



IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT
Executive Board – Sixty-Eighth Session
Rome, 8-9 December 1999

REPORT AND RECOMMENDATION OF THE PRESIDENT

TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO THE

FEDERAL REPUBLIC OF NIGERIA

FOR THE

ROOTS AND TUBERS EXPANSION PROGRAMME



TABLE OF CONTENTS

CURRENCY EQUIVALENTS	III
WEIGHTS AND MEASURES	III
ABBREVIATIONS AND ACRONYMS	III
MAP OF THE PROGRAMME AREA	IV
LOAN SUMMARY	V
PROGRAMME BRIEF	VI
PART I - THE ECONOMY, SECTORAL CONTEXT AND IFAD STRATEGY	1
A. The Economy and Agricultural Sector	1
B. Lessons Learned from Previous IFAD Experience	2
C. IFAD's Strategy for Collaboration with Nigeria	3
PART II - THE PROGRAMME	5
A. Programme Area and Target Group	5
B. Objectives and Scope	7
C. Components	7
D. Costs and Financing	8
E. Procurement, Disbursement, Accounts and Audit	10
F. Organization and Management	10
G. Economic Justification	12
H. Risks	12
I. Environmental Impact	12
J. Innovative Features	13
PART III - LEGAL INSTRUMENTS AND AUTHORITY	13
PART IV - RECOMMENDATION	13
ANNEX	
SUMMARY OF IMPORTANT SUPPLEMENTARY ASSURANCES INCLUDED IN THE NEGOTIATED LOAN AGREEMENT	15



APPENDICES

I.	COUNTRY DATA	1
II.	PREVIOUS IFAD LOANS TO NIGERIA	2
III.	LOGICAL FRAMEWORK	3
IV.	MAIN PROGRAMME INDICATORS	5
V.	ORGANIZATION AND MANAGEMENT	6
VI.	MONITORING AND EVALUATION	12



CURRENCY EQUIVALENTS

Currency Unit	=	Naira (NGN)
USD 1.00	=	NGN 104.00
NGN 1.00	=	USD 0.096

WEIGHTS AND MEASURES

1 kilogram (kg)	=	2.204 pounds (lb)
1 000 kg	=	1 metric tonne (t)
1 kilometre (km)	=	0.62 miles (mi)
1 metre (m)	=	1.09 yards (yd)
1 square metre (m ²)	=	10.76 square feet (ft ²)
1 acre (ac)	=	0.405 ha
1 hectare (ha)	=	2.47 acres

ABBREVIATIONS AND ACRONYMS

ADP	Agricultural Development Project
ADPEC	Agricultural Development Project Executive Committee
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement (International Cooperation Centre on Agrarian Research for Development)
CMP	Cassava Multiplication Programme
CSO	Civil-Society Organization
ERR	Economic rate of return
FAO	Food and Agriculture Organization of the United Nations
IDA	International Development Association
IITA	International Institute of Tropical Agriculture
MARD	Ministry of Agriculture and Rural Development
MIS	Management Information System
NGOs	Non-governmental Organizations
PCC	Project Coordination Committee
RTEP	Roots and Tubers Expansion Programme

GOVERNMENT OF THE FEDERAL REPUBLIC OF NIGERIA

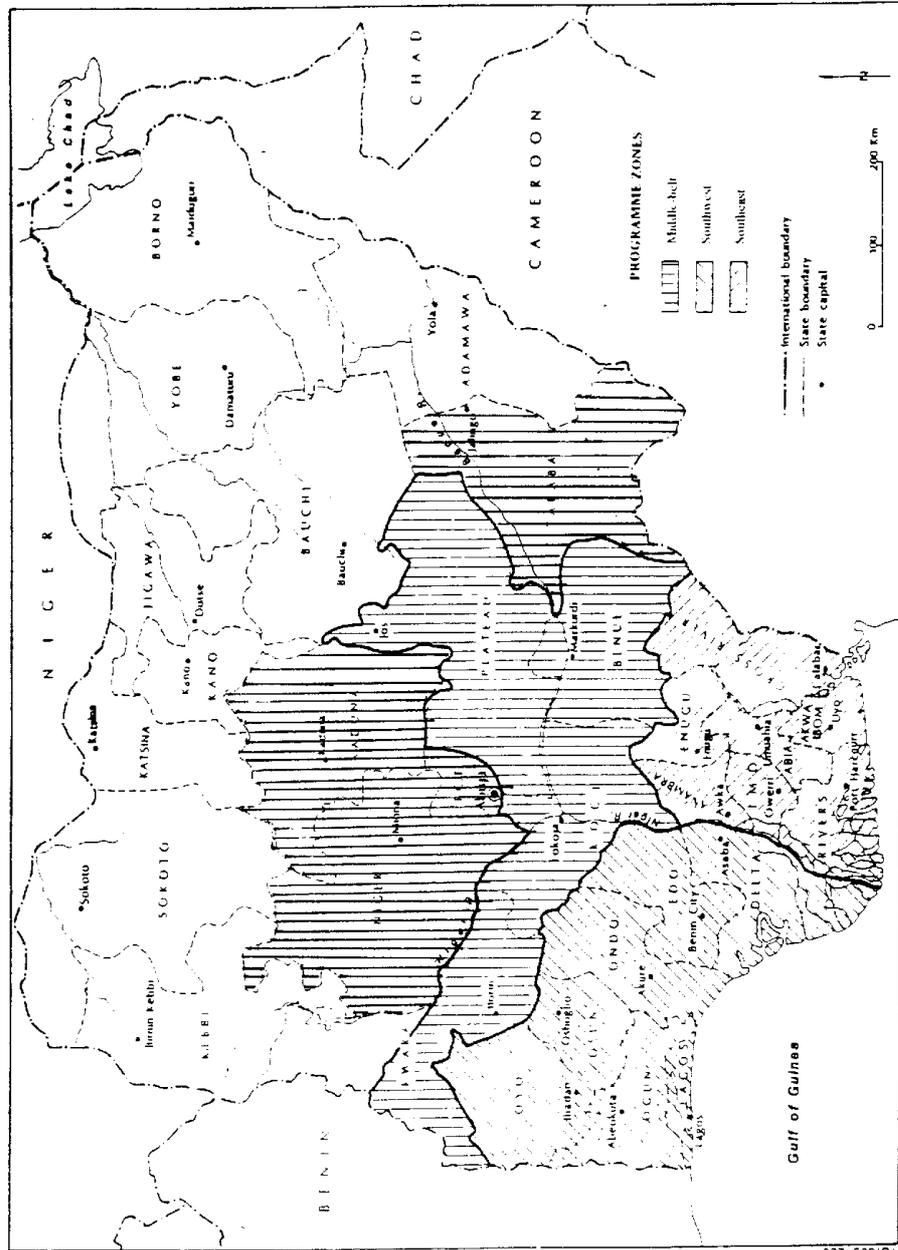
Fiscal Year

1 January - 31 December



MAP OF THE PROGRAMME AREA

NIGERIA
Roots and Tubers Expansion Programme
LOCATION OF PROGRAMME AREA AND PROGRAMME ZONES



TC10895-292

Source: Appraisal Report

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.



FEDERAL REPUBLIC OF NIGERIA
ROOTS AND TUBERS EXPANSION PROGRAMME
LOAN SUMMARY

INITIATING INSTITUTION:	IFAD
BORROWER:	Federal Republic of Nigeria
EXECUTING AGENCY:	Federal Ministry of Agriculture and Rural Development (MARD)
TOTAL PROGRAMME COST:	USD 36.09 million
AMOUNT OF IFAD LOAN:	SDR 16.70 million (equivalent to approximately USD 23.05 million)
TERMS OF IFAD LOAN:	40 years, including a grace period of ten years, with a service charge of three fourths of one per cent (0.75%) per annum
COFINANCIERS:	None
CONTRIBUTION OF THE BORROWER:	USD 13.02 million (Federal and State Government)
CONTRIBUTION OF BENEFICIARIES:	USD 8 500 (labour)
APPRAISING INSTITUTION:	IDA (with a 1999 update by IFAD in collaboration with IDA and FAO/IC)
COOPERATING INSTITUTION:	International Development Association (IDA)



PROGRAMME BRIEF

Who are the poor? IFAD's proposed intervention would target smallholders, i.e., those with less than 2 ha of land per household, who would be selected from 25 states, mostly in the southern and middle-belt states of Nigeria. The economic survival of these households generally depends for on low-incomes off-farm activities that fetch an annual cash income of USD 35 to 50 per person. For poor farmers faced with declining soil fertility and yields as well as labour constraints and limited access to fertilizer or credit, cassava production is often the fall-back option. About 3.2 million farming households are estimated to be in the root and tuber-growing belt. For these households, cassava plays a key role both in the cropping pattern and in the family diet.

Why are they poor? The poorest segment of the population is characterized by below-average household size, limited labour, and no access to fertilizer or credit. They have low crop yields, no marketable surplus and depend on low-income, off-farm activities for their economic survival. The relatively less-poor segment of the target group has enough family labour to produce sufficient marketable surplus but remains vulnerable. They can afford small quantities of fertilizer, when available, and hire some labour. Off-farm activities are important sources of additional income. Nevertheless, the lack of capital for investment in agricultural production usually forces farmers to sell most of their harvested crops when prices are lowest.

What will the programme do for them? The great majority of the target group would be exposed to improved varieties and better cultural practices through the existing extension system. At the same time, specific provisions would be made for the programme to reach out to the poorest segment of the target group, composed of farmers faced with constraints related to land, labour, soil infertility and erosion. Proposed arrangements would include careful selection of representative impact points, introduction of a community-based extension system in collaboration with NGOs (pending reassessment of the overall training and visit system) adaptive-research to test and disseminate appropriate technical packages for soil-fertility management, and strengthening of the impact survey capacity to ensure proper feedback and allow for corrective measures. Besides production-support measures, special emphasis would also be placed on agro-processing and market linkages as means to generate employment and income for the poor. Given that women play a major role in cassava and other foodcrop production, processing and marketing, the programme would address their needs by strengthening the capacity of agricultural development projects (ADPs) to involve women in root-and-tuber-based, on-farm adaptive-research trials and demonstrations. The programme reflects this approach by integrating support for women-in-agriculture units into the on-farm adaptive-research extension and marketing/processing components.

How will the beneficiaries participate in the programme? Special emphasis would be placed on collaboration with NGOs for farmers' training, technology development and dissemination, as well as processing and marketing. The farmer organizations currently serving as an interface between government services and beneficiaries would also be closely involved in programme planning and execution. Newly developed adapted technologies would be tested on a larger scale at the on-farm adaptive-research and small-plot-adoption technique levels to accelerate the spread of improved cassava, yam and potato varieties and their attendant production practices. Both research and extension staff would be trained in the use of participatory and gender-sensitive methods in order to increase their awareness of available indigenous technology, socioeconomic differences and needs within the farming communities, as well as in the communication skills required to assist farmers in evaluating and adapting new technologies.



**REPORT AND RECOMMENDATION OF THE PRESIDENT OF IFAD
TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO THE
FEDERAL REPUBLIC OF NIGERIA
FOR THE
ROOTS AND TUBERS EXPANSION PROGRAMME**

I submit the following Report and Recommendation on a proposed loan to the Federal Republic of Nigeria for SDR 16.70 million (equivalent to approximately USD 23.05 million) on highly concessional terms to help finance the Roots and Tubers Expansion Programme. The loan will have a term of 40 years, including a grace period of ten years, with a service charge of three fourths of one per cent (0.75%) per annum. It will be administered by the International Development Association (IDA) as IFAD's cooperating institution.

PART I - THE ECONOMY, SECTORAL CONTEXT AND IFAD STRATEGY¹

A. The Economy and Agricultural Sector

1. Nigeria's economy is characterized by heavy government involvement and intervention at both the state and federal levels. Under the previous regime, management of public expenditure through extrabudgetary spending and government borrowing tended to crowd out private investment, with government investment accounting for 70% of the total. Weak fiscal control coupled with expansionary monetary policies have fuelled inflation, which currently stands at approximately 70%. In a regulated interest-rate market, this has led to negative real interest rates. The return to rigid foreign-exchange controls since 1994 has resulted in wide margins between official and parallel exchange rates and a surge in speculative and rent-seeking behaviour. Gross national product per capita declined steadily from slightly over USD 1 000 in 1985 to only USD 280 in 1997, as a result of local-currency devaluation and a lower gross-domestic-product growth rate. The total population in 1994 was 108 million persons, and the 1990-97 growth rate was 3% per year. Following democratic elections in 1999, and the return to civilian rule, significant changes to the economic policy have been made, with a view to tighten fiscal control, create greater accountability and transparency in budgetary processes, and accelerate the downward trend in the inflation rate.

2. After oil, agriculture is the mainstay of the Nigerian economy, employing over 90% of the rural population and over two thirds of the total labour force. The total cultivable area is about 71 million hectares, of which about half is cultivated. Farming systems are mainly smallholder-based and rainfed, and they employ simple, low-input technology, resulting in low land and labour productivity. Production and price risks are high due to weather uncertainties and poor market infrastructure. Farming systems are cereal-based in the drier, northern and middle-belt states, and root-and-tuber-based in the wetter, middle-belt and southern states. The average cultivated area per farming household ranges from 0.5 ha in the high rainfall, densely populated south to 4 ha in the arid north. Increasing population pressure is reducing fallow areas and duration, and soil fertility and yields are declining.

3. Women play a major role in the production, marketing and processing of food staples. Post-harvest technology is characterized by poor storage, processing and market infrastructure, with post-harvest losses ranging from 15% in the semi-arid/arid north to about 25% in the humid southern forest

¹ See Appendix I for additional information.



zones. Poor access of farmers to formal credit constrains investment in the agro-processing subsector, with the informal sector accounting for the bulk of rural credit needs. The feeder-roads network in most rural areas is inadequate, with many farming communities inaccessible from main roads, especially during the rainy season. Marketable surplus cannot be efficiently disposed of, hence most farmers have little incentive for adopting improved technologies. Farmgate prices tend to be low, and differentials between market and farmgate prices are not adequately explained by transportation costs. Crop production and farmer incomes are thus below potential levels.

B. Lessons Learned from Previous IFAD Experience

4. IFAD has supported four projects in Nigeria (of which two are now closed) for a total amount of USD 56.58 million. Recurrent issues related to country-level implementation include counterpart funding, staff turnover and, until 1997/98, negative interest rates affecting the performance of credit components. IFAD interventions in Nigeria have contributed to achievements both in terms of commodity development (a threefold increase in national production of cassava and a halt in the decline in artisanal-fisheries production), technology generation and transfer (treadle pump, cassava processing, artisanal-fisheries production and processing), community development through training, credit and rural infrastructure. A major achievement of IFAD intervention in Nigeria has been the establishment of partnership arrangements between civil society organizations (including farmers organizations and non-governmental organizations (NGOs)) and a government technical services for farmer training and technology dissemination.

5. The closed Cassava Multiplication Programme (CMP) was conceived as an add-on to the World Bank-supported Multi-State Agricultural Development Project, filling carefully targeted investment gaps and freeing institutional bottlenecks that prevented the potential of this crop from being realized. The overall objective was to multiply and promote improved varieties to about 350 000 farmers to increase productivity and incomes. On the technical side, this objective was achieved substantially with six varieties incorporated to varying degrees into farmers' cropping systems. Due to the combined impact of the CMP, other government and non-government programmes and farmer-to-farmer distribution, replacement of disease-prone traditional varieties is estimated to have reached as high as 70%. Despite the success of the CMP in terms of dissemination of improved varieties, it has encountered institutional, managerial and a few technical problems since its inception with respect to interdepartmental coordination, disbursement procedures, staffing, and monitoring and evaluation. Corrective measures initiated under the CMP with positive results would be pursued in a systematic way under the proposed Roots and Tubers Expansion Programme (RTEP) as a follow-up phase, including partnership between government and civil-society organizations (CSOs).

6. In this context, IFAD has also been encouraging partnerships between government technical services and CSOs including NGOs and community-based organizations. An important instrument in this effort is the provision of small Extended Cooperation Programme (ECP) grants to NGOs to test new technologies or novel approaches with an adequate beneficiary orientation. An important advantage of this partnership is that it prevents field activities from being hostage to administrative inertia at the federal or state level. Finally, it is expected that: through mobilization of local resources and know-how, the continuity of project-initiated activities would, over time, be less dependent on state or federal-government counterpart funding. These grants are also often aimed at promoting pilot activities that could lay the groundwork for future IFAD investments or support ongoing projects, including development of low-cost technology for food processing and irrigation, and training for farmers and artisans. Experience acquired with a local NGO and a farmer organization under the existing project has proven successful. At the same time, special attention is being paid to promoting collaboration with the private sector, including arrangements for private-sector financing for the manufacture of water-lifting devices or food-processing equipment, as well as support for community development.



7. Expensive imports of wheat flour and high domestic inflation have shifted demand for carbohydrates from cereals to less costly staples. As a result, cassava has gained much greater importance in Nigeria, both as a cash crop for import substitution in the agro-industry sector and for national food security. The CMP has demonstrated cassava's potential to raise Nigeria's level of food self-sufficiency. Between 1987 and 1993, cassava output is estimated to have increased from 9 million tonnes to about 34 million tonnes, making Nigeria the world's largest cassava producing country. The RTEP would minimize bottlenecks in post-harvest technology especially, but in marketing as well, in order to strengthen response on the supply side.

8. The encouraging experience under the CMP has also pointed to the need for expansion of IFAD support not only to other stages of the cassava development cycle, i.e. processing and marketing, but also to other roots and tubers, such as yam, cocoyam, Irish potatoes and sweet potatoes. While changing the overall approach to research and extension in Nigeria lies beyond the scope of the RTEP, the programme would support greater involvement of root-and-tuber farmers in problem diagnosis, screening of possible solutions, and technology transfer. Meanwhile, in partnership with the World Bank, IFAD would be prepared to review extension experience in Nigeria with an eye to providing proposals for future directions and initiatives in agricultural-extension-service development. Similarly, a fundamental reassessment of the monitoring and evaluation system of the agricultural development project (ADP)/agricultural products monitoring and evaluation unit is required. The existing system is time-consuming, costly, and produces data of limited value, particularly with regard to the RTEP's objectives. In principle, the World Bank and IFAD have agreed to jointly support the reassessment.

C. IFAD's Strategy for Collaboration with Nigeria

Nigeria's Policy for Poverty Eradication

9. Joint initiatives involving the Government and external donors to develop a poverty-alleviation strategy date back to 1994 and the launching of a national poverty assessment. The "perverse effect" of the oil boom was recognized, including its devastating effects on agriculture, the increase in poverty as a result of falling oil prices compounded by economic mismanagement and unfavourable policies, and rapid population growth. The emerging poverty-alleviation strategy includes three simultaneous courses of action: economic growth, improved access of the poor to social services, and targeted interventions as a protective measure for the poor and vulnerable groups. Agriculture is recognized as a potentially important engine for growth. The underlying goal of the Government has been to structurally transform the sector through massive introduction of more input-intensive technologies. However, expansion of input-intensive production systems has been brought into question by the unfavourable input supply and credit conditions. As long as these unfavourable conditions persisted, inexpensive and low-input technology improvements had a better chance of being adopted by poor farmers.

The Poverty-Eradication Activities of Other Major Donors

10. Until external borrowing was frozen during the 1993-1998 period, coupled with a drastic reduction in external grant assistance, the Government of Nigeria had invested heavily in integrated rural-development projects with support from the World Bank. These projects (commonly known as agricultural development projects or ADPs) now span all Nigeria's states as well as the federal-capital territory. It has taken over 20 years to establish the ADP system, which encompasses on-farm adaptive-research, agricultural extension, rural water supply, feeder roads and input supply. Notwithstanding some notable achievements and the resolution of several major problems with respect to technology development and dissemination in ADP design, there is still considerable room for improvement. Research and extension must be further tailored to farmers' priorities and constraints. Rapid inflation in Nigeria and the resulting pressure on the budget raise questions about the sustainability of frequent village visits by the large number of village extension agents inherent in the training-and-visit extension system.



IFAD's Strategy in Nigeria

11. To date, IFAD lending to Nigeria has successively followed three different approaches: (i) a commodity approach, as exemplified by the Cassava Multiplication Programme under the Multi-State Agricultural Development Project; (ii) a subsectoral approach, represented by the Artisanal Fisheries Development Project; and (iii) an area-based integrated development approach, illustrated by projects in the states of Katsina and Sokoto. In 1993, an IFAD strategy-cum-general identification mission reviewed the rationale for each approach. The mission favoured the commodity-based over the area-based approach on the grounds that the former offered the possibility of intervening in "development niches" where IFAD could make a significant impact with limited resources, whereas the latter faces problems of replicability, given Nigeria's size and the large number of states. IFAD's 1994 interim evaluation of the CMP also concluded that there was a strong case for IFAD support of projects with a commodity focus² provided that the expected impact could actually be achieved: increase in, or at least maintenance of, income levels for the IFAD target group. This involves, *inter alia*, proper identification of the target group's constraints and provision for appropriate means to address them.

12. Project achievements (as outlined in paragraph 4 above) and the main thrusts of prospective IFAD interventions were reviewed in March 1999 at a national workshop on implementation review and sector dialogue. It was recommended that IFAD's future work include commodity development, natural-resources management, community development and rural finance. Recent correspondence from the World Bank confirms that organization's wish to collaborate with IFAD on the development of a joint portfolio.

13. Given the geographical size and number of states in Nigeria, as well as the need for a multi-pronged approach to address issues of rural poverty, IFAD will pursue its ongoing efforts to establish strategic alliances with other specialized agencies (United Nations Children's Fund (UNICEF), Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP)), financing institutions (the World Bank) and NGOs either on a project basis (project cofinancing) or on selected thematic issues (nutrition) in order to enhance the impact of IFAD operations on its target group.

Programme Rationale

14. In the light of experience, future intervention in the roots and tubers sector should reflect the following considerations:

- Medium-term economic prospects for Nigeria suggest that demand for cheaper food staples, such as cassava and yam, is likely to increase with population growth, along with a shift away from the more expensive carbohydrates, such as rice. Consequently, the improvement of root-and-tuber production and processing is vital for national and household food security, as well as for income-generation among the rural poor in the middle-belt and southern states.

² In light of its experience with cassava development in Nigeria and other countries, and considering that cassava has considerable potential for poverty alleviation and economic diversification, IFAD has agreed to play a catalytic role — at the request of the Cassava Research and Development Group (which includes the Consultative Group on International Agricultural Research (CGIAR), the International Centre for Tropical Agriculture (CIAT), and the International Institute of Tropical Agriculture (IITA), as well as the United Kingdom's Natural Resource Institute and France's International Cooperation Centre on Agrarian Research for Development (CIRAD)) — in the formulation of a Global Strategy and Implementation Plan for Cassava Development as a commodity approach to poverty alleviation. This involves a coalition of stakeholders made up of governments of cassava-producing countries in Africa, Latin America and Asia, multilateral and bilateral donor agencies, specialized research and technical agencies, the private sector and CSOs.



- Unfortunately, many of the improved varieties released have failed to match farmers' preferences to date. At the same time, the final pre-release testing of the backlog of promising improved breeding lines has been constrained by a virtually "stagnant" process of on-farm testing and varietal release. Support is required for diagnostic surveys to assess farmers' needs and to test varieties on-farm and for different end-uses to ensure that breeding is both bottom-up and demand-driven.
- Owing to the poor marketing infrastructure and poor access to formal credit for on-farm storage and processing, cassava post-harvest losses continue to be significant, especially when seasonal surpluses are high. There is, therefore, a need to improve cassava processing, utilization, and market outlets. Access to improved processing technology reduces labour constraints for women, price fluctuations for the output, and the risk of cyanide poisoning. Moreover, there is high unmet demand for cassava products in the baking, food, textile, livestock and pharmaceutical industries, whence the need to establish strong linkages between processors and end-users to improve returns at the farm level and encourage end-users to assist processors in acquiring needed equipment.
- In many areas, yam is the preferred staple food and fetches higher prices than cassava, but the shortage of planting material and labour for varieties that require staking is limiting production of this crop. Promotion of high-yielding non-staking varieties and of the minisett seed-yam propagation technique would increase yam production, reduce labour requirements, lower planting material cost and improve seed quality. Similarly, in some highland areas of the middle-belt states, increasing the availability of disease-free seed potato and promoting improved cultural and storage practices would enable poor farmers to earn a good income from this high-value crop.

PART II - THE PROGRAMME

A. Programme Area and Target Group

15. The programme would cover up to 25 states in the root-and-tuber-growing belt, subject to fulfilment of eligibility criteria (including adequate state-counterpart funding and proper ADP staffing): Abia, Akwa-Ibom, Anambra, Bayelsa, Benue, Cross River, Delta, Ebonyi, Edo, Ekiti, Enugu, Kaduna, Kogi, Kwara, Imo, Lagos, Nassarawa, Niger, Ogun, Ondo, Oshun, Oyo, Plateau, Rivers, Taraba, and any other state that the Fund may agree to include under the programme. The rural population of these states is about 35 million. The main agro-ecological zones and their respective annual rainfall are: forest zone (over 1 750 mm); derived savannah zone (1 250-1 750 mm); and southern Guinea zone (1 200-1 400 mm).

16. Cassava-based cropping systems predominate in the South-west and parts of the South-east. Cassava is intercropped with maize (most common), cocoyam (in wetter forest areas), groundnut or cowpea (in the second/late-season cropping) and vegetables. Improved cassava varieties have been integrated within the local cropping systems, especially in the South-west and in some parts of the South-east. Many local cultivars are still very popular because some of their characteristics have not yet been matched by the improved varieties. Yam-based cropping systems predominate in the middle-belt, much of the South-east, and a small part of the South-west, although a gradual shift from yam to cassava has occurred in the last decade, mainly due to the high labour, soil-fertility and planting-material requirements for yam. Yam-based systems involve a 2-4 year rotation. For such cropping systems, yam is usually planted first on large mounds and relay-cropped with vegetables, maize and/or legumes. Potato-based systems are ecologically limited to areas 1 200 m above sea level, principally Plateau and Taraba States. Dry-season cropping also occurs in the *fadamas* (seasonally-flooded valleys) of the mid-altitude, middle-belt and northern states, where night temperatures are low enough to allow adequate tuberization. In the Jos area, the main intercrops are cereals (maize/sorghum) and legumes (beans).



17. In terms of natural-resource use in the roots and tubers belt, it was possible with traditional shifting cultivation to maintain soil fertility; however, population-driven expansion of cropped areas has led to a gradual reduction in fallow periods and fertility. Mineral fertilizers are rarely used in root and tuber-based systems, mainly due to irregular supply and high cost and the higher return from fertilizing other crops, i.e., cereals. To maintain production, farmers have responded by expanding the cropped area or shifting from higher-fertility-requiring cropping patterns, which include yam, to lower-fertility-requiring ones, mainly cassava-based. This approach cannot be sustained without causing severe environmental degradation. There is a need to break this vicious circle by raising community and farmer awareness of the problem and by promoting better land husbandry. In the densely populated South-east, some farmers have already begun to modify their farming practices. These initiatives should be built upon, and increased use of legumes promoted. At the same time, increased crop productivity through use of improved varieties adapted to low-fertility conditions would satisfy household food needs in limited spaces (especially for cassava) and allow space for alley-cropping and improved fallow to mitigate/reverse the decline in soil fertility.

18. IFAD's proposed intervention would target smallholders, i.e., those with less than 2 ha of land per household, who would be selected from 18 of the southern and middle-belt states of Nigeria. The economic survival of these households generally depends on low-income, off-farm activities that fetch an annual cash income of USD 35 to 50 per person. For poor farmers faced with declining soil fertility and yields as well as labour constraints and limited access to fertilizer or credit, cassava production is often the fall-back option. About 3.2 million farming households are estimated to be in the root-and-tuber-growing belt. For these households, cassava plays a key role both in the cropping pattern and in the family diet.

19. The poorest segment of the population is characterized by below-average household size, limited labour, and no access to fertilizer or credit. They have low crop yields, no marketable surplus and depend on low-income, off-farm activities for their economic survival. The relatively less-poor segment of the target group has enough family labour to produce sufficient marketable surplus but remains vulnerable. These families can afford small quantities of fertilizer, when available, and hire some labour. Off-farm activities are important sources of additional income. Nevertheless, the lack of capital for investment in agricultural production usually forces farmers to sell most of their harvested crops when prices are lowest.

20. The widespread promotion of technologies that are appropriate for the poorest farmers would be reinforced by ensuring that the distribution of planting material and demonstration activities give priority to including the poorest and more marginal settlements. The poorest settlements would be identified on the basis of their vulnerability to food insecurity. Suitable indicators for assessing vulnerability to food insecurity at the community level might include the following: (i) level of household income from marketable surpluses and other off-farm sources; (ii) farm size and fallowing period; (iii) soil-fertility level; (iv) availability of household farm labour; and (v) degree of isolation from social and economic infrastructure (roads, input supplies, markets, processing outlets, banking and other services). Final determination of the indicators and methodology for identifying the poorest communities would be undertaken during the pre-programme management information system (MIS) design study.

21. Given that women play a major role in cassava and other foodcrop production, processing and marketing, the programme would address their needs by strengthening the capacity of ADPs to involve women in root-and-tuber-based on-farm adaptive-research trials and demonstrations. The programme reflects this approach by integrating support for women-in-agriculture units into the on-farm adaptive-research extension and marketing/processing components.



B. Objectives and Scope

22. Capitalizing on achievements and drawing on lessons learned from the CMP, the proposed Roots and Tubers Expansion Programme is conceived as a follow-up phase that extends support to other roots and tubers (including yam and potatoes) and places additional emphasis on processing and marketing. The long-term objective of the programme is to improve the living conditions, income and food security of poor smallholder households in the programme area. Immediate objectives would include: (i) the development of sustainable cropping systems through the testing, multiplication and release of appropriate root-and-tuber varieties; (ii) strengthening of support services in research and extension and the orienting of these towards the priority needs of farmers, especially women farmers; and (iii) the improvement of simple processing techniques and equipment and the provision of marketing support and advice to farmers.

C. Components

23. In order to lift the constraints discussed previously, the programme would have the following main components: (i) development of improved root and tuber production technologies; (ii) multiplication of improved planting material; (iii) improved adaptive-research and extension; (iv) diversification of cassava-processing technologies and methods; and (v) programme management and evaluation.

24. **Development of improved root and tuber production technologies.** Continuing support for the National Root Crops Research Institute and other national research institutes aimed at identifying and testing — together with farmers — sustainable cropping systems that would mitigate soil-fertility loss; breeding and selection of root-and-tuber varieties adapted to low-input farming conditions and farmers' and end-users' requirements; pre-release testing of new cassava and yam varieties; refinement of the yam miniset technique and other root-and-tuber cultural practices; establishment of the Nationally Coordinated Yam Research Programme to facilitate the release of new varieties to farmers; reinforcement of cassava-pest biological-control coordination and conduct of a pest survey.

25. **Multiplication of improved planting material.** Multiplication of root-and-tuber varieties by supporting multiplication of breeder seed (by the National Root Crops Research Institute), foundation seed (by the National Seed Service), certified seed (by ADPs via an outgrower scheme), and small-scale farmer-managed multiplication; training of ADP seed-multiplication staff in rapid-multiplication techniques and multiplication-plot management; and training of ADP seed quality-control officers to ensure release of disease-free and true-to-type varieties to farmers.

26. **Improved adaptive-research and extension.** Spread of improved root-and-tuber varieties and cultural practices through on-farm adaptive-research trials, small-plot-adoption technique demonstrations, and mini-field days; increased access by farmers — especially women — to new technologies through their greater involvement the design and implementation of on-farm adaptive-research and small-plot-adoption technique. This would include integration of the new root-and-tuber varieties into the local farming system, soil-fertility-improvement technology, and improved crop-cultivation techniques. Researchers and extension staff would be trained in gender-sensitive and participatory methods to increase their awareness and to develop communication skills to ensure that farmers' needs are adequately met.

27. **Diversification of cassava-processing technologies and methods.** In order to remove marketing bottlenecks, the programme will include: the preparation of a cassava-processing and end-user market inventory; feasibility studies for different processing-technology options; sensitization about processing and cooking technique, in relation to environmental and health issues; pilot-testing and promotion of improved processing equipment; support for the establishment of better links among technology developers, processors and end-users; and establishment of a federal agro-processing and market-expansion group comprising four incremental staff with complementary skills in gender issues, rural sociology, food technology, marketing, agro-processing and financial analysis. The



promotion of improved processing packages is limited by the marginal returns on traditional end-products, such as *gari*, and the lack of viable credit programmes. There is some scope, however, for simple modifications to existing equipment and for the introduction of relatively inexpensive, specially built equipment, which would enable those groups already engaged in processing to achieve higher returns by meeting the needs of bakers and the starch-using industries. With respect to credit, alternative financing arrangements would be explored with cassava-based agro-industries interested in pre-financing the procurement of processing equipment, as well as the use of experienced NGOs to provide technical support to farmer groups.

28. **Programme management and evaluation.** Activities under this component would include: support for federal and state-level management, supervision, monitoring and evaluation of programme activities; development of the institutional, management and financing arrangements of the CMP to ensure timely implementation, more effective loan disbursement and efficient use of resources under the RTEP. A revised planning, monitoring and evaluation system would be developed to provide programme management with useful information on implementation and more focused and relevant information on the impact of programme activities on the target group.

D. Costs and Financing

29. The cost of the eight-year programme, including all contingencies and taxes, is estimated to be USD 36.09 million, including a 20% allocation for physical and price contingencies over the base costs. Foreign exchange (USD 9.17 million) accounts for about 25% of the total cost (see Table 1).

30. The IFAD loan of USD 23.05 million represents 71% of the total programme cost net of duties and taxes (or 64% of total costs), including a gradually decreasing contribution to the operating costs. The Government and participating states would contribute 20% and 16%, respectively, to programme cost. Beneficiary groups would contribute labour for the multiplication of planting material. The IFAD loan would be made to the Government of Nigeria and would be on-lent to the 25 participating states under subsidiary loan agreements on the same terms as the IFAD loan (see Table 2). Eligibility criteria would include, *inter alia*, availability of counterpart funds, implementation capacity and level of indebtedness of the states concerned. IFAD's loan would finance part of the costs of civil works, training, technical assistance, vehicles, equipment and spare parts, research, as well as a decreasing share of operating costs.

TABLE 1: SUMMARY OF PROGRAMME COSTS^a
(USD '000)

Components	Local	Foreign	Total	% of Foreign Exchange	% of Base Costs
A. Development of improved root and tuber production technologies	1 089.3	490.3	1 579.6	31	5
B. Multiplication of improved planting material	3 666.0	642.4	4 308.4	15	14
C. Improved adaptive-research and extension	8 182.5	2 868.9	11 051.4	26	37
D. Diversification of cassava-processing technologies and methods					
- Market expansion	2 211.0	1 054.1	3 265.1	32	11
- Participatory technology development	367.0	120.4	487.4	25	2
- Improved management of group enterprises	1 642.8	102.1	1 745.0	6	6
Subtotal D.	4 220.9	1 276.6	5 497.4	23	18
E. Programme management and evaluation					
- Programme management	2 086.6	1 327.5	3 414.1	39	11
- Evaluation	2 874.5	1 419.3	4 293.8	33	14
Subtotal E.	4 961.1	2 746.8	7 707.9	36	26
Total base costs	22 119.7	8 024.9	30 144.6	27	100
Physical contingencies	2 209.2	802.5	3 011.7	27	10
Price contingencies	2 586.2	345.8	2 932.7	12	10
Total programme costs	26 915.7	9 173.2	36 089.0	25	120

^a Discrepancies in totals are due to rounding.

TABLE 2: FINANCING PLAN^a
(USD '000)

Components	IFAD		State Government		Farmers		Federal Government		Total		Foreign Exchange	Local (Excl. Taxes)	Duties and Taxes
	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%			
A. Development of improved root and tuber production technologies	1 375.6	73.5	159	8.5	-	-	336	18.0	1 871.14	5.2	570.0	1 114.2	187.1
B. Multiplication of improved planting material	2 575.9	49.6	1 414.2	27.2	8.5	0.2	1 196.3	23.0	5 194.8	14.4	736.8	3 938.4	519.5
C. Improved adaptive research and extension	8 508.8	64.3	2 045.5	15.5	-	-	2 676.4	20.2	13 230.7	36.7	3 202.9	8 704.7	1 323.1
D. Diversification of cassava-processing technologies and methods													
- Market expansion	2 851.6	73.3	415	10.7	-	-	625	16.1	3 891.9	10.8	1 232.9	2 269.8	389.2
- Participatory technology development	409	70.2	7	12.7	-	-	9	17.1	583.3	1.6	140.6	384.4	58.
- Improved management of group enterprises	1 335.0	63.3	402	19.1	-	-	372	17.7	2 110.0	5.8	120.9	1 778.2	211.0
Subtotal D.	4 596.0	69.8	891	13.5	-	-	1 097.5	16.7	6 585.3	18.2	1 494.4	4 432.4	658.5
E. Programme Management and evaluation													
- Management	2 589.9	63.6	637	15.7	-	-	843	20.7	4 071.0	11.3	1 542.8	2 121.2	407.1
- Evaluation	3 401.8	66.2	697	13.6	-	-	1 037.1	20.2	5 135.9	14.2	1 626.3	2 996.0	513.6
Subtotal E.	5 991.7	65.1	1 334.7	14.5	-	-	1 880.5	20.4	9 206.9	25.5	3 169.1	5 117.1	920.7
Total disbursement	23 047.9	63.9	5 845.4	16.2	8.5	-	7 187.2	19.9	36 089.0	100.0	9 173.2	23 306.8	3 608.9

^a Discrepancies in totals are due to rounding.



E. Procurement, Disbursement, Accounts and Audit

31. Procurement under the loan should be as follows: (i) civil-works contracts (unlikely to attract international bidders due to limited amounts and the fact that works are geographically dispersed) would be procured under lump-sum, fixed-price contracts awarded on the basis of quotations obtained from three qualified domestic contractors in response to a written invitation; (ii) vehicles, equipment and spare parts would be awarded under international competitive bidding for contracts of USD 100 000 or more, and under local competitive bidding for contracts of more than USD 30 000 but less than USD 100 000, up to an aggregate amount of USD 1 000 000. These contracts would be subject to review by the cooperating institution. Contracts in this category valued between USD 30 000 and USD 5 000 in the aggregate amount of USD 500 000 would be procured under international shopping procedures. Finally, contracts in this category for amounts below USD 5 000, up to an aggregate amount of USD 250 000 equivalent, may be awarded on the basis of the evaluation and comparison of bids invited from at least three suppliers in accordance with procedures approved by the cooperating institution; (iii) procurement of consultant services, research, training and studies would be undertaken in accordance with the guidelines of the cooperating institution; (iv) procurement activities related to the operation and maintenance of offices, vehicles and equipment would be undertaken using normal government rules.

32. To overcome the problems associated with the special account (denominated in United States dollars) under the multi-state ADPs (e.g., inactive accounts, delays by state banks in crediting ADPs for funds reimbursed by IFAD), only one, centralized special account with an authorized allocation of USD 2.0 million would be maintained in a commercial bank (having a network of commercial banks in the different states operating under the programme) for all agencies participating in the RTEP. The arrangement would be managed directly by the RTEP Management Unit under broad supervision by the Department of Agriculture. Unless IFAD otherwise agrees, the authorized allocation will initially be limited to an amount equivalent to USD 800 000. Further deposits may be authorized by IFAD and the cooperating institution on the basis of the number of participating states joining the programme, taking into account their funding requirements as reflected in their annual work programmes and budgets. Each ADP account as well as the accounts of other federal agencies concerned would be operated as an imprest dollar account to be reimbursed from the special account. Relevant expenditures of participating states and federal agencies would be certified and sent to the RTEP Management Unit for transmittal to the cooperating institution in the form of a withdrawal application. Withdrawal applications would be fully documented except for (i) expenditures for vehicles, equipment, spare parts and consultant services under contracts valued at less than USD 30 000 equivalent, and (ii) training and operating costs, which will be made against statements of expenditures.

33. Participating agencies will maintain separate bank accounts into which the required counterpart funds will be deposited. As is the case under the CMP, each participating institution would keep financial records in accordance with sound accounting practices, reflecting their operations and financial positions under the RTEP as separate from operations under other concurrent projects. These agencies' programme accounts (including special-account operations and statements of expenditures) would be subjected to an annual consolidated audit at the programme level by a firm of independent external auditors acceptable to IFAD. The RTEP Coordinating Unit will forward to IFAD the consolidated audit report prepared by the external auditors not later than six months after the end of the fiscal year.

F. Organization and Management

34. At the federal level, the RTEP would be managed under the CMP Management Team, which would be responsible for coordinating field and headquarters activities and providing assistance in supervision, training programmes of the ADPs, and monitoring and evaluation activities.



Coordination among the participating states and federal agencies would be achieved via the existing Project Coordination Committee (PCC), whose membership represents all subsectors of agriculture and caters to the needs of all 37 ADPs. To ensure that the needs and concerns of stakeholders are adequately addressed, representatives of farmers from the target group and related industries would be invited to attend annual national review workshops. In addition to the coordinating role of the PCC, the Federal ADP Executive Committee would be responsible for approving the annual work plan and budget, technical assistance proposals, local staffing appointments and training proposals for participating federal agencies.

35. To generate competition among participating states and enhance efficiency, the programme would pool loan funds and allocate resources on the basis of performance as assessed on completion of the CMP and during two implementation reviews over an eight-year disbursement period. Eligibility criteria would include, *inter alia*, the states' financial commitment to the RTEP by way of timely and adequate release of counterpart funds, availability of counterpart funds, compliance with loan and disbursement conditions, and implementation performance. Special emphasis would be placed on collaboration with NGOs for farmers' training, technology development and dissemination, as well as processing and marketing. The farmer organizations currently serving as an interface between government services and beneficiaries would also be closely involved in programme planning and execution.

36. Newly developed adapted technologies would be tested on a larger scale through on-farm adaptive research and small-plot-adoption techniques to accelerate the spread of improved cassava, yam and potato varieties and their attendant production practices. Both research and extension staff would be trained in the use of participatory and gender-sensitive methods in order to increase their awareness of available indigenous technology, socio-economic differences and needs within the farming communities, as well as in the communication skills required to assist farmers in evaluating and adapting new technologies.

37. The Federal Agroprocessing and Market-Expansion Group would work very closely with its counterparts at the state level, i.e., the state groups taking the lead in day-to-day agro-processing operations in each ADP. Based on the commodity-system studies, specific locations with potential for supply response to meet identified industrial demand would be selected as pilot processing centres. Local NGOs would establish pilot processing centres through a hire/purchase arrangement in supported states. The ADPs would use a similar approach to establish additional centres. The Federal Group would be responsible for developing easily monitorable criteria with which to monitor the performance of the ADPs and NGOs in relation to the RTEP processing component. The Rural Agro-Industrial Development Scheme, under the Department of Agriculture, would team up with the Federal Agricultural Coordinating Unit and the Agricultural Projects Monitoring and Evaluation Unit (APMEU) to support the implementation of recommendations from an ongoing commodity-systems study for cassava. This study will culminate in a stakeholders workshop to identify opportunities (e.g., end-uses, markets and technologies), the constraints to the development of cassava-based products, and the champions and catalysts in the public and private sector who would promote networking and facilitate linkages with relevant public and private interventions in the field of rural infrastructure, microfinance and microenterprise development, etc. The catalysts and champions will: facilitate the flow of information with the cassava sub-sector; seek ways of identifying processing and storage needs through contact with small-scale processors and farmers and through feedback from the ADPs; prepare terms of reference for specific studies to solve identified problems; and evaluate study results.

38. At the ADP level, staff from the finance accounts and monitoring/evaluation units would be responsible for operating the improved management information system. Each participating ADP would conduct two large-scale surveys: a baseline survey, which would serve as an impact survey for the ongoing CMP in relevant states; and an RTEP impact survey in project year 8. The surveys would establish broad socio-economic characteristics of the target group in order to determine the changes



that have occurred during the life of the programme, focusing on aspects where programme impact is expected to be felt.

39. An implementation manual will be prepared by the borrower as a condition of disbursement. The manual will confirm institutional arrangements and outline the modalities of collaboration between the various federal and state agencies and services involved at various stages of the commodity-development cycle, from breeding to end-utilization.

G. Economic Justification

40. Over a programme life of 30 years, the economic rate of return (ERR) of the RTEP was estimated at 24% without processing, i.e., only on the basis of incremental production. The assumptions on development and expanded processing for the target group are predicated on ready access to market opportunities for flour and starch, improvement in the quality of on-farm processing, and strong links among producers, processors and end-users. The adoption of processing technology is projected to rise from a conservative estimate of 1.7% of the beneficiary households in year 4 to 15% in year 12. If the benefits and costs related to cassava processing are taken into account (albeit on a conservative basis), then the ERR would rise to 29%. However, if only 50% of the households earmarked for processing actually undertake it, the ERR would increase by 2% over the base-period (i.e., “without processing”) rate of 24%.

H. Risks

41. The success of the RTEP hinges heavily on a streamlined organizational and institutional arrangement for delivering improved technological services to farm households. A combination of an efficient management information and monitoring/evaluation system and implementation reviews would form the basis for timely interventions to minimize the risks referred to above. A basic institutional framework is already in place through the first phase, and both IFAD and the World Bank have the experience to help ensure efficient implementation of the programme’s activities. Inadequate and late release of counterpart funds could also pose a significant risk factor to successful implementation of the programme within the time frame specified. This risk is, however, mitigated by the adoption of eligibility criteria as referred to earlier.

I. Environmental Impact

42. The main environmental issue addressed by the programme is the increasing population pressure on farm land, which is leading to declining soil-fertility and yields and, hence, falling incomes. Positive aspects of the programme would include the testing and dissemination among farmers of soil-fertility-improvement technologies suitable for low-input roots and tubers-based farming systems, e.g., agroforestry/alley-cropping, improved fallow systems, use of organic manure and compost, crop mixtures including legumes, and to a lesser extent, integrated crop-livestock management (or mixed farming). Based on IFAD’s criteria for environmental assessment, the RTEP is not likely to cause serious environmental degradation in the agro-ecological zones of the programme area. Most of the components under the programme were the focus of the recently closed CMP and are not likely to have an adverse impact on the agro-ecological balance of the programme area. RTEP implementation will also benefit from the outcomes (and resulting transfer of technology) of a cassava environmental impact assessment being carried out by a CIAT-led consortium of institutions as part of the IFAD-spearheaded global cassava development strategy. Finally, in addition to dissemination of soil-and-water conservation techniques, provision is also made under the RTEP for sensitization about processing and cooking techniques in order to mitigate the risk of land degradation and health hazards related respectively to cassava cultivation and processing.



J. Innovative Features

43. Drawing lessons from CMP experiences, several innovative features will be introduced under the RTEP, including:

- (i) expansion of the scope of IFAD intervention (i.e., vertical and horizontal integration) to support other roots and tubers as well as agro-processing and market linkages;
- (ii) using the existing extension system – pending its reassessment – to promote dissemination of on-farm, off-farm and conservation-oriented technologies adapted to poorer rural households, exploring alternative approaches (e.g., community-based) to extension;
- (iii) placing emphasis, under the adaptive-research component, on poverty-oriented packages, including measures to maintain soil fertility for smallholders facing land and labour constraints; and
- (iv) combining the proposed loan with other financial resources — including grants under the Extended Cooperation Programme — to encourage partnerships between government executing agencies and CSOs (NGOs and community-based organizations in the field of agricultural training for farmers and food processing) with a view towards long-term sustainability.

PART III - LEGAL INSTRUMENTS AND AUTHORITY

44. A loan agreement between the Federal Republic of Nigeria and IFAD constitutes the legal instrument for extending the proposed loan to the borrower. A summary of the important supplementary assurances included in the negotiated loan agreement is attached as an annex.

45. The Federal Republic of Nigeria is empowered under its laws to borrow from IFAD.

46. I am satisfied that the proposed loan will comply with the Agreement Establishing IFAD.

PART IV - RECOMMENDATION

47. I recommend that the Executive Board approve the proposed loan in terms of the following resolution:

RESOLVED: that the Fund shall make a loan to the Federal Republic of Nigeria in various currencies in an amount equivalent to sixteen million seven hundred thousand Special Drawing Rights (SDR 16 700 000) to mature on and prior to 1 September 2039 and to bear a service charge of three fourths of one per cent (0.75%) per annum, and to be upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board in this Report and Recommendation of the President.

Fawzi H. Al-Sultan
President



SUMMARY OF IMPORTANT SUPPLEMENTARY ASSURANCES INCLUDED IN THE NEGOTIATED LOAN AGREEMENT

(Loan negotiations concluded on 12 november 1999)

1. The Government of the Federal Republic of Nigeria (the Government) will relend a portion of the proceeds of the loan to each participating state in accordance with the annual work plan and budget (AWPB) and under a participating state implementation and subsidiary loan agreement to be entered into between the Government and the participating state, under terms and conditions which will have been approved by IFAD and which will include those set forth in the loan agreement.
2. MARD will open and thereafter maintain in a bank proposed by the Government and accepted by IFAD a current account denominated in naira for programme operations (the Federal Programme Account). In addition, each participating state will: (i) open in a commercial bank and thereafter maintain with adequate funds a state programme account (the State Programme Account) denominated in naira to be used exclusively for payments for goods, works and services required for the carrying out of the programme in the participating state; (ii) issue, and thereafter maintain during the course of the programme, written instructions to the Federal Ministry of Finance to deposit into the said account amounts standing to the credit of the participating state in a commercial bank acceptable to the Government and IFAD in an initial amount adequate to cover the first six (6) months of programme implementation; and (iii) thereafter, replenish the said account by depositing the counterpart funds called for in the AWPB for the programme year semi-annually in advance.
3. In addition to the proceeds of the loan, the Government will make available to the MARD and each other programme party, promptly as needed, such funds, facilities, services and other resources as may be required from time to time to carry out the programme in accordance with the loan agreement. Without limiting the generality thereof, the Government and the participating states will make available to the programme parties during the programme implementation period counterpart funds from their own resources in an aggregate amount of USD 13 000 000 equivalent, in accordance with their customary national procedures for development assistance. For programme start-up, the Government will deposit counterpart funds in an initial amount of USD 800 000 equivalent into the Federal Programme Account to cover the first twelve (12) months of programme implementation, and thereafter will replenish the Federal Programme Account by depositing annually in advance the counterpart funds called for in the AWPB for the programme year.
4. IFAD may suspend, in whole or in part, the right of the Government to request withdrawals from the loan account if the programme implementation manual, or any provision thereof, has been waived, suspended terminated, amended or modified without the prior consent of IFAD, and IFAD has determined that such waiver, suspension, termination, amendment or modification has had, or is likely to have, a material adverse effect on the programme.
5. The Government will select each of the participating states on the basis of an approved AWPB submitted by the concerned participating state and the following selection criteria: (a) the participating state has made adequate provision for counterpart funding as per the approved AWPB and has deposited the first six (6) month estimated counterpart funds in the relevant State Programme Account; (b) the participating state has issued a written commitment to make the counterpart funding available on a timely basis and an authorization to have the said funding deducted at source throughout the programme in the event of default in making the said deposits; (c) the relevant ADP has qualified and experienced staff designated in accordance with published standards of the Federal Agricultural Coordinating Unit (FACU) and the Agricultural Programmes Monitoring and Evaluation Unit; (d) the relevant state agro-processing and market expansion group has been established and is fully operational; (e) the participating state has provided to IFAD a copy of a memorandum of understanding to be concluded by



the participating state with a participating research institution with regard to the anticipated needs of the programme and a two-year human resource plan with identified skills gaps and annual training schedules for the programme; and (f) the participating state has proven efficiency for programme implementation, assessed on the basis of the establishment by the participating state of a pilot and fully functional management and information system, the compilation of up-to-date information on pertinent socio-economic conditions for poverty target groups existing in the state, and the participating state and the ADP's capacity to implement development programmes.

6. The MARD: (a) will carry out, not later than 30 June 2000, an assessment of its monitoring and evaluation system in terms of the extension experience; and (b) on the basis of the conclusions of the said assessment, will formulate and submit to the review of IFAD an action plan for 30 September 2000.

7. No disbursements will be made from the loan in respect of:

- (a) civil works, vehicles, equipment, spare parts, training, technical assistance and research, until and unless the participating state in respect of which the withdrawal is requested: (i) has entered into the respective participating state implementation and subsidiary loan agreement and a signed copy thereof, in the form approved by IFAD, will have been delivered to IFAD; and (ii) has opened the State Programme Account and has designated the authorized representative to make withdrawals therefrom; and
- (b) civil works, vehicles, equipment, spare parts, training, technical assistance and research and operating costs, until and unless: (i) the programme implementation manual has been approved by IFAD in draft and a copy of the programme implementation manual as adopted by the programme management unit (RTEP-MU), substantially in the form so approved and certified as true and complete by a competent officer of the MADR, will have been delivered to IFAD; and (ii) the auditor of the programme has been duly appointed in accordance with the relevant provisions of the loan agreement.

8. The following are the additional conditions precedent to the effectiveness of the loan agreement:

- (a) the MARD will have duly established the RTEP-MU and will have duly appointed the programme manager and its key staff, all with the prior approval of IFAD and in accordance with the relevant provisions of the loan agreement;
- (b) the Government will have opened the Special Account;
- (c) the Government will have opened the Federal Programme Account in accordance with the relevant provisions of the loan agreement and will have made therein the initial deposit of counterpart funds in accordance with the relevant provisions of the loan agreement;
- (d) the loan agreement will have been duly signed, and the signature and performance thereof by the Government will have been duly authorized and ratified by all necessary corporate, administrative and governmental action;
- (e) (i) three participating state implementation and subsidiary loan agreements will have been approved by IFAD in draft; (ii) a copy of the three signed participating state implementation and subsidiary loan agreements, substantially in the form so approved and certified as true and complete by a competent officer of the Government, will have been delivered to IFAD; (iii) the signature and performance thereof by the Government and the participating state will have been duly authorized or ratified by all necessary corporate, administrative and governmental action; and (iv) all conditions precedent to the effectiveness thereof will have been fulfilled; and



- (f) a favourable legal opinion, issued by the Attorney General of the Federation or other legal counsel approved by IFAD and in form and substance acceptable to IFAD will have been delivered by the Government to IFAD.

COUNTRY DATA

NIGERIA

Land area (km² thousand) 1996 1/	911	GNP per capita (USD) 1997 2/	280
Total population (million) 1997 1/	117.9	Average annual real rate of growth of GNP per capita, 1990-97 2/	0.7
Population density (people per km²) 1996 1/	126	Average annual rate of inflation, 1990-97 2/	42.6
Local currency	Naira (NGN)	Exchange rate: USD 1 =	NGN 104.00
Social Indicators		Economic Indicators	
Population (average annual population growth rate) 1980-97 1/	3.0	GDP (USD million) 1997 1/	39 856
Crude birth rate (per thousand people) 1997 1/	40	Average annual rate of growth of GDP 1/ 1980-90	1.6
Crude death rate (per thousand people) 1997 1/	12	1990-97	2.8
Infant mortality rate (per thousand live births) 1997 1/	77	Sectoral distribution of GDP, 1997 1/	
Life expectancy at birth (years) 1997 1/	54	% agriculture	33
Number of rural poor (million) (approximate) 1/	25.2	% industry	47
Poor as % of total rural population 1/	36.4	% manufacturing	5
Total labour force (million) 1997 1/	47	% services	20
Female labour force as % of total, 1997 1/	36	Consumption, 1997 1/	
Education		General government consumption (as % of GDP)	9
Primary school gross enrolment (% of relevant age group) 1996 1/	98	Private consumption (as % of GDP)	70
Adult literacy rate (% of total population) 1995 3/	57	Gross domestic savings (as % of GDP)	22
Nutrition		Balance of Payments (USD million)	
Daily calorie supply per capita, 1995 3/	2 497	Merchandise exports, 1997 1/	16 028
Index of daily calorie supply per capita (industrial countries=100) 1995 3/	79	Merchandise imports, 1997 1/	6 734
Prevalence of child malnutrition (height for age % of children under 5) 1992-97 1/	38	Balance of merchandise trade	9 294
Prevalence of child malnutrition (weight for age % of children under 5) 1992-97 1/	39	Current account balances (USD million)	
Health		Before official transfers, 1997 1/	-1 365
Health expenditure, total (as % of GDP) 1990-97 1/	1.0	after official transfers, 1997 1/	552
Physicians (per thousand people) 1990-97 1/	0.2	Foreign direct investment, 1997 1/	1 539
Percentage population without access to safe water 1990-96 3/	50	Government Finance	
Percentage population without access to health services 1990-95 3/	49	Overall budget surplus/deficit (including grants) (as % of GDP) 1996 1/	n.a.
Percentage population without access to sanitation 1990-96 3/	43	Total expenditure (% of GDP) 1996 1/	n.a.
Agriculture and Food		Total external debt (USD million) 1997 1/	28 455
Food imports as percentage of total merchandise imports 1997 1/	n.a.	Present value of debt (as % of GNP) 1997 1/	72
Fertilizer consumption (hundreds of grams per ha of arable land) 1995-97 1/	68	Total debt service (% of exports of goods and services) 1997 1/	7.8
Food production index (1989-91=100) 1995-97 1/	134.2	Nominal lending rate of banks, 1997 1/	20.4
Land Use		Nominal deposit rate of banks, 1997 1/	7.3
Arable land as % of land area, 1996 1/	33.3		
Forest area (km ² thousand) 1995 1/	138		
Forest area as % of total land area, 1995 1/	15.1		
Irrigated land as % of cropland, 1994-96 1/	0.7		

n.a. not available.

Figures in italics indicate data that are for years or periods other than those specified.

1/ World Bank, *World Development Report*, 1999

2/ World Bank, *Atlas*, 1999

3/ UNDP, *Human Development Report*, 1998

PREVIOUS IFAD LOANS TO NIGERIA

Project Name	Initiating Institution	Cooperating Institution	Lending Terms	Board Approval	Loan Effectiveness	Current Closing Date	Loan/Grant Acronym	Currency	Approved Loan/Grant Amount	Disbursement (as % of approved amount)
Multi-State Agricultural Development Project	IFAD	World Bank: IBRD	I ^a	05 Dec 85	25 Sep 87	30 Jun 97	L - I - 177 - NR	SDR	12 050 000	97.1%
Artisanal Fisheries Development	IFAD	UNOPS	I	30 Nov 88	05 Apr 91	30 Sep 97	G - I - 33 - NG	USD	100 000	64.5%
Artisanal Fisheries Development	IFAD	UNOPS	I	30 Nov 88	05 Apr 91	30 Sep 97	L - I - 236 - NR	SDR	11 150 000	55.7%
Katsina State Agricultural and Community Development	IFAD	World Bank: IDA	HC ^b	12 Dec 90	08 Jul 93	30 Jun 01	L - I - 273 - NR	SDR	8 550 000	80.8%
Sokoto State Agricultural and Community Development	IFAD	World Bank: IDA	HC	08 Sep 92	04 Nov 94	30 Jun 01	L - I - 307 - NR	SDR	6 500 000	79.4%

^a I – Intermediate

^b HC – Highly concessional

LOGICAL FRAMEWORK

	Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Agency Responsible	Assumption and Risks
Overall Objectives	Increase income and food security of root-and-tuber farmers	Average annual net farm income achieves estimates in financial models	1. Baseline and terminal survey to determine broad trend in population 2. Case studies to assess the role of the RTEP in causing the trend	PME	Macroeconomic conditions stabilize (inflation, exchange rate, interest rates) Trade policy supportive (cassava exports and grain imports)
Purpose	Increase production of cassava and yam	Production increase Yield increases (as per farm models)	Purposive surveys using farmer-recall methods	PME	Demand for root crops sustained
	Increase value added to producers and processors	Return to labour for processing doubles. Incremental benefit = NGN 257 million by PY8	Case studies of selected processors	PME	Farm model assumptions upheld
Results Research	More rapid release of new varieties	Cassava: 3-4 vars. Every 2 years Yam: 2 vars. Every 2 years	NRCRI reports to RTEP HQ	NRCR/IITA	Federal seed-release requirements do not change
		Lower incidence of pests (cassava mealy bug, cassava green mite)	Pest incidence monitoring	CBCU	Plant Quarantine Service prevents introduction of pests
Multiplication	Breeder Seed Foundation Seed ADP Multiplication Farmer Multiplication	Target (bundles/sets) _____ PY1 2 3 4 5 6 7 Cassava : _____ as per workplan Yam : _____ As above As above As above	NRCRI quarterly report to RTEP HQ NSS quarterly report to RTEP HQ ADP PBMS ADP PBMS/SPAT booklet	NRCRI RTEP IFAD Coord IFAD Coord.	Feedback from farmers on their preferences reaches researchers/breeders
Extension	Spread of improved varieties through OFAR, SPAT, field days, WIA group formation	50% of cuttings distributed to sub-circle farmers from multiplication plots. Each household receives 20 cuttings of preferred new varieties. Percentage of all varieties planted that are improved	Extension PBMS Extension PBMS Variety preference survey	Extension Extension PME	Support for unified extension system continued with World Bank support for NATSP Staff losses not worsened due to deteriorating pay and conditions
Processing	Adoption of improved processing methods Market for products expanded	116 000 tonnes of cassava processed into non-traditional products (flour, chips) by PY8 8 groups per block selling directly to end-users	Survey of small-scale processors Survey of end-users	PME RAIDS	Comparative advantage of use of cassava products in food industry continues Dispersed small-scale processing does not constitute a major environmental risk, e.g., through increased wood consumption for frying garl





	Narrative Summary	Objectively Verifiable Indicators	Funds (see detailed cost tables)	Assumption and Risks
Activities Research	Research into improved varieties Pre-release testing Research into biological control	Varieties nominated for pre-release Trials held Predators reared and released	See detailed cost tables	1. Loan agreement approved by the Government 2. States meet criteria for participation 3. Counterpart funding provided on time 4. Staff turnover minimized
Multiplication	Production of breeder stock Production of foundation stock Growers associations	Hectares cultivated Hectares cultivated Membership of association		
Extension	SPAT plots established OFAR WIA-organized SPAT	3-4 per sub-circle/yr (50% female) 50 farmers at 2 field days/block/yr 1 per block/yr 2 field days/block/yr (50% female) 1 SPATS/circle/yr 2 field days/circle/yr		
Processing	FAMEG/SAMEG/Processing Promotion Group give training and group assistance Commercial demonstration Workshop by RAIDS Newsletter Commodity system analysis	1 group/block rising to 8 groups/block in PY8 1 per ADP zone 1 national/2yrs. 1 regional/yr. 1 state Quarterly from PY2 Completed in 6 ADPs in PY 3, 4 and 5		
Management	Required staff deployed Technical assistance Training Annual plan/budget review	As per workplan In months, as per workplan In person/days, per workplan		
Monitoring and Evaluation	MIS developed Data analysis/reporting training FACU/APMEU/RTEP coordinate Selected impact surveys undertaken Yield methodology revised	RTEP indicators reported on time In person/days Supervisions/support missions held Reports published, workshops held Yield methodology study completed		APMEU reviews core-survey programme and reduces monitoring and evaluation resource need: World Bank and the Government provide assistance to undertake the review

APMEU Agricultural Projects Monitoring and Evaluation Unit
 FACU Federal Agricultural Coordinating Unit
 FAMEG Federal Agro-Processing and Market-Expansion Group
 IITA International Institute of Tropical Agriculture
 NATSP National Agricultural Research Project
 NRCRI National Root Crops Research Institute
 NSS National Seed Service

OFAR On-farm adaptive research
 PBMS Programming, Budgeting and Monitoring System
 PME Planning, Monitoring and Evaluation Unit
 RAIDS Rural Agro-Industrial Development Scheme
 SAMEG State Agro-Processing and Market Expansion Group
 SPAT Small-Pilot-Adoption Technique
 WIA Women-in-Agriculture

MAIN PROGRAMME INDICATORS

1. Summary of project costs (with contingencies) Components	USD (*000)	%	2. Financing Plan		3. Beneficiaries Numbers	4. Rates of return and sensitivities		
			Financiers	Shares %		Internal Economic Rate of Return Costs	Benefits Base -10% -20%	
A. Development of improved root and tuber production technologies	1 579.6	6.89	IFAD	64	Beneficiary Households	442 250		
B. Multiplication of improved planting material	4 308.4	17.81	FGN	20	Year 1	501 250		
C. Improved adaptive-research and extension	11 051.4	35.26	SGS	16	Year 2	560 000		
D. Diversification of cassava-processing technologies and methods			Farmers	-	Year 3		Base	24%
			TOTAL	100			10%	
1. Market expansion	3 265.1	11.12			Households involved in processing		20%	
2. Participatory technology development	487.4	1.3			Year 3	8 640		
3. Improved management of group enterprises	1 745.0	3.8			Year 7	31 680		
Subtotal	5 497.4	16.22			Year 10	52 000		
E. Programme management and evaluation								
1. Programme management	3 414.1	11.12						
2. Evaluation	4 293.8	12.71						
Subtotal	7 707.9	23.82						
TOTAL PROGRAMME COSTS	36 089.0	100						



ORGANIZATION AND MANAGEMENT

Federal-Level Coordination

1. At the federal level, the RTEP will be managed under the CMP Management Team, which will be responsible for coordinating field and headquarters activities and providing assistance in supervision, training programmes of the ADPs, and monitoring and evaluation activities. Coordination among the participating states and federal agencies will be achieved through the existing Project Coordination Committee (PCC), whose membership represents all sub-sectors of agriculture and caters to the needs of all 37 ADPs. **During the negotiations, it should be agreed that an additional meeting may be necessary each year to address specific RTEP concerns.** To ensure that the needs and concerns of stakeholders are adequately addressed, representatives of farmers from the target group and related industries will be invited to attend annual national review workshops. In addition to the coordinating role of the PCC, the Federal ADP Executive Committee (FADPEC) will be responsible for approving technical-assistance proposals, procurement, staffing appointments and training proposals for participating federal agencies. The internal tender committee of each participating federal agency will continue to approve all contract awards on the basis of local or international competitive bidding, with the proviso that all contracts estimated to cost between USD 10 100 and USD 20 000 would be cleared by the Director of the Federal Department of Agriculture. The programme manager at the RTEP Coordination Unit will have authority to approve expenditures up to the equivalent of USD 5 000 (or 500 000 naira at the current exchange rate). **Assurances would be sought at negotiations to ensure compliance.**

2. Besides the PCC, a Federal Agro-Processing and Market-Expansion Group (FAMEG) will be formed at the federal level to provide technical support and training to the State Agro-Processing and Market-Expansion Group (SAMEG). FAMEG will initially operate under the CMP during the pre-programme phase and include staff from the Rural Agro-Industrial Development Scheme (RAIDS) where feasible. During the pre-programme phase, the Government will strengthen the RAIDS' capacity to enable it take over the FAMEG when the programme begins. This transfer will be conditional, however, on RAIDS meeting performance criteria, including adequate staffing and a history of good financial support¹. FAMEG will work very closely with, and receive training from the Roots and tubers Improvement Programme at the International Institute of Tropical Agriculture, or an international consultant with experience in cassava commodity system analysis in Nigeria, through joint field work during the pre-programme phase in the pilot states. The local office of an international NGO with experience in agro-processing and inventory credit will provide technical backstopping to local NGOs who will be contracted to set up pilot processing centres in areas that are underserved by the ADPs.

State-Level Organization and Management

3. At the state level, the ADP Executive Committee (ADPEC), which is chaired by the State Governor (or, in his absence, the deputy chairman), will oversee the programme. The State Commissioner for Agriculture will serve as Deputy Chairman of ADPEC and will preside over regular ADPEC meetings whenever the State Governor is unable to attend such meetings. **Assurances would be sought at negotiations to ensure that ADPEC meetings will be held on schedule.** Existing membership, agreed functions of ADPEC (as per the CMP) and the requirement of ADPEC approval for contract amounts of USD 200 000 and above are not expected to change under the RTEP.

4. Each ADP's internal tender committee will continue to approve all contract awards on the basis of local or international competitive bidding, with the proviso that all contracts estimated to cost between

¹ For details, see Working Paper 5, Appendix 4.



USD 10 001 and USD 50 000 would have to be cleared by the State Commissioner of Agriculture. The limit of expenditure for ADP programme managers would have authority to approve expenditures up to the equivalent of USD 5 000 (or 500 000 at the current exchange rate). The RTEP will also benefit from the Agricultural Programmes Liaison Committees (APLCs) established at the state level under the first phase of the National Agricultural Technology Support Project (NATSP-I). The APLCS, like the PCC at the federal level, play a coordination role and have a wide membership, including with department heads from all four sub-sectors of agriculture. They are chaired by the State Commissioner of Agriculture, with support from FACU regional heads and representatives from farmer organizations.

ADP Management

5. The ADP Management Unit (ADPMU) will not be altered under the RTEP. Thus, the standard four service divisions of administration; finance and accounts; planning, monitoring and evaluation; and human-resources development and training will be maintained. However, in order to give adequate attention to RTEP activities, the Director of Technical Services will head the RTEP programme in each ADP. Under the CMP, the agro-processing function of most ADPs (except the Anambra, Edo, Ogun and Plateau ADPs) has been weak, with a junior-level agro-processing specialist leading the sub-programme. Under the RTEP, this function would be enhanced by creating a seven-member working group — the State Agro-Processing and Market Expansion Group (SAMEG) — with two secretaries and five professional staff, namely a credit specialist, an agro-processing specialist, an economist/financial analyst, a participatory development/rural institutions specialist, and a women-in-agriculture (WIA) coordinator. Given the importance of the agro-processing component, the Head of the SAMEG (the most experienced and qualified member of the agro-processing team) will serve as deputy head of the RTEP in each ADP. In addition, the SAMEG will operate under the Technical Services Division of each ADP in order to engender better supervision by the head of the RTEP. **Agreements to these institutional arrangements will be sought at negotiation.**

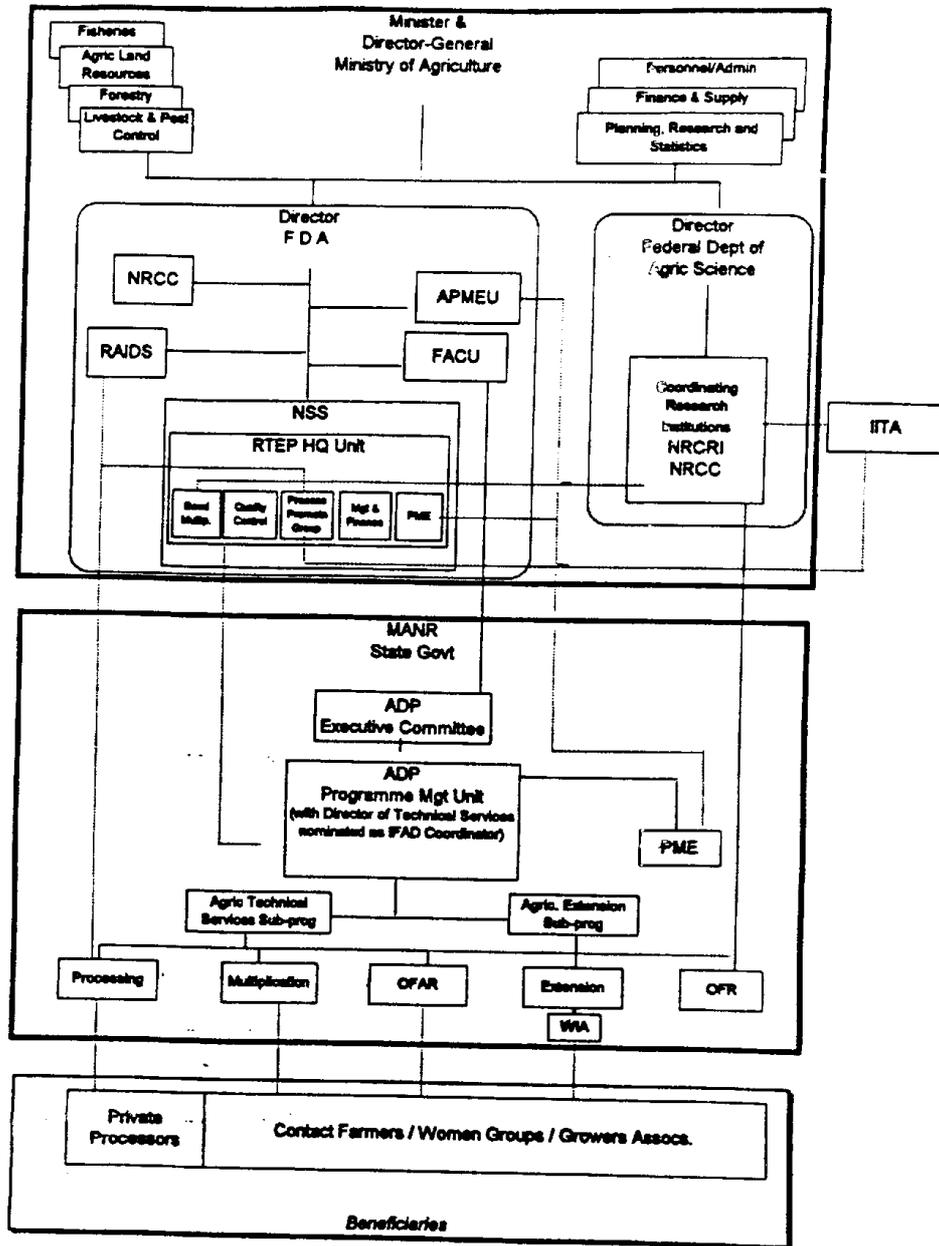
6. The SAMEG will provide day-to-day leadership in RTEP processing and marketing activities, and will assist groups of processors to form linkages with industrial end-users, promote collection centres to improve marketing and, where necessary, channel RTEP funds to groups to purchase equipment on a hire/purchase basis. Local NGOs will also be targeted to provide complementary training for groups in participatory community development, encourage them to mobilize savings, establish credit programmes, set up pilot processing centres and link groups to market outlets. Furthermore, the local office of an international NGO will work with local NGOs to set up inventory credit programmes where they are feasible. Technical assistance will be provided by the FAMEG (under the RTEP or the RAIDS) for overall support of information generation via studies and surveys.

Proposed Responsibilities of Participating Agencies under RTEP

- A. Federal Ministry of Finance**
- 1 Represents the Borrower, signs loan Determines
 - 2 national budget for FMANR
 - 3 Releases funds to FMANR
- B. Federal Min. of Agric and Natural Resources**
- 1 Policy Guidance & Inter-Department Coordinat.
Through FADPEC, approve ADP and support
 - 2 agency work plan and budgets
 - 3 Through PCC, coordinate and recommend ADP and support agency work plans and budgets
 - 4 Through PCC, monitor ADP progress
- C. Federal Dept of Agriculture**
- 1 Policy Guidance, Chairing RTSC
 - 2 Supervision of ADPs and Special Units
 - 3 Liaison with Minister, FMA
 - 4 Liaison with Other Ministries, NPC
- D. Federal Dept of Agriculture Sciences**
- 1 Policy Guidance on Research
 - 2 Supervision of Research Institutes
 - 3 Member of PCC
- E. RTEP CU (NSS)**
- 1 Production of foundation stock
 - 2 Management of Loan Account, IFAD Liaison
 - 3 Procurement for Federal components of RTEP
 - 4 Liaison with FACU, APMEU, RAIDS, NRCRI, ITA
 - 5 Liaison with ADPs with respect to seed multiplication, extension, adapt. research, processing, PME
 - 6 Organise training courses and workshops
 - 7 Participation in supervision missions
 - 8 Coordination of annual work plans, monitoring and evaluation
 - 9 Secretariat to PCC
- F. FACU**
- 1 Implementation assistance to all ADPs with respect to (i) project start-up and (ii) carrying out activities of individual components
 - 2 Supervise project implementation in coordination with Co-operating Institution (WI)
Supervise planning and other studies, except M&E studies
 - 3 studies
 - 4 Assist in planning activities to ADPs and related agencies
 - 5 Develop ADP financial control systems
 - 6 Prepare Tri-annual reviews on behalf of borrower
 - 7 Member of ADPEC, PCC, and FADPEC
- G. APMEU**
- 1 Technical guidance and training for M&E and support and conduct national evaluation studies
 - 2 Preparation of Implementation Completion Reports, national M&E reports and studies
 - 3 Assist in computer training and repairs
 - 4 Member of PCC
- H. NRCRI**
- 1 Breeding and Development of new varieties
 - 2 Conduct of associated basic and applied research
 - 3 Biological control of pests of root and tuber crops under Nat. Comm. for Biological Control
 - 4 Supply of breeder stock to NSS in collaboration with ITA
 - 5 Technical guidance in conduct of applied research by ADPs
 - 6 Development of root and tuber based farming systems
- I. NCC/NCRP**
- 1 Undertake multi-locational pre-release trials of improved varieties
- J. RAIDS**
- 1 Liaison with R&D institutions to identify suitable processing technologies
 - 2 Liaison with equipment fabricators and ITA to test selected equipment and carry out necessary modification
 - 3 Promotion of tested equipment for adoption by small-scale farmers
 - 4 Member of PCC
- K. ADP**
- 1 Implementation of all field level aspects of RTEP
 - 2 Member of PCC
- L. State Governments**
- 1 Sign Subsidiary loan agreement with FGN
 - 2 Through ADPEC, approve State ADP budget and work plans

APPENDIX V

Organigram of Roots and Tubers Expansion Program



————— Control and Funding
 Technical Support



MONITORING AND EVALUATION

1. A more efficient and improved management information system (MIS) would be developed under the RTEP to enhance the monitoring and evaluation functions of the ADPs. To facilitate this, a design study would be financed under the CMP using short-term technical assistance with technical support from the Agricultural Products Monitoring and Evaluation Unit (APMEU). The study would review the existing ADP reporting system with regard to financing, budgeting, monitoring and evaluation functions and would develop a set of easily monitorable quantitative and qualitative performance indicators directly related to farmers' achievement of financial and physical targets. The study would also develop a data-entry-and-reporting system based on existing computer systems and software in ADPs, undertake a trial-phase period in the four ADPs selected for the pilot programmes, and provide training to staff in the Finance and Accounts Division and PME staff to improve the quality of their reports. At the end of the study, the APMEU would organize a two-day training shop to disseminate results of the new system to the remaining 14 ADPs.

2. The improved MIS would be adjusted, as necessary, during implementation reviews via internal (at the ADP level) and external feedback mechanisms. The RTEP-PME group would be responsible for supervising and coordinating the MIS activities of ADPs to ensure uniformity of approach, consistency, accuracy and timeliness of quarterly and annual reports. The group would also make quarterly monitoring visits to each participating ADP and federal agency and prepare summary reports on their visits to all ADPs and participating federal agencies. Where feasible, the APMEU and the Federal Agricultural Coordinating Unit (FACU) would also participate in the quarterly RTEP monitoring visits and would provide follow-up implementation assistance through thematic supervision missions, liaison visits, and by participating in RTEP specific workshops. The APMEU would assist the RTEP-PME group in the coordination and timely operation of the MIS, with the monitoring officer at the APMEU (Benin) providing the lead role in APMEU support.

3. At the ADP level, staff from the Finance and Accounts Division and the PME would be responsible for operating the improved MIS system. To ensure proper attention to the maintenance of RTEP accounts and expenditures in each ADP, the deputy head of the Finance and Accounts Division would be designated as the RTEP accountant. If, however, the deputy head is not qualified, a replacement would be sought from the ADP system or the state government's civil service. Annual national planning-and-budgeting workshops for RTEP activities would be jointly organized by the APMEU and the RTEP Coordinating Unit to ensure that adequate attention is paid to the coordination of RTEP activities in extension, research, multiplication, processing and PME, including the setting of targets and costs for RTEP activities within the ADP structure.

4. Each participating ADP would conduct two large-scale surveys: a baseline survey, which would serve as an impact survey for the CMP in relevant states, and a terminal impact survey in programme year 8. The surveys would establish broad socioeconomic characteristics of the target group (small-scale root and tuber producers) in order to determine the changes that have occurred during the life of the programme. The survey would also focus on aspects where programme impact is expected to be felt, e.g., household composition, farming characteristics, consumption, processing and marketing details, and measures of income. Topical issues to be covered under the diagnostic and evaluation surveys would include:

- farmers' variety preferences
- effectiveness of contact farmers and extension agents
- effectiveness of small-plot-adoption technique (SPAT) demonstration
- indigenous fertility-maintenance techniques



- financial viability of selected interventions, especially processing
- revolving-fund performance and credit potential
- consumption patterns and nutrition effects
- proportion marketed of the cassava produced by the poorest and the poor
- role of women-in-agriculture (WIA) groups
- environmental impact of increased cassava production and processing

5. The RTEP would also finance small-scale topical studies during the programme. These studies would examine key areas of beneficiary impact through the use of case studies and participatory evaluation methods, and would be repeated periodically throughout the programme to reflect change in the target population. Where appropriate, institutes (such as universities) with relevant expertise would be contracted for some of the studies.

6. In parallel with the current Planning Research and Statistics Department (PRSD) review of agricultural data-collection systems, a study on comparative yield-estimation methodologies would be conducted, with assistance from IFAD and the World Bank, to assess the merits of lower-cost methods of crop production, yield and area-measurement alternatives to the existing APMEU methodology. The terms of reference would need revision to take into account the results of related studies conducted during implementation of the RTEP. Consequently, final approval of the terms of reference by the Bank and IFAD would be required before initiation of the study.

Implementation and Completion Reviews

7. To ensure an efficient flow of loan funds to implementing agencies (mainly the ADPs), programme funds would be pooled and allocated in three phases during implementation. The funds would be disbursed on the basis of the state governments' commitment (in terms of timeliness and adequacy of counterpart funds) and the programme management performance of participating ADPs. To this end, there would be three implementation reviews during the eight-year disbursement period. Like the traditional mid-term reviews, these reviews would allow IFAD, the cooperating institution, and the Government of Nigeria to jointly assess and compare the performance of ADPs in order to agree on an efficient allocation of the loan balance.

8. The first implementation review would be undertaken along with the implementation completion review for the CMP, prior to the commencement of the RTEP. This would be followed by a second review in the last quarter of the second year (after two cropping seasons, PY1 and PY2). Based on actual disbursement and implementation performance of the first review, the loan balance would be reallocated for PY3 to PY5. The final review would take place in the last quarter of PY5 and would review overall performance of the ADPs and federal agencies during years PY3 to PY5 with a view to reallocating the loan balance for the last three years of the programme (that is, PY6 to PY8).

9. Prior to each review, participating agencies would prepare rolling annual work programmes covering the allocation period and the RTEP components as identified in the staff appraisal report. Guidelines on relative weights of the programmes would be initially reviewed by a working group consisting of representatives from the Federal Department of Agriculture, FACU, APMEU, RAIDS and RTEP Coordinating Unit. The group would allocate RTEP funds to qualifying states on the basis of four easily monitorable criteria, with weights attached to them to reflect their relative importance as follows:

- (a) Counterpart funding: 25%
- (b) Monitoring and evaluation and reporting requirements: 20%
- (c) Stability of programme management staff: 20%
- (d) Share of state's root-and-tuber crop output in aggregate output of participating states: 35%.



APPENDIX VI

10. After reviewing proposals from the participating states, the working group would submit its recommendations to the existing National Agricultural Development Funds Allocation Committee¹ (NAFDA) for approval before submission to the cooperating institution for non-objection. The head of the RTEP Coordinating Unit would be a full member of the NADFA. During the second and third implementation reviews, the above criteria would be modified to include other relevant indicators of performance.

11. As with the ongoing CMP, each participating agency would contract an implementation completion review (ICR) at programme completion, analyzing the implementation of the programme and its impact in relation to its stated objectives. Three months from the programme completion date, the APMEU would organize a workshop for all ADPs and the other federal agencies to discuss a uniform outline for preparation of the ICRs. The APMEU would then consolidate the overall ICR report and submit it to the cooperating institution within six months of the loan closing date.

¹ The NAFDA is currently responsible for allocating funds under the National Agricultural Technology Support Facility and the National Fadama Development Facility. It is chaired by a private farmer and has the following membership: Directors of FDA, PRSD, Fisheries, Livestock; Chairman of Directors of Agricultural Research Institutes; Heads of Unit, FACU, APMEU, and representatives from 4 ADPs.

