

**AGENCY FOR
INTERNATIONAL
DEVELOPMENT**



**ANNUAL BUDGET SUBMISSION
FY 1979**

USAID BURUNDI

BEST AVAILABLE

**DEPARTMENT
OF
STATE**

JULY 1977



FISCAL YEAR 1979

ANNUAL BUDGET SUBMISSION

BURUNDI

June 1977

FY 1979 ANNUAL BUDGET SUBMISSION

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2.

COUNTRY: BURUNDI

A. NARRATIVE SUMMARY

1. Background

Burundi is among the poorest-of-the-poor, a land locked country with an exceptionally high growth rate and one of the densest populations in Africa. Conditions within this agriculture-based economy featured by diminishing soil fertility and increasing soil erosion, coupled with malnutrition, a high incidence of endemic and systemic diseases, and a critical shortage of natural and managerial resources, clearly have a dimming effect upon the quality of life for the average Burundian. Additionally, ethnic strife, exacerbated by a history of bloodshed (last occurrence in 1972-1973) has undermined, until most recently, any cohesive nationally based development movement.

In November of 1976, through a bloodless coup d'état, a new, youthful action-oriented government came to power. The government clearly stated as its first objective the launching of a program of internal national reconciliation. Additionally, the government has undertaken the preparation of a new five-year development plan. Although not yet officially presented, early drafts of the plan clearly indicate that the government is placing an increased priority on delivering development and economic assistance to the rural populace. The current per capita income for Burundi is approximately \$60 per year, according to recent US Statistics. Burundi's resources are presently so strained that there is little that it can do by itself to relieve or assist its impoverished rural population. Thus, the international donor community must provide resource transfers.

Presently Belgium, France, FRG, China, UNDP, EC and World Bank are providing significant amounts of development and economic assistance. Until most recently the US Government was providing only PL 480 and Embassy self-help assistance. With the recent opening of an AID Country Development Office, it is planned that US development assistance levels will be significantly increased.

2. Country Performance - Section 102 (d)

The Burundi AID Country Development Office (CDO) opened late February 1977. One of the CDO's first efforts was to undertake the preparation of a DAP substitute. Although significant statistical

data already have been obtained, there still remain some major gaps. To date, only the most rudimentary analysis of data has been accomplished. Nonetheless, some initial assessments of Section 102 (d) performance can be made.

a) Small Farm Agricultural Productivity

Official figures for rural agricultural production (which are somewhat questionable) show a decline from 7.8 million tons in 1971 to 5.6 million tons in 1976, a reduction of 28 percent.

b) Infant Mortality

Best available figures indicate that per 1,000 live-births there occurs 161.5 infant deaths before the age of one year.

c) Population Growth

Latest population figures indicate that Burundi's population is nearly 4 million with an average density of 156 per 2 kilometers of arable land and an annual net growth rate of nearly 2.8 percent.

d) Income Distribution

Statistics on income distribution are incomplete. However, it is known that there is a significant fluctuation between both income groups and provinces. Statistics do not exist for specific income groups. A recent UNDP study places individual average annual earnings at \$60.

e) Employment

Recent UNDP Statistics indicate that Burundi has an extremely high non-agricultural unemployment rate of 18 percent.

While it is indeed difficult to ascertain precisely Burundi's Section 102 (d) performance, clearly the quality of life for the rural populace is barely keeping even with the minimal subsistence requirements. The majority of the population is clinging to the ragged edge.

Given the bleak picture of Burundi's masses, any alleviation will have to come through donor assistance. AID development assistance efforts will be definitely directed towards assisting the Government of Burundi accomplish its goal of bettering the quality of life for the rural population.

3. AID's Role

Although the International Donor Community is well represented in Burundi, proportionately only a small amount of total donor assistance is directly pointed at enhancing the quality of life of the average farm family. AID perceives a need to address the following development problem areas:

- a) Insufficient food production caused by diminishing arable land due to soil erosion, low crop yields due to diminishing soil fertility and poor seed selection.
- b) Malnutrition caused by poor dietary practices and lack of highly nutritious food staples.
- c) Poor health conditions caused by population strain on diminishing arable land, a lack of an effective rural health delivery system, a lack of potable water and sound hygiene practices.
- d) A rapidly diminishing supply of firewood for heating and cooking.

For FY 1979, AID intends to undertake two programs in direct response to problems a) and b) above as well as to continue the Muyinga Integrated Rural Development Project which addresses problems a) through d).

The first new project is "Basic Food Crops" which will be directed towards significantly increasing production of wheat, corn, sorghum and possibly soy beans. This will be accomplished through improved seed selection, multiplication, distribution and improved farming techniques.

The second new project is "Highland Fisheries Development". This project is designed to help offset animal protein deficiency which is prevalent among the rural population. This project will increase fish production in the interior of the country through the control, production and distribution of fingerlings to existing fish ponds, the creation of new fish ponds, the training of farmers and civil servants in fisheries' management, and, possibly, the introduction of new fishing techniques in Burundi's northern lakes.

For 1980 and beyond, AID will endeavour to assist the Government of Burundi in the areas of increased food production and development of rural health programs emphasizing preventive medicine, good hygienic practices, and potable water availability, with a child spacing/family planning educational component.

The direct linkage between the two development sectors obviously will be through nutrition. Also, AID will be continuing the Muyinga Integrated Rural Development Project as well as identifying and assisting with other rural development activities, including the possibility of reforestation to control the increasing soil erosion problem.

Finally, it has been recently determined that Burundi has enormous reserves of peat. AID intends to make available to the Government of Burundi an AIP grant for peat extraction, processing and marketing/distribution. This project will be managed by the Catholic Relief Services on behalf of the Government. Once feasibility is determined and experience gained it is hoped that AID will undertake an expanded development assistance project in peat.

4. The AID/CDO Operation

To date, REDSO/EA has provided excellent services, however, day-to-day technical guidance and decision making during the final project preparation and implementation clearly cannot be provided by REDSO/EA's limited staff resources.

An increased staff in Bujumbura most definitely will be required to undertake the proposed increased AID funding levels. As a first requisite the CDO operation will seek one US direct hire agriculturist who is needed to advise on and monitor the various agricultural components of the Muyinga Integrated Development Project, as well as to assist in the final preparation, implementation and monitoring of the Basic Food Crops Project. This individual will ultimately assume the responsibility for project management and supervision.

To assist the various health components of the Muyinga Integrated Rural Development Project, as well as to develop a major rural health program with elements of preventive medicine, hygiene and child spacing/family planning, one US direct hire public health specialist will be required.

To expedite the foreseeable documentation paper flow, one US direct hire secretary will be required. Additionally, increased project personnel requirements will overload the already strained Embassy Administration/GSO support requirements. A full range of managerial, administrative, personnel, travel, C & R and logistic support will be required for both ongoing and future program support. Thus, the assignment of a US direct hire management officer will be required.

For FY 1979 and beyond, one US direct hire program officer will be needed to ensure smooth project documentation paper flow including report, evaluation, budget submissions, and PL 480 requirements.

The assignment of a US direct hire rural development advisor is a foreseeable requirement for overall supervision and monitoring of the Muyinga Integrated Rural Development Project, as well as for coordinating preparation efforts for future rural development activities. Finally, a second secretary will be required primarily to support the program officer, but also to assist other officers on an as-needed basis during peak workload periods.

It should be noted that only four local direct hire personnel are envisaged, and that in direct relationship to this small number, the assignment of two US direct hire secretaries may appear extravagant. However, this situation is due to the lack of trained personnel in Francophone Burundi. After three months of operations, the CDO has not yet been successful in obtaining an English speaking secretary and future possibilities are so far not apparent.

Unlike many other countries Burundi has few PVOs present upon whom the CDO could rely for qualified administration assistance or for project implementation guidance/assistance and the Peace Corps has not yet established itself. Clearly foreseeable workloads dictate the need for this second secretary.

5. Conclusion

The strategy for AID presented here, along with a brief discussion of specific projects and program support requirements is most consistent with US objectives of assisting the rural poor to help themselves ultimately to move beyond the bare subsistence level. In dollar terms, the cost is not great, with ultimate projected annual funding levels of approximately \$5 million for development assistance and \$5 million for food assistance. Indeed, this is a small investment for enhancing the quality of life and for providing for the human dignity of a long neglected rural population.

COUNTRY: BURUNDI

B. LONG RANGE PLANNING (FY 1979 - 1983)

TABLE I
LONG RANGE PROGRAM PLAN
(\$ millions)

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Food/Nutrition Grants	.8	2.9	2.2	1.8	1.9	2
Population Grants	--	--	.3	.5	.5	.5
Health Grants	--	--	1.5	1	1	1
Education Grants	--	--	.2	.2	.3	.3
Selected Development Activities Grants	--	--	1	.7	.8	1
Total Functional Accounts Grants	.8	2.9	5.2	4.2	4.5	4.7
PL 480 (non-add) Title I - Title II	1.3	2.6	3.8	4.4	5	5.5

COUNTRY: BURUNDI

DAP DOCUMENTATION SCHEDULE

PROGRAM
YEAR

DOCUMENTS TO BE USED
AS BASIS FOR PROGRAM PLANNING

DATE APPROVED
OR SENT TO AID/W

BY 1979

Original DAP Substitute

October 1978

BY 1980

Original DAP Substitute

October 1978

BY 1981

Original DAP Substitute

October 1978

COUNTRY: BURUNDI

C. FY 1977 - FY 1979 PROGRAMS

TABLE II

FUNDING LEVELS FOR FY 1977, FY 1978, FY 1979

(\$ 000s)

	<u>FY 1977</u>	<u>FY 1978</u>	<u>FY 1979</u>
Food/Nutrition			
Grants	--	800	2910
 TOTAL	 --	 800	 2910
 PL 480			
Title II	1416	1281	2642

AGENCY FOR INTERNATIONAL DEVELOPMENT

ABS/CP SUMMARY - TABLE III

1. TRANSACTION CODE

A

A = ADD
C = CHANGE
D = DELETE

2. ABS/CP

DOCUMENT CODE 6

3. COUNTRY/ENTITY

BURUNDI

4. DOCUMENT REVISION NO.

5. OPERATIONAL YEAR FY

78

6. BUREAU/OFFICE

A. SYMBOL

AFR

B. CODE

06

7. GEOGRAPHIC CODE

695

8. TYPE DATA

1

1 = ABS

2 = ABS REVISION

3 = CP

4 = CP NOTIFICATION

9. TYPE ASSISTANCE

I

1 = PROJECT

2 = PROGRAM

10. PROJECT SEQ. UENCE NO.

11. PROJECT TITLE (40 CHARACTERS MAXIMUM)

12. FOR OBLIG

13. AUTH. OBLIG. FINAL

14. AUTH. TION

15. PRIMARY PURPOSE CODE

16. LOAN/GRANT INDICATOR

17. BUDGETS (IN \$ 000)

AY OY BY LOP

0100

Muyinga Integrated Rural Development

4

81

FN

200

GN

--

800

1200

4000

0101

Basic Food Crops

81

FN

140

GN

--

985

2582

0102

Highland Fisheries Development

81

FN

320

GN

--

725

1450

FN Subtotal:

800

2910

8032

Grand Total:

800

2910

8032

18. DATE DOCUMENT RECEIVED IN AID/W

MM DD YY

11.

MUYINGA INTEGRATED RURAL DEVELOPMENT (695 - 0100)

Progress to Date:

Due to a change of Government in November 1976 the planning documentation progress was somewhat delayed. Additionally, some key government personnel were replaced causing further disruption.

AID is presently in the process of re-evaluating the entire scope of the project and expects to have the PP completed in February 1978 with implementation going ahead in the fourth quarter of FY 1978.

TABLE V - FY 1979 PROPOSED PROGRAM RANKING

RANK	DECISION PACKAGES / PROGRAM ACTIVITY / SUPPORT ITEM DESCRIPTION	APPROPRIATION ACCT	DECISION UNIT AID/BURORDI	REVISOR BY				CONSOLIDATED BY						
				RESOURCE REQUIREMENTS				PROGRAM FUNDING						
				CUMULATIVE MISSION OPERATING EXPENSES (000)	INCREMENT US	WORKFORCE (000 ONLY)	CUMULATIVE US	INCREMENT US	INCREMENT US	CUMULATIVE US	INCREMENT US	CUMULATIVE US		
	<u>Decision Package - Minimum:</u> Workforce and Operating Expenses (Assuming no FY 1979 Obligations)			62	1	2	1	2						
	0100 - Muyinga Integrated Rural Development (GO)	FN										500	500	
	0101 - Basic Food Crops (GN) PL 480 - Title II	FN										200	700	
	0102 - Highland Fisheries Development (GN)	FN										800	1500	
												165	1665	
	<u>Decision Package - Current:</u> PL 480 - Title II												416	2081
	<u>Decision Package - Proposed:</u> 0100 - Muyinga Integrated Rural Development (GO)	FN										700	2781	
	PL 480 - Title II											1426	4207	
	0101 - Basic Food Crops (GN)	FN										785	4992	
	0102 - Highland Fisheries Development (GN) Workforce Increment			121.5	7	2	8	4				560	5552	

BURUNDI
BASIC FOOD CROPS

Project Identification Document

1. Problem

Burundi is one of the poorest countries in the world, due to its high population density, limited resources, remoteness from the sea and markets for its products and insufficient efforts made by the government to develop its main economic sector agriculture. Average per capita income in 1976 was estimated at \$60. More than 90 percent of the population lives in rural areas dependent upon agriculture and most of the balance are in some way dependent upon it. Farming is organized into some 650,000 family farm units averaging about one hectare in size. Although total family cash income in the traditional sector is estimated at \$160, or about \$30 per capita, this level is apparently in decline due in part to a gradual deterioration of the physical environment and the continued growth of the human and animal (mainly cattle) burden upon it. Cash cropping is important in only a few areas mostly concentrated in the western provinces. Most families grow only subsistence food crops and market some surplus on an irregular basis.

Food production accounts for half of the gross domestic product. The most important crops are beans, bananas, cassava, maize and sweet potatoes. To the extent surpluses exist, these crops represent the principal cash income for many farmers. Other cash crops include coffee, tea and cotton.

Food production has been declining in recent years. Although statistics are not completely reliable, owing to the difficulty of measuring levels of production in a predominantly subsistence economy, Ministry of Agriculture data show that food production has fallen from 7.8 million tons in 1971 to 5.6 million in 1976. The overall decline suggests that yields are declining as well, although statistics are too incomplete to confirm such a trend. Food imports have risen to 28 percent of total import tonnage in 1975. These imports, for the most part, feed the Bujumbura community.

The Government of Burundi (GOB) is faced with a dilemma. It is badly in need of foreign exchange and revenue generally which can only be earned by cash cropping. Without this, it cannot expand education and other services promised the public. Food crops, although badly needed, produce almost no revenue to the exchequer. The government is continually faced with the choice of using scarce resources for revenue or non-revenue

producing activities. For a poor government, the choice is usually in favor of the former and so it is here. Much of the budget goes to cover recurrent costs. Of this total, agriculture in general gets about 5%, although the capital or development budget, including external assistance, allocates about 60% of resources to agriculture.

Government current expenditures have grown since 1969 at rates averaging 18% per year. Much of the increase has been directed towards national security, reflecting domestic uncertainty. There has been little increase in ordinary budget expenditures for agricultural services, although many agricultural projects have been financed by donors.

The GOB has become almost entirely dependent upon donor assistance in agriculture, an area it claims must have first priority. Until recently, most donor help was directed towards plantation agriculture and cash crops. This bias is reflected in the research priorities for cash crops, and the almost total neglect of food crops in either research or extension. Thus, food crop related activities have been weakly staffed and personnel have been apathetic.

The food crop problem is clearer than the solution. It is evident that considerable crop research available worldwide is adaptable to Burundi, which has a varied terrain, including both tropical and montane ecosystems. With screening, varietal selection and demonstration could be undertaken on large scale. Improved cereals and in particular wheat are desired. These crops would not only provide a better diet for the rural poor, but would help to off-set increasing import requirements.

However, crop agronomy faces a challenge in Burundi in that food crops must be grown with almost no modern chemical input, including fertilizer and pest control. The degree of commercialization is so low that little money is available, and if it were, it is unlikely to be spent on family-destined food crops. Wheat, which is a potential cash crop, is the major exception to this rule. The prospects for early change are not promising because the degree of inter-regional trade is negligible. Bujumbura, the only town of importance, will likely get much of its future supplies from the lowlands rather than from more remote highlands. Agronomists must, therefore, select for pest resistance and yield based upon soil and management conditions. Selection will have to emphasize resistance to various local stress conditions.

The research problem is evident. Per hectare yields must be increased at little extra monetary cost or risk. To the extent possible, this must be done with as little infrastructure support as possible as government will be able to support only the most modest extension of services. On-farm and local storage can be improved, ideally using local materials. Better soil management practices must, therefore, be introduced, probably through the integration of livestock and farming systems.

At the present time, little food crop research is underway. Almost no capacity exists to demonstrate results, or produce and distribute improved seeds. The nucleus for this capacity is the Belgian-supported Institut des Sciences Agronomiques du Burundi (ISABU). However, few trained Burundi personnel are available in any technical area, resources are meager, and these mainly directed towards coffee and similar crops.

ISABU has recently prepared a project for donor funding to assist it to remedy some of these shortcomings, but with particular emphasis upon seed production and distribution. The proposed project builds on this initiative.

II. The Project

The goal of the proposed project is to expand subsistence food crop production through the selection, dissemination and cultivation of improved basic food crop varieties. The purpose of the project is to promote the capacity of the GOB to research, screen, produce, demonstrate, and distribute improved basic food crop varieties. This purpose is consistent with the assistance strategy developed in the forthcoming DAP, which proposes to concentrate on projects which provide immediate and direct benefits to the rural poor, particularly in the food production sector. The purposes of the project would, therefore, be: 1) the establishment of an adaptive research capacity in variety trials and basic seed selection; 2) the establishment of a small seed multiplication activity with strong reliance on small farmers to produce seed as a cash crop; 3) the establishment of a rudimentary extension capacity which would be closely allied with adaptive research personnel, and which could perform basic demonstration, distribution and extension functions. It is intended that the project purpose be accomplished through the strengthening of ISABU (Institut des Sciences Agronomiques du Burundi) and other discrete but relevant components of the Ministry of Agriculture, in particular, the extension service.

The major thrust of the project will be to provide technical expertise to ISABU and the Ministry of Agriculture in the form of four long-term technicians and short-term consultants in specialized areas. The long-term technicians would be specialized in the areas of tropical seed agronomy (for seed selection); seed screening; crop protection; and extension training. The three specialists in seeds and crop protection would work primarily within the institutional structure of ISABU. They would be required to maintain close contact with representative small farmers in representative ecological zones of the country in order to understand the major problems confronting these farmers, and to replicate

small farm conditions as closely as possible in research trials. The initial task of these technicians would be to draw up a research plan with counterparts from ISABU, based on: 1) a thorough understanding of previous research efforts in Africa, including a probable trip to IITA in Nigeria; and 2) a thorough analysis of small farm production problems, to determine research priorities and a plan of action. During the latter years of the project, after initial screening has identified potentially viable varieties, trials would be run on selected small farms under supervised conditions as well as experiment stations. This technique would assure that small farm conditions constitute a continuously relevant factor in the seed selection process. It would also build extension mechanisms into the process through highly visible field demonstrations, thereby facilitating the dissemination and use of selected seed. Finally, the technique could promote a scheme whereby small farmers would multiply seed, and sell it as a cash crop.

The primary tasks of the extension training specialist would be: 1) to support and possibly to supervise the small farm field trial activities of the adaptive research team; 2) to train counterpart personnel involved in both research and extension activities in extension methods; 3) to coordinate activities with the Ministry of Agriculture's extension service; 4) to coordinate training activities both in-country and abroad; and 5) to promote the establishment of a rudimentary extension capacity which could perform basic demonstration, distribution and extension functions.

It is expected that the technicians will reside in Bujumbura. The project would provide self-contained trailers which would serve as temporary (and mobile) housing for frequent trips up-country. The project would also provide basic infrastructure such as a laboratory and possibly a storage unit; laboratory equipment; seed production equipment, including basic agricultural equipment; vehicles and motorcycles and logistic support.

The training component of the project would provide for in-country field trips and workshops, and for international travel to research centers within Africa. It would also provide for medium and long-term training in both Africa and the United States.

The GOB would provide existing research facilities, land for adaptive varietal research and seed multiplication facilities, counterparts, participants and recurrent budget expenses.

At the end of the project, we would have developed tested varieties of improved food crops such as wheat, beans, sorghum, maize, soy; established a system capable of screening and producing additional seeds from the world collection, but still dependent upon external assistance for highly

specialized technical inputs; established the capacity to provide needed quantities of tested seed; and established the means to support the extension and distribution of new varieties. It is our intent that all of the above will be sufficiently inexpensive yet attractive that GOB will choose to and be able to continue its support.

III. Financial Plan

The financial requirements and plan are summarized in the table below. The formal 25% contribution as specified in FAA Section 110 (a) may not be required, in light of Burundi's weak economic position. The GOB will provide land, infrastructure, counterparts, participants and recurrent cost expenditures. Should the exact value of this contribution be less than 25%, which is possible given the inflated cost of U.S. technical assistance, appropriate justifications will be made to waive FAA Section 110 (a) in the Project Paper.

BUDGET
BASIC FOOD CROPS
(in 000 US\$)

	Year <u>1</u>	Year <u>2</u>	Year <u>3</u>	Year <u>4</u>	All Years <u>1,310</u>
1. <u>Technical Assistance</u>	<u>380</u>	<u>380</u>	<u>310</u>	<u>240</u>	<u>1,310</u>
A. Tropical Seed Agronomist	70	70	70	70	280
B. Seed Screening Specialist	70	70	70	70	280
C. Crop Protection Specialist	70	70	70	70	280
D. Extension Training Specialist	70	70	70	-	210
E. Short-Term Consultants	100	100	30	30	260
2. <u>Commodities</u>	<u>278</u>	<u>77</u>	<u>50</u>	<u>30</u>	<u>435</u>
A. Self-Contained Trailers (4)	60	-	-	-	60
B. Infrastructure (Lab., etc.)	30	-	-	-	30
C. Vehicles (4 light, 2 heavy)	90	-	-	-	90
D. Motorcycles	18	17	-	-	35
E. Laboratory Equipment	10	10	-	-	20
F. Seed Production Equipment, incl. basic ag. equipment	50	20	20	10	100
G. Spare Parts and Logistic Support	20	30	30	20	100
3. <u>Training</u>	<u>100</u>	<u>80</u>	<u>45</u>	<u>10</u>	<u>235</u>
A. In-Country and International Travel	10	10	10	10	40
B. Africa (10)	30	30	15	-	75
C. United States (6 M.S. Degrees)	60	40	20	-	120
4. <u>Sub-Total</u>	<u>758</u>	<u>537</u>	<u>405</u>	<u>280</u>	<u>1,980</u>
5. Inflation (6% Compounded), and Contingency (5%)	<u>227</u>	<u>161</u>	<u>130</u>	<u>84</u>	<u>572</u>
6. <u>TOTAL</u>	<u><u>985</u></u>	<u><u>698</u></u>	<u><u>535</u></u>	<u><u>364</u></u>	<u><u>2,582</u></u>

20.

IV. Development of the Project

The Project Paper will be developed under the tutelage of the CDO, and with the support of REDSO/EA. It will be presented in Washington no later than September 1978. Assistance required for the development of the PP will be:

A. Contract Personnel - French-Speaking

1. Seed Technologist, possibly from Mississippi State.
2. Adaptive Research Agronomist from University of Minnesota, University of Illinois, or equivalent.
3. Crop Protection Specialist from Kansas State or equivalent.
4. Extension Specialist from TAB or IQC. It is important he be very sensitive to demonstration and extension methods alternative to normal U.S. style extensions as this is unlikely to be a safe model for Burundi.

The contract team would be required for a minimum of one month in-country.

B. REDSO/EA Personnel

1. Team leader and/or Design Officer for six weeks. Team leader should ideally be an Agricultural Economist with marketing/distribution background.
2. Sociologist for minimum two weeks.

The PP team will evaluate the ISABU project proposal and design the project. This work must include:

1. Design a seed screening mechanism to function within ISABU. It will recommend equipment, facilities, technical assistance, training, scale of activity, etc.
2. Design the seed production component to include the necessary organization, locations, needed resources including land, outreach stations, technical assistance, training, equipment, etc.
3. Design a system to promote improved varieties--demonstration, trials, farmer participation, etc.
4. Design the needed seed delivery system or recommend alternatives for future considerations.

5. Evaluate opportunity and conditions necessary for a plant protection component.
6. Evaluate present ISABU extension links and make recommendations.
7. Consider role of improved seeds in a general crop plan and evaluate trade-offs, make recommendations regarding need and desirability to include additional crops in a future screening program to complement cereals.
8. Consider other farm-oriented development projects (for example, the agriculture development centers proposed by IBRD) as complementary systems possibly supportive to the proposed project.
9. Evaluate social impact, social implications of changes in crops--income, advantaged and disadvantaged systems, etc.
10. Recommend both minimum and desired levels of GOB inputs.
11. Review the sources of students for medium and long-term training and discuss any potential problems their selection may entail.
12. Evaluate the capacity of the GOB to provide the necessary budgetary and human resources support to maintain or, where possible, replicate the proposed project activities after AID's assistance has terminated.

V. Issues - None

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT IDENTIFICATION DOCUMENT FACESHEET <i>To Be Completed By Originating Office</i>	I. TRANSACTION CODE <input checked="" type="checkbox"/> A Add <input type="checkbox"/> C Change <input type="checkbox"/> D Delete	PID II. DOCUMENT CODE 1
--	--	-------------------------------

3. COUNTRY ENTITY BURUNDI	4. DOCUMENT REVISION NUMBER <input type="checkbox"/>
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5. PROJECT NUMBER (7 digits) 695-0102	6. BUREAU/OFFICE A. Symbol AFR B. Code 06	7. PROJECT TITLE (maximum 40 characters) Highland Fisheries Development
---	---	---

8. PROPOSED NEXT DOCUMENT A. <input checked="" type="checkbox"/> 3 PRP <input type="checkbox"/> 3 PP B. DATE 06/7/8	10. ESTIMATED COSTS (\$000 or equivalent, \$1 = 1,500) FUNDING SOURCE a. AID Appropriated 1,450
---	---

9. ESTIMATED FY OF AUTHORIZATION/OBLIGATION a. INITIAL FY 79 b. FINAL FY 81	b. OTHER 1. <input type="checkbox"/> 2. <input type="checkbox"/> c. Host Country d. Other Donor(s) TOTAL 1,450
---	--

II. PROPOSED BUDGET AID APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. FIRST FY 79		LIFE OF PROJECT	
		C. Grant	D. Loan	F. Grant	G. Loan	H. Grant	I. Loan
(1) FN	143	077		725		1,450	
(2)							
(3)							
(4)							
TOTAL				725		1,450	

12. SECONDARY TECHNICAL CODES (maximum six codes of three positions each)

010	031	069	099	329	330
------------	------------	------------	------------	------------	------------

13. SPECIAL CONCERNS CODES (maximum six codes of four positions each) BR BS DEL NUTR PART	14. SECONDARY PURPOSE CODE 323
---	--

15. PROJECT GOAL (maximum 233 characters)

To increase incomes and to improve the nutritional status of the rural poor.

16. PROJECT PURPOSE (maximum 430 characters)

To assist the Government of Burundi in the development of fish resources in the highland provinces.

17. PLANNING RESOURCE REQUIREMENTS (staff/funds)

(1) Fish expert - 2 months - \$12,000. (4) REDSO Design Officer and Agric. Economist.
 (2) Water Resource Specialist - 2 months - \$12,000.
 (3) Fish Service Center Specialist - 1 month - \$6,000.

18. ORIGINATING OFFICE CLEARANCE Signature: Terry Lambacher Title: Country Development Officer Burundi Date Signed: 06/30/77	19. Date Document Received in AID/W, or for AID/W Documents. Date of Distribution MM DD YY
--	---

AID 1330 2 (3-76)
REDSO/EA CLEARANCE:
 HSoos, EA *[Signature]* RBell, DD *[Signature]*
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BURUNDI

HIGHLAND FISHERIES DEVELOPMENT

Project Identification Document

1. The Problem

Burundi remains one of the poorest of the least-developed countries. Average per capita income in 1976 was estimated at \$60. The average income of the farm family in the traditional sector was estimated at \$160, or less than \$30 per capita. Traditional agriculture comprises some 650,000 farming units with an average farm size of one hectare. Over the last decade, per capita income in rural areas has deteriorated. Development efforts in major cash crops such as coffee, tea and cotton have benefited relatively few farm families, while rapid population growth, increasing pressure on land, and soil erosion have led to a relative decline in subsistence production.

A principal result of increasing population pressure on limited land resources has been the aggravation of the already poor nutrition status of the majority of people in rural areas, or about 95% of the population. Burundians consumed about 2,300 calories per day in 1974 according to the overall food balance sheet prepared by FAO. Only 63 calories per day were provided by animal protein. This rate represents the lowest among the seventeen African countries analyzed in the February 1977 Monthly Statistical Bulletin published by the FAO. Overall food balance sheets do not reflect income distribution patterns. Agricultural surveys in two provinces in the late 1960's showed overall caloric deficiencies of 10% to 14%. Protein intakes were slightly over the daily requirements, but 99% of protein intake was from vegetable sources which constitute an incomplete form of protein. Given overall stagnation in food production, including beans and other sources of vegetable proteins, this situation has not improved in recent years.

Fishing constitutes an important, and even principal, economic activity in rural Burundi, where fish are available. Table I provides evidence of the growing production of fish, and the correspondingly growing importance of the artisan and traditional sectors. Currently, Lake Tanganyika offers the most important fisheries resource in the country, accounting for over 90% of all fish production in 1974. The World Bank is involved in a \$6 million fisheries project, due to begin in 1977, to develop the exploitation of fish in Lake Tanganyika. About 35% of this production is retailed fresh in Bujumbura. The remainder is consumed near the lakeshore, or is dried for resale in the interior. Nearly the entire catch is consumed within the provinces of Bujumbura and Bubanza. Supplies to the interior provinces are irregular and limited. This situation explains in part the low per capita fish consumption in

Burundi of three to four kilograms per capita per annum, compared to 15 kilograms in Uganda and 13 kilograms in Tanzania. Not only is the average low, but the distribution is concentrated in the provinces alongside Lake Tanganyika.

II. The Proposed Project

The purpose of the proposed project is to assist the GOB in the development of fish resources in the highland provinces of Burundi. This purpose would contribute to the sector goal of increasing rural incomes and improving the nutritional status of the rural poor. The purpose is also consistent with the assistance strategy expected to be developed in the forthcoming DAP, which proposes to concentrate on projects which provide immediate and direct benefits to the rural poor, particularly in the food production sector. The project would provide resources to augment the availability of fish in natural lakes in the northeastern provinces of Muyinga, Ngozi, Muramvya, Gitega and Ruyigi, as well as rehabilitate and possibly create ponds in areas where potential water resources can be tapped. A center for the raising of fingerlings would provide a source of supply for these lakes and ponds which are at an altitude of 4,000 to 6,000 feet, and, therefore, require different varieties than existing fish resources. Tilapia is the main fish which is expected to be exploited. Four Fishing Service Centers would be developed at principal fishing areas to service the area. These Centers would include facilities for storage of fishing gear; extension services for fishermen on improved techniques; assistance in equipment and supply procurement; and advice on preservation techniques; processing facilities for smoking fish; and a simple market facility for selling fish. Training would also be provided to GOB personnel to provide proper care and maintenance of fish resources, and to provide extension service at Fishing Centers. The implementing agency for the project would be the Department of Water Resources and Forestry of the Ministry of Agriculture.

Fish production has long constituted an area of considerable potential in Burundi. Several initiatives in fish production were made in the pre-independence days. More recently, a Belgium-financed project covering the area of Karuzi, which lies in the center of the proposed project area, was developed. This project had as its purpose the rehabilitation of an existing fingerling production center, and the extension of pisciculture to rural areas to supplement protein intake and to serve as an additional source of income. The project, developed about five years ago, was scarcely initiated before it was disrupted by political violence. The GOB has initiated a small program costing about \$5,000 to clean and rehabilitate the Karuzi fishing production network. This activity is expected to take place between the months of June and December 1977.

The GOB has requested AID assistance to assess the potential not only of the Karuzi fisheries infrastructure, but of other lakes and water resources in the northeastern part of Burundi, in order to establish a fish production program which would impact significantly on the rural poor. The GOB is particularly interested in assistance to assess the potentiality and the optimal method of exploitation of these water resources. It is also cognizant of the need to maintain fish ponds, lest organic growth overtake the fish life. No assistance in this area is currently being provided to the GOB, except the previously-mentioned Lake Tanganyika project, which is not capable of satisfying fish consumption requirements of the northeastern provinces of Burundi.

III. Beneficiaries

The potential impact of the proposed project on the approximately 2.7 million inhabitants of these provinces, or 73% of Burundi, is significant. Apart from the Bujumbura province, the provinces in the project area constitute the most densely populated areas of Burundi, with 296 inhabitants per square kilometer in Ngozi province, 288 in Muramvya province, and 198 in Gitega province. This level of population pressure makes it virtually impossible to depend solely on land resources to increase food production. Given transportation problems and spoilage records from Lake Tanganyika fish resources, it is unlikely that this area will be supplied in the foreseeable future, even as the World Bank project proceeds as planned. On the basis of income consideration, it would also appear to be equitable to favor the self-sufficiency of the northeastern provinces in fish production, since the western provinces have more income possibilities from coffee, vegetable farming for the Bujumbura market, fish and the presence of several rural development efforts.

Benefits to be derived from the project would flow to the farm families of about 2,000 part-time fishermen, including those who are already engaged in fishing. Benefits will also accrue to small farm families who serve as middlemen for the sale of sun-dried fish. Benefits will further flow to a broad range of small farm families who are able to obtain an additional source of animal protein at a reasonable price. With well-placed Fishing Centers, the project would impact on about half the population in the project area, or about 1.3 million persons constituting about 40% of Burundi's rural population.

IV. Financial Requirements and Plan

The financial requirements and plan are summarized in the table below. The formal 25% contribution as specified in FAA Section 110 may not be required, considering Burundi's weak economic position. The GOB will provide land for the Fishing Centers, water resources, salaries for extension and maintenance personnel and recurrent costs. The exact value of this contribution has not yet been determined. If the value is less than 25% of the project costs, appropriate justifications will be made to waive FAA Section 110(a).

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>All Years</u>
1. Technical Assistance	<u>158</u>	<u>152</u>	<u>146</u>	<u>456</u>
A. Ichthyologist	(70)	(70)	(70)	(210)
B. Service Center Specialist	(70)	(70)	(70)	(210)
C. Short-Term Specialists	(18)	(12)	(6)	(36)
2. Commodities	<u>320</u>	<u>140</u>		<u>460</u>
A. Infrastructure (Includes housing)	(160)	(60)		
B. Fish Service Centers and Markets (4)	(60)	(60)		
C. Equipment	(20)	(20)		
D. Vehicles (6 small, 1 large)	(80)			
3. Training	<u>40</u>	<u>35</u>	<u>15</u>	<u>90</u>
A. MS Degree (US) - 1 person	(10)	(10)		
B. African Training - Medium Term - 10 persons	(20)	(20)	(10)	
C. In-Country Training, Workshops, International Travel, etc.	(10)	(5)	(5)	
4. Operating Expenses	<u>40</u>	<u>35</u>	<u>35</u>	<u>110</u>
A. Logistic Support, Including Spare Parts	(10)	(15)	(15)	
B. Office Expenses (Rent and Equipment)	(15)	(15)	(15)	
C. Secretarial/Support	(15)	(15)	(15)	
5. Sub-Total	558	362	196	1,116
6. Inflation and Contingencies 30% (Includes compounded inflation at 8%)				334
7. TOTAL	725	470	255	1,450

V. Development of the Project

The Project Paper will be developed under the guidance of the CDO and with the support of REDSO/EA. It will be presented in Washington no later than June 1978. Assistance required for the development of the Project Paper will be as follows:

Contract Personnel (French-Speaking)

1. Ichthyologist for 2 months beginning no later than January of 1978.
2. Water Resources Specialist for 2 months beginning no later than January of 1978.
3. Fish Service Center Specialist for one month beginning no later than March 1978, perhaps from on-going AID projects.

REDSO Personnel

1. Technicians as required to work with contract personnel.
2. Design Officer for two weeks to work with contract personnel and for four weeks to draft the Project Paper.

The following subjects will receive particular attention and analysis during the design phase of the project:

1. The technical feasibility of the project depends on the availability of sufficient quantities of fish to justify project investments to facilitate their exploitation. A technical judgement must, therefore, be made during project design to assure the existence of a sufficient stock of fish, and to ascertain the regenerative capacity of this stock. If a fingerling or feeding program is required to maintain the stock, a viable mechanism to accomplish this must be included in the project design.
2. A maintenance plan for Fish Center facilities must be developed during the course of project development. This plan shall include an analysis of the existing GOB maintenance capabilities and a recommended action plan, as may be required, for upgrading same.
3. The capacity of the GOB to provide the necessary on-going financial and human resource support must be evaluated.

VI. Issues - None

TABLE I

Production of Fish (Metric Tons) and Number of Boats: 1970 thru 1976

<u>Production of Fish</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Industrial	5,457	5,960	4,326	5,620	6,211	6,144	8,702
Artisanal	3,759	4,876	1,270	1,336	3,127	4,746	7,924
Traditional	<u>4,073</u>	<u>5,966</u>	<u>1,846</u>	<u>1,568</u>	<u>1,765</u>	<u>4,526</u>	<u>3,693</u>
TOTAL	<u>13,290</u>	<u>16,802</u>	<u>7,433</u>	<u>8,524</u>	<u>11,103</u>	<u>15,416</u>	<u>20,320</u>

Number of Boats

Industrial	15	15	N.A.	14	17	20	23
Artisanal	516	516	N.A.	122	202	389	577
Traditional	1,380	1,459	N.A.	362	409	785	633

N.A.: Non Available

Source: Ministry of Agriculture, Annual Reports

COUNTRY: BURUNDI

PL - 430 TITLE 11

SPONSOR'S NAME: CATHOLIC RELIEF SERVICES

A. Maternal and Child Health Total Recipients: 35,000

<u>Number of Recipients by Commodity</u>	<u>Name of Commodity</u>	<u>KGS</u>	<u>US \$</u>
35,000	Cornmeal	840	166
35,000	C S M	840	395
35,000	Salad Oil	190	113
Total MCH		<u>1870</u>	<u>674</u>

B. School Feeding Total Recipients: 60,000

<u>Number of Recipients by Commodity</u>	<u>Name of Commodity</u>	<u>KGS</u>	<u>US \$</u>
60,000	C S M	1080	507
60,000	Bulgur	1080	198
60,000	Salad Oil	245	145
Total School Feeding		<u>2405</u>	<u>850</u>

C. Other Child Feeding Total Recipients: 5,000

<u>Number of Recipients by Commodity</u>	<u>Name of Commodity</u>	<u>KGS</u>	<u>US \$</u>
5,000	N F D M	120	161
5,000	Cornmeal	120	23
5,000	Salad Oil	27	16
Total Other Child Feeding		<u>267</u>	<u>200</u>

D. Food For Work Total Recipients: 15,000

<u>Number of Recipients by Commodity</u>	<u>Name of Commodity</u>	<u>KGS</u>	<u>US \$</u>
15,000	Bulgur	1092	201
15,000	Salad Oil	54	32
Total of Food For Work		<u>1146</u>	<u>233</u>

COUNTRY: BURUNDI

PL - 480 TITLE II

1. Success to Date

The Catholic Relief Services/Burundi program was reinstated in April 1975 after a hiatus of nearly two years. Program reach and development has been significant in recent fiscal periods and title II usage has complemented GRB priorities of health, education and community self-help activities. As all CRS/Burundi food programming has been refined with the advice and consent of GRB personnel, the capacity to extend reach and coverage in future fiscal years is promising.

2. Rational for FY 1979 Increase

CRS/Burundi has continuously demonstrated a capacity to efficiently implement title II commodities, the following FY 1979 requirements are a logical consequence of orderly program development:

a) Maternal and Child Health

The requested 35,000 recipients in FY 1979 reflects a 18 percent increase versus current FY 1977 levels of 30,000 month and the requested 30,000 recipients/month in FY 1978. This approximate optimum levels for the category.

b) School Feeding

An amended FY 1978 Program Plan is currently being prepared by CRS/Burundi to request an increase in this category from 5,000 to 35,000 recipients/month for primary school feeding. The goal of establishing a universal school lunch program which will reach all eligible recipients, estimated to number more than 100,000 will be achieved on a gradual basis and the programming of 60,000 recipients in FY 1979 is part of a proposed implementation schedule.

c) Other Child Feeding

The FY 1979 request of 5,000 monthly recipients for the OCF category, represents no increase for three consecutive fiscal periods and is considered optimum.

d) Food for Work

The FY 1979 request of 15,000 recipients is the same as FY 1978 and is considered the optimum level for this category.

COUNTRY: BURUNDI

D. MISSION EVALUATION SCHEDULE FOR FY 1978 AND FY 1979

<u>Project Title and Number/Subject</u>	<u>Last Evaluation Submission</u>	<u>Number of Last PAR (if acceptable)</u>	<u>Date of Submission FY 78 and/or FY 79 Evaluation</u>
0100	NA	NA	PAR/7/79
0101	NA	NA	NA
0102	NA	NA	NA

Remarks: Evaluations to be undertaken through auspices of the CDO and/or REDSO/EA.