

7.0 MONITORING GOALS AND VARIABLES

7.1 INTRODUCTION

This Section describes major Project goals and monitoring variables. These goals and variables are in addition to those discussed elsewhere in other Project documents, such as the monitoring parameters set forth in the EMP. The variables proposed here are designed to measure the success of the land acquisition and compensation process, and the success of individuals and families to re-establish their economic land base on temporarily used land. In the following Section, issues and variables associated with different aspects of Project development are discussed.

7.2 MONITORING PROCESS

7.2.1 Collecting and Recording of Comparable Data

The ability to successfully evaluate impacts (negative, neutral, and positive) requires:

- Selection of appropriate, defined variables which can be directly linked to direct Project affects (e.g., amount of land under cultivation in the Land Easement, cultivation of high vs. low value crops),
- Avoidance of multi-variate measures which can vary due to a number of causes not directly Project related (e.g., general measures of well-being);
- Development of standards for data collection and recording;
- Collection of comparable information at specified intervals needed to assess affects,
- Timely and proper evaluation of information to assess if changes are needed, and
- Initiation of the Change Management Process described in Section 6.7.

This Section identifies variables to be monitored associated with the compensation process. The Project has developed or plans to develop a number of databases which can be used in the monitoring process.

The overall collection and monitoring effort will administratively follow procedures described in Volume 1, Chapter 3 of this EMP.

7.2.2 Data Collection

Data on appropriate, defined variables will be collected using a variety of methods and include:

7.2.2.1 Administration of Questionnaires and Completion of Inventory Forms

Examples of forms and questionnaires in use or planned include:

- Individual Inventory Forms: These forms include information such as each individual farmer's name, address, village, and the number of types of compensable resources.
- Compensation Forms: These forms will be used to collect information on the type of compensation requested. As part of this effort, a random sample of individuals will also be requested, but not required, to answer questions concerning the proposed uses of the compensation.
- Community Information Forms: Questionnaires may be administered to collect community specific information related to infrastructure, *etc.*
- Key Indicators Survey: A simple survey form will be prepared to assess local food and housing prices, as a measure of comparison to normal inflation factors.
- Resettlement Eligibility Questionnaires: Individuals and families who may be eligible for relocation assistance will be asked more detailed information in order to track their success in establishing new fields and re-establishing their agricultural base.

Depending upon the information needed, these questionnaires may be completed by specialists (*e.g.*, sociologists, agronomists, *etc.*) or under the supervision of specialists, by individuals who have been trained in the administration or recording of these data in a systematic fashion. This may include use of the LCCs, other Project personnel, or other organizations. This work will be under the oversight of COTCO's environmental monitoring staff.

7.2.2.2 Evaluation of Project Statistics and Required Periodic Reports

Project specifications call for contractors to periodically submit a report to COTCO concerning their local procurement practices, employment, and housing. These data may be used to evaluate the success in meeting Project goals.

These reports will be prepared by the responsible Project personnel and evaluated by a designated member of COTCO's environmental monitoring staff.

7.2.2.3 Participant Observation and Key Interviews

The following two techniques are best used by an individual with specific training in such techniques. The basic premise of this technique is to systematically collect information on a set of topics by observing particular activities in a community. These qualitative observations are later coded and used to track changes in communities.

During key interviews, a sample of knowledgeable individuals in a sample of communities is interviewed without replacement over a set period of time. These individuals may include the village chief, a key health worker, key representative of women's interests, etc. Following a first interview, they are reinterviewed concerning the same issues during the course of the study. In the case of this Project, it would be both before the start of construction, during or immediately following initial start-up, and at regular intervals during construction.

7.2.3 Databases

7.2.3.1 Compensation Database

One major source of information to be used as part of the compensation monitoring effort is the Compensation Database containing information on over 3,600 individual farmers to whom compensation is due as a result of Project land needs. This number is expected to increase following completion of the road survey. For each individual identified in the database, detailed information has been collected on the number and types of plants and square meters of different types of crops in the pipeline easement. As the compensation process progresses, additional information such as total compensation paid and type of compensation selected (cash or in-kind) will be entered. Additional fields such as grievances expressed (type and date), and resolution (how resolved and date) can be entered to generate the basic descriptive data described below.

7.2.3.2 Community Information Database

In addition to the Compensation Database, information is in the process of being collected on the 238 villages whose lands are needed by the Project. Information from these Community Information Questionnaires will provide information on communities.

7.2.3.3 Other Databases

Other databases will be developed as needed to evaluate both qualitative and quantitative data.

7.2.4 Timing

After Project approval and prior to Project construction, more detailed strategies will be developed to collect and evaluate data needed. This work will be conducted under the auspices of the Project's environmental monitoring staff and will include a specific timeline for the development of questionnaires and database, testing the usefulness of these, establishment of a time schedule for administration of the questionnaires, and procedures for evaluation and input.

7.3 EXPROPRIATION AND COMPENSATION PAYMENT PROCESS

Overall, land expropriation and release procedures as set forth in this Plan are designed to meet the intent of World Bank directives regarding compensation. In addition to ensuring wide and unrestricted representation of affected individuals during public inquiries conducted in expropriation/eviction cases, it also established the basis for assessment and payment of appropriate compensation in a transparent and fair manner.

The overall transparency and fairness of the Plan will be assessed by monitoring:

- The proportion of contentious cases out of the total number of expropriated individuals in a given area or along the entire pipeline route;
- The qualitative analysis of disputes (minor or difficult to manage);
- The time within which disputes are settled and the number of settled disputes.

The type of compensation selected and reasons for the selection will be monitored. Collection and timely feedback of this information can assist in making adjustment to the compensation process as payments are made along the length of the pipeline route. Information to be collected includes:

- Percentage of individuals selecting all cash or a combination of cash and in-kind compensation by Department;
- Variables influencing selection of in-kind compensation (size of compensation payment, types of in-kind compensations provided, availability of banking facilities);
- Proposed use of payments.

If, as a result of monitoring, it is clear that the overall goals of the Plan are not being met, as indicated by measures above, changes to the Plan will be considered, as part of change management process.

7.4 FIXED FACILITY SITES LAND ACQUISITION

As discussed in Section 4.4.2 and Appendix B socioeconomic studies have not been completed at some fixed facility sites and follow-up assessments are needed at others. In general the land acquisition process can be divided into two parts: (1) acquisition, and (2) reuse after construction of the pipeline. The only exceptions being the Pump Stations and two storage yards which will be used for the life of the Project.

Stage	Variables to be Assessed
Land acquisition	<ul style="list-style-type: none"> • Use of more than 25 percent of the total land available to an individual or family triggering the World Bank Group Resettlement Policy. • Ability of individuals and families to re-establish fields and crops and other economic inputs affected by Project land needs in alternative locations. • Compensation paid for crops, fields, and wild resources, and adjustments to compensation if market prices are adjusted upwards.
Land reuse after construction	<ul style="list-style-type: none"> • Information of government non-objection to reused land will be given to pre-construction land owners/users before construction is completed in the area. • Actual type of reuse of land. • Number of concerns/disputes over the ability to reuse land.

As needed, the Project will assist individuals and families as set forth in Section 1.2.6.

7.5 PIPELINE LAND EASEMENT

One of the key goals of the Project is to ensure that affected individuals and families keep at least the same standard of living after Project execution, as they had prior to construction of the Project. Since the majority of the land needed by the Project is for the pipeline Land Easement (about 3,200 ha), much of the success of the Project depends on the ability to ensure continuing access to this land, and the ability for individuals and families to re-use this land subject to the restrictions over the 10-15 m wide system easement over the buried pipe itself.

As discussed in Section 4.2 and Appendix B, about 15-20 percent of the pipeline Land Easement is in active agriculture and/or fallow. Although land pressure is low along much of the pipeline route, the ability for individuals to re-establish fields is considered a key monitoring variable.

To accomplish this goal, the following variables will be monitored using a sampling frame based on a multi-year monitoring program without replacement of sampled individuals/communities in the sample. These variables will be monitored at a minimum one and three years after construction.

Variable	Basis	Purpose
Percent land in ROW in agricultural	Comparison to CLS information	Assess ability of the population to reuse land
Types/values of crops/trees	Comparison to CLS information	Assess relative contribution to income of affected individuals and groups
Agricultural productivity of the disturbed soil	Direct observation, measurement, account for variation in rainfall, <i>etc.</i>	Assess relative contribution to income

These measures will be in addition to any set forth in the Environmental Monitoring Plan in Volume 1.

7.6 CONSTRUCTION-RELATED IMPACTS ASSOCIATED WITH IMPACTS ON FIXED FACILITY SITES; LOCAL EMPLOYMENT AND BUSINESS OPPORTUNITIES

Because of potential affects, the Project will monitor a number of variables as set forth in the EMP – Cameroon Portion at large fixed facility sites. These include growth of unauthorized settlements, local inflationary pressures, changes in land values, *etc.* during the construction phase, as well as a number of variables during the operations phase.

Examples of variables to be monitored include:

Variable	Basis	Purpose
Local employment of unskilled labor in construction workforce	<ul style="list-style-type: none"> Percent of locals in workforce, distribution between local villages 	<ul style="list-style-type: none"> Routine quality assurance check as per Project specifications.
Rental cost/availability of local housing	<ul style="list-style-type: none"> Pre-construction assessment 	<ul style="list-style-type: none"> Monitoring commitment set forth in EMP
Seasonal and inter-annual price fluctuations of key foodstuffs	<ul style="list-style-type: none"> Market survey and pre-construction random sampling price 	<ul style="list-style-type: none"> Monitor local inflationary pressure on local food supplies; adjust purchasing commitments as needed.
Development/effects on local enterprises	<ul style="list-style-type: none"> Numbers of small businesses used; entrepreneurial businesses opening near facilities. 	<ul style="list-style-type: none"> General assessment of secondary employment opportunities created as a result of the Project.
Relations between COTCO/subcontractor employees and local population	<ul style="list-style-type: none"> Direct observation Solicitation of input/feedback by LCCs and others. Project personnel involvement/volunteer work in local communities. 	<ul style="list-style-type: none"> Promote positive social relations; reduce potential risks based on misperceptions

These will be discussed in additional detail in the Monitoring Plan in Volume 1.

7.7 ROADS

Improvement and completion of the road from Ngaoundal to the Mbéré River bridge at the Chad border will result in an increase in vehicular traffic, as well as create trading opportunities to communities along the improved road system. Compensation to be paid for direct Project impacts in the road easements include crops, cultivated trees, and other improvements. Since the edges of the road must be periodically cleared, individuals will be encouraged not to re-establish crops in the road shoulder. However, any economic offsets are expected to be mitigated not only by payment of compensation, but also by increased trading opportunities. Variables to be monitored include:

- Increase of vehicular travel, both Project and non-Project.
- Number of market trucks/traders operating in communities.

- Changes in market access including: quantitative measures and qualitative measures of the types/quantities/prices of goods and commodities being sold locally and exported.

These measures are in addition to those proposed elsewhere to measure health and safety issues.

7.8 COMMUNITY COMPENSATIONS AT FIXED FACILITY SITES AND REGIONAL COMPENSATIONS

This Compensation Plan sets forth provisions for the identification and implementation of community compensations and regional compensations. As stated in earlier Sections of this Plan the compensations will be in-kind and may include a wide range of items such as distribution of improved agricultural plantings, healthcare and or vaccination programs, construction of schools, drilling of wells, and improvements of roads and the general environment. Since COTCO will not provide for long-term maintenance of these facilities, communities will be encouraged to select compensations that meet existing needs and that can assist in long-term needs.

Monitoring of these compensations will focus the following aspects:

Implementation Phase	Variables
Consultation and selection process	<ul style="list-style-type: none"> • Timely notification and consultation • Identification of suitable compensations • Degree of community/regional consensus
Actual implementation	<ul style="list-style-type: none"> • Implementation within two years of initial notification
Long-term benefits/continued use of compensation. <i>(The length of time each will be monitored depends upon the compensation.)</i>	Depending upon compensation (one or more of the following): <ul style="list-style-type: none"> • Number of children attending school • Number of individuals vaccinated • Number of individual using well/length of time in use • Success rate of improved plantings • Number of individuals served at dispensaries

It is envisioned that monitoring would be built into contracts for Compensation Plan implementation with the implementing organizations.

Table 7-1. World Bank Monitoring Requirements

Operational Directive 8.70, Project Monitoring and Evaluation

The Bank “supervises” or monitors Bank projects.

- Monitoring and evaluation are included in all Bank-funded projects.
- Monitoring provides continuous feedback on implementation.
- Monitoring identifies potential or actual successes and problems as early as possible.
- Interim evaluation identifies project design problems.
- Final evaluation assesses project effects and sustainability.

Operational Directive 13.05, Project Supervision

When the World Bank provides financing, it supervises:

- Progress in all major aspects of its project,
- Significant deviations from the original project plans,
- Steps taken to get project back on track,
- Compliance of the borrower with legal covenants agreed with the Bank,
- Management performance of those implementing the project,
- Procurement progress, and
- Environmental aspects.

Operational Directive 13.55, Project Completion Reports

A project completion report is prepared at the end of each project evaluating:

- How well the project achieved its objectives,
- Factors affecting project implementation,
- Project sustainability,
- Bank and borrower performance, and
- Assessment of outcome.