

5.0 POTENTIAL PROGRAMS

5.1 TYPES OF PROGRAMS

Preparation, selection, and implementation of IPP-related programs will be based on the process described in the Environmental Foundation Plan (See Volume 4, Part I of the EMP) and be based on informed participation. Programs selected will be carried out by local or international institutions and NGO's in collaboration with representatives of the Bakola Pygmies and other concerned populations.

Potential programs would:

- be developed and chosen with the concerned populations,
- concern health, education and agriculture,
- would be open to both Bakola Pygmies and Bantu, and
- would be simple programs that do not force the populations to observe a radically different lifestyle or create any new dependency.

A variety of programs might be developed including those listed below.

Program	Examples
Health related issues	<ul style="list-style-type: none"> – Tuberculosis control for Bakola Pygmies and Bantus. – Surveillance and application of child vaccinations (extended vaccination program). – Surveillance and control of endemic and epidemic diseases (cholera, yaws, tuberculosis, STD, and skin diseases). – Assistance in equipment and supplies of local health centers available to both Bakola Pygmies and Bantus. – Supply of clean water.
Community capacity building through schooling and education	<ul style="list-style-type: none"> – Literacy classes for the adult population using itinerant teachers that visit the Bakola Pygmies in their settlements. – Counseling on hygiene in and around the house.
Agriculture and agroforestry	<ul style="list-style-type: none"> – Improvement in traditional food crop agriculture through extending the cultivated area and improvement of techniques. – Use of improved seeds for better yields. – Implementation of agroforestry systems to improve the use of traditionally available plants.
Census of Bakola Pygmy settlements and population	<ul style="list-style-type: none"> – Census of the Bakola Pygmy population, help with obtaining of identity papers and development of a system of birth registration and birth certificates that are important for vaccination and public health campaigns.

Income generating activities	– Bakola Pygmies are famous for their dancing. Traditional dance groups could benefit from the developments of the tourist industry and help Bakola Pygmies earn an income. Handicrafts could also be developed, as well as the commercialization of some forest products.
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The programs proposed are the first step in the overall development of practicable and well-defined programs. During years 1-3 of the Environmental Foundation's existence, it will be the responsibility of the CDF to work with communities to develop practicable, thought-out project and programs which have undergone in-depth community review for funding. Ideally, there would be community consensus before any proposal submitted for consideration for funding.

5.2 SPECIFIC SOCIOCULTURAL CONSTRAINTS OF AND NEEDS OF BAKOLA PYGMIES

5.2.1 Sociocultural Constraints

Potential programs must be designed to recognize some of the specific sociocultural constraints around the Bakola Pygmies which include:

- Ostracism by some Bantu villagers and civil servants.
- Seasonally mobile and have permanent settlements and hunting camps in the forest.
- Frequently settled away from the villages and roads.
- Historically dependent and have inter-relationships with Bantu villagers.
- Possess very limited personal property.

This IPP recognizes that it is extremely important not to interfere with the equilibrium that exists between Bakola Pygmies and Bantus villagers by giving help and equipment to the Bakola Pygmies without equivalent compensation to the villagers. Such an action could result in significant social and inter-ethnic tension.

5.2.2 Specific Needs

Bakola Pygmies could benefit from:

- Better participation in the Cameroonian society.
- Simplification of procedures to obtain identification cards.
- Education to understand how to deal with other ethnic groups, local authorities, and outside interests.

- Help in all judicial matters that concern litigation among Pygmies and between Pygmies and Bantus.
- Hygiene and public health are lacking more for the Bakola Pygmies than for other populations.
- Increased agricultural production to increase food self-sufficiency and their purchase power.
- Enhancement of self confidence.

5.2.3 Existing Vulnerabilities

Today the major vulnerability of Bakola Pygmy populations comes from a number of sources:

- there is a general degradation of the forest all around them,
- the development of logging in the region,
- existing over exploitation of wild game and its eventual disappearance,
- external and internal influences, and
- general cultural change.

Dancing for tourists, and otherwise participating in the tourist trade has become one source of income for Bakola Pygmies in the Kribi area. However, it has also become a quick source of acculturation. As observed by GEPFE, many Bakola Pygmy traditional healers travel to Yaoundé or Douala and are themselves deeply involved in modernization. Ideally, the Environmental Foundation could provide the opportunity to implement programs to help Pygmies to negotiate this transition and become fully participate in the developing economy without losing the basis of their culture.

5.2.4 Implementation and Impact on Changes in Way of Life

Careful implementation of this IPP would benefit existing Pygmy populations and lead to improvements in their quality of life. But it is also a factor of accelerated acculturation. It is expected that some Bakola communities will wish to accept this process, and other will prefer to keep their traditional way-of-life. However, it can be considered that the Bakola settlements already living close to the road, and thus involved in the Project impacts, have implicitly chosen interactions with outsiders.

One of the key elements of this IPP is that through the Environmental Foundation's support of small grant developmental projects/programs, Pygmies will decide their future by themselves, and will be pro-active participants in determining the improvements they would like to see.

5.3 MEDICAL PROGRAMS

The Bakola Pygmies are famous for their traditional medicine and treat many people from inside and outside the area. However, their traditional medicine is not very effective against most infectious diseases. A program that would give key representatives of the Bakola Pygmy community better knowledge of health and disease would not only benefit the Bakola Pygmies themselves, but also their patients, as many of them suffer from disorders that might benefit from modern medicine.

Disease is an important issue for the Bakola Pygmies, and life expectancy is low. Public health programs could be adopted with emphasis on child vaccinations and control of endemic and epidemic diseases: measles, tuberculosis (presently an epidemic), sleeping sickness and cholera (both presently threatening), and yaws (endemic treponematosi).

The Bantu populations in the area have partial access to modern medicine (hospitals in Kribi, Bipindi, Ngovayang, and Lolodorf; health posts in Grand Zambi, Bandevouri, and Bidjouka), have their own traditional medicine, and go to the Bakola Pygmies for specific cases.

The objectives for this program are:

- to help the local population in promoting health and coping with disease through training of key individuals
- to make medical drugs available at affordable price to the local population.

The medical projects might include options on attacking specific endemic diseases, improved water supply, training in community health care and nutrition, and establishing a local pharmacy.

5.3.1 Tuberculosis Control Program

During the consultation work for the CLS concerning the Bakola Pygmies in the Kribi-Lolodorf area, the team was alerted to a significant health problem affecting the local Bakola Pygmy population. Specifically, an outbreak of tuberculosis (TB) was occurring, with at least 6 diagnosed cases affecting the Bakola Pygmy population. There were no funds available to screen the population in general or even to treat the known cases.

Based on current data, it is expected that the incidence of TB in the Bakola Pygmy population is about two percent. This translates to approximately 50 cases in the local population of 2,500. The incidence is lower for the villagers and is estimated to be between 0.5 and 1.0 percent.

The Chad Export Project has recently initiated a tuberculosis control program for the benefit of both the Bakola Pygmies and Bantu villagers in the Lolodorf-Kribi area. This program could be expanded.

The control program is centered in Ngovayang, Bipindi, and Lolodorf. At each location, a medical team including a physician, a nurse, and two lab technicians, will spend three days performing TB screening tests. About 10 percent of the local Bakola Pygmy population (or ~250 persons) and four percent of the villager population (or ~400 persons) will be screened by skin test. Bacterial diagnosis will follow for those who test positive.

Following the screening effort, a health trainer will visit each of the screening locations. The trainer will educate the community regarding the signs and symptoms of TB and measures to reduce exposure for the families of TB-infected patients. He/she will also dispense the medication to the patients and train the patients in the proper administration of the TB treatment.

5.3.2 Training In Community Health Care

The training of a number of representatives of various Bakola Pygmy communities, both men and women, on practical aspects of health and disease would be through specific short training courses (1-3 months). Provision should be made for follow-up after the training courses and contacts with the local health authorities of the hospitals of Kribi, Bipindi, and Lolodorf and the health centers of Bandevouri, Grand Zambi, and Bidjouka.

The training would address issues that concern all populations, Bakola Pygmies and Bantus, and it can be foreseen that the number of beneficiaries will have to be limited.

An integrated approach to health and disease would include infectious diseases, water borne diseases and so integrate the improved water supply project, nutrition and the need of growth monitoring and agricultural development.

5.3.3 Opening Of Small Local Pharmacies

Drugs are available in Kribi, Bipindi, and Lolodorf, and in some community health centers like Bandevouri and Bidjouka. Pharmacists Without Borders would help the local population to setup and administrate a stock of drugs, that can be sold inexpensively to the local communities located too far from the above mentioned health centers (like Makoure and Bissiang), and with the procees new drugs can be bought.

Advantages	Disadvantages
<ul style="list-style-type: none"> - Available to all local populations. - Investment in initial stock of medicine. - Renewal of the stock from sale of drugs. - Low start-up costs - requires a specialist in area for about one year. - Both Bakola Pygmies and Bantus included in health post administration. 	<ul style="list-style-type: none"> - Potential difficulty including both Bakola Pygmies and Bantus in daily administration of health post.

5.3.4 Water Supply

There are over 20 Bakola Pygmy settlements and about 20 Bantu villages within 2 km of the pipeline centerline. Lack of supply of clean water is a major problem in the area where:

- most drinking water comes from rivers, streams,
- water collected from natural springs that are not protected from pollution, and
- use of latrines is rare and not very appreciated by the population.

Natural springs, where water usually seeps from the ground is the normal water supply for many Bakola Pygmies and Bantu. This water can be of good quality, but is easily polluted.

In the villages between Kribi and Lolodorf, good drinking water is only available in Bipindi, Bidjouka and Ngovayang. Improved water supply would benefit Bakola Pygmies most in permanent settlements and could be also be made available to area Bantu villages that lack clean water supply.

Outbreaks of diarrhea and cholera are frequent in the area. In December 1997, several local people died from a disease attributed to cholera.

The objective of the program would be to provide as many people as possible, access to good quality drinking water. Two options for improving the water supply are:

- drilling of new wells, and/or
- improving the existing water supply by protecting it from direct pollution.

Drilling of New Wells: Construction of water wells, equipped with simple pumps of proven quality and easily maintainable is a potential program to be implemented.

Advantages	Disadvantages
<ul style="list-style-type: none"> - Good water quality and protection against pollution. - Experience in drilling is present in Cameroon. 	<ul style="list-style-type: none"> - Maintenance is sometimes difficult as many models exist in Cameroon and spare parts are not always easy to find. - Expensive (estimates vary from US \$8,000-\$11,000/well, 4-6 M FCFA). - Due to cost, would require many years to provide wells to all Bakola Pygmy settlements and Bantu villages. Difficult to prioritize.

Improvement of Existing Water Supplies: Existing wells can be improved by piping the water from the area where it seeps occur to an area where water can be collected under more hygienic conditions. Improvements such as cementing an area have been created by villagers in the B elabo area with the help of the French NGO "Association Francaise des volontaires du Progres" (AFVP), in Yaound e.

Advantages	Disadvantages
<ul style="list-style-type: none"> - Materials (cement, plastic pipes, and sand) needed for improvements is readily available and low cost (about US \$50-100/well). - Could benefit many settlements and villages at low cost and are easy to maintain. - Requires Bakola Pygmies and Bantus involvement during the construction. - Local masons could be trained by an NGO such as AFVP to complete the work. 	<ul style="list-style-type: none"> - The quality of the water is less guaranteed than when a closed well is used. - The local population needs to be aware of protection methods against pollution. - The AFVP intervention may be expensive. - The improved wells would only be present in the permanent settlements.

The number of wells built and water supplies improved will be the benchmark.

5.4 CHILDREN'S AND ADULT EDUCATION

Two groups of Bakola Pygmies especially affected by education are young children and adults. Currently, a frequent way Bakola Pygmy children can obtain schooling is to attend a boarding school. This is because the villages are located some distance from schools, and the children's parents are often away in forest hunting camps.

Currently there are two boarding schools available for Bakola Pygmy children to attend. One is located in Kribi; the other in Bipindi. One possible method to further enhance educational opportunities which could be addressed through the IPP process would be to build one or several schools so schools will be closer to Bakola Pygmy settlements.

Adults that have no formal education have difficulties in their contacts with the outside world, with health, and with government authorities. Some education would help them understand how to locate and use government resources and deal with government officials, logging companies, development interests, and others. Topics related to health, nutrition, and agriculture could also be taught. This education could help to diminish dependency on others and boost self confidence.

The objective of education programs would be to:

- Help parents send their children to school through scholarships.
- Help schools in their effort to teach Bakola Pygmy children.
- Train adults in their village on community development through a native language education and literacy program.

5.4.1 Children's Education

- Scholarships that pay partly or completely annual school fees.
- Help schools with educational supplies.
- Help boarding schools with food necessary for the pupils.

5.4.2 Adult Education

- Bakola could be educated to teach other adults basic reading and writing skills in their own settlements, as well as reinforce past learning.
- Education in practical matters as:
 - rights and obligations as Cameroonian citizens.
 - health, hygiene, nutrition, children's education, and agriculture.

5.4.3 Place Of The Bakola Pygmies In The Cameroonian Society

- Provide assistance to help Bakola Pygmies obtain National identity papers necessary for employment and other services.
- Local agents, preferably Bakola Pygmy, to assist the Bakola in their contacts with the administrative authorities.
- Conduct a census of Bakola Pygmy settlements and locations at the whole community level to verify the presence and population of settlements for use in obtaining government services, use in planning, *etc.* An updated census would also assist in planning effective vaccination and public health campaigns.

- Register all births and provide for the issuance of birth certificates.
- Relations between the Bakola and the villagers should conform to a fair management in employment conditions. As this is not an easy issue, specific ways of action should be considered.

5.5 AGRICULTURE

As game has become less abundant in the Project area over the last two decades, the Bakola have become increasingly dependent on agriculture to supply food, gradually increasing its contribution to their diet. The objective of agricultural improvement programs would be to raise agricultural output through extension of areas cultivated, improved agricultural practices and better inputs.

Improvement in traditional food crop agriculture would be possible through extending the cultivated area and time allocated to agricultural activities. Agricultural tools, locally in use, are limited to hoes, machetes, axes, spades and rarely wheelbarrows. The use of improved varieties of seeds and fruit trees would boost yields. With the help of the Catholic Mission, oil palms of improved variety are raised and adopted in many Bakola Pygmy settlements, thus showing the interest in planting goods.

- Actions should include information, demonstration, training and implementation by Cameroonians. Representatives of MINREST (Ministry of Research), MINAGRI (Ministry of Agriculture and IRAD (Institute of Agricultural Research for Development) are especially concerned.
- A program on small animal husbandry, eventually including wild animals, could be developed to mitigate the disappearance of game.
- Implementation of agroforestry systems that improve the use of traditional available plants like fruit trees (*Irvingia gabonensis*, wild African mango, *Dacryodes edulis*, (safou or bushbutter), *Ricinodendron*, *Spondias*, *Strophantus grattus* (important for the pharmaceutical industry), Rattan for basketry, *Coula edulis* (wild nut), *Trema* sp. (attracts game).

One issue to be potentially addressed is the identification of the means to provide Pygmies permanent access to their own land. Pygmy settlements near the Kribi-Lolodorf road are located on Bantu land where the Bantu let them live until they decide otherwise. This creates a dependency on the Bantu, which would be reduced if the Pygmies had access to their own land.

For those Pygmies, who have indicated a wish to become more sedentary, such a program would assist them in meeting their needs. If a program were initiated to seek methods to

guarantee Pygmies access to their own land it would be necessary to involve the local authorities such as the préfet and sous-préfet.

5.6 CONCLUSION

The IPP represents an opportunity for the Bakola Pygmies to implement a number of improvements they care to make over a period of 25 - 28 years, using defined monies provided by the Environmental Foundation.

Change is inevitable even in the absence of the pipeline. The Project will accelerate change in the Project area, but through the IPP, negative impacts can be minimized and beneficial impacts maximized. In the long-term, the IPP can be implemented in a manner which will improve the existing conditions of the Pygmies in the Project area.

The Chad Export project can then be a special opportunity to increase knowledge of Pygmy societies undergoing changes, before the process becomes irreversible.