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BUREAU FOR AFRICA

CAMEROON

SMALL FARMER LIVESTOCK AND POULTRY DEVELOPMENT (631-0015)

OPG/PVO HEIFER PROJECT INTERNATIONAL

Project Proposal  
Action Memorandum  
PAF II  
IEE Determination  
611(a) Memorandum  
Project Beneficiaries  
Procurement Waiver

OPERATIONAL PROGRAM GRANT PROPOSAL

PROJECT TITLE:

Small Farmer Livestock and Poultry Development

PROJECT LOCATION

Institut de Recherches Zootechniques  
Wakwa Centre, Bambui, and Mankon Stations  
United Republic of Cameroon West Africa

PRIVATE VOLUNTARY ORGANIZATION NAME AND LOCATION:

Heifer Project International, Inc.  
925 West Third Street  
Post Office Box 808  
Little Rock, Arkansas 72203  
U.S.A.

CONTACT PERSONS:

Mr. Terry Ford, Executive Director, H.P.I.  
Mr. Charles Burwell, Program Director, H.P.I.

DATE:

November 1979

TOTAL BUDGET REQUEST:

Heifer Project International	\$ 409,000
Government of United Republic of Cameroon	2,639,000
Agency for International Development	1,294,000
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	\$4,342,000

A. PROJECT PURPOSE AND DESCRIPTION

1. Purpose:

The purpose of this project is to provide a system through which small, limited-resource farmers can benefit from the development of improved breeds of livestock and poultry that are adapted to the Cameroonian environment.

A secondary objective of the project is to increase the availability - at a reasonable cost - of dairy products, eggs and meat.

To support this purpose improved breeds and crosses of dairy cattle, small livestock and poultry will be developed; research workers, extension workers and farmers will be trained in appropriate aspects of livestock and poultry to small, limited-resource farmers, and cooperative groups will be developed; and the distribution system for the resultant food products will be expanded.

2. Beneficiaries:

The ultimate beneficiaries will be the rural people of Cameroon. During the past three years they have already benefited from the distribution of improved breeds of pigs, cattle, and hatching eggs. Dairy herds have been established at Bambui and Wakwa, and the on-going dairy research and production efforts have resulted in the sales of milk in those rural areas.

Through the continued training of farmers and extension personnel, it is expected that significant numbers of improved livestock breeds and crosses will be distributed to farmers, with the specific target population being the small, limited-resource farmers whose main income is derived from farming. Some farmers already are obtaining improved livestock and poultry breeds to upgrade their stock, to provide for their subsistence needs, and to sell for increased cash income. It is understood, because of the significant contribution made by women in the development of the nation, that they would play a leading role in the execution of the project. Some specific areas are:

- a) Employment opportunities at all station locations.
- b) Training and extension programs in care and management of poultry and livestock.
- c) Extension programs in family health, with particular emphasis on infant nutrition.
- d) As recipients of improved poultry and livestock

In order to assure that there is significant impact from the improved livestock breeds upon rural dwellers, a training component to the project is included. Researchers will continue to be trained in the breeding of

improved livestock species adaptable to the Cameroon environment, optimal feeding rates, and disease control. Extension workers will be trained in livestock management. Farmers, in particular the small, limited-resource farmer, will receive training at the research stations and by extension workers. Farmer training at the research station will help insure that researchers are aware of producers' attitudes and problems.

### 3. General Project Description:

This project is built upon the initial successful experiences of Heifer Project International (HPI) and the Office National de la Recherche Scientifique et Technique (ONAREST) since 1974 in dairy and livestock management. Yet, the project will carry the initial efforts further as it seeks to maximize distribution of improved livestock and poultry breeds in collaboration with the Ministry of Animal Breeding.

#### a. Adaptive Research

The project is designed to continue adaptive research on improved varieties of livestock and poultry. Working with extension personnel from the Ministry of Animal Breeding, ONAREST will closely monitor the distribution of animals to area farmers, while continuing with the development of a livestock research capability. This will enable ONAREST to assess the costs and benefits of livestock production in farmer field trials. Local Cameroon breeds of livestock will be collected at the stations as a gene pool for crossbreeding. Adaptation trials will be of the imported breeds and crosses. A limited number of the animals will be utilized by the research staff for testing and evaluation. Animals will be distributed to local small farmers and cooperative livestock production organizations.

Adaptive research will be conducted on:

- the nutritional value of local agricultural byproducts, such as maize, rice bran, and brewers dried grains for use in foodstuffs for livestock and poultry. It is expected that no imported feedstuffs, except for trace minerals, will be required.
- the prevention and control of diseases and pests.

Additional stock may be imported through the auspices of HPI to serve as foundation or renewal stock as judged appropriate by the project evaluation team or as donations from American farmers to Cameroonian farmers.

#### b. Training

A variety of training programs will be utilized throughout the five-year life of the project.

Short term practical training has already begun, funded by A.I.D. through a Development Program Grant to HPI. Two men from each center have completed work experience on U.S. farms, and formal training at the Winrock

International Livestock Research and Training Center (Winrock) under the sponsorship of HPI. Two of the six trainees were from the Ministry of Animal Breeding and Industries. This program will allow the participants direct access training and experience in livestock, dairy husbandry, management, and related farming skills such as range management and milk plant operation.

In addition, the following training programs are proposed:

**In-country Short Term Practical Training:** Short term courses will be offered to three different audiences at the research station. These courses will be conducted by HPI and ONAREST personnel and graduates of the trainee program. These courses will be directed to government research and extension workers and interested farmers, with small farmers being the primary target group (a total of 75 per year). The courses will be practical in nature. By offering courses to extension workers and farmers it is planned that the ONAREST research staff will maintain an awareness of farmers' attitudes and problems. This will maintain a research program that relates to the needs of farmers.

The training of farmers in small livestock, poultry and dairy management will be accomplished at training centers to be built at the research stations. The training centers will provide accommodations for the farmers, a classroom, livestock pens made from locally available materials, and demonstration pastures.

**Graduate level training:** Nine persons will be sponsored for training at the master's level in the animal sciences. Two persons will receive training in dairy management and will be assigned upon completion of their studies to Bambui and Wakwa. One person will receive training in range management and will be assigned to Bambui. Three persons will receive training in disciplines related to small livestock and poultry and will be assigned to Mankon station. These disciplines will include pig husbandry, poultry production, sheep and goat husbandry. Three persons from the Ministry of Animal Breeding will receive training for small animal and dairy extension work. Training will be accomplished at appropriate U.S. and/or African institutions.

c. Livestock Distribution

The livestock and poultry will be distributed to farmers - in particular the small limited-resource farmers - and livestock production organizations whose main income is from farming, and who have a demonstrated interest and knowledge of livestock and poultry management. Each farmer receiving an animal will pay an affordable fee which will go back into the station operating funds to generate additional project assistance, or - where appropriate - will repay the debt incurred in receiving an animal by returning the first-born female offspring, or by other acceptable means. Distribution will be carried out mainly by the staff of the Ministry of Animal Husbandry in collaboration with ONAREST and HPI personnel. ONAREST stations will act

as reservoirs of improved genetic materials.

Special agreements will be made with the Ministry of Animal Breeding. Breeding stock will be supplied by ONAREST to the reproduction and production stations for multiplication and distribution to farmers.

Farmers attending short term training courses may obtain animals upon the completion of their training. During the life of the project it is anticipated that the following numbers of livestock and poultry will be available for distribution:

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Total</u>
Poultry	15,000	30,000	60,000	100,000	150,000	355,000
Rabbits	300	500	700	900	1,000	3,400
Pigs	100	300	600	600	600	2,200
Cattle	20	40	80	100	120	360
Goats	0	20	40	50	100	210
Sheep	0	0	20	40	50	110

The Institute of Animal Research will reach stock farmers through and with the collaboration of the Ministry of Livestock. The target population for this distribution will be the small, limited-resource farmer whose main income is from farming.

d. Milk Distribution:

The project represents the initiation of a dairy industry in Cameroon. Almost all dairy products are now imported. In 1975 Cameroon imported 2,361 tons of liquid milk, 1,324 tons of powdered milk, and 296 tons of butter. A domestic capability to produce dairy products will increase the distribution of these products to persons not now using them. This initial attempt to establish a dairy production capacity, and other improved livestock production practices, is being undertaken in three rural locations where severe nutritional needs are well documented.

The distribution of milk from the dairies at Bambui and Wakwa has commenced. Milk supplies are carried to Bamenda and Ngaoundere and sold to customers in their homes or along the road. Secondary schools and infant care centers have contracted to receive a supply of milk for the children.

See the following statistics from the Cameroon Agriculture Census of 1972/73, showing the percentage of farm families raising livestock, and the average number of animals per farm family (page 6):

CAMEROON AGRICULTURAL CENSUS, 1972/73

	Chickens		Goats		Sheep		Pigs		Cattle	
	F.F. (1)	A. (2)	F.F.	A.	F.F.	A.	F.F.	A.	F.F.	A.
Northern Prov.	76.0	10.7	48.7	7.3	46.2	6.7	0.2	3.2	37.1	7.8
Eastern Prov.	74.8	6.3	19.6	3.5	12.7	3.7	12.3	2.6	1.1	4.1
South-Central Pr.	78.6	7.1	41.7	3.2	19.2	3.1	23.3	3.8	0.1	2.3
Littoral Prov.	52.1	5.1	15.6	2.6	2.8	3.1	4.8	2.4	--	--
Western Prov. (3)	67.8	6.8	25.8	3.2	9.5	3.4	47.2	4.9	0.8	7.0
North-W. Pr. (3)	77.5	9.2	22.1	4.2	8.3	5.3	21.7	2.0	3.3	34.0
South-W. Pr.	56.8	9.0	21.1	3.4	6.8	3.6	24.7	3.0	1.1	2.0
Cameroon	72.8	8.6	35.3	5.2	23.4	5.6	17.1	2.6	13.2	6.5

- (1) Percentage of farm-families raising livestock
- (2) Average number of animals per farm-family
- (3) HPI/ONAREST Project Areas

New dairy processing equipment has been purchased by the Cameroon Government. A new dairy barn has just been constructed at the Bambui station for \$43,000 to house the new equipment and cows: it will be operational and milk will be pasteurized before implementation of the Grant. The milk will be packaged in one-half liter cartons, thereby increasing the ease and range of distribution of the milk.

There are a number of existing cooperative marketing outlets, and they will be a source for the distribution of food products resulting from this project.

#### 4. End of Project Status

- a. There will be an established through nascent dairy cattle, small livestock, and poultry industry in Cameroon which will involve a distribution system to provide improved livestock and poultry to small, limited-resource farmers and cooperative groups.
- b. There will be a functioning livestock and poultry research unit with an ongoing program of research in breeding, nutrition, and disease and pest control.
- c. There will be an increased number of small farmers raising improved breeds of livestock and poultry for subsistence needs and for sale.
- d. There will be greater availability of meat, eggs, and dairy products to the people at a reasonable cost.
- e. The small farmer will have access to formulated rations (locally produced), breeding services, and marketing systems.

#### B. PROJECT BACKGROUND

The dairy project was started at the Bambui Agricultural Research Station in 1969 when a herd of 50 White Fulani females and two bulls were purchased. The White Fulani is a Cameroonian breed, well adapted to its environment, but is a poor milk producer. The Government of Cameroon requested HPI to assist its dairy research by providing a better milk producing breed. In 1974, twenty-one Holstein-Friesian and Jersey heifers and one Jersey bull were shipped to the Bambui Station. An HPI dairy technician accompanied the heifers and spent one year to assist in the care and adaptation of these cows to the tropical environment.

An agreement of scientific and technical cooperation was signed between ONAREST and HPI in July 1976. An additional shipment of animals was made by HPI in September 1976. This shipment included 38 Holstein and Jersey dairy heifers, 36 pigs, and 38 goats. A shipment of 2,200 day-old chicks was received in December 1976.

Six HPI technicians have served in Cameroon: three as dairy advisors at Bambui; two veterinarians and a small animal technician at Mankon.

After five years of cooperation at Bambui the dairy management is now under the direction of ONAREST. The HPI dairy advisor will concentrate in the areas of extension and training in collaboration with ONAREST and the Ministry of Animal Breeding and Industries as the project moves into the second phase.

Training has commenced. Forty-four farmers have been trained in livestock management. The first group of six trainees has returned from the United States after successfully completing twelve weeks of dairy training at Winrock International Research and Training Center, and eight weeks of 'on-the-farm-training' at selected dairy farms. These men will fill key positions in the expanding dairy and livestock sectors.

To date farmers have received 3,000 hatching eggs, 80 breeding chickens, 11 breeding cattle, 167 breeding pigs, and 7 breeding goats. 15,000 table eggs and 845 table birds have been marketed to consumers in surrounding areas, as well as meat from 27 pigs and 7 goats. Milk is being made available, although on a limited basis, to provide much-needed protein.

The development of improved breeds of livestock is seen as an effective means to reach and impact upon the Cameroonian small farmer.

Livestock and poultry adaptive research is being undertaken at three stations: Bambui, Mankon, and Wakwa (see Annex I for a description of each station). A second dairy herd is being established at Wakwa. Of the shipment made in September 1976, sixteen heifers went to this station; the remainder went to the Bambui station. Small animal research is being conducted at Mankon with the goats, pigs, and chickens.

Until recently, the Government of Cameroon viewed cattle only as a means to increase meat production and consumption. No attempts were made to encourage the development of a dairy industry. The Government then decided to sponsor a pilot dairy project at Bambui. The success of the project during the past three years has already resulted in an expansion of the herd at the Bambui Station and the establishment of the dairy herd in Wakwa. If these herds continue to be successful, and if the dairy plant at Bambui proves to be feasible, there is the expectation that dairy production will continue to expand with full cooperation of the Government of Cameroon.

The development of this proposal has been with the full collaboration of the Institute of Animal Research, including the director of the Institute and the directors of each of the three research stations. The HPI technicians that have served in Cameroon have participated in the Project's development, as well as HPI's Little Rock staff.

The proposal has been presented to HPI's Program Committee and Board of Directors. In March 1979 this proposal was approved by the HPI Board of Directors, along with the proposed budget for five years of \$409,000.

OFFICE NATIONAL DE LA RECHERCHE  
SCIENTIFIQUE ET TECHNIQUENATIONAL OFFICE FOR SCIENTIFIC  
AND TECHNICAL RESEARCH

## INSTITUT DE RECHERCHES ZOOTECHNIQUES

## I. R. Z.

## INSTITUTE OF ANIMAL RESEARCH

ADDITIONAL INFORMATION ON POINTS RAISED  
ON THE PROJECT WITH USAIDROLE TO BE PLAYEDBY WOMEN IN THE O.P.G.

It is of tradition that women take active part in the business of running the Cameroon Nation. Women are present and are represented by their kind in the Cameroonian corps of Ministers, Parliamentarians; Directors, Doctors, Lawyers etc, etc. It is therefore no exception that in the execution of the O.P.G grant managed by H.P.I. women will play a leading role and women will benefit from the grant.

Some Specific Areas Are :

- There are young girl school leavers working in the Wakwa, Bambui and Mankon dairies in milking and calf bucket ~~in the hatchery~~ feeding and care.
- There are girls working in the hatchery and brooder in Mankon.
- The increased volume of secretarial work to be brought about by the O.P.G will necessitate recruitment of more women as secretaries to add to the 14 already working in the three units of the Institute.
- In the extension work where women will be taught the use of milk and milk by-products for, especially infant nutrition, women rural animators will be recruited and used.

Distribution Plan :

The Livestock distribution as contained on paragraph (C) page 4 of the O.P.G. document will be carried out mainly by the staff of the Ministry of Animal Husbandry in collaboration of ONAREST and H.P.I. personnel.

The main plan is that ONAREST Stations will act as reservoirs or pools of improved genetic materials.

Special conventions, agreements etc... will be made with the existing production stations of the Ministry of Animal Husbandry for this. Where they lack, such will be created (in the case of dairy, goats and sheep). Eggs, piglets, heifers, in brief, breeding stock will be supplied by research to the reproduction and production stations for multiplication and distribution to stockfarmers.

Place Of Training Junior Staff And Farmers

Given the cost, the experience we have had, the Junior Staff and Farmer training foreseen in the O.P.G. will be done in Cameroon, under the leadership of the Winrock Center. Simple classrooms and dormitories will either be built in each area of specialization (cattle, small animals) or a central training infrastructure will be built for Cameroon or even for other possible African recipient countries.

It is hoped and possible that the last batch of trainees will still train in the States. The possible composition of this batch is 4 from ONAREST, 2 from Ministry of Animal Husbandry and 2 from ENSA. The position of Cameroon on this

Cameroonian Signatories to The O.P.G.

The O.P.G. shall be signed by the Ministry of Economy and Plan on behalf of Cameroon.

As it is written in the O.P.G. and given that this operation concerns Livestock, practical arrangements and agreements will be concluded between ONAREST and Ministry of Animal Husbandry for its detailed execution.

Scrutiny Of Building Plans :

The building plans are ready and we are waiting for the arrival of AID engineer from Abidjan for scrutiny and amendments.-

C. PROJECT ANALYSIS

1. Economic Effects:

The goal of the project is to increase the availability and consumption of dairy products, eggs, and meat. In order to effect a wide distribution of these products in the rural areas it will be necessary to develop livestock and poultry farm enterprises. The number of these farm enterprises will be limited by the number of available animals. For the five-year life of the project, the following numbers of livestock and poultry are projected to be available for distribution on an annual basis:

<u>Animal</u>	<u>PROJECT YEAR</u>					<u>Total</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
Poultry	15,000	30,000	60,000	100,000	150,000	355,000
Rabbits	300	500	700	900	1,000	3,400
Pigs	100	300	600	600	600	2,200
Cattle	20	40	80	100	120	360
Goats	0	20	40	50	100	210
Sheep	0	0	20	40	50	110

After the fifth year of the project the number of animals available for distribution will remain constant at project Year-Five levels.

Imported feeds will not be required for these animals. Feed mills are now in operation at Mankon, Bambui, and Wakwa, and their capacities will be expanded. Feed rations can be made using locally available agricultural products and by-products. These include rice bran, brewers grain, palm kernel cake, groundnut cake, cottonseed cake, and blood meal. The selling price for this local feed (for poultry and pigs) will equal the actual cost of ingredients plus a small charge for mixing.

The following suggests the economic viability of the poultry facet of the project. One hen requires 45 kg. of feed per year at a cost of \$9.00. At current selling prices for eggs (\$.10 - \$.12 each), \$30.00 - \$36.00 could be realized if all eggs of one hen were sold.

The Ministry of Livestock maintains poultry production centers at Muyuka, Douala, Yaounde, and Kounden. Additionally, there are sub-stations at Bali, Mokolo, and Bertoua. The Muyuka poultry center distributes 14,000 chickens monthly to area farmers at a cost of \$.32 each. The average number sold to a farmer is 500, with a range from 50 to 2,500 chickens distributed. The Muyuka center also sells feed at a cost of \$.20 per kilogram. Local poultry farmers sell their egg production to poultry co-ops for \$.07 to \$.09 each. Old layers are sold for \$2.80 to \$4.00 each. These poultry production centers in other areas of Cameroon will be able to utilize the improved species of chickens resulting from the ONAREST research, rather than the imported breeding stock now utilized. There is also a need at the centers for improved feed ration information.

The exotic (U.S. and European) breeds of cattle at Bambui and Wakwa stations are each yielding an average of 4,000 to 5,000 liters of milk annually. The local Fulani breed yields approximately 400-500 liters of milk annually. The crossbreeds are expected to yield approximately 1,500 to 2,500 liters annually. By upgrading the local herds, it is expected that a four-to-five-fold increase in milk production will be realized. The two dairy stations will distribute bulls each year, and each bull can serve 25 heifers annually. The process of upgrading the genetic potential of indigenous cattle will include an emphasis on artificial insemination, beginning first in the Bambui - Bamenda area.

An immediate benefit of the increased milk production will be to provide sufficient milk for the calves: in many areas calf mortality is high due to lack of sufficient milk. There will also be milk for a family's needs and for sale to the dairy. Dairy farmers will be able to bring their milk to the stations for processing and the farmers will - of course - be paid for the milk. As the number of farmers with dairy cattle increases, assistance will be given to form a producers' cooperative for processing milk in conjunction with the Ministry of Livestock.

Pigs are being distributed directly to farmers on an experimental extension basis. Distribution will increase, and greater emphasis will be directed toward enabling small, limited-resource farmers to actively participate in training, and in receiving breeding stock. In the future the Ministry of Livestock will assist in pig distribution through its Kounden production center. Additional pigs will be distributed through farmers' cooperatives.

Distribution systems for dairy products, eggs, and meat do exist -- at various levels of efficiency. The new dairy equipment at Bambui will be operational in 1979. Farmers do have access to the dairy, and there are milk cans available for transporting the milk. Local cooperative marketing associations sell fresh eggs, meat, and vegetables. They will be able to sell the packaged milk and other foodstuffs as available.

## 2. Technology:

The improved species of livestock is one aspect of a new technology. These species will be higher yielding, and crossbreeding them with Cameroonian breeds will result in an upgrading of the productivity of local livestock. The processing and storage technologies required for the dairy production will be new for Cameroon.

## 3. Sociocultural Factors:

Farmers do raise livestock now (as per table on page 6) : the project proposes to improve their management abilities. The project will strengthen local resources by increasing the knowledge and skills of livestock and poultry management at the producer level.

Women are actively involved with the raising of small livestock in Cameroon and will be a part of the training programs conducted in Cameroon. There is an existing network of women's cooperatives in west Cameroon, and it is expected that animals will also be distributed through these cooperatives.

The Cameroonians do consume imported dairy products -- primarily, canned condensed and evaporated milk, and powdered milk. Based upon the experience around the dairy stations, there has been no lack of demand for purchasing fresh milk. The districts around Bambui and Wakwa will provide initial indications of demand for dairy products. Among the herds-men of the north, milk is the principal drink of the Fulani, Fulbe, and Hausa groups.

4. Project Relationship to Other Considerations:

- a. The project is expected to have direct impact upon the rural poor due to the nature of the project: the distribution of improved species of small animals and dairy cattle. Most rural Cameroonian families do have control over some livestock. In one survey conducted in one of Cameroon's poorest districts it was shown that the 'average' family had seven goats and/or sheep, and  $\frac{1}{2}$  head of cattle. A small, limited-resource farmer would also have the opportunity to breed his livestock with the improved breeds developed under the auspices of this project. While a farmer might have insufficient money to buy processed milk, he could raise an improved breed of dairy cow or goat which would yield increased amounts of milk.
- b. Small animal research is being conducted at the Hankon station, and animals will be distributed in the surrounding area. The acceptance and utilization of these animals by area farmers is being evaluated. Other government livestock stations will continue to be utilized as distribution and extension points for small animals.

The effects of the project are expected to spread to an ever-increasing number of people. The success of the dairy herd at Bambui has already resulted in a commitment by the Cameroonian government to establish a second dairy herd at Wakwa. A shipment of U.S. dairy cows has already been received by the Wakwa station.

If the dairy herds are successfully bred with local breeds and yield sufficient quantities of milk, it is expected that the Cameroonian government will place increasing emphasis upon a national dairy production program. The Ministry of Animal Breeding and Industries has just completed a new dairy development plan for the northwest and north, as a result of experience gained thus far at Bambui and Wakwa. The government has committed personnel, land, and funds for operating expenses to these stations.

5. Institutionalization of Project:

The project has an excellent chance to be institutionalized by the Cameroonian government. The proposed project is to receive 61% of its support from the Cameroonian government. The government has assigned personnel to the three research stations, provided land and buildings for the stations, and provided station operating expenses. Cameroon's budgetary allocation for the Institute of Animal Research has increased from \$148,000 in FY 1974 to \$616,000 in FY 1977. The projected budget for FY 1978 was over \$1 million.

The greatest proportion of the project's support by HPI and A.I.D. is for training, and establishing improved species of animals. The need for these kinds of expenses will decrease during the life of the project.

The persons receiving graduate training will return to staff or key positions with the Institute of Animal Research and the Ministry of Animal Breeding. By the end of the project there will be a sufficient number of trained Cameroonians to replace the HPI advisors. The salaries for these new positions have been incorporated into the ONAREST portion of the budget.

D. PROJECT DESIGN AND IMPLEMENTATION

1. Implementation Plan:

a. Project Execution

Heifer Project International/Cameroon will administer the project as it relates to the utilization of HPI and AID granted funds. HPI has provided technicians to Cameroon since mid-1974. Therefore, there is an established HPI presence in Cameroon, and an established working relationship with the main Cameroonian counterpart organization, ONAREST.

HPI will designate a Chief of Party who will be the Project Coordinator and, in concert with a representative of the Ministry of Animal Breeding and Industries, will work directly with the IRZ Head of Project. These persons will develop annual station work plans, develop local training programs, develop commodity specifications and ordering schedules, develop construction plans, and identify participants for short- and long-term training.

b. Provision of Technical Assistance

HPI has a long history of providing technicians to assist with livestock projects throughout the world, and has provided technicians to the Cameroon project. The proposed project has a requirement for three staff support positions, including a dairy advisor (for Bambui), and a small animal specialist (Mankon). HPI will recruit staff for these positions and a project coordinator (Chief of Party).

While administering the funds required for the project, and facilitating staff support, HPI/Little Rock will coordinate the short-term training at Winrock and elsewhere and arrange for the shipment of livestock and veterinarian supplies and medicines to Cameroon.

c. Basic Assumptions About the Availability and PVO Management of Resources

HPI has been providing assistance to developing countries in livestock management since 1944. HPI's scope of work has been expanding to include most aspects of livestock production. HPI will continue its assistance to developing nations in the field of livestock management and development.

AID has assisted HPI in carrying out its activities in a variety of ways. In 1978, AID paid \$169,307 to reimburse HPI for freight charges incurred in shipping livestock overseas. Other grants by AID to HPI included \$56,000 for a project in the Philippines; \$1,000,000 for a dairy project in Tanzania; \$420,000 to develop organizational capabilities for evaluation; and \$300,000 to assist in providing short-term training opportunities for livestock workers in Tanzania, Cameroon, and other developing areas.

d. Proposed Disbursement Procedures

A grant will be made from AID/W to HPI/Little Rock; HPI/Cameroon will receive funds from HPI/Little Rock in accordance with established HPI procedures.

e. Schedule of Actions Required

Initial actions required are AID/W approval of the Operational Program Grant and the subsequent signing of the Grant Agreement. (See Annex II for the logical framework.)

Actions required by responsible organizations include:

FIRST YEAR

ONAREST

1. develop livestock research program;
2. plan and construct livestock building, staff housing, and laborers' quarters - including electric utility hook-ups;
3. plan the livestock training curriculum, identify local training participants, and present training program;
4. distribute available animals;
5. identify participants for overseas training;
6. submit duplicate quarterly reports on progress achieved in all of the above areas to HPI and AID, using a standard form acceptable to the three parties.

HPI

1. identify project coordinator (Chief of Party);
2. recruit technicians for technical assistance positions;
3. arrange for shipment of drugs and livestock, as appropriate;
4. plan and construct office and laboratory complex and hatchery;
5. purchase four vehicles and laboratory equipment;
6. arrange for long-term training participants' attendance in U.S. institutions in collaboration with USAID;
7. assist with instruction in local training course.

SECOND YEAR

ONAREST

1. identify local training participants and present training program;
2. identify participants for short- and long-term overseas training;
3. plan and construct livestock buildings, staff housing, and laborers' quarters;
4. distribute available animals;
5. submit duplicate quarterly reports on progress achieved in all of the above areas to HPI and AID, using a standard form acceptable to the three parties.

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FIFTH YEAR

ONAREST

1. identify local training participants, and present training program;
2. identify participants for short-term overseas training;
3. establish research assignments for third pair of returnees from long-term overseas training;
4. undertake final project evaluation, submitting duplicate quarterly reports on progress achieved in all of the above areas to HPI and AID, using a standard form acceptable to the three parties.

HPI

1. arrange for shipment of drug supplies.
2. undertake final project evaluation.

f. Plans for Monitoring Implementation Plan

One person will be designated as the administrative coordinator of the project. This person will be responsible for the logistical support aspects of the project - such as commodity specifications, import clearances, training applications, local training support. The major responsibility for the successful operation of the project will remain with the Director General of ONAREST, with the assistance of the HPI Chief of Party.

g. Waivers

Waivers will not be necessary for vehicles. ONAREST has facilities at the Bambui station for vehicle repair and maintenance.

2. Measurement and Evaluation of Project Accomplishment:

This project will be evaluated by a team composed of representatives of ONAREST, HPI, and USAID (plus outside consultants, if necessary) at the end of the second and fifth year of the project.

Project monitoring will take place by field visits and by quarterly report examination.

The measurable elements of the project include the distribution of animals to farmers - particularly to small, limited-resource farmers whose main income is from farming; the number of persons trained; dairy plant production and sales; and increased consumption of eggs, meat, and dairy products. In numerical terms, the measurable elements of the project include:

a. Animal Distribution

<u>Animal</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Total</u>
Poultry	15,000	30,000	60,000	100,000	150,000	355,000
Rabbits	300	500	700	900	1,000	3,400
Pigs	100	300	600	600	600	2,200
Cattle	20	40	80	100	120	360
Goats	0	20	40	50	100	210
Sheep	0	0	20	40	50	110

b. Training

Short-term practical: 375 persons will have received training in dairy cattle management and small animal husbandry. These persons will include researchers, extension workers, and farmers.

Long-term: Nine persons will have received graduate level training by the end of the project.

c. Dairy Plant Production

Dairy records will be reviewed for daily production and sales figures. It is projected that 4.5 million liters of milk will be processed during the project.

d. Increased Consumption

Extension workers and researchers will carefully monitor the activities of farmers receiving the improved breeds. These reviews (more frequent in early project stages) will include the farmers' management practices and the manner in which they utilize their production: i.e., both for subsistence and sales purposes. ONAREST expects that 4 million dozen eggs will be produced during the project by farmers receiving chickens and at the Mankon station. Additionally, there will be goats' milk, pork, and rabbit meat available.

Annual evaluations of the project will be conducted by HPI. A major evaluation will be undertaken at the end of the second year of the project. This evaluation will include representatives of HPI, ONAREST, the Ministry of Livestock, and AID. The evaluations will allow HPI and ONAREST the opportunity to assess the project's progress and, if necessary, make adjustments in the use of HPI advisors and resources. A final evaluation will be made at the end of the project.

3. Financial Plan:

The five-year life of the project budget by sources of funds is as follows:

Sources	Amount		%
	CFA Francs (millions)	U.S. \$ (thousands)	
ONAREST	527	2,639	61
H.P.I.	81	409	9
A.I.D.	258	1,294	30
	<u>866</u>	<u>4,342</u>	<u>100</u>

(Exchange rate: U.S. \$1.00 = 200 CFA Francs)  
May 10, 1979

Component costs are as follow: : (See Annex III for the detailed project budget)

	ONAREST	H.P.I.	A.I.D.
<u>Personnel Costs:</u> ( \$US '000)			
U.S. Technicians			
Long Term (180 pm)	150	165	150
Short Term (4 pm)			15
Cameroonian Personnel			
Senior Staff	744		
Laborers	600		
Sub-Total	1,494	165	165
<u>Training Costs:</u> ( \$US '000)			
U.S. Training			
Long Term (168 pm)			270
Transportation	24		
Cameroon Training			40
Sub-Total	24	-	310
<u>Commodity Costs:</u> ( \$US '000)			
U.S. Source -equip. & supplies		130	75
Cameroon Source - vehicles	532	20	90
Sub-Total	532	150	165
<u>Other Costs:</u> ( \$US '000)			
Construction	170		160
Transportation			242
Revolving Fund (animal dist.)		20	
Vehicle Operation & Mainten.	80		75
Subsidy Fund (animal support)		20	
Evaluation	2	4	9
Sub-Total	252	44	486
<u>Total Costs:</u> ( \$US '000)			
Personnel	1,494	165	165
Training	24	-	310
Commodities	532	150	165
Other	252	44	486
Sub-Total	2,302	359	1,126
Inflation	337	50	168
T O T A L	2,639	409	1,294

Annex I.

Institute of Animal Research (I.R.Z.) Stations

The Institute of Animal Research (I.R.Z.) is one of the five research institutes that are comprised in the National Office of Scientific and Technical Research (ONAREST). The I.R.Z. consists of three research stations: Bambui and Mankon in the Northwest Province, and Wakwa in the North Province.

The mission of the I.R.Z. is to develop and conduct research programs leading to an improvement in animal production. Its specific tasks include research on farm animals, pastures and other animal feed sources, and marine fauna. The Institute makes available the results of its research to other Ministries and organizations within the Cameroonian government. The Institute assists in the training of personnel from other Ministries.

In carrying out its responsibilities, each station of the I.R.Z. has the following responsibilities:

BAMBUI

The Bambui station is located in western Cameroon and was established in 1942. Its research purposes are to:

1. develop improved species, breeds, and crosses of dairy and beef cattle;
2. investigate the optimal use of agricultural by-products and pastures for livestock feeding;
3. control and prevent livestock diseases.

The 800-acre station is 80 percent utilizable for pastures and paddocks. (Adjacent to the station is another 800-acre block of land used for a beef project.) The station's dairy barns have pens and a milking parlor, a milk storage room, and milk processing equipment including a bulk tank pasteurizer and bottler. There is also a grain mill and feed storage space.

There is staff housing at the station, and an office building. The dairy herd numbers 145, and is made up of both U.S. and Cameroonian breeds. Station personnel include five researchers, seven agricultural and veterinarian assistants, and eighty laborers.

MANKON

The Mankon station is located 30 km. from the Bambui station, and was established in 1975. Its research purposes are to:

1. develop improved species, breeds, and crosses of pigs, goats, sheep, rabbits, and poultry;
2. investigate the optimal use of agricultural by-products and pastures for livestock feeding;
3. demonstrate modern livestock management techniques;
4. control and prevent livestock diseases.

The station is comprised of 600 acres of well-drained, fenced, rolling grasslands. The station has goat and chicken buildings and two pig sheds. A new pig shelter with a capacity for up to 200 pigs was completed in 1977. There is a brooding house for 3,000 chickens, and they have incubators and automatic egg washers and graders. The new construction proposed under the project will be placed at Mankon. This includes the office and laboratory building; hatchery; livestock buildings; staff housing; and laborers' quarters.

Station personnel include five researchers, five agricultural assistants, and thirty laborers.

#### WAKWA

The Wakwa station is located 10 km. from Ngaoundere in North Cameroon. It was established in 1956 to conduct beef cattle research and extension by the Ministry of Livestock. In 1976 dairy research commenced under the auspices of I.R.Z. Its research purposes are to:

1. develop improved species, breeds, and crosses of beef and dairy cattle;
2. investigate the optimal use of pasturelands for livestock feeding;
3. demonstrate modern livestock management techniques;
4. control and prevent livestock diseases;
5. develop poultry production.

The station consists of 25,000 acres of flat grasslands. There are 2,000 head of beef cattle, and research is being conducted on cross-breeds resulting from the local Ngaoundere Gudali and the Texan Brahman. A new Cameroonian breed of cattle - the Wakwa - has been developed from this cross. Sixteen Holstein Friesian cows were donated by HPI in 1976 to establish the basis for a dairy herd. There is a dairy barn, milking machine, and milk cooling tank.

Station personnel include three researchers, four agricultural and veterinarian assistants, and eighty laborers.

ANNEX II. Logical Framework Matrix

1. Program or Sector

a. Goal:

This project will contribute to the increase of the

b. Measures of Goal Achievement:

An increase in the production and consumption of livestock and poultry.

c. Means of Verification:

Through the on-going extension evaluation component of the project.

d. Assumptions for achieving goal targets:

- that the Cameroonian government continue its emphasis upon rural development.

2. Project Purpose

a. Purpose:

To provide a system through which small, limited-resource farmers can benefit from the development of improved breeds of livestock and poultry that are adapted to the Cameroon environment.

A secondary objective of the project is to increase the availability - at a reasonable cost - of dairy products, eggs, and meat.

b. End of Project Status:

- (i) There will be an established nascent dairy cattle, small livestock, and poultry industry in Cameroon which will involve a distribution system to provide improved livestock and poultry to small, limited-resource farmers and cooperative groups.
- (ii) There will be a functioning livestock and poultry research unit with an ongoing program of research in breeding, nutrition, and disease and pest control.
- (iii) There will be an increased number of small farmers raising improved breeds of livestock and poultry for subsistence needs and for sale.
- (iv) There will be greater availability of meat, eggs, and dairy products to the people at a reasonable cost.
- (v) The small farmer will have access to formulated rations (locally produced), breeding services, and marketing systems.

c. Means of Verification

(i) Dairy Industry: 4.5 million liters of milk will be processed during the life of the project. Approximately one-half of this will come from local farmers. Dairy records will be used to verify the production and source of milk.

Poultry Industry: 4 million dozen eggs will be produced by farmers and the Mankon station. Poultry production records at Mankon will be used to verify the station's production. Farmers' production will be randomly sampled through an evaluation of the extension aspects of the project. In addition, 355,000 chickens will be distributed to farmers, cooperative groups, and the Ministry of Livestock's distribution centers. Station records will be used to verify the station's distribution.

(ii) Research Unit: Nine persons will be trained and be assigned to the Institute of Animal Research Laboratory and the Ministry of Animal Breeding. Laboratory facilities will be constructed and supplies will be purchased. Annual research plans will be developed, and the progress of the research can be evaluated.

(iii) Farmers Raising Livestock: During the life of the project the following number of animals will be distributed from the stations:

poultry	355,000
rabbits	3,400
pigs	2,200
cattle	360
goats	210
sheep	110

Station records can be used to verify the number of animals distributed. Training in improved animal management practices will be provided to 300 farmers. Animal distribution will be accomplished by various means, including direct to farmers, through cooperative groups, and through the Ministry of Livestock's distribution centers. These various means of distribution will help to insure that small farmers will receive animals.

(iv) Availability of Foodstuffs: This will be a function of the number of animals distributed to farmers and the animal husbandry methods they practice. During the project, as animals are being distributed, HPI and Cameroonian technicians will monitor and evaluate the growth and production of the animals. These evaluation reports will provide a basis to assess the impact of the project.

(v) Distribution Systems: Three feed mills will be in operation, and research and training in pasture management will be underway. Research on low-cost feeding rations will be undertaken. Produce marketing cooperatives exist in the project area. Assistance will be given to these cooperatives, or others, to develop marketing systems for livestock and poultry products.

d. Assumptions for Achieving Purpose

- That the Cameroon government continue its support of ONAREST at an increasing level of financing.
- That the trained researchers can establish a program of adaptive research.
- That farmers maintain their interest in upgrading their livestock and poultry.
- That farmers can raise livestock and poultry, with improved animal husbandry practices, on an economic basis.
- That the Ministry of Animal Breeding will continue to provide extension and training to the small farmer.

3. Outputs

a. Outputs.

- (i) Livestock and poultry distribution
- (ii) Trained farmers and research personnel
- (iii) Improved breeds and crosses of livestock and poultry.

b. Magnitude of Outputs

- (i) Improved breeds and crosses of livestock and poultry for distribution:

poultry	355,000
rabbits	3,400
pigs	2,200
cattle	360
goats	210
sheep	110

- (ii) Training

Farmers	300
Govt. extension workers	75
Graduate training	9

c. Means of Verification

- (i) Review of station extension and training records.
- (ii) Periodic extension visits.

d. Assumptions for Achieving Outputs

- (i) Qualified candidates for overseas training are available.
- (ii) A sufficient number of farmers are available for livestock and poultry training.
- (iii) Improved breeds of livestock and poultry continue to adapt to the Cameroonian environment.
- (iv) Inputs are provided as scheduled.

4. Inputs

a. Inputs

(i) Cameroon

- Personnel: U.S. Technician in-country support; Cameroonian senior staff and laborers' salaries.
- Training: R/T air fare for participants.
- Commodities: Animal feed; station supplies.
- Construction: Livestock buildings; staff quarters
- Vehicle operating costs and maintenance.
- Evaluation

(ii) Heifer Project International

- Personnel: Two technicians' salaries
- Commodities: Livestock; drugs; supplies; technicians' vehicles.
- Revolving Funds: Animal distribution
- Subsidy Fund: Animal support
- Evaluation

(iii) US/AID

- Personnel: Project coordinator; short term consulting services.
- Training: Graduate level and in-country
- Commodities: Laboratory equipment; farm vehicles
- Construction: Laboratory; hatchery; feed storage
- Transportation: for HPI-provided animals
- Vehicle operating and maintenance costs
- Evaluation

b. Implementation Target:

- (i) Funds obligated during fourth quarter, FY 1979
- (ii) HPI coordinator selected
- (iii) Commodity ordering in early FY 1980
- (iv) Construction plans developed and approved in first half of FY 1980.

c. Means of Verification

Monitoring by HPI, Ministry of Animal Breeding, and IRZ project coordinators

d. Assumptions for providing inputs

Qualified U.S. technicians are available.

ANNEX III - Project Budget

Detail of Project Budget - ONAREST Contribution

( \$U.S. '000)

<u>CATEGORY</u>	<u>AMOUNT</u>
<u>Personnel</u>	
U.S. Technicians	
Housing and Furnishings	150
Cameroonian Personnel	
Senior Staff	744
(10 persons at beginning of project, increasing to 17 at end of project.)	
Laborers	600
<u>Training</u>	
Transportation	
R/T airfare to US	
9 long-term trainees	12
8 short-term trainees	12
<u>Commodities</u>	
Cameroon Source	
Animal Feeds	332
Station Supplies/ Equipment	200
<u>Other</u>	
Construction	
Livestock Buildings	50
Staff Housing	120
Vehicle Operation	
Maintenance	20
Gas and oil	60
Evaluation	2
	<hr/>
Sub-Total	2,302
Inflation	337
	<hr/>
TOTAL	2,639

Detail of Project Budget - HPT Contribution  
( \$U.S. '000 )

<u>CATEGORY</u>	<u>AMOUNT</u>
<u>Personnel</u>	
U.S. Technicians 2 persons/year	150
R/T Air Fare	15
<u>Commodities</u>	
U.S. Source	
Livestock, drugs, supplies	130
Vehicles for technicians	20
<u>Other</u>	
Revolving Fund (animal distribution)	20
Subsidy Fund (animal support)	20
Evaluation	4
	<hr/>
Sub-Total	359
Inflation	50
	<hr/>
TOTAL	409

Detail of Project Budget - US/AID Contribution

( \$U.S. '000 )

<u>CATEGORY</u>	<u>AMOUNT</u>
<u>Personnel</u>	
U.S. Technicians	
1 Person/Year	135
R/T Air Fare	15
Short-term consultants (4 pm) (marketing consultant)	15
<u>Training</u>	
Degree-level Training	
Long term (9 persons)	270
Cameroon Training	
Classroom and Housing	30
Training materials	10
<u>Commodities</u>	
U.S. Source	
Laboratory Equipment	75
Milk Van	
Truck	90
Pick-up trucks	
Tractor and equipment	
<u>Other</u>	
Construction	
Laboratory	90
Hatchery	40
Feed Storage	30
Transportation	
Freight for HPI animals	242
Vehicle operation	
Maintenance	21
Gas and oil	54
Evaluation	9
	<hr/>
Sub-Total	1,126
Inflation	168
	<hr/>
TOTAL	1,294

CAMEROON GRANT

NARRATIVE	INDICATOR	MEANS OF VERIFICATION	ASSUMPTIONS
<p><u>GOAL:</u></p> <p>Increased level of living of rural Cameroonians</p>	<p>Increased production and consumption of livestock and poultry.</p>	<p>Through the ongoing extension evaluation component of the project.</p>	<p>The Cameroonian government continues its emphasis upon rural development</p>
<p><u>PURPOSE:</u></p> <p>Small, limited resource farmers benefit from the raising improved and adapted breeds of livestock and poultry.</p> <p>Increased availability of dairy products, eggs and meat at reasonable cost.</p>	<p><u>EOPS:</u></p> <ol style="list-style-type: none"> <li>1. A dairy industry which will have processed 4.5 million liters of milk.</li> <li>2. A poultry industry which will have 4 million doz. eggs produced.</li> <li>3. Research unit completed and staffed.</li> <li>4. 300 farmers trained.</li> <li>5. Increased food production by small farmers.</li> <li>6. Three feed mills in production, research and training in pasture management conducted, feed research initiated marketing systems developed through local cooperatives.</li> </ol>	<p>Examination of Bambui and Wakwa Stations records and reports.</p> <p>Examination of Mankon Station records and reports.</p> <p>Review of research records and reports.</p> <p>Examination of station records and reports.</p> <p>H.P.I. and Cameroonian technicians' records and reports.</p>	<p>Increased funding of ONAREST.</p> <p>Extension and training provided to small farmers.</p> <p>Farmers can profitably utilize improved production practices livestock and poultry.</p> <p>Dissemination of improved breeds and species.</p>

**BEST AVAILABLE DOCUMENT**

<u>OUTPUTS:</u>  Livestock and poultry distributed.  Improved breeds of livestock and poultry.  Trained farmers and research personnel.	355,000 poultry distributed 3,400 rabbit           " 2,200 pigs             " 360 cattle             " 210 goats             " 110 sheep             "  Herd and flock growth rate - milk production growth rate, egg production growth rate.  300 farmers trained 75 government extension workers trained 9 graduate level re- searchers trained	<u>U.S.</u>  Review of station extension records and reports.  Periodic extension visits, Cameroonians and H.P.I. technicians' records and reports.  Review of station training records and reports.	Improved breeds successfully adapt to Cameroonian environment.  Qualified candidates for training are available.  Inputs are provided as scheduled.
<u>INPUTS:</u>  1. CAMEROON Personnel Training Commodities Construction Transportation Evaluation  2. H.P.I. Personnel Livestock & Supplies Vehicles Revolving Funds Subsidy Fund Evaluation  3. USAID Personnel Training Commodities Construction Transportation Evaluation			Availability of U.S. staff.  Availability of funds from all three parties.

memorandum 29

DATE: February 29, 1980

REPLY TO  
ATTN OF: C.D. Fortunato, GEO (PDO) - AID/Y *C.D. Fortunato*

SUBJECT: Livestock and Poultry Research  
Heifer Project International - (HPI-OPG) - Project 631-0015  
Certification Pursuant to Section 611(a) of the FAA of 1961. as Amended

TO: J. E. Williams, Director

After reviewing the:

- 1) Preliminary Plans of the Office and Laboratory Building,
- 2) Operational Program Grant Proposal dated November, 1979,
- 3) IRZ/AID letter of February 29, 1980,

and with the expressed understanding that the aggregate amount of total construction costs financed by the USAID will not exceed US \$190,000 and, as stated in the attached letter, the costs in excess of that amount will be paid by IRZ, I determine that the certification pursuant to Section 611 (a) of the Foreign Assistance Act of 1961, as amended be issued for the captioned project.

Attachment: a/s

Clearance: PDO:RFRifenburg (draft)

Drafter: PDO:CDFortunato:ate



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

OPTIONAL FORM NO. 10  
(REV. 7-76)  
GSA FPMR (41 CFR) 101-11.6  
5010-112

OFFICE NATIONAL DE LA RECHERCHE  
SCIENTIFIQUE ET TECHNIQUE

NATIONAL OFFICE FOR SCIENTIFIC  
AND TECHNICAL RESEARCH

INSTITUT DE RECHERCHES ZOOTECHNIQUES  
I. R. Z.  
INSTITUTE OF ANIMAL RESEARCH

B.P. 65 - NGAOUNDERE

Ngaoundéré, le  
the 29 February 1980

No. / L/DIRZ

La Directeur

OBJET : LAB/OFFICE BUILDING

CONSTRUCTION (OPG-HEIFER,  
631-0015)

à M. Richard H. Goldman, USAID/Yaounde  
to Mr. B.P. 817, Yaounde, Cameroon

REF. :

Dear Sir:

I am writing to acknowledge your letter of February 1, and the accompanied comments of January 30 on the construction plans for the laboratory/office at I.R.Z. Mankon.

I have had a chance to study the memorandum and all the comments with my collaborators. The following observations are made on your letter and memorandum:

- We intend to maintain the surface area of the building as requested by the researchers who designed the building.
- The structural criticisms are being corrected and the detailed working plans are already being done.
- It appears the AID engineers have probably over-costed the buildings.
- The Delegate General has just made available to me for capital expenses for the period ending June 31, 1980 15,000,000 Fr. for construction in Mankon; 34,000,000 Fr. as counterpart funds to HPI/AID project; and 57,000,000 Fr. for scientific equipment in the Institute. We therefore have a total of 49,000,000 Fr. to match the \$190,000 to be made available by AID for construction of the laboratory/offices in Mankon.

In view of this new information on the availability of added funds, HPI/AID should appropriate a fixed maximum amount of \$190,000 (38,000,000 Fr.) for this project and any extra cost will be met with the I.R.Z. contribution (49,000,000 Fr.) already at hand.

I am sure this information meets your requirements to complete 611 (a). Should you need additional information, I shall be glad to make it available.

Sincerely yours,

Emmanuel D. Tebong  
Director, I.R.Z.



ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR FOR AFRICA

FROM: AFR/DR, J. W. Koehring

SUBJECT: Cameroon, Small Farmer Livestock and Poultry Development,  
631-0015, Heifer Project International-OPG, Initial Environ-  
ment Examination (IEE)

PROBLEM: Your approval of a Negative Determination for the attached  
IEE is required.

DISCUSSION: Heifer Project International, a private voluntary organi-  
zation has submitted a proposal to assist Cameroon small farmers with  
the development of their livestock resources (chickens, goats, dairy  
cows and swine). This project, if approved, will allow Heifer and GURC to  
expand their past efforts to develop improved breeding stock and provide  
these stocks to smallholders in the Northwest and North Provinces. AID/  
Washington has reviewed the proposal and, with several modifications,  
recommended that the mission authorize the project. If funds become  
available the mission intends to authorize the project and obligate  
funds by the end of this fiscal year.

Your staff, DR/SDP and GC/AFR, have cleared the attached IEE. Before  
the mission can authorize the project your approval of this IEE is  
required.

Recommendation: That you approve the Negative Determination in the  
attached IEE.

Approved [Signature]

Disapproved \_\_\_\_\_

Date 10/12/79

<sup>4/4</sup>  
Drafted: AFR/DR/CAWARAP:RHGoldman:gb:10/12/79

Clearances:

AFR/DR/CAWARAP:MSpeers [Signature]

DAA/AFR:WPNorth \_\_\_\_\_

10-12-79

INITIAL ENVIRONMENTAL EXAMINATION

PROJECT COUNTRY : Cameroon

PROJECT TITLE : Small Farmer Livestock and Poultry Development (Heifer Project International-OPG)

Funding : FY 1980-FY 1984 - \$1,285,000

IEE Prepared by : R.H. Goldman, Project Manager - Agriculture and Rural Development. September 11, 1979

Environmental Action Recommended : Negative Determination

This five year project is designed to provide a system through which small, limited-resource farmers can benefit from the development of improved breeds of livestock and poultry that are adapted to the Cameroonian environment. A secondary objective of the project is to increase the availability - at a reasonable cost - of dairy products, eggs and meat and to raise producer incomes. The project uses proven and existing technology and will not introduce unknown genus of animals into the environment. No adverse environmental impacts are anticipated and, therefore, neither an environmental assessment nor an environmental impact statement are required.

Concurrence: \_\_\_\_\_ Date: \_\_\_\_\_  
 John W. Koehring

Assistant Administrator's Concurrence:

Approved \_\_\_\_\_  
 Disapproved \_\_\_\_\_  
 Date \_\_\_\_\_

PROJECT BENEFICIARIES

Through the continued training of farmers and extension personnel, it is expected that significant numbers (see page 5 of proposal) of improved livestock breeds and crosses will be distributed to an estimated 30,000 farmers, with the specific target population being the small, limited-resource farmers whose main income is derived from farming. There will be 375 extension workers and researchers who will be trained in dairy cattle management and small animal and poultry production. These extension workers and researchers, together with the existing extension agents, will carefully monitor the activities of farmers receiving improved breeds of livestock. Through the monitoring system in which each farmer will be visited once a month, an evaluation of the project can be made. In addition, production outputs from the Mankon, Bambui and other stations will be recorded. AID's contribution to the project is an estimated \$43 per family.

The project grant agreement specifies that a detailed formula and plan for the distribution of animals to small holders will be reviewed and approved by USAID/Y prior to implementation. This plan, of necessity, will further detail the beneficiary target group.

Project farmer participants have been identified as those farm families who derive their income from farming/livestock activities and are not otherwise gainfully employed.