prices is now being mounted. These higher prices benefitting the farmers are in most cases passed on to the domestic consumers. This has helped to correct the adverse rural-urban terms of trade and avoid subsidies to be carried by the Treasury. The Government has also introduced duties on hitherto duty-free imports of intermediate and capital goods to encourage a more rational protective system; it has increased the sales tax on luxury goods and is paying an export subsidy of 10% to stimulate manufactured exports. Last but not least, the Government -- in conjunction with Tanzania and Uganda -- devalued the Kenya shilling by 14% in October 1975.

10. Despite these efforts more vigorous Government action remains to be taken in some areas. Future industrial growth will depend on the promotion of efficient industries, some of which may produce import-substitutes but most of which will be required to compete in export markets outside the East African Community. At the present time, the manufacturing sector is almost completely dependent on imported capital equipment and spare parts, and heavily dependent on imported raw materials and intermediate products. The linkages between manufacturing and agriculture have not yet been fully exploited. There is also a need to change trade policies and incentives which presently favor the import-substitution industries at the expense of others. The Government is starting to encourage small-and medium-scale industries which are more likely to utilize domestic resources and are less dependent on imported capital equipment than large-scale enterprises; the International Finance Corporation has signed an agreement with a commercial bank to promote medium-scale enterprises and a Bank project to finance small-scale enterprises is presently under preparation. The Government is preparing a comprehensive industrial program and intends to undertake in-depth studies of special industrial issues such as promotion of appropriate technology and resource-based industries.

11. The Government continues to make efforts to mobilize additional resources for the public sector but in view of the already high tax effort it may prove difficult to keep up with rapidly rising demand for both Government services and investments. Special pressures on the budget at this time derive from the Government's intentions to bring more services to the rural areas as well as cost escalation on many development projects. The Government will, therefore, require more external assistance. Moreover, after having held down wages and salaries in the public sector for several years, the Government is likely to experience difficulties in devising wages and incomes policies which effectively hold domestic inflation below world inflation.

External Debt

12. The current low overall debt service ratio of about 6% (including a notional 50% share of the debt of the East African Community Corporations) is expected to rise to about 10% by 1985. Including the notional share of EAC debt, the IBRD is presently holding 31% of Kenya's outstanding external debt and IDA 14%; the IBRD share is expected to rise to 38% and the IDA share to 15%. Debt service payments to the Bank are about 30% of total debt service payments; IDA's share is less than 1%. These two figures are projected to increase to 39% and 1%, respectively, by 1985. These reflect the gradual switch by other donors from loans to straight grants or to loans on very concessional terms in recent years as well as the Government's conservative commercial borrowing policy. Despite the considerable efforts of the Government to improve domestic resource mobilization, limitations on domestic resources are such that it must finance from external sources a substantial part of the costs of the development program, including local costs.

East African Community

13. The 1967 Treaty for East African Cooperation made provisions for far-reaching and comprehensive economic cooperation arrangements among Kenya, Tanzania and Uganda. In its initial years the EAC had set up institutions, policies, and procedures for operating the common market and the large infrastructure services, and encouraging progress was achieved. It has been followed, however, by a period of tension and mutual suspicion concerning the distribution of net benefits derived from the Community. The infrastructure services were hampered by restrictive tariff policies; services declined, and Partner States subventions were required for the Railways from time to time to keep the services running. The poor performance of the common services in transport and communications also impaired trade and general movement of goods within the countries, affecting the general economic development program. These difficulties were aggravated by the severe budgetary and balance of payments constraints faced by all three Partner States in the past few years. As a consequence, there has been a continuous diminution in the authority of the Community institutions. Failure to agree on arrangements for transfer of funds between the Regional Offices and the service Headquarters have often paralyzed the operation of the Headquarters, affected their morale and on a number of occasions led to delays in meeting their external obligations.

14. In 1975 the Partner States recognized that their fundamental political and economic differences had so affected the working of the Community, that a review of the 1967 Treaty was called for. A Commission was appointed for this purpose in November 1975 but adjourned sine die in November 1976 without being able to make agreed recommendations regarding the future structure of the EAC. Meanwhile,although no de jure action has been taken, further deterioration in Community relationships has led to a further dismantling of the Corporations. The Railway Headquarters has in effect been disbanded and the nationals working in the Headquarters have joined their respective Regional Offices. Recently, the East African Airways Corporation (EAA) collapsed in part due to the lack of an effective mechanism for interstate transfer of funds. The Headquarters of the East African Harbours has existed in name only for at least a year with the Ports authorities in Mombasa and Dar es Salaam functioning autonomously. The East African Posts and Telecommunications Corporation has so far functioned with a semblance of Headquarters responsibilities but is now fast delegating its headquarters functions to its regional offices. The respective regional branches provide the services,and domestic development programs in this sector are not likely to be impaired.

15. The difficulties facing the EAC and the common services have affected the Bank's lending to the Community. Because of failure to meet debt service obligations, the Bank suspended disbursements last year for about a month. Except for a second line of credit to the EADB in March 1976, the other corporations have received no new loans from the Bank since 1973. A presentation of the recent development of EAC was made to the Executive Directors in a meeting on March 15, 1977, and subsequently a report was distributed to the Executive Directors on March 18, 1977. The Bank has continued to disburse on its 5 ongoing loans to the Corporations and as of April 30, 1977, $36.9 million remain to be disbursed.

PART II - BANK GROUP'S OPERATIONS IN KENYA[1/]

16. Hitherto, Kenya has received 24 Bank loans and 21 IDA credits amounting to $393.9 million and $179.7 million, respectively, supporting 39 operations. In addition, Kenya has been one of the beneficiaries of 10 loans totalling $244.8 million which have been extended for the development of common services (railways, ports, telecommunications and finance for industry), operated regionally for the three Partner States of the East African Community. Annex II contains summary statements of Bank loans and IDA credits to Kenya and East African Corporations, a summary of IFC investments in Kenya, and notes on the execution of ongoing projects.

17. The Bank has assisted the Government in its efforts to restructure the economy. In connection with loan and credit negotiations, the Government has taken a number of steps to implement its Restructuring Program. On the institutional side, the planning and implementation capacity of the Ministry of Agriculture has been strengthened, the Cotton Board has been reorganized, a Land Use Committee has been set up and the National Committee on Educational Objectives and Priorities, established in connection with the Third Education Project, has now completed its work. However, progress in shifting the focus of the Government's industrial policies from import-substitution to domestic resource-based production capable of competing in export markets is slow.

18. Significant progress has also been made in restructuring the Bank's lending program towards the directly productive sectors, in giving it a rural focus, and in concentrating on employment and income distribution objectives. The first Integrated Agricultural Development Project (IADP), approved in July 1976, is aimed directly at small and subsistence farmers. The Rural Access Roads Project, approved at the same time as the IADP, is financing labor-intensive infrastructural developments. During this fiscal year, a Sugar Project and a Third Agricultural Credit Project were approved. This year the Bank also supported the tourism sector in Kenya for the first time -- an effort which is intended to help Kenya further exploit its considerable foreign exchange earning potential. The industrial lending program is now also progressing well. A small-scale industry project, prepared with substantial Bank staff assistance, has been appraised and identification of a large-scale industrial project is now under way. Assistance is also being given in the preparation of high priority infrastructural projects, among which are the Nairobi Water Supply Extension and the Rural Water Supply Project, and for additional housing in Nairobi, Mombasa and Kisumu through the upgrading and sites and services approach.

1/ This section is the same as that of the President's Report on the Kenya Third IDB Loan dated May 18, 1977.

19. Overall, project implementation performance is satisfactory. One major exception is the Second Livestock Project which is suffering from inadequate producer prices as well as organizational difficulties reflecting in part the complexity of the project. Progress on the Group Farms Rehabilitation Project has also been slow due to administrative difficulties and reluctance of group owners to participate, but this has now improved. Finally, Kenya has experienced serious cost overruns, most notably on the Nairobi Airport Project.

International Finance Corporation (IFC)

20. IFC has committed a total of $36.8 million for four companies in Kenya: Pan African Paper Mills Ltd.; Kenya Hotel Properties Ltd.; Tourism Promotion Services (Kenya) Ltd.; and Rift Valley Textiles (Ltd.). A credit line for medium- and small-scale industries was extended to the Commercial Bank of Kenya. As of April 30, 1977, IFC held for its own account $28.7 million comprising $20.7 million of loans and $8.0 million of equity.

PART III - THE AGRICULTURAL SECTOR

Background

21. Agriculture remains the most important sector of Kenya's economy. It provides the livelihood of some 11 million people (about 90% of the total population), generates over 60% of foreign exchange earnings and comprises over 30% of GDP. At the time of independence, agricultural production in Kenya was dominated by large-scale holdings operated mainly by Europeans,and Government emphasis was on the development of large-scale farmers. Since then, the Government has placed greater priority on small-scale farmers to maintain production especially for exports. Accordingly most of the large farmholdings were transferred to Africans either intact or subdivided. Today there are more than 1.2 million farmholdings with an area of 20 hectares or less; 50% of these holdings are less than 2 hectares each, barely adequate to meet subsistence needs of the average rural families. The majority of the holdings are farmed by their owners, many of whom are women. About 20% of the rural population remains landless with no formal means of support.

22. Subsistence produce, consumed directly by farmers and their families, makes up over 50% of total agricultural output. Maize is the major subsistence crop, although it is produced on a commercial basis as well. Other subsistence crops include millet, cassava, potatoes, plantains and bananas. Commercial production for export focuses on coffee, tea, sisal, pyrethrum and wattle. However, cashewnuts, pineapples, castor beans, coconuts and wool are becoming increasingly important. Wheat, rice, sugar and cotton are produced largely as cash crops, but are almost totally consumed within the country. While meat and dairy products continue to be significant in subsistence agriculture, a growing proportion of the livestock produced is marketed domestically or exported.

23. Agricultural development is controlled by an elaborate network of government organizations and semi-public bodies. The Ministry of Agriculture is primarily concerned with setting overall policy including pricing policy, and providing general support services (such as research, extension and training). It also exercises control over a wide range of specialized production and marketing boards and agencies. Other Ministries, including Lands and Settlement, Cooperatives and Social Services, Tourism and Wildlife, Natural Resources and Works, are responsible for other services in the agricultural sector.

Agricultural Development Strategy

24. In view of the importance of agriculture to the Kenyan economy, the Government is relying heavily on this sector to aid in ameliorating many of the country's most critical economic and social problems. The Government is adopting policies which should enable the agricultural sector to play an important role in providing employment for a labor force which is growing at the rate of 4 percent per annum (faster than jobs become available in the modern sector); to contribute towards a reduction in the high rate of migration into urban areas (which are growing at about 6 percent a year vs. a 3.5 percent growth rate for the population as a whole); and to allay the poverty of some of the neediest areas in the country. Average rural income is estimated at $70 per capita, vs. $220 per capita for the country as a whole. Besides attempting to reduce the rural-urban income differentials, the Government is pursuing policies that aim at reducing the inequities of income and wealth in the agricultural sector, increasing exports and reducing agricultural imports. The mix of crops used in agricultural development schemes is now being oriented towards supplying an increasing share of domestic food requirements (maize, sorghum, millet, pulses, meat, dairy products), while continuing to support the growth of the country's exports (coffee, tea, sisal, pyrethrum, dairy products, meat, cotton). Reduction of the country's imports of raw materials of agricultural origin (oilseeds, sugar), or products manufactured from these materials is also receiving priority. In trying to achieve these goals, the Government's agricultural development strategy is focusing primarily on ways to increase the productive potential of the 1.2 million smallholders (farmers with a holding of under 20 ha) and on ways of assisting rural families without access to land.

25. The Bank Group has responded to the Government's efforts in agriculture by providing support for a number of projects designed to improve rural infrastructure and increase productivity (see para 18). Through the development of these projects a dialogue is being maintained with the Government on such crucial matters as institution building, establishment of agricultural support services, marketing and delivery systems and pricing policies.

Irrigation in Kenya

26. There is tremendous population pressure on agricultural land in Kenya. Only 18% of the total land area of 57.7 million ha is of high or medium agricultural potential. Given current population growth trends, this agricultural land per rural inhabitant (88 percent of the total population in 1977) would decrease from about .84 ha in 1977 to around .47 ha in twenty years' time -- an alarming decrease of 44 percent. This fundamental decline underlies the Government's attempts to create new agricultural areas through irrigation schemes, and to relocate landless farmers to these areas.

27. The Government's decision to invest in irrigation schemes at this juncture stems fromthe recognition of the population pressures on good agricultural land, and of the gradual reduction of this fertile agricultural area by soil erosion. In some cases, lack of land is forcing small farmers to cultivate river banks, steep hills and very marginal areas. This results in severe soil erosion and water pollution, which the Government is attempting to reduce. Studies of new dryland farming techniques are under way, and pilot projects to try out the new conservation measures have been initiated. However, the development and application of these techniques will require time, and there is no likely immediate solution. Concurrently with these efforts, the Government is looking into the possibility of cultivating hitherto unproductive areas under irrigation schemes.

28. Several irrigation schemes have been carried out already, and currently involve some 4,600 families over a total of 8,500 ha (or 1.8 ha per family). Rice is by far the major crop being produced, with total production in 1974 valued at about US$2,380,000. The largest and most successful scheme, at Mwea, involves some 3,000 families on 5,700 ha, and is devoted mainly to rice production. Administrative and technical difficulties have been overcome, and the project is now self supporting. Average annual income per family on the project was about US$580 in 1976. The Hola Pilot Irrigation Scheme, with some 580 families on 850 ha, located some 20 km south of the Bura project area is important because of its similarity with the proposed project, i.e. soils are similar, holdings cover about 1.5 ha, and cotton and maize are the main crops as is the case in the proposed project. The Hola project, which requires financial support from the Government in order to continue to function due to very high overhead costs in relation to project size, has undergone some managerial and implementation difficulties which have lowered total output. Cotton and maize yields have been good, however, with average farm incomes rising from $130 in 1966 to about US$620 in 1975. Increased managerial and technical efficiency in the proposed Bura project is expected to produce comparable or higher yields.

29. The Government has also been involved in various resettlement schemes, carried out in an effort to reduce the population pressure on the more fertile agricultural lands. The most important settlement project in the last twenty years was the Million Acre Settlement Program (1962) which involved relocating about 35,000 families on smallholder plots covering 670,000 ha of land. Other settlement programs accounted for the relocation of 16,400 families on smallholder farms covering 167,500 ha. Later schemes such as the one started in 1971 in Shirika involved the takeover and management of large expatriate-owned farms as integral units. Although the success of these efforts has been limited by inefficiencies in project management and the inadequate provision of the necessary social and agricultural support services, the Government has gained valuable experience in the mobilization and settling of large numbers of people.