



IFAD
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REPORT AND RECOMMENDATION OF THE PRESIDENT

TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO

THE REPUBLIC OF CAMEROON

FOR

**THE NATIONAL AGRICULTURAL RESEARCH AND EXTENSION
PROGRAMMES SUPPORT PROJECT**



TABLE OF CONTENTS

CURRENCY EQUIVALENTS	iii
WEIGHTS AND MEASURES	iii
ABBREVIATIONS AND ACRONYMS	iii
MAP OF THE PROJECT AREA	iv
LOAN SUMMARY	v
PROJECT 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 Cameroon	2
PART II THE PROJECT	5
A. Project Area and Target Group	5
B. Objectives and Scope	6
C. Components	6
D. Costs and Financing	7
E. Procurement, Disbursement, Accounts and Audit	8
F. Organization and Management	9
G. Economic Justification	10
H. Risks	11
I. Environmental Impact	11
J. Innovative Features	12
PART III LEGAL INSTRUMENTS AND AUTHORITY	12
PART IV RECOMMENDATION	13
ANNEX	
Summary of Important Supplementary Assurances Included in the Negotiated Loan Agreement	15



APPENDIXES

I. COUNTRY DATA	1
II. PREVIOUS IFAD LOANS IN CAMEROON	2
III. SUMMARY PROJECT DESCRIPTION	3
IV. LOGICAL FRAMEWORK	8
V. COST AND FINANCING	10
VI. ORGANIZATION AND MANAGEMENT	12
VII. ECONOMIC AND FINANCIAL ANALYSIS	16



CURRENCY EQUIVALENTS

Currency Unit	=	CFA Franc (XAF)
USD 1.00	=	XAF 620
XAF 1.00	=	USD 0.0016

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

AfDB	African Development Bank
AfDF	African Development Fund
AVZ	Front-line field staff (<i>agent de vulgarisation de zone</i>)
DAP-ED	Agricultural Production Directorate - Extension Division
EA	Extension agent
IDA	International Development Association
IERR	Internal economic rate of return
IPM	Integrated pest management
IRAD	Agricultural Research Institute for Development
MFI	Microfinance institutions
MINAGRI	Ministry of Agriculture
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
NGO	Non-governmental organization
PNRVA	National Agricultural Research and Extension Programme (<i>Programme national de recherche et vulgarisation agricole</i>)
SMS	Subject Matter Specialist
SOASP	Specialist in farmer organizations and links with the private sector (<i>spécialiste en organisations et associations paysannes et liens avec le secteur privé</i>)

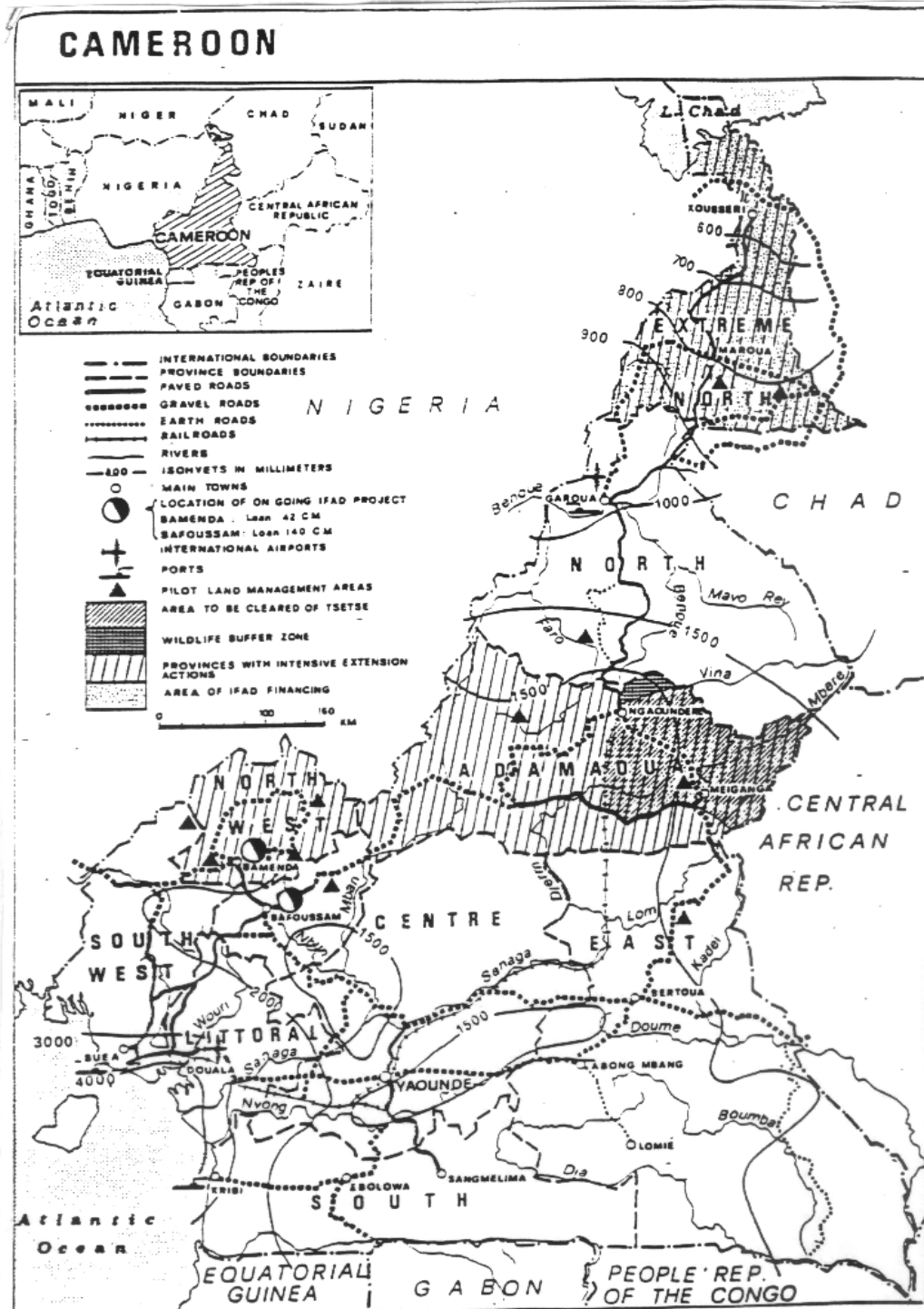
GOVERNMENT OF THE REPUBLIC OF CAMEROON

Fiscal Year

1 July - 30 June



MAP OF THE PROJECT AREA



Source: IFAD

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.



REPUBLIC OF CAMEROON

**THE NATIONAL AGRICULTURAL RESEARCH AND EXTENSION
PROGRAMMES SUPPORT PROJECT**

LOAN SUMMARY

INITIATING INSTITUTION:	International Development Association (IDA)
BORROWER:	Republic of Cameroon
EXECUTING AGENCY:	Ministry of Agriculture
TOTAL PROJECT COST:	USD 46.08 million
AMOUNT OF IFAD LOAN:	SDR 7.90 million (equivalent to approximately USD 10.51 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:	International Development Association (IDA) and the African Development Fund (AfDF) (African Development Bank)
AMOUNT OF COFINANCING:	IDA: USD 15.14 million AfDF: USD 10.31 million
CONTRIBUTION OF BORROWER:	USD 10.12 million
APPRAISING INSTITUTIONS:	IDA and IFAD
COOPERATING INSTITUTION:	IDA



PROJECT BRIEF

Who are the beneficiaries? The project area encompasses all of Cameroon's farmland zones. At the time of the last agricultural survey (1991), the country had around 1.1 million agricultural households, of which 97% were engaged in crop production, 72% kept livestock in addition to growing crops, and 3% were exclusively pastoralists. Up to 30% of the farmers in the country's 10 provinces will be targeted as direct beneficiaries of the project. The **poorest** rural populations will be targeted by making extension services available in the remotest areas of the country. **Women** farmers, who represent more than half of the farming population and over 80% of food-crop producers, will be targeted by a special effort during on-farm diagnosis to identify technology relevant to their needs and by including more **women** in the contact groups that meet with front-line field staff.

Why are they poor? Some of the main constraints faced by producers are: (a) poor quality of rural transport facilities and community infrastructure; (b) inadequate access to rural finance for agricultural development and limited availability of agricultural inputs, in particular good quality seed and other planting material; (c) limited know-how for taking full advantage of the country's agricultural resource base and successfully tested techniques; and (d) except for export crops, poorly developed linkages between smallholder producers and crop buyers, particularly industrial users of crops like maize and cassava. The period between 1985 and 1993 was one of rapid impoverishment, as indicated by the number of households below the poverty line and the mean per capita income. The picture changed completely with the 1994 devaluation, the recovery of international markets, and the introduction of market liberalization, which led to significant increases in export-crop production. Experience has shown, however, that resource-**poor** farmers will be unable to respond to market signals in a liberalized economy unless specific support measures and linkage initiatives are taken, with a view to catalysing some form of commercial partnership with the private sector.

What will the proposed project do for them? Taking into account the existing or planned programmes to address the issues of rural finance and infrastructure, the proposed project aims to increase smallholder productivity and income levels – with particular emphasis on resource-**poor** and **women** farmers – through the generation and transfer of economically and ecologically sustainable technologies. This objective will be achieved by: strengthening the participatory approach of the Government's agricultural research and extension strategy, developing an agricultural research approach that is driven by farmers' needs, improving the effectiveness and efficiency of agricultural research by introducing competition for research funds, rehabilitating and recapitalizing the national agricultural research institute, and promoting the formation of farmers associations and their linkages with the private sector with a view to involving input and equipment suppliers in extension work and persuading industrial users of agricultural outputs to diversify their demand for smallholder crops and help to organize markets to guarantee secure supplies.

How will the beneficiaries participate in the project? Beneficiary participation in setting priorities and programming research and extension programmes will be ensured by means of continued emphasis on joint on-farm diagnosis by research and extension workers. Beneficiaries will also be actively involved in monitoring and evaluation arrangements as measured by both quantitative and qualitative indicators. The activities related to the development of commodity systems will encourage partnership arrangements between the beneficiaries and stakeholders in the public and private sectors. The pilot project for village-based participatory community development is designed to assist villages in analysing their current situation, identifying and agreeing upon priority rural-development problems, formulating action plans to address these priority problems, taking charge of implementing the action plans through their own organizations, and persuading the various services and development organizations active in the area to provide the quality of services needed.



**REPORT AND RECOMMENDATION OF THE PRESIDENT OF IFAD
TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO
THE REPUBLIC OF CAMEROON
FOR
THE NATIONAL AGRICULTURAL RESEARCH AND EXTENSION
PROGRAMMES SUPPORT PROJECT**

I submit the following Report and Recommendation on a proposed loan to the Republic of Cameroon for SDR 7.90 million (equivalent to approximately USD 10.51 million) on highly concessional terms to help finance the National Agricultural Research and Extension Programmes Support Project. 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 as IFAD's cooperating institution.

PART I - THE ECONOMY, SECTORAL CONTEXT AND IFAD STRATEGY¹

A. The Economy and Agricultural Sector

1. With an annual per capita income of roughly USD 550 and a population of 13 million, Cameroon enjoys a positive trade balance. Crude oil accounts for 35% of all export revenue, timber for 13%, cocoa for 10%, coffee for 8%, aluminium for 7%, and cotton for 5%. Cameroon is one of the most industrialized countries in sub-Saharan Africa. With an average population density of only 27 people per km² (distributed very unevenly), the country has considerable unexploited natural resources for both forestry and agricultural production. The population of Cameroon is one of the most ethnically, linguistically and culturally diverse and complex in Africa: there are some 200 different ethnic groups, each with its own language, customs and social structure. Agriculture (including forestry and fisheries) accounts for about 25% of the country's GDP: the farming sector provides a direct source of livelihood for about one half of all Cameroonian households, and it covers almost 100% of the nation's food requirements.

2. Cameroon's independence in 1961 was followed by a period of political uncertainty that culminated in the establishment of a unitary state in 1972. Since then, the economy of Cameroon has gone through three very distinct phases: an initial period of strong export-led growth and diversification, which lasted until 1986; a second phase of deep economic recession (1986-1993), which was caused by worsening terms of trade that were aggravated by the slow pace of remedial actions with regard to the value of the CFA franc; and a third phase, which began with the devaluation of the CFA franc in January 1994 and has been characterized by sweeping economic reforms that led first to the reigning in of recession in 1994 and to a resumption of economic growth since then.

3. The Government's policy objectives include: the development of economically viable and environmentally sustainable crop-production activities aimed at rational exploitation of Cameroon's rich natural-resource base; promotion of a strong private sector, including small producers; attention

¹ See Appendix I for additional information.



to the population's needs and demands; rural **poverty** alleviation; food security; and promotion of non-traditional exports, such as foodstuffs for export to neighbouring countries. Policy measures to achieve these objectives have included full liberalization of the market for agricultural inputs and crops, privatization of the parastatal companies engaged in agricultural production and crop processing, support for new private enterprises, attention to small farmers' problems, support for the development of viable and effective arrangements for the production and distribution of planting material, unification of agricultural research activities, and re-activation of research initiatives.

B. Lessons Learned from Previous IFAD Experience

4. To date, IFAD has financed three projects in Cameroon: the North-West Rural Development Project, the Second Western Province Rural Development Project, and the Livestock Development Sector Project². The Fund's financial support was suspended in 1991 owing to the country's arrears status; in the interim, the loan closing dates for these projects have elapsed and accordingly the IFAD country portfolio for Cameroon is no longer valid. That said, some positive developments have also taken place over the past three years, including the August 1995 signing of a plan for the gradual repayment of arrears (relevant information has been provided to the Executive Board)³. As of 1997, the Government of Cameroon had made significant headway in honouring its obligations under the August 1995 settlement plan, while making a sustained effort to pay amounts currently due under regular loan servicing.

5. Lessons drawn from experience with this project clearly show that the multisectoral designs were too complex. To ensure proper implementation, projects should have a single institutional entry point and ideally they should cover a single subsector. Implementing agencies should not be expected to take on responsibility for activities outside their institutional mandate. Priority fields such as decentralized financial services, rural infrastructure, and technology generation and transfer each have a different institutional entry point and accordingly cannot be efficiently combined in a single project.

6. In future operations, public-sector involvement should be kept to the absolute necessary minimum under the new liberalization policy, while the role of the private sector and non-governmental organizations (NGOs) should be enhanced. However, joint work with private-sector agents will be encouraged in future IFAD-supported projects only to the extent that IFAD's target groups (i.e., **poor** rural households) will be able to benefit from such work. Likewise, NGOs will be hired on a contractual basis, serving as relay organizations for reaching out to individual farmers and community-based organizations. In terms of decentralized financing systems, experience has shown that NGOs can play a very important role in the establishment of microfinance institutions, particularly in view of their capacity to assist in the formation of socially cohesive business groups (*groupements d'intérêt commercial*), as shown by experience in Cameroon. However, experience has also pointed out the limitations of NGOs: technical support for microfinance institutions and their financial control and audit must be entrusted to professionals.

C. IFAD's Strategy for Collaboration with Cameroon

Cameroon's Policy for Poverty Eradication

7. The Medium-Term Economic and Social Strategy adopted by the Government in August 1997 attaches special emphasis to **poverty**-reduction, responding to the recommendations contained in the 1995 World Bank report, which called for: (i) a commitment to economic reform and accelerated growth, building on potential gains from devaluation through labour-intensive growth

² See Appendix II.

³ See document GC 21/L.7: IFAD's Policy Framework for Managing Partnerships with Countries in Arrears.



with a **pro-poor** bias; (ii) fostering informal enterprises by means of regulatory reforms; (iii) opening up access to decentralized financial services and credit; (iv) giving a voice to the **poor**, by strengthening local initiative and participation; (v) reducing rural/urban and regional disparities; (vi) reducing the **gender** gap in education and access to basic services, and alleviating women's workload; and (vii) sustainable development, through attention to land tenure security, environmental management issues, and containing population growth.

The Poverty Eradication Activities of Other Major Donors

8. Several programmes have been launched since 1994 to address **poverty**-alleviation issues and have received support from the International Monetary Fund, the World Bank, the United Nations Development Programme, the African Development Bank/African Development Fund (AfDB/AfDF) and bilateral donors; future IFAD interventions will need to interface with these programmes. The 1995 World Bank report recommended that public spending be reallocated in favour of services that benefit the **poor**: basic education (primary and middle levels); access to quality basic health care, with emphasis on vaccination, nutrition and preventive-health programmes; and development of the small-scale food industry, taking explicit account of **women's** role in this sector. The report specifically recommends providing support for household food security through "appropriate agriculture, small enterprise and infrastructure policies, aimed at raising incomes and employment and improving the efficiency of the entire food system".

IFAD's Strategy in Cameroon

9. Subsequent to the 1995 agreement on loan arrears (see paragraph 4), there was a need for IFAD to expedite the process of pipeline development, while formulating – in consultation with the Government and key development partners – a general strategic framework for its future work in the country. To this effect, a portfolio reactivation mission was fielded by the Fund in November 1997 in order to lay the bases for defining such a strategic framework for the short and medium term.

10. The overall goal of IFAD's work in Cameroon is to contribute to **poverty alleviation and food security**. Activities are aimed at supporting **sustainable livelihoods in rural areas** by means of sound natural-resource management (including both production and conservation activities) as well as small-scale rural enterprises.

11. Broad-based policy reforms have been undertaken by the Government of Cameroon over the past few years, including devaluation of the currency, market liberalization, public-sector reform, privatization and state disengagement from production activities, etc. The key strategic thrust of IFAD's intervention in this area will be to help create the necessary enabling conditions in institutional, technical and logistical terms so that small-scale resource users can respond efficiently to market signals; this will be accomplished by dismantling the existing constraints on technology transfer, rural finance, and socio-economic infrastructure. Accordingly, special attention will be paid to: (i) strengthening rural institutions involved in resource management, rural finance, agro-processing, and market expansion; and (ii) promoting sustainable partnerships between Government services, the private sector and civil society organizations (including NGOs and community-based organizations).

12. Since rural livelihoods depend both on natural-resources management and on rural microenterprises, and bearing in mind that IFAD support for rural livelihoods should be client-driven, the choice of activities to receive IFAD support must be left open. It is understood, however, that IFAD project interventions must be consistent with the Fund's mandate and have an impact on its target group, proposed activities must be manageable, and there should be coordination with other partners. Future IFAD interventions in Cameroon will include macropolicy dialogue as well as field investments that are carefully targeted at selected sociogeographic communities. In other words, even



though initial implementation of the Government's **poverty**-alleviation strategy has yielded mixed results, there are reasonable expectations that IFAD participation in macropolicy dialogue could help to sharpen the **poverty** focus, in light of IFAD's relevant experience with similar situations in other African countries and elsewhere. For instance, IFAD support for the establishment of a sound, sustainable national research and extension system that includes NGOs would improve the prospects for nationwide impact of IFAD interventions. Likewise, it has been noted that, despite the tremendous resource-mobilization capacity of decentralized microfinance institutions (MFIs) and the country's very substantial agricultural potential, only a very modest share of MFI lending has gone to on-farm activities; under such circumstances, interfacing the decentralized financing system with agricultural intensification schemes would make a significant and sustainable contribution to rural **poverty** alleviation and economic growth; this approach is currently being tested under an action-research project involving IFAD, the Government, MFIs, and private-sector participation. At the same time, IFAD-supported, localized interventions undertaken in parallel with macropolicy dialogue are expected to yield useful lessons on activities and institutional approaches at the local level that could later be replicated or scaled up.

Project Rationale

13. Efforts to strengthen national agricultural advisory services as a tool for technology transfer under the pilot phase of the agricultural extension and training programme have shown a sound track record to date and warrant continued support by the World Bank and IFAD. At the same time, projects should continue to be formulated in support of rural finance and infrastructure, which are the other two priority areas of the Government's rural development strategy. The Government has committed itself to a comprehensive long-term programme under which the Ministry of Agriculture will continue to improve the public-sector system for the generation and transfer of agricultural technology and will orient the system towards resource-**poor** and **women** farmers on a priority basis. Such a programme will provide the necessary linkage between the Government's policies for agricultural development and rural **poverty** alleviation. As part of the programme, the proposed four-year project to support agricultural extension and research would underpin institutional reform at the ministry and reshape its approach to various farmer categories, thus helping to: (a) create conditions for relieving some of the burden on public finances in the area of technology generation and transfer, and (b) make for better coordination between agricultural-production and **poverty**-alleviation policies. Significant improvements in the planning, financing and implementation of agricultural extension and research have been posted as a result of the recently completed pilot phase of agricultural extension and training (which received World Bank support). Longer-term financial sustainability would be enhanced by a gradual reduction in unproductive staff at the Ministry of Agriculture and the Ministry of Livestock, Fisheries, and Animal Industries as the role of these ministries is more clearly defined.

14. The proposed project to support agricultural research and extension was included in the pipeline as one of the project ideas presented under IFAD's strategic framework and is intended as a follow-up to the nearly completed pilot phase mentioned in the previous paragraph. The project appraisal document drafted jointly by IFAD and the World Bank outlines the justification for funding from the two institutions. IFAD's participation in the proposed follow-up project is warranted on the following grounds: (i) the Government's programme – which this project will support – is national in scope and encompasses policy reforms, institutional strengthening, and pilot field investments in community development and linkages with the private sector, thus affording an opportunity for IFAD to influence the programme's general orientation in terms of **poverty** focus and **gender perspective** (see paragraph 20); (ii) IFAD participation in this project will enhance the impact of the Fund's activity in Cameroon, since future IFAD interventions in support of rural development as anticipated in the Country Strategies and Opportunities Paper will require, as a prerequisite, a sound institutional framework for technology generation and transfer, which the proposed project aims to establish.



PART II - THE PROJECT

A. Project Area and Target Group

15. Cameroon is a very diverse country from the standpoint of its natural resources. There are five main agro-ecological zones: a semi-arid Sudano-Sahelian zone in the Far North Province with unimodal rainfall; a high guinea savannah with unimodal rainfall; high plateau lands in the West Province with bimodal rainfall; humid forest with unimodal rainfall and a short dry season in the South-West Province; and humid forest with bimodal rainfall in the Centre, South and East Provinces. Within each zone, several distinct farming systems are practised, for a total of some 25 major farming systems nationwide. Resource degradation is encountered mainly in two areas: (i) the very sparsely populated tropical forests, as a result of over-exploitation and illicit logging, and subsequent squatting by farmers seeking to use the land for agricultural purposes, and (ii) densely populated regions where farmland is over-exploited. Within the densely populated areas (West, North-West, North and Far North Provinces), the problems are much more acute in the dry North and Far North Provinces, which suffer from the degradation that is common to many areas of the Sahel.

16. At the time of the last agricultural survey (1991), there were around 1.1 million agricultural households in Cameroon, of which 97% were engaged in crop production, 72% kept livestock in addition to growing crops, and 3% were exclusively pastoralists. The number of households that keep livestock decreases from north to south. The main seasonal crops are maize, cassava, groundnuts, taro, beans, yams, plantain/banana, and cotton, in addition to perennial crops like oil palm, coffee, and cocoa.

17. The main constraints affecting producers include: (a) poor quality of rural transport facilities and community infrastructure; (b) inadequate access to rural finance for agricultural production and limited availability of agricultural inputs, especially good quality seed and other planting material; limited know-how for taking full advantage of the country's agricultural resource base and successfully tested techniques; and (c) except for export crops, poorly developed linkages between smallholder producers and crop buyers, particularly industrial users of crops like maize and cassava.

18. Attempts to analyse the dynamics of **poverty** in Cameroon are severely hampered by the absence of time series data on trends in household income and expenditure during the economic crisis and in response to the subsequent devaluation of the CFA franc. Poverty spread rapidly between 1985 and 1993, as witnessed by the number of households below the **poverty** line and the mean per capita income. The picture changed completely with the 1994 currency devaluation, the recovery of international markets, and the introduction of market liberalization, which led to significant increases in export-crop production between 1994 and 1996. Experience has shown, however, that resource-**poor** farmers will be unable to respond efficiently to market signals in a liberalized economy unless specific support measures and linkage initiatives are taken, with a view to catalysing some form of commercial partnership with the private sector.

19. Up to 30% of the farmers in Cameroon's 10 provinces will be targeted as direct beneficiaries of the project. **Women** farmers, who represent more than one half of the farming population and over 80% of food-crop producers, will be targeted by a special effort during on-farm diagnosis to identify technology relevant to their needs and by including more **women** in the contact groups that meet with front-line field staff. The **poorest** rural populations will be targeted by ensuring that extension services are available in the remotest areas of the country, even if this means higher average costs for extension activities.



B. Objectives and Scope

20. The project aims to achieve the following key objectives: (i) strengthen the demand-driven approach that was successfully tested during the first phase of the National Agricultural Research and Extension Programme (PNRVA) by introducing methods that ensure proper attention to the specific problems of resource-**poor** and **women** farmers in the formulation of the programme of work for extension staff; (ii) strengthen the extension-research linkages initiated under the first phase, and make the agricultural research programme more efficient by rehabilitating the Agricultural Research Institute for Development (IRAD), training the IRAD's research staff, providing adequate resources for on-station IRAD research activities (the AfDF-financed component of the PNRVA), and by establishing a competitive agricultural research fund to finance research on topics identified by participatory diagnoses involving farmers, extension workers and research workers; (iii) gradually encourage large-scale farmers and professional farmers' associations to seek farm-management advice from private agricultural technicians, while concentrating public extension services on resource-**poor** farmers and **women** food-crop producers; (iv) promote the formation of new smallholder associations and improve the performance of existing ones in providing services to their members; (v) improve the linkages between input and equipment suppliers and farmers groups and smallholder associations; (vi) foster new relationships between private industrial users of agricultural products and smallholder groups and associations with a view to broadening the market possibilities for this category of farmers.

C. Components

21. To accomplish these objectives, the project is divided into the following components:

22. **Agricultural extension.** This component includes: (i) transferring environmentally sustainable, improved technologies, with particular emphasis on **women** farmers; (ii) making improved seeds available; (iii) increasing the use of the mass media; and (iv) monitoring the progress of extension activities. The project will finance activities of the Extension Division of the Ministry of Agriculture's Agricultural Production Directorate (DAP-ED) and the associated field services (animal-production activities of the Ministry of Livestock, Fisheries and Animal Industries). The work programme will be based on participatory diagnoses of farmers' problems, and contact groups will be organized to address the various problems facing resource-**poor** and **women** farmers. The work of the front-line field staff will increasingly focus on the aforementioned farmers, while large farmers and associations of primarily market-oriented producers will receive general advisory support from subject matter specialists and will be encouraged to work with private technicians for specific farm-management advice. The extension programme is based on a precise schedule of work that includes the continuous exchange of information, training on such new subjects as conservation and agro-processing, recycling training, and monthly workshops on technology evaluation. IRAD technicians will work with extension staff under a series of contracts that will be signed for undertaking, jointly with interested farmers, diagnostic studies and field research to test technologies. The monitoring of programme performance will be the responsibility of a DAP-ED unit to be financed under this component.

23. **Agricultural research.** This component includes: (i) strengthening IRAD's agricultural research services; (ii) supporting selected priority areas of on-station research; (iii) training IRAD research and management staff; (iv) supporting research/extension interface by establishing field-level linkages through on-farm trials based on participatory diagnosis; (v) improving the quality and efficiency of research through the establishment of a demand-driven, competitive research grant fund. A parallel project – financed by the African Development Fund – is lending support for subcomponents (i), (ii) and (iii), i.e., rehabilitation of IRAD facilities, training of research staff, and operation and maintenance funds for on-station research to be conducted by IRAD. The competitive



research

grant



fund will finance the research needed to support field work, with the specific research topics being identified through participatory diagnoses with farmers. Grant funds will be awarded to specific research projects under competitive bidding procedures that will be open to all public and private research centres.

24. **Training and human resource development.** This component will support an intensive programme of staff training and exchanges of experience (workshop), including training in personnel management, a study of the demand for agricultural technicians in the public and private sectors, and refurbishment of two or three agricultural schools.

25. **Support for farmer organizations and private-sector linkages.** This component will support the work of the special DAP-ED unit that is charged with promoting the formation of farmer associations and dialogue between these associations and private equipment and input suppliers, fostering suppliers' involvement in agricultural extension activities, and encouraging the industrial users of agricultural products (e.g., starch manufacturers, breweries, feedmills) to diversify their demand for agricultural products and work with extension staff to organize the supply from smallholder producers.

26. **Pilot project on participation in community initiatives.** This component will test an approach for providing villages with a platform to: (i) determine rural development priorities, (ii) implement action plans, and (iii) obtain the necessary assistance from various service providers (including extension). The component is intended to lay the groundwork for a follow-up national project to support community development. This pilot phase will test innovative ways of helping rural communities to identify their own priority projects, acquire know-how, organize themselves for project implementation and maintenance, mobilize funds for project implementation, identify training requirements, and establish criteria for government contributions to the cost of community projects.

27. **Project impact evaluation.** This component will support the independent evaluation of project impact based on case studies of the adoption of specific technologies, beneficiary assessment studies, baseline and periodic impact surveys, and ex-post evaluation of the research projects financed by the grant fund.

D. Costs and Financing

28. **Project cost.** The total cost of the project is estimated at USD 46.08 million (including 8% physical and price contingencies), of which USD 28.5 million would go towards investments and USD 16.8 million towards recurrent costs. Taxes and duties would amount to USD 4.4 million over the four-year period. Foreign-exchange and local costs would represent 39% and 61%, respectively, of the total project cost.

29. **Financing plan.** The financing plan calls for USD 10.12 million (including taxes) to be provided by the Government, equivalent to 22% of the total cost. The balance of USD 35.95 million would be funded on a parallel financing basis by IDA (USD 15.14 million), IFAD (USD 10.51 million) and the African Development Fund (USD 10.31 million). IFAD's loan would finance transportation for extension activities, civil works for renovation of agricultural schools; interface between on-station research and extension including participatory diagnosis, training of subject matter specialists and on-farm trials; and part of operating costs for motorcycles.

TABLE 1: SUMMARY OF PROJECT COSTS^a
(USD million)

Component	Local	Foreign	Total	% of Foreign Exchange	% of Base Costs
Agricultural extension	15.49	8.47	23.97	35	56
Agricultural research	7.47	6.41	13.88	46	32
Training and human resource development	2.39	1.19	3.58	33	8
Support for farmer organizations and private-sector linkages	0.24	0.17	0.41	41	1
Pilot project on participation in community initiatives	0.28	0.09	0.38	24	1
Project impact evaluation	0.38	0.17	0.56	32	1
Total base costs	26.28	16.52	42.81	39	100
Physical contingencies	1.03	0.56	1.59	35	4
Price contingencies	0.87	0.80	1.67	48	4
Total project costs	28.19	17.88	46.08	39	108

^a Discrepancies in totals are due to rounding.

TABLE 2: FINANCING PLAN^a
(USD million)

Components	IFAD		IDA		AfDF		Government		Total		For. Exch.	Local (Excl. Taxes)	Duties and Taxes
	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%			
Agricultural extension	6.87	26	9.43	36	-	-	9.83	38	26.13	56	9.31	12.77	4.04
Agricultural research	3.28	23	0.98	-	10.31	70	-	-	14.57	32	6.77	7.79	-
Training and human resource development	0.32	8	3.47	89	-	-	0.99	3	3.90	9	1.26	2.53	0.09
Support to farmer org. and private sector linkages	-	-	0.44	97	-	-	0.01	3	0.45	1	0.18	0.25	0.01
Pilot project in particip. to community initiatives	0.03	7	0.28	69	-	-	0.09	23	0.40	1	0.10	0.21	0.09
Programme impact evaluation	-	-	0.53	86	-	-	0.08	14	0.61	1	0.19	0.34	0.08
Total disbursement	10.51	23	15.14	33	10.31	22	10.12	22	46.08	100	17.84	23.90	4.34

^a Discrepancies in totals are due to rounding.

E. Procurement, Disbursement, Accounts and Audit

30. **Procurement of civil works and goods** will be carried out over the four-year project period in accordance with IFAD guidelines. The main activity in terms of civil works will be the rehabilitation of two or three agricultural colleges and other work to refurbish regional and district agricultural extension offices. This work is not likely to attract international firms and accordingly will be subject to local competitive bidding procedures. Most of the project-financed goods, mainly



motorcycles and other vehicles, would be grouped into packages of over USD 100 000 equivalent and would be procured through international competitive bidding procedures. Contracts for materials and furniture between the amounts of USD 20 000 and USD 100 000 would be procured through local competitive bidding under procedures acceptable to IFAD. Goods contracts estimated at USD 20 000 or less (up to an aggregate of USD 600 000) would be procured by local shopping. As part of the annual work programme, the PNRVA would submit – for IDA and IFAD review and approval – annual training and study-tour programmes for each of the workshops and training courses envisaged, including an evaluation of the previous year's training programme. Contracts for short-term consultants (including auditors and external trainers) would be awarded following World Bank guidelines and with terms of reference, qualifications and conditions of service that are satisfactory to IDA and IFAD. No external long-term consultants are envisaged. Goods and works contracts for USD 100 000 equivalent and above and consultants contracts will be sent to IDA for review prior to signing.

31. With regard to disbursements, a special account will be opened and maintained for the IFAD loan at a commercial bank acceptable to IFAD and IDA. There will be an authorized allocation from the IFAD loan proceeds of USD 1 million equivalent in CFA francs, which will be deposited upon loan effectiveness. The provincial delegations of agriculture will continue to maintain separate provincial auxiliary accounts (i.e., second generation accounts) to meet operational expenses of extension and supervisory staff. The provincial departments will not oversee any direct procurements, and statements of expenditure will be sent to the national coordination office for verification and forwarding to the *Caisse autonome d'amortissement*. All expenditures should be fully documented, except in cases where statements of expenditure have been authorized. Agreement will be reached each year between the World Bank, IFAD, the Ministry of Agriculture, and the *Caisse autonome d'amortissement* on an annual budget, based on an agreed programme of work. The Government will open a project account in a commercial bank through which it will make available its counterpart contribution. The expected project completion date is 31 December 2002 and the loan closing date is 30 June 2003.

32. All the relevant supporting documentation for reimbursement claims under statements of expenditure will be retained for inspection by supervision missions as well as for certification during annual audits.

F. Organization and Management

33. **Beneficiary participation** in setting priorities and programming research and extension programmes will be intensified through the project's emphasis on joint on-farm diagnosis by research and extension workers. Monitoring and evaluation arrangements will also have the active involvement of beneficiaries, based on participatory discussions and relevant quantitative and qualitative indicators. The activities related to the development of commodity systems (or *filières*) for such products as maize and cassava will encourage partnership arrangements between beneficiaries and other stakeholders in the public and private sectors. The pilot project for village-based, participatory community development is designed to assist village communities in analysing their current status, identifying and agreeing upon priority rural-development issues, formulating action plans to address priority problems, taking charge – through their own organizations – of implementation of the action plans, and persuading the various services and development organizations active in the area to provide the quality services needed.

34. **The organizational structure** of the PNRVA and the executing agencies is made of up the relevant offices in the government's existing structure for rural affairs. The only exception are the units that handle external funds, accounting, financial reporting, and audit, which are add-ons to the existing structure. Three ministries will be involved: (i) the Ministry of Agriculture, through the



Extension Division of the Agricultural Production Directorate (DAP-ED) and the Projects and Studies Division, (ii) the Ministry of Technology and Scientific Research, through IRAD, and (iii) the Ministry of Livestock, Fishing, and Animal Industries, through its field (animal production) services.

35. The three subcomponents involving AfDF-financed activities for IRAD (see paragraph 23(i), (ii) and (iii), above) are managed by IRAD. All other PNRVA activities are coordinated by the director of DAP-ED, who is the *ex officio* coordinator of the PNRVA. The programme is structured organizationally into several levels: central, provincial, regional, sector, and village.

36. At the central level, DAP-ED has the division director's office and seven other offices (known as *cellules*): programme monitoring, links with agricultural research, extension methods and guidelines, training and human resource development, seeds, support for farmer organizations and linkages with the private sector, and administration and finance. Also at the central level, the Projects and Studies Division will set up a unit entrusted with evaluating the impact of the PNRVA. In each of the ten provinces, extension services are divided into nine units that are coordinated by the provincial supervisor; seven of these units are the provincial counterparts of the central units, while the other three are for environmental affairs, post-harvest issues, and product processing. The Ministry of Agriculture is divided into 52 Agricultural Regions, each with a regional supervisor who coordinates the activities of technical subject matter specialists.

37. **Monitoring and evaluation.** The project separates the function of programme performance monitoring from that of impact evaluation. The first function is entrusted to the Programme Monitoring Unit, which is part of DAP-ED. Monitoring of the implementation of the AfDF-financed IRAD research component will be arranged for separately. Evaluation of the PNRVA's impact is a separate function that will be entrusted to the Projects and Studies Division. Under the PNRVA's first phase, work began in 1998 on a baseline survey of agricultural production covering some 2 000 families; the survey will be repeated using the same sample and methodology in the year 2000 and in 2002. A beneficiary assessment of the PNRVA was carried out in 1997. Under the new project, the assessment will be repeated in 1999 and in 2001.

G. Economic Justification

38. **Project benefits.** Main project benefits would include: a more effective system of agricultural- technology generation and transfer, a demand-driven public extension system that is oriented towards **resource-poor farmers and women food-crop producers** as a matter of priority, strengthened farmer associations, links between private-sector input-and-equipment suppliers and technology extension, a pro-active role of Cameroonian industries in organizing the market for smallholder agriculture products, increased agricultural production and, as a result, **poverty** alleviation in rural areas.

39. More specifically, the project's tangible end-benefits include:

- with regard to impact on income growth: the project will help to boost agricultural productivity and output and will thus foster agricultural development and improve rural income levels directly for up to 30% of the country's farmers;
- with regard to impact on income distribution: rural **poverty** will be reduced, and household food security and nutrition levels will improve as a result of the project's special emphasis on: (a) identifying production problems specific to **poor** rural farmers, and including contact groups made up of these farmers in the work programme of extension agents, (b) tailoring technology generation and transfer activities to the particular requirements of **women** farmers, who produce the bulk of Cameroon's food



- crops, and (c) making a special effort to cover remote areas, where some of the **poorest** groups of the rural population reside;
- the facilities of the government agency specializing in agricultural research will be rehabilitated.

40. **Financial viability of the technologies that are transferred to project clients.** The financial viability of the technological innovations promoted by this project is essential to their adoption and to the project's success. The profitability of adopting a number of the PNRVA's technical packages has been tested by crop-budget and farm-model analyses. Many simple and cost-effective techniques for improving production, productivity and post-harvest crop handling are available "off-the-shelf" from private and public-sector sources, universities and farmers. In 1997, approximately 130 new techniques were tested by some 84 000 farmers in their own fields: yields between traditional techniques and the new techniques improved by between 30 and 200 percent. Adoption of most of the successful technologies does not involve significant cash outlays and hence little risk of financial loss. More complex technologies involving market risk will be evaluated by the central monitoring-and-evaluation unit's economist before being included in extension packages. Farmer-organization specialists (SOASPs) will receive training to help them to know when economic advice should be sought for particular initiatives, especially for livestock activities. This will prevent relatively expensive projects from being launched in the wrong locations.

41. **Internal economic rate of return.** The project has an internal economic rate of return (IERR) of 39%, based on the incremental value of production under the farm models prepared for the three main agro-ecological zones of Cameroon⁴. The net present value is USD 28 million (discounted at 10%). These estimates are relatively insensitive to changes in production costs. The IERR is relatively sensitive, however, to changes in local market prices (after allowing for the deflationary impact of increased production on local market prices) and very sensitive to changes in yields and production.

H. Risks

42. Achievement of the project's objectives, especially those that affect IFAD's target groups, will depend on: (a) the presence of dynamic and efficient management, (b) close adherence to the policy of gradually concentrating PNRVA activities on resource-**poor** and **women** food-crop producers and encouraging large farmers and smallholder associations of cash-crop producers to seek out private specialists for farm-management advice, (c) limited interference by rent-seekers in the subject matter specialists' work plans, (d) continuation of effective supervision of programme implementation by the central unit and by donors, (e) the priority given to the programme in the annual budget by decision-makers at the Ministry of Agriculture, (f) the design and implementation of effective measures to improve the release of budget funds allocated to extension activities, (g) the continuation of government deregulation, liberalization, privatization, and budget-control policies, (h) stable international market prices, and (i) the success of efforts to involve the private sector in extension activities concerning the use of inputs and in designing and marketing better village processing equipment, and efforts to increase and diversify the use of agricultural products in cooperation with farmers groups with an eye to guaranteeing secure supplies. Measures to mitigate these risks are reflected in the project's design and implementation arrangements, and assurances to this effect would be sought during loan negotiations.

I. Environmental Impact

43. The PNRVA has been classified environmentally as a category B operation by the World Bank. An evaluation of the environmental impact of the PNRVA's first phase was completed in June

⁴ See Appendix VIII for assumptions and a sensitivity analysis.



1997, and includes recommendations for the next phase. The study concluded that the PNRVA has contributed to environmental protection by promoting technologies that help to conserve resources and mitigate the adverse effects of increased agricultural production, particularly in the more fragile areas, such as the North and West Provinces. The recommendations included many detailed suggestions that can be implemented without contradicting the PNRVA's demand-driven policy, including further work on integrated pest management to reduce the use of pesticides, continued emphasis on composting to reduce the need for chemical fertilizers, measures to prevent water pollution from the treatment of highly toxic cassava varieties, more emphasis on planting legume cover crops on fallow land, participatory diagnosis of environmental problems, a training programme on environmental issues for extension staff, etc.

J. Innovative Features

44. During the last three years of implementation, the World Bank-financed first phase of the PNRVA introduced a number of innovative features that transformed a classical top-down, training-and-visit programme into a demand-driven operation. While retaining the structured approach of pre-determined work schedules, coupled with intensive, continuous training and exchanges of experience among staff, the Agriculture Ministry's Extension Division successfully introduced participatory diagnoses and a "farmers-first, bottom-up" approach to programme planning and priority setting.

45. IFAD's contribution to the design of the proposed follow-up phase involved the following main innovations with respect to current practices under the PNRVA: (i) orientation of the programme towards resource-**poor** and **women** food-crop producers as a matter of priority (participatory assessment of problems by socio-economic strata and **gender**, separate contact groups – by socio-economic characteristics or **gender** – for dealing with problems not faced by other farmers, formation of primarily market-oriented smallholders groups and encouragement of these groups and wealthier farmers to seek out private services for farm-management advice); (ii) drawing attention to the importance of improving linkages between farmers (and farmers groups) and industries which use agricultural products, since this area of SOASP activity has been neglected in the past.

PART III - LEGAL INSTRUMENTS AND AUTHORITY

46. A loan agreement between the Republic of Cameroon and IFAD will constitute 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.

47. The Republic of Cameroon is empowered under its laws to borrow from IFAD.

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



PART IV - RECOMMENDATION

49. 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 Republic of Cameroon in various currencies in an amount equivalent to seven million nine hundred thousand Special Drawing Rights (SDR 7 900 000) to mature on and prior to 15 October 2037 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 4 August 1998)

1. The Government of the Republic of Cameroon (the Government) will open and maintain a project account for the duration of project implementation in a commercial bank acceptable to IFAD and on terms and conditions satisfactory to IFAD.
2. Not later than 15 January 2000, the Government will deposit in the project account an initial amount equivalent to the Government's share of the counterpart funds required for project implementation, as agreed upon by the Government and IFAD (the initial deposit), and thereafter, at least at quarterly intervals, deposit in the project account such amounts as shall be required to replenish the account to the amount of the initial deposit. The Government will ensure the timely availability of its counterpart funds.
3. The following are specified as additional events of suspension of the Government's right to make withdrawals from the loan:
 - (a) the IDA development credit and/or the AfDF loan have become, or risk becoming, liable for suspension or cancellation or become repayable prior to it or their agreed maturity date; and
 - (b) the AfDF loan agreement shall have failed to become effective by 30 June 1999.
4. The following are specified as additional conditions to loan effectiveness:
 - (a) the annual work plans, including training programmes, and budgets for project activities, for the initial period up to 31 December 1999, shall have been received and found satisfactory by IFAD;
 - (b) the Government shall have engaged independent auditors;
 - (c) the Government shall have adopted a satisfactory project implementation manual; and
 - (d) the IDA credit agreement shall have been executed and delivered.
5. The Government shall apply the policies, procedures and arrangements specified in the project implementation manual. The Government shall not amend the project implementation manual or the research grant manual in a way that would materially affect the implementation of the project or any part thereof.
6.
 - (a) Not later than 31 March 1999, the Government shall furnish to IFAD, for its review and comments, detailed proposals for a coordination system between research and extension activities at the national and provincial levels.
 - (b) Not later than 31 October 1999, the Government shall implement the coordination system referred to in subparagraph (a) above with due diligence and efficiency.



ANNEX

7. Not later than 30 June 2000, the Government shall establish, and thereafter maintain, a financial management system satisfactory to IFAD, ensuring the timely release and availability of the local funds required to meet the total operational costs of agricultural extension services at the level of each province.

8. Not later than 31 December 2000, the Government shall carry out a review of MINAGRI's and MINEPIA's operations and human resources in accordance with terms of reference satisfactory to IFAD.

9. The Government shall:

- (a) maintain policies and procedures adequate to enable it to monitor and evaluate on an ongoing basis, in accordance with the indicators agreed upon between the Government and IFAD, the carrying out of the project and the achievement of the objectives thereof;
- (b) prepare and furnish to IFAD, under terms of reference satisfactory to IFAD, on or about 31 March of each year, a report integrating the results of the monitoring and evaluation activities performed pursuant to subparagraph (a) above on the progress achieved in carrying out the project during the period preceding the date of said report and setting out the measures recommended to ensure the efficient carrying out of the project and the achievement of its objectives during the period following such date; and
- (c) review with IFAD, by 30 June of each year, or such later date as IFAD shall request, the report referred to in subparagraph (b) above, and thereafter take all measures required to ensure the efficient completion of the project and the achievement of its objectives, based on the conclusions and recommendations of the said report and IFAD's views on the matter.

10. Not later than 31 December 1999 and 31 December 2000, respectively, the Government shall undertake an external beneficiary assessment of farmers, relating to the effectiveness of agricultural extension and research services, in accordance with terms of reference satisfactory to IFAD.

11. Not later than 31 December 2000 and 31 December 2002, respectively, the Government shall undertake a rural household survey relating to the evaluation of the impact of the project on production, in accordance with terms of reference satisfactory to IFAD.

12. Not later than 30 June 1999, the Government shall furnish to IFAD, for its review and approval, a detailed proposal for a pilot project designed to test alternative extension delivery systems.

COUNTRY DATA

CAMEROON

Land area (km² thousand) 1994 1/	465	GNP per capita (USD) 1995 2/	650
Population (million) 1995 1/	13	Average annual real rate of growth of GNP per capita, 1985-95 2/	-7.0
Population density (population per km²) 1995 1/	29	Average annual rate of inflation, 1985-95 2/	2.0
Local currency	CFA Franc BEAC	Exchange rate: USD 1 =	XAF 620
Social Indicators		Economic Indicators	
Population (average annual rate of growth) 1980-95 1/	2.8	GDP (USD million) 1995 1/	7 931
Crude birth rate (per thousand people) 1995 1/	41	Average annual rate of growth of GDP 1/	
Crude death rate (per thousand people) 1995 1/	11	1980-90	3.1
Infant mortality rate (per thousand live births) 1995 1/	56	1990-95	-1.8
Life expectancy at birth (years) 1994 3/	55.1	Sectoral distribution of GDP, 1995 1/	
Number of rural poor (million) 1/	2.3	% agriculture	39
Poor as % of total rural population 1/	32.4	% industry	23
Total labour force (million) 1995 1/	5	% manufacturing	10
Female labour force as % of total, 1995 1/	38	% services	38
Education		Consumption, 1995 1/	
Primary school enrolment (% of age group total) 1993 1/	87	Government consumption (as % of GDP)	9
Adult literacy rate (% of total population) 1994 3/	62.1	Private consumption (as % of GDP)	71
Nutrition		Gross domestic savings (as % of GDP)	
Daily calorie supply per capita, 1992 3/	1 981	Balance of Payments (USD million)	
Index of daily calorie supply per capita (industrial countries=100) 1992 3/	64	Merchandise exports, 1995 1/	2 331
Prevalence of child malnutrition (% of children under 5) 1989-95 1/	14	Merchandise imports, 1995 1/	1 241
Health		Balance of trade	
People per physician, 1993 1/	11 996	Current account balances (USD million)	
People per nurse, 1993 1/	1 999	before official transfers, 1995 1/	- 180
Access to safe water (% of population) 1990-96 3/	50	after official transfers, 1995 1/	- 171
Access to health service (% of population) 1990-95 3/	80	Foreign direct investment, 1995 1/	102
Access to sanitation (% of population) 1990-96 3/	50	Net workers' remittances, 1995 1/	39
Agriculture and Food		Income terms of trade (1987=100) 1995 1/	
Cereal imports (thousands of metric tonnes) 1994 1/	226	Government Finance	
Food imports as percentage of total merchandise imports 1993 1/	16	Overall budget surplus/deficit (as % of GDP) 1994 1/	-1.7
Fertilizer consumption (hundred grams of plant nutrient per arable ha) 1994/95 1/	43	Total expenditure (% of GDP) 1994 1/	15.9
Food production index (1989-91=100) 1995 1/	111	Total external debt (USD million) 1995 1/	9 350
Food aid in cereals (thousands of metric tonnes) 1994-95 1/	2	Total external debt (as % of GNP) 1995 1/	96.6
Land Use		Total debt service (% of exports of goods and services) 1995 1/	
Agricultural land as % of total land area, 1994 1/	19	Nominal lending rate of banks, 1995 1/	16.0
Forest and woodland area (km ² thousand) 1990 1/	204	Nominal deposit rate of banks, 1995 1/	5.5
Forest and woodland area as % of total land area, 1990 1/	44		
Irrigated land as % of arable land, 1994 1/	0.3		

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*, 1997

2/ World Bank, *Atlas*, 1997

3/ UNDP, *Human Development Report*, 1997

PREVIOUS IFAD LOANS IN CAMEROON

<i>Project Name</i>	<i>Lending Terms</i>	<i>Project Type</i>	<i>Financing Type</i>	<i>IFAD Approved Financing (USD '000)</i>	<i>IFAD Current Financing (USD '000)</i>	<i>Board Approval</i>	<i>Loan Signing</i>	<i>Loan Effectiveness</i>	<i>Original Closing</i>	<i>Current Closing</i>
North West Rural Development	HC	RURAL	F	12 000	11 399	16 Sep 80	11 Dec 80	06 Nov 81	31 Dec 86	30 Jun 91
Second Western Province Rural Development	I	RURAL	C	14 500	9 869	13 Dec 83	31 May 84	09 Sep 85	31 Dec 90	31 Dec 91
Livestock Sector Development	I	LIVST	C	10 800	10 800	29 Nov 88	28 Feb 89	29 Oct 89	30 Jun 95	30 Jun 95





SUMMARY PROJECT DESCRIPTION

Introduction

1. The project comprises six main components: (a) agricultural extension; (b) agricultural research; (c) training and human resources development; (d) support for farmers' organizations and links with the private sector; (e) pilot project in support of village-level community development initiatives; and (f) project impact evaluation. The following paragraphs contain details on the project's components.

2. The **agricultural extension** component represents a continuation of support for the Government's national agricultural extension policy started under the ongoing National Agricultural Extension and Training project. The role of the National Agricultural Extension Programme is to ensure that advisory services reach as many livestock, fish and crop farmers as possible, giving priority to direct services for small farmers and food crop producers. The programme uses an approach that highlights participation among extension staff, researchers and farmers in on-farm diagnosis and adaptive research and regular training of field staff and farmers. The main tools include work programming, regular training, use of loose contact groups made up of farmers sharing similar interests, individual on-farm demonstration plots and on-farm trials with research and extension staff. To date, agricultural advisory-service delivery has been based primarily on the use of public staff providing free services to all types of farmers. While aiming to maintain public funding of extension as well as the recent improvements in the quality of the management of the public extension service, the project will support pilot initiatives whereby the services of private organizations active in extension (such as farmers' organizations and NGOs) will be subcontracted. In addition, a pilot operation to assist village communities in identifying rural development priorities and implementing action plans will be organized. One of the objectives of this pilot project is to increase farmers' say over the management and organization of extension.

3. While awaiting the results of the pilot projects mentioned in the preceding paragraph, some 1 700 multidisciplinary field agents, backed by about 350 supervisory staff, 250 subject matter specialists, and over 200 research staff, will provide advisory services to farmers at all technical levels. The front-line field staff (AVZ) will continue as the link pin between farmers and herders and sources of technology and information. Each AVZ will cover between 500 and 1 000 farm families (an average of 800 nationally), depending on local population density and the state of communications and rural roads. Coverage is expected to be lower in remote areas and will represent increased average costs for **targeting remote and poor families**. For the majority of **smallholder farmers**, face-to-face contact will be through regular meetings between the front-line field staff and contact groups. These meetings will be organized in such a way as to group farmers belonging to different social strata and taking **gender** into account. **Larger farmers and planters** will receive technical advice from subject matter specialists (SMS) on the basis of flexible timetables defined in joint consultation between the SMS and farmers; they will be gradually encouraged to obtain farm-specific demonstrations and technical advice from private technicians on a commercial basis. Market-oriented small farmers and cash-crop producers will be encouraged to join associations and to purchase specialized technical advice on similar arrangements. Identification and diagnosis of production and post-harvest-related problems will be undertaken jointly by extension and research staff with farmers throughout the year, on the basis of work programmes defined under contracts prepared at the provincial level. The number of **female extension agents** will be increased by recruiting 200 women under renewable contracts on a pilot basis. Some 52 **farmers' organization specialists** (SOASPs), operating at the regional level, and supervised by staff at the provincial and central level, will interact with farmers' organizations, agricultural merchants and suppliers, and



APPENDIX III

NGOs to ensure a reliable flow of information on market opportunities and to broker agreements between the national extension services and private-sector partners. They will be assisted by a *post-harvest/crop-processing subject matter specialist* posted initially at the provincial level. An *economist-financial analyst* posted at the monitoring and evaluation unit will assist with market surveys and financial analysis of proposed investments which will be subcontracted to private individuals and NGOs whenever appropriate. An *environmental subject matter specialist* in each province has been appointed to ensure consistency between technical recommendations and environmental sustainability. Close *linkages with agricultural research staff* will be provided through renewable contracts agreed on by provincial agricultural research and extension staff and funded by the project, following transmittal of a request from the provincial supervisor to the project coordination office.

4. The project will cover all ten provinces of Cameroon, an increase over the six provinces included originally under the previous project. The next phase of funding in support of agricultural extension will concentrate on improving the quality and increasing the coverage of services. In particular, greater attention will be paid to *animal husbandry and fisheries extension. Participation by farmers* in the programming of agricultural extension and research will be intensified by means of continued emphasis on on-farm diagnosis by extension and researchers. Training in diagnostic techniques will remain a priority. The present practice will be complemented by introducing a simple method to assess the specific problems faced by resource-poor farmers and women food-crop producers, forming separate contact groups of such farmers when required, and to ensure that the requirements of those farmers are included in the work plans. To supplement on-farm diagnosis, two other approaches will be developed to resolve problems whose solution cannot necessarily be found on-farm. The first will be to continue support for solutions to *agricultural input delivery and marketing problems* that are being developed in conjunction with the private sector, farmers' associations and staff from the farmer organizations and links with the private sector support unit (SOASPs). The second will be to initiate a pilot project in support of *village-level community development*, based on successful experience with this approach elsewhere in the region. The use of *mass media* will be strengthened to bolster the participatory approach to extension. *Seed production and multiplication* will continue to receive support. In particular, national seed legislation will be finalized, and women's groups and small-scale individual farmers will be encouraged to multiply improved seeds and breeding stock. In order to maintain the new levels of commitment among extension staff, a *merit-based award system* will be introduced for extension and research staff. Private-sector partners have expressed willingness to institute a similar system.

5. The project provides resources to encourage the testing of *alternative technology-delivery systems* on a pilot basis. Study tours for representatives of the public and private sectors will be organized to countries outside the Africa Region to compare experiences that could be of relevance to Cameroon. Certain extension activities, such as training, extension, monitoring and evaluation, and on-farm trials, could be subcontracted to NGOs, private companies or training institutes, that demonstrate the necessary capabilities and agree to respect the principles of the national extension policy. Funds are included under the project to allow for *subcontracting such selected extension activities to third parties*.

6. Under the **research** component, the African Development Bank will fund three subcomponents in direct support of the National Agricultural Research Institute for Development (IRAD) over the next five years. These subcomponents include rehabilitation of the physical infrastructure of selected IRAD stations, purchase of equipment, provision of technical assistance, documentation and operating costs of research staff, funding of demand-driven research programmes, and local and overseas training of IRAD research staff. Technical and institutional responsibility for the implementation of these subcomponents will lie with the director-general of IRAD, a relatively



young institution created in March 1996, following the merger of separate agronomy and livestock research institutes. Under a fourth subcomponent research and extension activities will be funded by the PNRVA by way of contracts drawn up between the PNRVA provincial supervisors and the research stations/centres, corresponding to those provinces. The services to be provided under these contracts include regular training by research staff for subject matter specialists on techniques identified as priority by farmers; tests and trials in farmers' fields of potential solutions to priority problems identified during on-farm diagnosis; and the costs for researchers involved in carrying out on-farm diagnosis with extension staff and farmers. Under a fifth subcomponent, a competitive grant for on-station research on topics identified by the participatory diagnostic work will be established with IFAD funding. Access to these grant funds will be available to public and private research centres on a competitive basis. Management of the grant will be entrusted to an eight-member committee of representatives of the Ministry of Agriculture, Ministry of Livestock, Fisheries and Animal Industries, IRAD, the University of Dschang, AGROCOM, the Federation of Cameroonian farmers, a representative of a women's' farming group and a representative of a small farmers' association (such as FENAPAC).

7. The **training and resource management** component will be the responsibility of a unit chief under the national PNRVA coordinator, with representation in each of the 10 provinces. Support will be provided for training for field-level staff, subject matter specialists and researchers. Funding is provided for in-country and regional workshops. Training in on-farm diagnosis will continue to be a priority so as to ensure that extension and research messages respond to the needs of farmers having different socio-economic characteristics. The training programme on participatory diagnosis will be expanded and complemented to enable all concerned staff to fully appreciate the impact of social stratification and **gender** issues in the identification of agricultural production problems. To support the policy objective of developing an effective supply of technological advisory services by the private sector, a pilot initiative will be funded to rehabilitate two or three agricultural colleges for the training of agricultural and livestock technicians. This initiative will be fully defined following a study to be carried out by consultants under the supervision of the Projects and Studies Division of the Ministry of Agriculture in collaboration with the DEC (MINEPIA), of supply and demand for such technicians within both the private and public sectors, to ensure long-term availability of trained technical staff. This study will develop quantitative data following an FAO study of the reform of agricultural teaching and training⁵. The national project coordinator's office will liaise closely with the secretary-general of the Ministry of Agriculture and the Projects and Studies Division and DEC on the proposed follow-up and rehabilitation work, which is not expected to begin before the third year of the project.

8. Private-sector agricultural technicians would be encouraged to join technology update courses at the colleges, and to participate in workshops designed to keep government technical staff abreast of technology developments. Local and overseas training will be programmed according to a training plan, agreed on annually (the 1998 programme is annexed to the project implementation manual). In addition to in-service training objectives for staff, resources under this component are included for developing a strategy for basic training of agricultural technicians.

9. The **farmer organization support and private sector linkages** component will support efforts of the SOASP unit under the PNRVA to develop contractual, formal and informal contacts between farmer associations and groups and private-sector suppliers of agricultural inputs, agricultural merchants, and purchasers of agricultural products. Funding will be made available by the PNRVA to improve communications between regional and provincial-level specialists in farmers' associations and private-sector linkages (SOASP), to fund training of farmer-group representatives and enable group representatives to undertake study visits both within and outside Cameroon.

⁵ *Réforme de l'Enseignement et de la Formation Agricole et Rurale - Michel Gineste FAO/DEPA, January 1998*



APPENDIX III

10. The **village-based participatory community development pilot project** will be carried out under the overall coordination of the national PNRVA unit by joint teams of staff from the extension service and the Community Development Department. At the provincial level, the provincial extension coordinator will have ultimate responsibility for the pilot operation and will actively involve a wide range of organizations and individuals, including local government, other rural services (such as health, education, infrastructure, etc.) NGOs, and any other organizations active in rural development. The results of this pilot will be monitored and evaluated, in collaboration with the DEC/MINEPIA, by the Agricultural Ministry's Projects and Studies Division, which will be responsible for identifying impact indicators, carrying out a baseline survey, and measuring the progress of impact indicators. The pilot operation will be implemented with a view to rapid expansion of this approach throughout the country. One of the elements to be examined will be the need to set up a rural development fund, possibly as a self-standing, externally financed project. IFAD has expressed interest in funding a possible follow-up project, based on experience with this pilot initiative.

11. **Project impact evaluation and studies** component. Progress towards achieving project objectives will be evaluated by: (a) the increase in the number of farmers, particularly **women**, receiving advisory services; (b) the level of adoption of new technical messages; (c) the impact of these technical messages on farm incomes; and (d) the number of market-oriented farmer groups that are successfully developed. The Projects and Studies Division (DEPA) will be responsible for external *monitoring and evaluation* of project impact. The DEPA, in collaboration with the DEC/MINEPIA, will work closely with the monitoring and evaluation (M&E) staff of the PNRVA national coordination unit, who are responsible for monitoring the internal progress of the extension and research programmes on the ground. A single monitoring and evaluation system will monitor indicators of performance for both research and extension services. This system will have two levels. An internal monitoring system - based on information collected during daily farm visits by front-level staff - will measure the impact of the extension and research services will be measured against objectives and indicators agreed with supervisors. Rates of adoption of technical messages will be the main measure of impact of the extension and research services. The second level would involve: (a) a series of annual in-depth technology adoption/rejection case studies based on limited samples; (b) a rural household survey of about 2 000 households, to be undertaken in the second and fourth years using the same methodology as the baseline survey carried out in 1998, to acquire insight on the project's overall impact on production; and (c) an external beneficiary assessment, to be carried out in the first and third year of the project. The M&E component includes the appointment of an economist/financial analyst who will be responsible for supervising work done at the SMS level in order to check the financial viability of the technical packages and to assist SOAPS staff and the SMS post-harvest/processing/marketing technologies in assessing investment proposal and contracting specific studies as required in their activities. Studies to be carried out under this component in support of an action plan to implement the Government's new rural development strategy will be coordinated by the DEPA, in collaboration with the DEC.

12. The DEPA and DEC will coordinate preparation of the project's mid-term review, which should be carried out before March 2001 and should include: (i) an evaluation of the impact of the pilot project and proposals for future development; (ii) an evaluation of the operation of the financial management system; (iii) an action plan for implementing the conclusions of the human resource study to determine the future size and deployment of the staff of the ministries charged with rural affairs; and (iv) conclusions of the sector development strategy.



13. *Implementation period* - The project will fund the next four-year investment period in support of the national extension and research programmes. Starting after loan effectiveness during the second semester of 1998, funding provided jointly by the Cameroonian Government, IFAD, AfDB/AfDF and IDA is sufficient to meet the programme needs for extension and research activities in Cameroon's 10 provinces until June 2003. During the third year of the project, an evaluation of impact will be undertaken, and preparation work on the next phase of external funding in support of the national programmes will be defined.



CAMEROON: PNRVA. Logical Framework. Part 2: Output and Inputs				
	structure of the PNRVA	key performance indicators	means of verification	assumptions & risk
output of project components	extension	<ol style="list-style-type: none"> 1. 1,700 AVZ including 200 village resident women (on renewable short term contracts) in post by 2002 2. 52 SMS seeds, 52 SMS SOASP, 10 SMS environment, 10 SMS post harvest and agro-processing technologists in post by 2000 3. all contact groups with AVZ established by social strata and gender when required 4. Fortnightly and monthly meetings of AVZ, SS, SMS, RS, technology workshops held regularly 5. Quality seed, clean planting material and base material for multiplication available to 50% of farmers 6. 100% of recurrent costs funded by the Government budget by mid-2000 7. number of large farmers and farmer Professional Organisations employing private practitioners for farm management advise 8. improved internal programme performance monitoring in place by end 1999 9. PNVA accounting and reporting procedures completed and operational by end 1998 	<ol style="list-style-type: none"> 1. PNVA internal monitoring system 2. PNVA financial reports and audit 3. consolidated SMS and SOASP reports 	same as for part 1
	agricultural research	<ol style="list-style-type: none"> 1. number & nature of MOA-IRAD contracts signed in each Province for joint on-field technology testing (farmers/PNRVA/IRAD technicians) 2. IRAD facilities fully rehabilitated and staff trained 3. Competitive Research Fund: number & quality of research projects financed 	<ol style="list-style-type: none"> 1. PNVA internal monitoring system 2. AfDB supervision mission reports 3. regular RS and SMS reports 	
	training and human resource development	<ol style="list-style-type: none"> 1. all PNRVA staff trained in participatory diagnosis of socio-economic strata and gender differentiation in identifying agricultural production problems 2. all PNRVA staff trained in gender issues 3. training of SMS seed, SMS post harvest, technology review workshops, regular staff orientation and recycling training; 4. training courses in human resource management 5. personnel management procedures established 6. financial controller training completed 7. completion of agricultural technicians demand study 8. rehabilitation of 2 or 3 agricultural colleges 	<ol style="list-style-type: none"> 1. PNVA internal monitoring system 	
	support to farmer organizations and private sector linkages (SOASP)	<ol style="list-style-type: none"> 1. all SOASP staff in place by 2000 with resources to operate 2. number of farmers-private enterprise meetings organised 3. number & nature of contracts with NGOs/private entrepreneurs for input supply delivery & extension 4. number & nature of contracts with industrial users of crops for supply by farmers groups 	<ol style="list-style-type: none"> 1. PNVA internal monitoring system 2. consolidated SOASP reports 3. consolidated SMS post harvest and processing reports 	
	participation in community initiatives pilot project	<ol style="list-style-type: none"> 1. design of pilot project completed by end 1998 2. implementation completed by end 2000 	<ol style="list-style-type: none"> 1. pilot project formulation report 2. PNVA internal monitoring system 	
	programme impact evaluation	<ol style="list-style-type: none"> 1. strengthened PNRVA (DEPA) Evaluation Unit in place mid 1999. 2. identical base line survey as undertaken in 1998 is repeated in 2000 and 2002 3. 10 to 20 in depth technology adoption/rejection studies carried out annually with PRA methods 4. beneficiaries assessment undertaken in 1999 and 2001. 	<ol style="list-style-type: none"> 1. base line surveys: 98, 2000, 2002 2. in-depth PRA technology adoption/rejection studies 3. beneficiary assessment studies: 1999 and 2001 	
input	<ol style="list-style-type: none"> 1. vehicles and motorcycles 2. mass communication, audiovisual and other training material 3. computers, software, and related staff training 4. other office equipment 5. resources to finance staff training, regional, provincial and national workshops 8. other costs related to training (in Cameroon and abroad) 9. agricultural equipment for demonstration 9. resources to finance contract for research projects eligible under the Competitive Fund 10. remunerations for 200 female extension workers recruited on contract at village level 11. incremental recurrent cost (staff travel & subsistence, vehicle O&M, administration, etc.) 12. external audit 13. cost of contracts with NGOs, private consultants, other service providers 14. incremental costs of programme impact evaluation (direct expenses of MOA statistical staff employed in base line surveys, contracts with specialised consultants) 15. rehabilitation work on 2 or 3 agricultural colleges 		<ol style="list-style-type: none"> IDA disbursement documentation PNRVA financial reports <ul style="list-style-type: none"> - on loan/credi funds use - on Government budget funds release 	

COST AND FINANCING

Table 1: Project Cost Summary by Component

	(XAF '000)					(USD '000)				
	Local	Foreign	Total	%Foreign	% Total	Local	Foreign	Total	% Foreign	% Total
				Exchange	Base Costs				Exchange	Base Costs
A. Agricultural Extension										
1. National Agricultural Extension Programme	8 528 895.9	4 610 944.4	13 139 840.3	35	51	14 214.8	7 684.9	21 899.7	35	51
2. Seed improvement	59 135.6	55 080.0	114 215.6	48	-	98.6	91.8	190.4	48	-
3. Outfitting and salaries for women extension agents (AVZs)	513 222.3	231 336.0	744 558.3	31	3	855.4	385.6	1 240.9	31	3
4. Mass media and communications	197 140.7	190 185.1	387 325.8	49	2	328.6	317.0	645.5	49	2
Subtotal : Agricultural extension	9 298 394.4	5 087 545.5	14 385 939.9	35	56	15 497.3	8 479.2	23 976.6	35	56
B. Agricultural research										
1. Research/extension interface	1 154 638.8	655 329.6	1 809 968.4	36	7	1 924.4	1 092.2	3 016.6	36	7
2. Competitive research grants	558 337.5	-	558 337.5	-	2	930.6	-	930.6	-	2
3. Strengthening of IRAD	1 638 966.4	1 806 488.9	3 445 455.3	52	13	2 731.6	3 010.8	5 742.4	52	13
4. On-station research	1 055 754.0	928 428.5	1 984 182.5	47	8	1 759.6	1 547.4	3 307.0	47	8
5. IRAD staff training	74 911.2	458 456.5	533 367.7	86	2	124.9	764.1	888.9	86	2
Subtotal : Agricultural research	4 482 607.9	3 848 703.6	8 331 311.4	46	32	7 471.0	6 414.5	13 885.5	46	32
C. Human resources training and development	1 460 693.7	689 997.0	2 150 690.7	32	8	2 434.5	1 150.0	3 584.5	32	8
D. Support for farmer organizations and private-sector linkages	147 728.4	102 081.6	249 810.0	41	1	246.2	170.1	416.4	41	1
E. Support for village-based community initiatives	172 911.6	55 967.4	228 879.0	24	1	288.2	93.3	381.5	24	1
F. Monitoring and evaluation	232 908.0	107 712.0	340 620.0	32	1	388.2	179.5	567.7	32	1
Total BASELINE COSTS	15 795 244.0	9 892 007.0	25 687 251.0	39	100	26 325.4	16 486.7	42 812.1	39	100
Physical Contingencies	623 363.7	334 931.7	958 295.4	35	4	1 038.9	558.2	1 597.2	35	4
Price Contingencies	2 110 128.6	1 427 667.5	3 537 796.0	40	14	875.0	797.4	1 672.4	48	4
Total PROJECT COST	18 528 736.3	11 654 606.1	30 183 342.4	39	118	28 239.4	17 842.3	46 081.7	39	108



**Table 2: Components by Financiers
(USD '000)**

	The Government		World Bank (IDA)		African Development Fund		International Fund for Agricultural Development		Total			Local	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	For. Exch.	(Excl. Taxes)	
A. Agricultural Extension													
National Agricultural Extension Programme	9 435.3	39.5	8 106.3	34.0	-	-	6 328.6	26.5	23 870.2	51.8	8 445.8	11 753.2	3 671.1
Seed Improvement	31.0	15.0	51.7	25.1	-	-	123.4	59.9	206.1	0.4	100.5	74.6	31.0
Outfitting and wages for women extension agents (AVZs)	296.9	21.9	635.2	46.9	-	-	423.4	31.2	1 355.6	2.9	423.4	635.2	296.9
Mass media and communications	66.2	9.4	637.9	90.6	-	-	-	-	704.1	1.5	348.6	307.8	47.7
Subtotal : Agricultural Extension	9 829.4	37.6	9 431.1	36.1	-	-	6 875.4	26.3	26 136.0	56.7	9 318.3	12 770.9	4 046.8
B. Agricultural Research													
1. Research extension interface	0.0	-	-	-	-	-	3 285.4	100.0	3 285.4	7.1	1 205.4	2 079.9	-
2. Competitive research grants	-	-	978.6	100.0	-	-	-	-	978.6	2.1	-	978.6	-
3. Strengthening of IRAD	0.0	-	-	-	5 954.0	100.0	-	-	5 954.0	12.9	3 150.1	2 803.9	-
4. On-station research	0.0	-	-	-	3 430.1	100.0	-	-	3 430.1	7.4	1 621.8	1 808.3	-
5. IRAD staff training	0.0	-	-	-	923.0	100.0	-	-	923.0	2.0	796.1	126.8	-
Subtotal : Agricultural Research	0.0	-	978.6	6.7	10 307.0	70.7	3 285.4	22.5	14 571.0	31.6	6 773.4	7 797.6	-
C. Human resource training and development	99.4	2.5	3 475.0	89.2	-	-	323.4	8.3	3 897.8	8.5	1 267.5	2 530.9	99.4
D. Support for farmer organizations and private-sector linkages	14.4	3.2	438.1	96.8	-	-	-	-	452.5	1.0	186.2	251.9	14.4
E. Support for village-based community initiatives	94.4	23.3	280.3	69.1	-	-	31.0	7.6	405.6	0.9	100.0	211.2	94.4
F. Monitoring and evaluation	84.3	13.6	534.6	86.4	-	-	-	-	618.8	1.3	196.9	337.7	84.3
Total Disbursements	10 121.9	22.0	15 137.6	32.8	10 307.0	22.4	10 515.2	22.8	46 081.7	100.0	17 842.3	23 900.1	4 339.3





ORGANIZATION AND MANAGEMENT

1. Project oversight is the responsibility of the Ministry of Agriculture. Coordination of the project components (agricultural extension, training and human resource development, farmer organization support and private sector linkages, village-based participatory community development, internal monitoring and evaluation of crop, livestock and fisheries extension, financial management and control) will be the responsibility of the coordinator of the national agricultural extension programme. The national coordinator will be appointed by the Minister for Agriculture. Among other things, the coordinator will act as secretary for the competitive research grant subcomponent. Given the important management role played by the national coordinator, the candidate for this post will possess qualifications and experience that are acceptable to IFAD and IDA. A deputy coordinator has been nominated by the Ministry of Livestock, Fisheries and Animal Industries to ensure close collaboration with this ministry. Staff of the Ministry of Agriculture and the Ministry of Livestock, Fisheries and Animal Industries will be redeployed in accordance with the September 1997 agreement signed between the two ministries. IRAD will be responsible for the three agricultural research subcomponents funded by the African Development Bank and concerned with the rehabilitation of IRAD's research structure, on-station research, and training of IRAD staff. The Studies and Projects Division (DEPA) will be responsible for coordinating external monitoring and evaluation and for the coordination of major studies.

2. **Beneficiary participation** in setting priorities and programming research and extension programmes will be intensified by means of continued emphasis on joint on-farm diagnosis by research and extension workers. Monitoring and evaluation arrangements will also reflect active beneficiary involvement, based on participatory discussions and related quantitative as well as qualitative indicators. The activities relating to the development of commodity systems ("filières" for maize and cassava) will encourage partnership arrangements between the beneficiaries and other stakeholders in the public and private sectors. The village-based participatory community-development pilot project is designed to assist villages in analysing their situations, identifying and agreeing upon rural development priorities, formulating action plans to address these priorities, taking charge through their own organizations of implementation of the action plans, and placing pressure on the different services and development organizations active in the area to provide the quality services needed.

3. A major thrust of the PNRVA is to coordinate the **poverty**-alleviation and agricultural-development policies of the Government. The project will address the problem of how to reach the **poor** and how to ensure that action is taken to solve their problems on a priority basis. Important modifications in the *modus operandi* of extension staff will be introduced to that effect. These include:

- participatory identification of different social strata at the village level
- identification of production problems affecting different social strata and by **gender**
- the establishment of several contact groups consisting of representatives of different social strata and by **gender** whenever this is required by the nature of the problems facing different categories of PNRVA clients
- continuous participatory diagnosis with different contact groups
- demand for services and identification of priority research themes will be recorded by for the different contact groups, identifying those that are common to all social strata, and those that are specific to **poor** farmers and **women**.

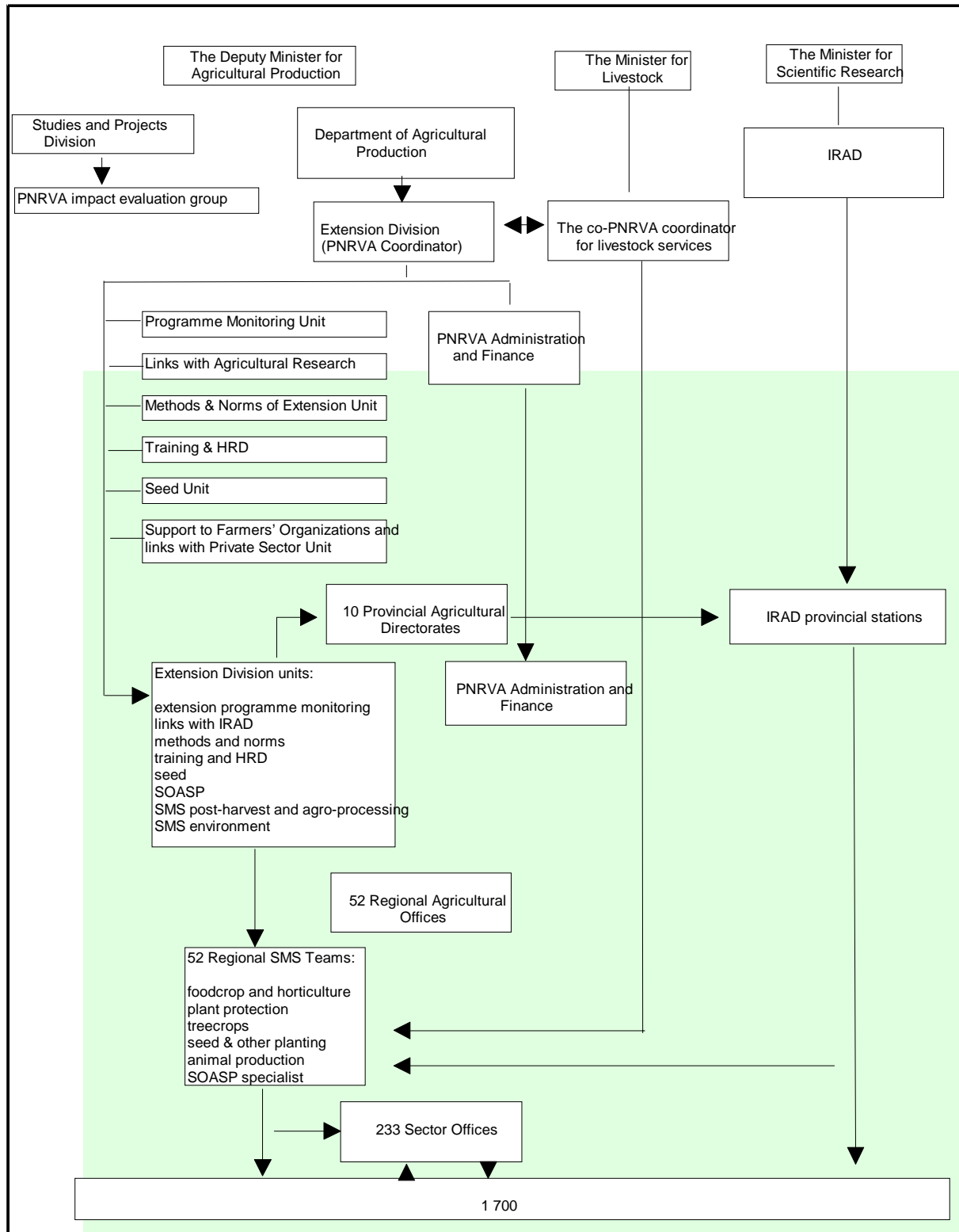


4. As a result of the above, the PNRVA will progressively address resource-**poor** and **women** food-crop producers as a matter of priority. **Women** members of the contact groups will reach 50% of the total number of participants. At the village level, the AVZs will work exclusively with smallholders, who will be the great majority of the programme beneficiaries. Large farmers and market-oriented farmer associations will work with the subject matter specialists on a two-way exchange of experience with technological innovations, although these clients will be encouraged to obtain specific farm-management advice.

5. Efforts will be directed specifically at **women** in the rural communities. A training programme in **gender** issues will be carried out involving all Ministry staff connected with extension. The number of female extension agents will be increased. Special contracts will be offered to village **women** who would act as extension officers, and would receive training as required. As many **women** as possible would be encouraged to join or make up their own contact groups for extension visits. The target during the next five years will be to increase from 35 to 50 percent the proportion of **women** members of contact groups, meeting regularly with extension staff, to reflect more closely the proportion of farmers who are **women**. Furthermore, pending the design of a new project supporting the DGR&DC, the project will finance the incremental costs of the field services of the Ministry dealing with nutrition and home economics extension.



ORGANIZATIONAL CHART





Components	Ministry of Agriculture	Ministry of Livestock, Fisheries and Animal Industries	Ministry of Scientific Research
A. Agricultural extension B. Agricultural research 1. rehabilitation of IRAD facilities, training and operating funds for IRAD 2. interface of research and extension 3. Competitive research fund C. Training and human resource development D. Support for farmer organization and private sector linkages (SOASP) E. Pilot project on participation in community initiatives F. Project impact evaluation	DAP Extension Division DAP Extension Division DAP Extension Division DAP Extension Division DAP Extension Division DEPA	field service animal production	IRAD IRAD (under contract) best bid research outfit

**ECONOMIC AND FINANCIAL ANALYSIS**

Table 1.
(USD million in 1997 terms)

	Present Value of Flows		
	Economic Analysis	Taxes	Subsidies
Benefits	69 678		
Costs	42 621	4 209	
Net Benefits	27 057		
IRR	41%		

Main Assumptions

1. The economic analysis takes account of the following variables, which influence the project's economic cost/benefit flow: (i) the number of farmers benefiting directly from extension staff advice, assumed conservatively to be 30 percent of Cameroonian farmers, will benefit from the project, (ii) incremental project benefits based on farm models for each of the main agro-ecological areas of the country, namely the North (Extrême Nord, Nord and Adamaoua provinces), the West (Nord-Ouest, Ouest and Sud-Ouest provinces) and the South and East (Centre, Littorale, and Est provinces). Full details of the calculations are presented in the technical annexes to this report. In the "without project" scenario, it is assumed that production and output will continue to grow at a rate of 5 percent per annum, as a result of the continuing effects of CFA franc devaluation and other factors. The "with project" scenario assumes that production and yields will increase by 10 percent as a result of the adoption of new technology by those farmers in direct contact with extension staff. The net increases in farm revenue are assumed to be carried forward from one year to the next. No direct benefits will accrue to farmers who are not directly contacted by extension staff; they can expect to benefit from new technical messages, as they themselves test the techniques adopted by their neighbours, however, or members of the farmer contact groups. It is assumed that the new technical messages will involve an increase of 6 percent per annum in production costs. Farm-gate prices are based on economic prices calculated from international commodity price projections taken from Commodity Prices and the Developing Countries (IBRD, May 1997), with the exception of the prices of cowpeas and tomatoes, which are based on local market prices.

2. To take account of the potential impact of increased production on the local market, "with project" farm-gate prices for commodities produced for the local market (maize, groundnuts, tomatoes, cowpeas) have been discounted by 6 percent in both the economic and the financial analysis.

3. The results of the sensitivity analysis carried out by changing one of the above variables by varying proportions are presented in the table below:

Table 2: Sensitivity Analysis

Impact on Project IERR Resulting from Changes in Key Assumptions							
% age changes in project assumptions	-30%	-20%	-10%	0	+10%	+20%	+30%
IERR on base case assumptions 1/				41%			
Change in # of farmers contacted by AVZ	8%	21%	28%	41%	48%	55%	63%
Change in production costs	74%	63%	52%	41%	29%	17%	3%
Change in local market prices		-5%	21%	41%	60%	79%	99%

1/ Base case assumptions include:

- Increases in farm production will take place at a rate of 5% pa in the “without project scenario.
- Farm-gate prices in the “with project” scenario have been discounted by 7.5% to allow for possible impact of increased volume of production on local market prices.
- “With project” improvements in production are based on a 10% increase in yields or production resulting from the adoption of improved technology.
- “With project” production costs are assumed to involve a 3% increase in production costs following adoption of improved practices.
- Extension staff will establish contact with 30% of all farmers.

4. The sensitivity analysis shows that the internal economic rate of return is: (a) moderately sensitive to a change in local market prices (it requires a 15 percent change in local market price assumptions to reduce the IERR to marginally acceptable levels); and (b) relatively insensitive to changes in production costs and in the number of farmers contacted by extension staff (it requires approximately a 25 percent increase in production costs and a reduction of more than 25 percent in the levels of farmers contacted by extension staff for the IERR to fall to marginally acceptable levels).

**Table 3: Financial Summary
(USD '000 in 1998 terms)**

	Implementation Period					Operational Period			
	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/08
Project costs									
Investment costs	9 045	6 333	7 277	6 020	6 543	6 543	6 543	6 543	6,543
Recurrent costs	3 970	4 089	4 281	4 452	4 274	4 274	4 274	4 274	4,274
Total	13 015	10 421	11 557	10 472	10 817	10 817	10 817	10 817	10,817
Financing sources (% of total project costs)									
IDA	33%	33%	33%	33%					
IFAD	16%	16%	16%	16%					
AfDF	23%	23%	23%	23%					
Government of Cameroon	28%	28%	28%	28%					
Total	100	100	100	100	100	100	100	100	100

**Table 4: Project Impact on the Ministry of Agriculture's Budget
(USD million)**

	1997/98	1998/99	1999/00	2000/01
PIP for agriculture and livestock	16.0	17.0	16.8	16.8
Recurrent budget for agriculture and livestock ^{1/}	32.8	34.5	36.2	38.0
Total public expenditure for agriculture/livestock sectors	48.8	51.5	53.0	54.8
Total project cost ^{2/}	9.6	7.5	9.9	7.8
Project cost as % of total ag. sector public expenditure	20%	14%	19%	14%
Government contribution to project costs	2.7	2.1	2.8	2.2
Government contribution as % of recurrent budget	8%	6%	8%	6%

^{1/} Mission projection beyond 1997/98

^{2/} Costs directly related to the budgets of the Ministry of Agriculture and the Ministry of Livestock, Fisheries and Animal Industries (not including IRAD direct costs)

5. The relatively low level of the government's contribution as a percentage of total public expenditure in the agricultural sector demonstrates that there is clearly enough capacity to meet the counterpart costs of the project and to ensure longer-term financial sustainability.

6. **Fiscal Impact.** The total annual project cost from all funding sources represents about 18 percent of budgeted 1997/98 public expenditure in support of the three main agricultural sector ministries (Agriculture, Livestock, Environment) and less than 1 percent of total public expenditure for that year. It is expected that the claim of agriculture on available government resources will decline over time as a result of the privatization of parastatals, leaving room for larger resource allocations to priority programmes, while debt rescheduling would ease the government's cash flow with respect to disbursement of funds in support of all programmes.

7. The projected total annual cost of the extension programme (investment and recurrent costs) represents 0.4% of total agricultural GDP (not including forestry), or 4% of the incremental agricultural GDP estimated by the national accounts forecast for the project period. Recurrent costs represent approximately USD10 per beneficiary farm family, the equivalent of about 50 kg of shelled maize.

8. Investment in improved agricultural extension and research services is a highly productive use of Cameroon's limited public resources. Incremental expenditure essentially provides the means for making effective use of staff already on the government payroll. No increase of public expenditure on salaries is envisaged, with the exception of the incremental cost of female extension staff, since all posts are either currently filled or will be filled by reassignment within the public service or will use non-government staff (NGOs, private partners, universities etc.).