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R.A.

MINISTRY OF FINANCE AND
ECONOMY, Economic Policy
Division.

Projet d'Enquêtes Agricoles
et Analyse des Politiques
Économiques du Secteur Rural
PEAPA/ASPAP
Projet RWA/AID 696-0126

TERMS OF REFERENCE FOR A STUDY ON
RECURRENT COSTS AUTO-FINANCING OF PUBLIC
INFRASTRUCTURE AND SOCIAL SERVICES
IN THE RURAL SECTOR IN RWANDA

SHORTER VERSION IN ENGLISH
(Original Version in French)

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INTRODUCTION

The relatively high volume of public investment financed by the State and local governments in Rwanda and through foreign assistance, and the correspondingly high recurrent costs of these investments have contributed to significant budget deficits in recent years. Government expenditures on social services and public infrastructure use a large proportion of the public budget and compete with other pressing demands. What is more, the growing costs of social services like education and health are likely to continue with the present high growth rate of the population and the tremendous social pressure for the expansion of these services. It is therefore very clear that in the not too distant future, the Central Government cannot finance the development or even the maintenance of the existing social services and public infrastructure.

Faced with this situation, the Central Government is seeking ways and means to reduce the costs of social services and public infrastructure and/or to recover part of them through higher user charges and by tapping other sources of finance. For example in 1984, the Government imposed austerity measures at the State level that were intended to contain the growth of expenditures and to eliminate the budget deficits.

The considerable fiscal autonomy of the communes in Rwanda suggests the communes as additional avenue to solve the problem of inadequacy of resources to finance the recurrent costs of economic and social infrastructure. This terms of reference is for a study that will seek to increase the resources available at the commune level for the financing of the recurrent costs of public infrastructure and social services under their charge. The study will focus on four sectors. These are rural roads, education, health and water supply sectors.

The study is not without precedents. In the last three years or so, a number of studies on the subject have been conducted in Rwanda with the aid of external organizations. These studies have been made notably in the health and water supply sectors. A study in the rural roads sector is presently being undertaken. However, all these studies have not been undertaken far enough so as to result in concrete or practical measures. The proposed study therefore, will seek to go beyond the earlier studies by putting more emphasis on policy implementation.

Organization of the Study

The study will be coordinated by the Economic Policy Division of the Ministry of Finance and Economic Planning (MINIFINECO). It will be executed by a team of external and local consultants and specialists with the support from the various ministries.

For each sector, a task force comprising the Ministry of Finance, the Ministry of Interior, the Technical Ministry concerned and other relevant ministries and government agencies will be formed. Thus, for the four sectors (rural roads, education, health and rural water supply) there will be four task forces.

The four sectors may be tackled simultaneously or one after the other depending on availability of resources and other factors.

The Financing of the Study

The study is being financed by USAID under the Projet d'Enquêtes Agricoles et Analyse des Politiques Économiques du Secteur Rural PEAPA/ASPAP (Projet RWA/AID 696-0126).

Implementing Consulting Firm

The PEAPA/ASPAP study is implemented by Development Alternatives Inc. (DAI) of USA.

STUDIES ALREADY UNDERTAKEN ON THE SUBJECT

A. Commune Finances

Title: Rôle des Communes dans le développement: Situation Financière des Communes et Fiscalité Locale. (The Role of the Communes in Development: Financial Situation of the Communes and Local Taxes).

Date: October, 1986.

Author: Daniel Niro, World Bank Consultant.

Responsible Organizations: Ministry of Interior and Communal Development, and World Bank.

B. Rural Roads

Title: Étude des routes communales. (Rural Roads Study).

Date: July 1987 - February 1988.

Author: Bureau National d'Étude de Projets (BUNEP).

Responsible Organization: Ministry of Public Works and Energy.

C. Education Sector

1. Title: Situation de l'Enseignement Rural et Artisanal Intégré Après Trois Ans d'Existence. (Situation of Integrated Rural and Artisan Education After Three Years of Existence).

Date: March 1985.

Author: Ministry of Primary and Secondary Education. (MINEPRISEC).

Responsible Organization: MINEPRISEC.

2. Title: Inventaire des Manuels Distribués aux Écoles Primaires et CERAI.

Date: November 1986.

Author: MINEPRISEC.

3. Title: Enquête sur la Gestion des Écoles Primaires (Survey on Management of Primary Schools).
- Date: Being prepared.
- Author: MINEPRISEC (Direction générale des études et recherches pédagogiques).

D. Health Sector

1. Title: Comment Améliorer l'Autofinancement des Formations Médicales Agréées du Rwanda (FMA) Rapport préliminaire. (How to Improve the Auto-financing Capacity of Government Approved Medical Institutions in Rwanda (Preliminary Report)).
- Date: July 1987.
- Authors: CIDR, R. Hornikx/Bufmar and Jean Bitega.
- Responsible Organizations: Bureau des Formations Médicales Agréées, Rwanda.
2. Title: L'Autofinancement des Soins de Santé dans les Centres de Santé Gouvernementaux du Rwanda. (Auto-financing of Health Care in the Government Health Centres in Rwanda.)
- Date: January 23, 1987.
- Authors: Donald S. Shepard; Harvard Institute for International Development (HIID); Gury Carvin, HIID et Prosper Nyandagazi, MINISAPASO.
- Responsible Organization: The report was prepared for Resources for Child Health Project by Harvard Institute for International Development.
3. Title: Étude sur le Financement et les Dépenses de Santé, Rwanda. (A Study on Health Financing and Expenditures, Rwanda).
- Date: December, 1986.
- Authors: Dr. Edward P. Maen and Proper Nyandagazi.
- Responsible Organizations: Ministry of Public Health and Social Affairs (MINISAPASO) with the collaboration of World Health Organization.

E. Water Supply Sector

Title: Étude Institutionnelle de la Gestion des Adduction d'Eau en Milieu Rural - Rapport final. (Institutional Study of the Management of Water Supply in Rural Areas - Final Report).

Dates: Two studies: December, 1985; February 1987.

Author: Le Bureau d'Études BCEOM - SAUR Afrique.

Responsible

Organizations: Ministry of Public Works and Energy, and Electrogaz.

THE TERMS OF REFERENCE OF THE STUDY

The Three Phases of the Study

The study will be divided in three Phases:

Phase I

A. Under Phase I, the study will include:

- 1) Identification of the level and structure of recurrent costs in the different sectors at the commune level;
- 2) Identification of the level and structure of the resources currently available.

These will permit the study team to estimate the resource gap and hence the additional resources which must be sought.

B. Also under Phase I, the study team will explore ways and means to obtain the additional resources. These will include:

- 1) Efficient utilization of existing resources;
- 2) Augmentation of the resources (for example, by increasing tariffs and the creation of new tax bases);
- 3) Augmentation of external aid with such aid made available for the financing of recurrent costs of economic and social infrastructure.

Phase II

Under Phase II, analytical studies which will assist in better designing mechanisms for increasing the financial resources will be undertaken. These will include measures of elasticities, surveys, etc.

Phase III

A. Phase III will include preparation of studies and programs which will facilitate the attraction of external aid for the financing of recurrent costs of economic and social infrastructure.

B. Also under Phase III, a team that will implement the program will be put in place.

The principal tasks of the team will be:

- 1) To sensitize the population with regard to the auto-financing program;
- 2) To organize seminars/workshops for Bourgmestres and other Commune leaders;

- 3) To monitor and evaluate the program;
- 4) To undertake studies that will facilitate tariffs, taxes, etc. to be revised.

Details of the Contents of the Three Phases

Below are the details of the tasks and issues to be addressed under the three phases:

Phase I

The tasks to be addressed in Phase I include:

- ° Identification/analysis of structural problems of current expenditure programs at the commune level;
- ° Identification/analysis of structural problems in resource mobilization and the designing of policies to enable the communes to be more auto-financing in providing social services and in maintaining rural infrastructure;
- ° Identification/analysis of institutional constraints to enable the communes achieve greater efficiency and to improve their budget planning and programming.

With regard to identification/analysis of structural problems in current expenditure programs and resource mobilization, the issues to be addressed include but are not limited to:

- ° The varied tax bases or revenue sources of the communes and the considerable differences as one moves from one commune to another;
- ° The wide range of tasks that the communes are required to undertake and limited resources of the communes that do not permit them to undertake the tasks well;
- ° The growing recurrent costs;
- ° Inefficiencies in the delivery of public services;
- ° Insufficient attention to maintenance and operation of existing facilities;
- ° The low rates and the declining real yield of some important taxes as well as the insufficient application of user charges;
- ° Inappropriate matching of expenditures and development needs;
- ° The growing levels of deficits in some communes, and of subsidies and transfers; and
- ° The impact of deficiencies/inefficiencies in the Central Government System on its ability to assist the communes.

Concerning identification/analysis of institutional constraints, the issues to be addressed include but are not limited to:

- ° The inadequacy of the administration and planning capabilities of the various Conseils Communaux;
- ° The inadequacy of the administration and planning capacities of the FDC; and
- ° The training and technical assistance needs of the communes and the FDC.

To undertake tasks (a) and (b), the team will review existing studies/reports undertaken in Rwanda on the subject of financing of recurrent costs of social infrastructure. Thereafter, additional studies will be undertaken so as to be able to:

- 1) Describe in detail and analyze the recurrent cost level, structure and financing in Rwanda at the rural commune level of public infrastructure and social services in the following sectors: education, health, rural roads and water supply;
- 2) Make medium term projections as to the recurrent costs of the communes for the various sectors and resources that will be available under present conditions;
- 3) From (1) and (2), resource gaps and weaknesses (principally financial but also institutional and technical) in the existing system will be identified.

Then, the team will:

- Examine possible ways and means to increase resources at the commune level to finance the recurrent costs of the public services. These will include:
 - ° Increased use of user fees for services provided;
 - ° Creation of new taxes and adjustment of tax rates;
 - ° Possible increase in external donor financing of recurrent costs and/or Central Government assistance.
- Undertake a brief study on the administrative and planning capacity of the Fond de Développement Communal (FDC) and the Conseils Communaux to determine how they can better assist in increasing their efficiencies and the resources available to the rural communes to address their recurrent cost problem.
- Examine possible ways and means the Central Government, in general, and the technical ministries can better assist the communes in addressing their recurrent costs problems.

In undertaking the above tasks, particular attention will be paid:

1) At the level of the communes to:

- ° The financial situations of individual communes;
- ° Budgetary measures and procedures;
- ° Measures for mobilizing resources locally (taxes, contributions, autonomous initiatives, local resources, etc.);
- ° The planning mechanisms for the operation, maintenance and development of infrastructure;
- ° Methods of execution of the operation, maintenance and development of infrastructure;
- ° Training and resource needs;
- ° The roles of the bourgemesters;
- ° The availability of local labour, etc.;
- ° The planning needs of the communes if they are better to address their recurrent cost problems.

ii) At the level of FDC, particular attention will be given to:

- ° The global role of the FDC and the role played by the FDC in relation to rural communes in particular;
- ° Procedures applied by the FDC in aiding the communes;
- ° The planning needs of FDC in order to specifically address the recurrent cost problems of the rural communes.

iii) At the level of the Ministries and the Central Government, the team will examine:

- ° The nature and level of exterior aid;
- ° The inhibition of external donors in financing recurrent costs of infrastructure; and the ways and means to overcome that;
- ° The nature and level of support provided by the Central Government to the Communes in the task of addressing their recurrent cost problems and ways and means to improve that.

Concerning external aid, the tasks to be addressed include:

- Analysis of the difficulties confronted by the developing countries in their search for aid for the maintenance of economic and social infrastructure;
- Analysis of the policies of the major donors in Rwanda with regard to the financing of recurrent costs of economic and social infrastructure.

On the basis of the above, the team will propose ways and means to overcome the difficulties in the search for external finance for the maintenance of economic and social infrastructure.

Phase II

Phase II will involve the undertaking of analytical studies in selected number of communes based on resources available for the study. The studies will include estimation of elasticities, assessment of potential impacts of policy recommendations on economic incentives, etc. These will enable specific tax rates, user charges, etc to be set and socially acceptable and economically efficient policy reforms to be recommended.

This phase III also involve discussions within the Central Government and within the Communes as to the suitability of ways and means recommended in Phase I to make the rural communes to be more auto-financing in the operation of social services and maintenance of rural infrastructure. Also during this phase, concrete policies will be adopted by the Government and the necessary legislations will be passed.

The recurrent budget needs and methods for meeting them at the commune level must be analyzed using economic principles. These will include:

- The nature of demand for public services and the ability and willingness to pay. Particular attention must be given to the level of resources, elasticity of demand for services;
- The economic efficiency of service provision;
- The impact on incentives within economic activities (e.g. the growing of one crop versus another);
- Vertical and horizontal equity in taxes and other methods of raising resources. This will include the impact of the tax system on various social groups (i.e. degree of progressiveness);
- The social and political feasibility of alternative revenue generating mechanisms.

Phase III

During the third phase, pre-feasibility studies for projects to rehabilitate public and social infrastructure will be conducted. Also to be prepared during this phase will be structural (or sectoral) adjustment programs. These would enable the communes to attract external assistance for the maintenance of economic and social infrastructure.

Another major task to be undertaken during this phase will be to establish a team for the implementation of the auto-financing program. The principal tasks of this team will include:

- Monitoring the auto-financing program;
- Sensitizing the population on the need for auto-financing;

- Holding workshops and seminars on auto-financing for bourgmesters and other commune leaders. The workshops would be occasions for the commune leaders to work on strategies for their respective communes;
- Undertaking studies which will assist the communes to revise user charges etc. over time; and
- Evaluating the auto-financing study.

INDIVIDUAL TERMS OF REFERENCES

Specific terms of references for individual consultants are presented in Chapter six. These terms of reference are made specific to the sector concerned and the specializations required. They include terms of references for:

- 1) The team leader;
- 2) Transport economist;
- 3) Education economist;
- 4) Health economist;
- 5) Public health specialist;
- 6) Building maintenance specialist;
- 7) Water sector economist; and
- 8) Water engineer.

During Phase III, a Auto-financing Policy Implementation Group will be established at MINIFINECO or in another government agency to administer the program. Because different sectors have advanced to different stages in implementing auto-financing policies, some sectors will start Phase III before others. For example, the water sector study will start right at Phase III while the health sector study will begin at Phase II.

FOUR OPTIONS FOR THE SCOPE OF THE STUDY AND THEIR BUDGETS

In Chapter VII, four options for the scope of the study together with budgets are presented. Option I is for the case with high level of resources. Under this option, all four sectors will be studied and all three phases would be covered in depth. Certain foreign consultant positions will be supported by local counterparts in order to give Rwandans opportunities to gain experience from the study.

Option II is for the case with medium level of resources. Under this option, all the four sectors will be studied but the scope of Phase III will be reduced.

Option III is for the case with low level of resources. Under this option, only one sector will be studied.

The four options and their manpower, financial and other resources required are discussed below.

The Public Finance Team

The technical aspects of the study who do not fall within the domain of specific sectors will be implemented by a team led by a public finance specialist. This group will be concerned with issues such as the overall level of revenues from taxes, and public expenditures. The composition of the team and their origin are discussed below.

Phase I

	MAN-MONTHS	ORIGIN FOREIGN/NATIONAL
1 Team Leader	3	Foreign
1 Econometrician	3	Foreign
1 Econometrician	3	National
1 Specialist in Social and Political Science	3	National
1 Computer Programmer	3	National
TOTAL	15	
	of which 6 are foreign, 9 are national	

Phase II

	MAN-MONTHS	ORIGIN FOREIGN/NATIONAL
1 Team Leader	3	Foreign
1 Econometrician	3	Foreign
1 Econometrician	3	National
2 Specialists in Social and Political Science	6	National
1 Computer Programmer	3	National
TOTAL	18	
	of which 6 are foreign, 12 are national	

Phase III

The Auto-financing Policy Implementation Group will comprise of a permanent team of four local specialists. They will be supported by specialists from the technical ministries and a number of short term and/or long term consultants. Details of the man-power requirements are presented below:

PERSONNEL	POST	MAN-MONTHS	MINISTRY IN CHARGE
<u>Nationals-Permanent</u>			
1 Coordinator	Permanent	24	MINIFINECO
1 Econometrician	Permanent	24	MINIFINECO
1 Specialist in Social and Political Science	Permanent	24	MINIFINECO
1 Computer Programmer	Permanent	24	MINIFINECO
<u>Others Nationals</u>			
1 Lawyer	As and when needed	-	MINIJUST
1 Road Engineer	As and when needed	-	MINITRAPE
1 Economist	As and when needed	-	MINITRAPE
1 Water Engineer	As and when needed	-	MINITRAPE
1 Water Supply Economist	As and when needed	-	MINITRAPE
1 Health Economist	As and when needed	-	MINISAPASO
1 Public Health Specialist	As and when needed	-	MINISAPASO
1 Education Specialist	As and when needed	-	MINIPRISEC
1 Education Economist	As and when needed	-	MINIPRISEC
4 Survey Specialists	As and when needed	2 every six months for 2 years	
SUB-TOTAL		32	

Foreigners

	MAN-MONTHS	MINISTRY IN CHARGE
<u>Long-Term</u>		
1 Economist/Administrator	24	MINIFINECO
<u>Short-Term</u>		
1 Road Economist	1 every six months for 2 years	MINITRAPE
1 Water Economist	1 every six months for 2 years	MINITRAPE
1 Health Economist	1 every six months for 2 years	MINISAPASO
1 Education Economist	1 every six months for 2 years	MINIPRISEC
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SUB-TOTAL	40	
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GRAND-TOTAL	168	
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Rural Roads

BUNEP is presently undertaking a rural roads maintenance study as part of the Sixth Road Project financed by the World Bank and other donors. The study focuses on four communes only and will serve as a pilot study which can be used to develop a general strategy to address the maintenance problem of rural roads in the country. If this BUNEP study is taken as a starting point for the rural roads component of the proposed auto-financing study, and if much of the detailed engineering studies are restricted to the four communes covered by the BUNEP study, no roads engineer will be needed. The BUNEP study in the way it is presented does not appear to put much accent on the financing aspect. An outside transport economist, therefore, will be needed for about three months principally to do a more intensive study on the self-financing aspects of the roads study.

Phase I

The manpower requirements for the rural roads component under Phase I are as follows:

	MAN-MONTHS	SOURCE
1 Transport Economist	3	Foreign
1 Transport Economist	3	Local
TOTAL	6	
	of which 3 are foreign, 3 are local	

Phase II

During Phase II, some of the local experts used in the BUNEP study will be needed to undertake a limited number of studies, mainly in helping to conduct discussions within the Central Government and within the Communes as to the suitability of policy reforms conducted under Phase I and in assisting the Communes and the Central Government to adopt policies and pass legislations. The manpower requirements and their sources are as follows:

	MAN-MONTHS	SOURCE
Laywer	3	Local
Social/Political Scientist	3	Local
Transport Economist	3	Local
TOTAL	9	
	of which <u>nil</u> is foreign, 9 are local	

Phase III

The manpower requirements needed for the rural roads sector under Phase III will depend on the number and size of projects which will be prepared. With the limited resources for the study in mind, the suggested man-months and their sources are as follows:

	MAN-MONTHS	SOURCE
1 Road Engineer	3	Foreign
2 Road Engineers	6	Local
1 Road Economist	3	Foreign
2 Road Economists	6	Local
1 Computer Programmer	3	Local
TOTAL	21	
	of which 6 are foreign, 15 are local	

Phase III

The manpower requirements needed for the rural roads sector under Phase III will depend on the number and size of projects which will be prepared. With the limited resources for the study in mind, the suggested man-months and their sources are as follows:

	MAN-MONTHS	SOURCE
1 Road Engineer	3	Foreign
2 Road Engineers	6	Local
1 Road Economist	3	Foreign
2 Road Economists	6	Local
1 Computer Programmer	3	Local
TOTAL	21 of which 6 are foreign, 15 are local	

Education Sector

The number of existing studies on auto-financing of recurrent costs of education at the commune level is virtually nil. Neither have a comprehensive surveys on primary and secondary education been undertaken in the past decade or so. The following manpower and their sources are therefore recommended for the education sector.

Phase I

	MAN-MONTHS	SOURCE
1 Education Economist	3	Foreign
1 Education Economist	3	Local
1 Building Maintenance Specialist/ Construction Specialist	3	Local
TOTAL	9 of which 3 are foreign, 6 are local	

Phase II

	MAN-MONTHS	SOURCE
1 Education Economist	3	Foreign
2 Social/Political Scientists	6	Local
4 Survey Specialists	12	Local
1 Computer Programmer	3	Local
TOTAL	24 of which 3 are foreign, 21 are local	

Phase III

	MAN-MONTHS	SOURCE
1 Education Economist	3	Foreign
2 Education Economists	6	Local
1 Building Maintenance Specialist	3	Local
2 Educationists	6	Local
1 Computer Programmer	3	Local
TOTAL	21 of which 3 are foreign, 18 are local	

Health Sector

A number of studies on the financing of recurrent costs in the health sector in Rwanda exist. See above. To make significant contribution to on-going efforts at MINISAPASO, the health sector component of the proposed study will have to move to Phase III activities as quickly as possible. It is therefore proposed that after Phase I, the health sector component of the study will move on directly to Phase III.

Phase I

During Phase I, data on the level and structure of recurrent costs and resources available for financing them will be gathered and computerized. Projections of the above data for two years will be made. The data will also be analyzed in order to detect inefficiencies.

Also during Phase I, the study will focus on getting the Government and Communes to adopt concrete policies, pass the necessary legislations, etc. The manpower available for Phase I and their sources are as follows:

	MAN-MONTHS	SOURCE
1 Health Economist	3	Foreign
1 Health Economist	6	Local
1 Public Health Specialist	6	Local
1 Lawyer with specialization in health matters	3	Local
2 Social/Political Scientists	6	Local
1 Computer Programmer	3	Local
TOTAL	27	
	of which 3 are foreign,	
	24 are local	

Phase III

The manpower requirements for the health sector under Phase III will depend on the number and size of project/sector adjustment programs to be prepared. With the limited resources for the study in mind, the suggested man-months and their sources are as follows.

	MAN-MONTHS	SOURCE
1 Health Economist	3	Foreign
2 Health Economists	6	Local
1 Building Maintenance Specialist	3	Local
1 Public Health Specialist	6	Local
1 Computer Programmer	3	Local
TOTAL	21	
	of which 3 are foreign,	
	18 are local	

Rural Water Sector

Much work has been accomplished on auto-financing of recurrent costs in the water supply sector. Apart from documentation of recurrent costs of water supply by Communes, and studies on their financing and medium term projections, no additional Phases I and II type economic and engineering studies are recommended. The rural water sector aspect of the study will move straight to Phase III and concentrate on policy implementation, seminars for Commune administration, sensitization of the population on the need for auto-financing, studies that would facilitate the gradual revision of rates, user charges, etc., with the ultimate goal of achieving greater auto-financing capacity. The manpower required for these Phase I activities are included under that for the Auto-financing Policy Implication Group.

Phase III

In addition to the above activities, project appraisals and/or rural water sector adjustment programs will be prepared to help attract foreign assistance. The manpower requirements for these activities will depend on the number and size of projects/ sector adjustment programs to be prepared. With the limited resources for the study in mind, the suggested man-months and their sources are as follows:

	MAN-MONTHS	SOURCE
1 Water Economist	3	Foreign
1 Water Economist	3	Local
1 Water Engineer	3	Foreign
1 Water Engineer	3	Local
1 Computer Programmer	3	Local
TOTAL	15	
	cf which 6 are foreign,	
	9 are local	

Summary

The summary of manpower requirements for Option 1 are presented below:

Summary of Manpower Requirements for Option 1

	TOTAL	FOREIGN CONSULTANTS	LOCAL EXPERTS AND TECHNICIANS	
			Experts	Technicians
<u>Public Finance Group</u>				
Phase I	15	6	6	3
Phase II	18	6	9	3
Phase III (Implementation Group)	168	40	72	56
SUB-TOTAL	201	52	87	62
<u>Rural Roads Sector</u>				
Phase I	6	3	3	-
Phase II	9	-	9	-
Phase III	21	6	12	3
SUB-TOTAL	36	9	24	3
<u>Education Sector</u>				
Phase I	9	3	6	-
Phase II	24	3	6	15
Phase III	21	3	15	3
SUB-TOTAL	54	9	27	18
<u>Health Sector</u>				
Phase I	27	3	12	3
Phase II	-	-	-	-
Phase III	21	3	15	3
SUB-TOTAL	48	6	27	6
<u>Water Supply Sector</u>				
Phase I	-	-	-	-
Phase II	-	-	-	-
Phase III	15	6	6	3
SUB-TOTAL	15	6	6	3
GRAND TOTAL	354	82	171	92

Summary of Labor Costs for Option 1

	TOTAL	FOREIGN CONSULTANTS	LOCAL EXPERTS/TECHNICIANS	
			EXPERTS	TECHNICIANS
	(Dollars US)			
<u>Public Finance Group</u>				
Phase I	76,500	60,000	12,000	4,500
Phase II	82,500	60,000	18,000	4,500
Phase III	628,000	400,000	144,000	84,000
SUB-TOTAL	787,000	520,000	174,000	93,000
<u>Rural Roads</u>				
Phase I	36,000	30,000	6,000	-
Phase II	18,000	-	18,000	-
Phase III	88,500	60,000	24,000	4,500
SUB-TOTAL	142,500	90,000	48,000	4,500
<u>Education</u>				
Phase I	42,000	30,000	12,000	-
Phase II	64,500	30,000	12,000	22,500
Phase III	64,500	30,000	30,000	4,500
SUB-TOTAL	171,000	90,000	54,000	27,000
<u>Health</u>				
Phase I	58,500	30,000	24,000	4,500
Phase II	-	-	-	-
Phase III	64,500	30,000	30,000	4,500
SUB-TOTAL	123,000	60,000	54,000	9,000
<u>Water Supply</u>				
Phase I	-	-	-	-
Phase II	-	-	-	-
Phase III	76,500	60,000	12,000	4,500
SUB-TOTAL	76,500	60,000	12,000	4,500
GRAND TOTAL	1,300,000	820,000	342,000	138,000

Other Costs

	<u>AMOUNT IN US\$</u>
Vehicles	120,000
Personal Computers and Other Equipment	60,000
Seminars/Workshops	140,000
Sensitization of the Population	100,000
Other Costs	30,000
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SUB-TOTAL	450,000
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Total: Labor and Other Costs	1,750,000
Contingencies (10%)	175,000
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GRAND TOTAL (US \$)	1,925,000
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In the case where foreign experts for the Public Finance Group under Phase III will be short-term consultants, the total cost of the study will be US \$1,705,000.

OPTION 2

SCOPE OF STUDY WITH MEDIUM LEVEL OF RESOURCES

The scope of the proposed auto-financing study can be reduced by eliminating the project feasibility studies. Such feasibility studies can be financed outside the scope of the proposed auto-financing study. This will reduce the resources required for the auto-financing study. The study can still be used to attract external finance to help achieve auto-financing through the structural (or sector) adjustment programs. As donors are willing to fund programs which will put in place fiscal/macro-economic policies that lead to better economic management of a country.

Under Option 2, the man-months for each sector for the first two phases will remain the same as under Option 1. The man-months for the Public Finance Group will remain the same as for Option 1 except that there will be no long term experts.

Summary of Manpower Requirements for Option 2

	TOTAL	FOREIGN CONSULTANTS	LOCAL EXPERTS AND TECHNICIANS	
			Experts	Technicians
<u>Public Finance Group</u>				
Phase I	15	6	6	3
Phase II	18	6	9	3
Phase III (Implementation Group)	148	20	72	56
SUB-TOTAL	181	32	87	62
<u>Rural Roads Sector</u>				
Phase I	6	3	3	-
Phase II	9	-	9	-
Phase III	4	2	2	-
SUB-TOTAL	19	5	14	-
<u>Education Sector</u>				
Phase I	9	3	6	-
Phase II	24	3	6	15
Phase III	4	2	2	-
SUB-TOTAL	37	8	14	15
<u>Health Sector</u>				
Phase I	-	-	-	-
Phase II	18	3	12	3
Phase III	4	2	2	-
SUB-TOTAL	22	5	14	3
<u>Water Supply Sector</u>				
Phase I	-	-	-	-
Phase II	-	-	-	-
Phase III	4	2	2	-
SUB-TOTAL	4	2	2	-
GRAND TOTAL	263	52	131	80

Summary of Labor Costs for Option 2

	TOTAL	FOREIGN CONSULTANTS	LOCAL	
			EXPERTS/TECHNICIANS	EXPERTS TECHNICIANS
(Dollars US)				
<u>Public Finance Group</u>				
Phase I	76,500	60,000	12,000	4,500
Phase II	82,500	60,000	18,000	4,500
Phase III	423,000	200,000	144,000	84,000
SUB-TOTAL	587,000	320,000	174,000	93,000
<u>Rural Roads</u>				
Phase I	36,000	30,000	6,000	-
Phase II	18,000	-	18,000	-
Phase III	24,000	20,000	4,000	-
SUB-TOTAL	78,000	50,000	28,000	-
<u>Education</u>				
Phase I	42,000	30,000	12,000	-
Phase II	64,500	30,000	12,000	22,500
Phase III	24,000	20,000	4,000	-
SUB-TOTAL	130,500	80,000	28,000	22,500
<u>Health</u>				
Phase I	58,500	30,000	24,000	4,500
Phase II	-	-	-	-
Phase III	44,000	40,000	4,000	-
SUB-TOTAL	102,500	70,000	28,000	4,500
<u>Water Supply</u>				
Phase I	-	-	-	-
Phase II	-	-	-	-
Phase III	76,500	20,000	4,000	-
SUB-TOTAL	76,500	20,000	4,000	-
GRAND TOTAL	974,500	540,000	262,000	120,000

Other Costs

	<u>AMOUNT IN US\$</u>
Vehicles	120,000
Personal Computers and Other Equipment	60,000
Seminars/Workshops	140,000
Sensitization of the Population	100,000
Other Costs	30,000
<hr/>	
SUB-TOTAL	450,000
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Total: Labor and Other Costs	1,372,000
Contingencies (10%)	137,000
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GRAND TOTAL (US \$)	1,509,000
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OPTION 3

SCOPE OF STUDY WITH LOW LEVEL OF RESOURCES

A much reduced scope for the auto-financing study will involve concentration on one or two sectors. The manpower requirement will depend on the sector chosen. These are as follows:

Summary of Manpower Requirements for Option 2

Sector Chosen Together with Public Finance Group

	TOTAL	FOREIGN CONSULTANTS	LOCAL EXPERTS AND TECHNICIANS	
			Experts	Technicians
<u>Rural Roads</u>				
Public Finance Group	33	12	15	6
Group Implementing Program	148	20	72	56
Sector Specialists ¹	19	5	14	-
TOTAL	200	37	101	62
<u>Education Sector</u>				
Public Finance Group	33	12	15	6
Group Implementing Program	148	20	72	56
Sector Specialists ¹	37	8	14	15
TOTAL	218	40	101	77
<u>Health Sector</u>				
Public Finance Group	33	12	15	6
Group Implementing Program	148	20	72	56
Sector Specialists ¹	22	5	14	3
TOTAL	203	37	101	65
<u>Water Supply Sector</u>				
Public Finance Group	33	12	15	6
Group Implementing Program	92	20	72	56
Sector Specialists ¹	4	2	2	-
TOTAL	129	34	89	62

¹ Using Labor of Option II.

Summary of Labor Costs for Option 3

Rural Roads and Public Finance

	TOTAL	FOREIGN CONSULTANTS	LOCAL	
			EXPERTS/TECHNICIANS	EXPERTS TECHNICIANS
(Dollars US)				
Public Finance Group	159,000	120,000	30,000	9,000
Group Implementing Program	428,000	200,000	144,000	84,000
Sector Specialists	78,000	50,000	28,000	-
SUB-TOTAL	665,000	370,000	202,000	93,000

Other Costs

	<u>AMOUNT IN US\$</u>
Vehicles	20,000
Personal Computers and Other Equipment	10,000
Seminars/Workshops	100,000
Sensitization of the Population	60,000
Other Costs	5,000
SUB-TOTAL	195,000
Total: Labor and Other Costs	860,000
Contingencies (10%)	86,000
GRAND TOTAL (US \$)	946,000

Summary of Labor Costs for Option 3

Education and Public Finance

	TOTAL	FOREIGN CONSULTANTS	LOCAL	
			EXPERTS/TECHNICIANS	EXPERTS TECHNICIANS
(Dollars US)				
Public Finance Group	159,000	120,000	30,000	9,000
Group Implementing Program	428,000	200,000	144,000	84,000
Sector Specialists	130,500	80,000	28,000	22,500
SUB-TOTAL	717,500	400,000	202,000	115,500

Other Costs

	<u>AMOUNT IN US\$</u>
Vehicles	20,000
Personal Computers and Other Equipment	10,000
Seminars/Workshops	100,000
Sensitization of the Population	60,000
Other Costs	5,000
SUB-TOTAL	195,000
Total: Labor and Other Costs	912,500
Contingencies (10%)	91,250
GRAND TOTAL (US \$)	1,003,750

Summary of Labor Costs for Option 3

Health and Public Finance

	TOTAL	FOREIGN CONSULTANTS	LOCAL	
			EXPERTS/TECHNICIANS	EXPERTS TECHNICIANS
(Dollars US)				
Public Finance Group	159,000	120,000	30,000	9,000
Group Implementing Program	428,000	200,000	144,000	84,000
Sector Specialists	82,500	50,000	28,000	4,500
SUB-TOTAL	669,500	370,000	202,000	97,500

Other Costs

	<u>AMOUNT IN US\$</u>
Vehicles	20,000
Personal Computers and Other Equipment	10,000
Seminars/Workshops	100,000
Sensitization of the Population	60,000
Other Costs	5,000
SUB-TOTAL	195,000
Total: Labor and Other Costs	864,500
Contingencies (10%)	86,450
GRAND TOTAL (US \$)	950,950

Summary of Labor Costs for Option 3

Water Supply and Public Finance

	TOTAL	FOREIGN CONSULTANTS	LOCAL	
			EXPERTS/TECHNICIANS	EXPERTS TECHNICIANS
(Dollars US)				
Public Finance Group	159,000	120,000	30,000	9,000
Group Implementing Program	428,000	200,000	144,000	84,000
Sector Specialists	24,000	20,000	4,000	-
SUB-TOTAL	611,000	340,000	178,000	93,000

Other Costs

	<u>AMOUNT IN US\$</u>
Vehicles	20,000
Personal Computers and Other Equipment	10,000
Seminars/Workshops	100,000
Sensitization of the Population	60,000
Other Costs	5,000
SUB-TOTAL	195,000
Total: Labor and Other Costs	806,000
Contingencies (10%)	80,600
GRAND TOTAL (US \$)	886,600

OPTION 4

STUDY USING LOCAL EXPERTS WORKING UNDER SUPERVISION OF A FOREIGN EXPERT

Summary of Manpower Requirements for Option 4

	TOTAL	FOREIGN CONSULTANT	LOCAL EXPERTS AND TECHNICIANS	
			Experts	Technicians
<u>Public Finance Group</u>				
Phase I	12	3	6	3
Phase II	15	3	9	3
Phase III	152	24	72	56
SUB-TOTAL	179	30	87	62
<u>Rural Roads Sector</u>				
Phase I	3	-	3	-
Phase II	9	-	9	-
Phase III	15	-	12	3
SUB-TOTAL	27	-	24	3
<u>Education Sector</u>				
Phase I	6	-	6	-
Phase II	21	-	6	15
Phase III	18	-	15	3
SUB-TOTAL	45	-	27	18
<u>Health Sector</u>				
Phase I	18	-	15	3
Phase II	-	-	-	-
Phase III	18	-	15	3
SUB-TOTAL	36	-	30	6
<u>Water Supply Sector</u>				
Phase I	-	-	-	-
Phase II	-	-	-	-
Phase III	9	-	6	3
SUB-TOTAL	9	-	6	3
GRAND TOTAL	296	30	174	92

Summary of Labor Costs for Option 4

	TOTAL	FOREIGN CONSULTANT	LOCAL	
			EXPERTS/TECHNICIANS	EXPERTS TECHNICIANS
(Dollars US)				
<u>Public Finance Group</u>				
Phase I	46,500	30,000	12,000	4,500
Phase II	52,500	30,000	18,000	4,500
Phase III	468,000	240,000	144,000	84,000
SUB-TOTAL	567,000	300,000	174,000	93,000
<u>Rural Roads</u>				
Phase I	6,000	-	6,000	-
Phase II	18,000	-	18,000	-
Phase III	28,500	-	24,000	4,500
SUB-TOTAL	52,500	-	48,000	4,500
<u>Education</u>				
Phase I	12,000	-	12,000	-
Phase II	34,500	-	12,000	22,500
Phase III	34,500	-	30,000	4,500
SUB-TOTAL	81,000	-	54,000	27,000
<u>Health</u>				
Phase I	34,500	-	30,000	4,500
Phase II	-	-	-	-
Phase III	34,500	-	30,000	4,500
SUB-TOTAL	69,000	-	60,000	9,000
<u>Water Supply</u>				
Phase I	-	-	-	-
Phase II	-	-	-	-
Phase III	16,500	-	12,000	4,500
SUB-TOTAL	16,500	-	12,000	4,500
GRAND TOTAL	786,000	300,000	348,000	138,000

In the case where the foreign expert would be on short term basis, the total cost of the study will be \$1,359,600.

Summary of Budgets for the Different Options

OPTIONS	TOTAL COST	FOREIGN EXPERTS COST COMPONENT
1	1.93	0.82
2	1.51	0.54
3 Public Finance and:		
- Rural Roads	0.95	0.37
- Education	1.00	0.40
- Health	0.95	0.37
- Water	0.89	0.34
4	1.36	0.30

ASSUMPTIONS

1. Labour

Labour is costed as follows:

Foreign Experts: US \$10,000/Man-Months;
Local Experts: US \$ 2,000/Man-Months;
Local Technicians: US \$ 1,500/Man-Months.

2. Vehicles

One vehicle is recommended for each sector. The Public Finance Group and the Program Implementation Team will also use one vehicle. A vehicle will cost US \$20,000 to purchase and operate.

3. Computers and Other Facilities

Each sector will need a personal computer. The Public Finance Group and the Program Implementation Team will also need one. A personal computer is estimated to cost US \$10,000 to purchase and operate.

4. Other Costs

Translation cost for each team is set at US \$5,000.

5. Contingencies

Contingencies are set at 10 percent.

6. Seminars/Workshops

It is projected that 3-day seminars/workshops for a total of 200 commune leaders will be provided each year over the 2-year period. Each participant will cost US \$50/day.

The experts who will give the seminars will cost US \$80,000.

For two years, the total cost is US \$140,000.

If only one sector is chosen, the cost is estimated at US \$100,000.

7. Sensitization of Population

The budget is set at US \$100,000.

If only one sector is chosen, the cost will be about US \$60,000.

SCHEDULE
(MONTHS)

	1	2	3	4	5	6	7	8	9	10	11	12	13
PUBLIC FINANCE													
Phase 1	-----												
Phase 2					-----								
Phase 3									-----				
° Program Implementation									-----				
° Feasibility Studies									-----				
EDUCATION													
Phase 1	-----												
Phase 2					-----								
Phase 3									-----				
° Program Implementation									-----				
° Feasibility Studies									-----				
RURAL ROADS													
Phase 1		-----											
Phase 2						-----							
Phase 3									-----				
° Program Implementation									-----				
° Feasibility Studies									-----				
HEALTH													
Phase 1	-----												
Phase 2													
Phase 3									-----				
° Program Implementation									-----				
° Feasibility Studies									-----				
WATER													
Phase 1													
Phase 2													
Phase 3									-----				
° Program Implementation									-----				
° Feasibility Studies									-----				