

Chapter 7

Additional Environmental Management Tools

7.0 INTRODUCTION

This Chapter outlines the following additional environmental management tools that are associated with the Project:

- Induced Access Management Plan;
- Management Plan for Cultural Properties;
- Environmental Alignment Sheets, the Environmental Line List, and the Handbook that is associated with them;
- COTCO's Environmental Monitoring Plan for the construction phase of the Project;
- Biophysical/socioeconomic/health technical requirements and specifications;
- Compensation Plan;
- Environmental Foundation Plan;
- Offsite Environmental Enhancement Program;
- Indigenous Peoples Plan;
- Waste Management Plan;
- Oil spill response;
- The Project's intentions regarding decommissioning; and
- Community health outreach program.

7.1 INDUCED ACCESS MANAGEMENT PLAN

An Induced Access Management Plan has been prepared by COTCO in collaboration with the Republic of Cameroon. This plan, which can be found in Appendix D of Volume 1 of this EMP, was developed in order to address potential induced access issues/concerns along the Cameroon Transportation System's pipeline route regarding:

- Impacts on wildlife in three identified sensitive areas (see below) {i.e., increased potential for poaching of animals}; and
- Attendant impacts on vegetation/habitats in the same identified sensitive areas (i.e., opening up of "new" areas to agricultural exploitation and/or illegal timber harvesting).

Within the Induced Access Management Plan, the following three sensitive areas that are intersected by the Cameroon Transportation System's pipeline have been defined:

- The plateau of the Mbéré River Valley;
- An area between the Pangar and Lom Rivers; and
- The area between Bélabo and Nanga Eboko.

These three areas were determined to be sensitive based on their relatively undisturbed nature and their relative abundance of biological resources as identified by on-the-ground surveys and the recently-completed Transportation System Centerline Survey.

A number of access control measures that have been previously used on linear-type projects have been incorporated into the Induced Access Management Plan in order to reduce/preclude vehicular access and impede the movement of individual pedestrians into the above-listed sensitive areas. These methods include:

- Restoration or creation of natural obstructions;
- Construction of barriers;
- Removal of interim access facilities; and
- Education and monitoring programs.

The Plan identifies those locations in the three identified sensitive areas where one or more of these induced access management control measures are to be applied.

The Induced Access Management Plan will be reviewed during the construction phase of the Project, with updates/changes being incorporated on an as-needed basis. The Plan will then be evaluated in the Cameroon Transportation System's post-startup period to make it more suitable for the Project's operations phase.

7.2 MANAGEMENT PLAN FOR CULTURAL PROPERTIES

The Project's Management Plan for Cultural Properties includes:

- Results of a background literature study on archaeological, historical, and paleontological sites in the immediate vicinity of the Cameroon Transportation System's easement;
- A summary of World Bank guidelines and applicable Republic of Cameroon legislation concerning the protection of archaeological, historical, and paleontological sites;
- Procedures for further identifying cultural properties in the immediate vicinity of the Cameroon Transportation System's easement;

- Techniques to be implemented during the construction phase of the Project to limit direct impacts to important archaeological, historical, and paleontological sites;
- Proposed treatment methods for different types of archaeological, historical, and paleontological sites located within the Cameroon Transportation System's easement or likely to be discovered during the construction phase of the Project (e.g., iron age sites, chipped stone sites); and
- Standards to be implemented regarding the documentation and reporting of cultural resources discovered and treated by the Project.

7.3 ENVIRONMENTAL ALIGNMENT SHEETS, THE ENVIRONMENTAL LINE LIST, AND THE HANDBOOK THAT IS ASSOCIATED WITH THEM

Environmental mapping at a 1:200,000 scale based primarily on terrain maps, satellite imagery, and associated environmental assessment field studies was used in the process to define the path of the Cameroon Transportation System's pipeline. This level of mapping was sufficient for initial engineering and planning purposes.

Data gathered *via* recent biological resource surveys (e.g., botanical and vegetation matrix studies, fisheries studies, and studies of birds, mammals, amphibians, and reptiles) and the recently-completed Transportation System Centerline Survey have allowed for a more thorough understanding of the biological features along the Cameroon Transportation System's pipeline easement. After being mapped, these data were superimposed on analyzed and interpreted 1:10,000 to 1:50,000 scale aerial and satellite images that were acquired by the Project to produce 133 Environmental Alignment Sheets. In addition to allowing for a site-specific depiction of important biological resource information, these Environmental Alignment Sheets also function as a tool for highlighting the locations along the Cameroon Transportation System where site-specific environmental management requirements are to be implemented prior to, during, and/or after construction of the pipeline. The categories of biological resources and environmental management requirements appearing in the Project's Environmental Alignment Sheets are:

- Vegetation/Land use classifications;
- Villages of indigenous peoples;
- Vegetation and wildlife resources;
- Vegetation and wildlife protection measures;
- Monitoring, surveys, and seasonal restrictions;
- Fisheries protection measures;
- Induced access management control measures;

- Erosion and sediment control measures; and
- Soil handling and special area reclamation measures.

The environmental management requirements appearing in the Project's Environmental Alignment Sheets have been designed to reduce construction- and operations-related impacts to acceptable levels and are consistent with this EMP, most notably the Project's BP/SE/H-related requirements and specifications (see Volume 2 of this EMP).

Locations of sensitive biological resources and habitats as well as the Project's site-specific environmental management requirements are represented on the Environmental Alignment Sheets by codes (for example, WPM-1 is the code for an Environmental Awareness/Education Program in sensitive habitats). A complete listing of the codes for the biological resources and environmental management requirements that appear in the Environmental Alignment Sheets can be found in the Handbook that constitutes Appendix F of Volume 1 of this EMP.

The biological resource and environmental management requirement codes appearing in each Environmental Alignment Sheet's legend are summarized in tabular format by pipeline kilometer (km) post in an accompanying document referred to as the Environmental Line List. Construction personnel will, therefore, be able to determine environmental management requirements at any point along the Cameroon Transportation System's easement by referring to the appropriate Environmental Alignment Sheet and/or the Environmental Line List.

The Project's Environmental Line List and Environmental Alignment Sheets will be updated and expanded to include site-specific erosion and sediment control measures once detailed construction planning is completed. New information and processes also may result in changes to existing environmental management requirements and/or the definition of new ones; therefore, further revisions to the Environmental Alignment Sheets, the Environmental Line List, and their associated Handbook may be necessary.

The Project's Environmental Line List and Environmental Alignment Sheets can be found in Volume 6 of this EMP.

7.4 ENVIRONMENTAL MONITORING PLAN

The Project's Environmental Monitoring Plan (see Appendix G of Volume 1 of this EMP) describes the environmental monitoring strategies that will be employed by COTCO in order to manage the environmental (i.e., biophysical, socioeconomic, and health) aspects of the Project's activities during its construction phase. Specifically, the Environmental Monitoring Plan will outline the:

- Structure of COTCO's environmental monitoring organization;

- Roles and responsibilities of positions in COTCO's environmental monitoring organization;
- Activities for COTCO's field monitors regarding biophysical, socioeconomic, and health matters;
- Processes for documenting the observations of COTCO's field environmental monitors, particularly with respect to situations that may be in non-compliance with the Project's EMP and/or its BP/SE/H-related technical requirements and specifications;
- Processes for tracking the rectification of a non-compliance situation;
- Processes for informing appropriate parties in the event that a potential non-compliance situation is identified; and
- Process for stopping work in the event of a serious non-compliance situation.

7.5 BIOPHYSICAL/SOCIOECONOMIC/HEALTH TECHNICAL REQUIREMENTS AND SPECIFICATIONS

A great deal of time and effort has been devoted to preparing comprehensive, detailed technical requirements and specifications for the construction phase of the Project. This suite of over 250 individual documents is intended to establish a detailed basis for the activities of EPC Contractors, including those activities that deal directly or indirectly with biophysical, socioeconomic, and health matters. In addition to stipulating numerous technical and engineering details, these documents demonstrate the special attention that has been focused on the Project's key biophysical-, socioeconomic-, and safety/health-related issues/impacts. All EPC Contractors that are selected to work on the Project must adhere to the conditions itemized in these comprehensive technical requirements and specifications.

The Project's first set of construction phase technical requirements and specifications, known as Job Specification Coordination Procedures (JSCPs), is comprised of 31 individual documents. Of these requirements, the following are related to biophysical-, socioeconomic-, and/or safety/health-related topics:

⇒ Job Specification Coordination Procedures:

- JSCP 19 Changes in Work / Deviations from Job Specifications
- JSCP 22 Project Safety Practices
- JSCP 23 Occupational Health, Medical Facilities, and Sanitation
- JSCP 27 Training
- JSCP 29 Socioeconomic Interactions
- JSCP 30 Environmental Management

- JSCP 31 Interface Management

Twenty one specifications, referred to as General Project Specifications (GPSs), constitute the Project's second set of construction phase technical requirements and specifications. All but seven of these GPS documents are devoted in whole or in part to biophysical-, socioeconomic-, and/or safety/health-related topics. The GPSs that are germane to this EMP are as follows:

⇒ General Project Specifications:

- GPS-001 Camps and Facilities
- GPS-002 Catering Services
- GPS-003 Potable Water Treatment, Storage, and Distribution (Temporary)
- GPS-004 Packaged Sewage Treatment System (Temporary)
- GPS-005 Water Wells (Temporary)
- GPS-006 Waste Incinerator (Temporary)
- GPS-007 Non-Hazardous Solid Waste Landfill
- GPS-008 Project Safety Requirements
- GPS-010 Health Plan
- GPS-011 Waste Management
- GPS-012 Socioeconomic Action Plan
- GPS-018 Septic Tank and Effluent Disposal into Drainage Field (Temporary)
- GPS-020 Survey Camps and Facilities
- GPS-021 Survey Catering Services

From a design and engineering viewpoint, the Project's most detailed set of construction phase technical requirements and specifications is the Cameroon/Chad Specifications (CCSs). Thusfar, approximately 200 CCSs have been drafted. The following CCSs have biophysical-, socioeconomic-, and/or safety/health-related implications:

⇒ Cameroon/Chad Specifications:

- CCS 7-1-10 Waste Incinerator
- CCS 11-10-1 Water Wells
- CCS 11-10-2 Potable Water Treatment, Storage, and Distribution
- CCS 11-11-1 Packaged Sewage Treatment System
- CCS 13-4-1 Solid Waste Landfill
- CCS 21-20-107 Soil Erosion Mitigation
- CCS 21-20-108 Environmental Impact Mitigation

The above-listed BP/SE/H-related technical requirements and specifications are presented in Volume 2 of this EMP.

7.6 COMPENSATION PLAN

A Compensation Plan has been developed for the Cameroon portion of the Chad Export Project. The compensation processes contained in the Plan are intended to:

- Comply with applicable Republic of Cameroon legislation in force; and
- Meet the World Bank's directives regarding compensation.

In particular, the Project's Compensation Plan describes:

- Compensation to be paid by the Republic of Cameroon according to applicable Republic of Cameroon legislation in force at the time that the Plan was drafted; and
- Supplemental compensation to be paid by COTCO.¹

The Compensation Plan includes the following:

- A brief introduction to the Project;
- The goals and objectives of the compensation process associated with the Project;
- A summary of the Project's environmental and socioeconomic studies and public consultation process that support the contents of the Plan;

¹ The supplemental compensation to be paid by COTCO is defined in the Compensation Plan (see Volume 3 of this EMP) as the difference between the amount of compensation due under applicable Republic of Cameroon legislation and the amount of compensation required to meet the intent of the World Bank's compensation-focused directives.

- A explanation of the Republic of Cameroon's and COTCO's respective obligations regarding the payment of compensation;
- A description of the legal property types in the Republic of Cameroon;
- A summary of the Project's land needs that features the length of time that land will be needed for specific construction and operations activities in the Republic of Cameroon;
- A presentation of the framework under which the land required by the Project will be acquired and compensated;
- A summary of individuals, households, and communities affected by the Project that will be subject to the provisions of the Plan;
- Definitions of the types of resources for which individuals and households will be entitled to receive compensation for;
- A definition of when/where community compensation is to be paid;
- An outline of the processes that have been/will be used to:
 - Identify individuals and households eligible for compensation;
 - Conduct public consultations regarding the Project's compensation process; and
 - Assess and pay appropriate compensation.
- A discussion of a process of interactive participatory consultation that will be implemented prior to the actual payment of compensation;
- Grievance procedures;
- A description of institutional responsibilities that will ensure implementation of the Plan;
- An overview of the monitoring process associated with the Project's compensation process, including monitoring variables;
- The Plan's budget and timeline; and
- A change management procedure.

The Cameroon Transportation System has been designed and engineered so as avoid involuntary resettlement.² Nevertheless, the Compensation Plan also defines circumstances that may trigger involuntary resettlement.

² Based on data from the land survey associated with the recently completed Transportation System Centerline Survey, several families along the route of the Cameroon Transportation System may be potentially eligible for relocation grants and assistance because of Project land needs. These families will be treated by the Project in accordance with World Bank Operational Directive 4.30.

7.7 ENVIRONMENTAL FOUNDATION PLAN

In conjunction with the Project's Offsite Environmental Enhancement Program and Indigenous Peoples Plan (see below), COTCO will make a \$US 3.5 million (2100 million FCFA) capital contribution to an Environmental Foundation in order to:

- Provide defined long-term financial support for environmental enhancement activities in the following areas:
 - The Mbam-Djerem area; and
 - The Campo Reserve area.
- Provide defined long-term financial support for Bakola Pygmy-related development activities in the region of the Atlantic Littoral forest in the vicinity of the easement of the Cameroon Transportation System's pipeline between Lolodorf and Kribi.

The Environmental Foundation Plan (see Volume 4 {Part I} of this EMP) outlines the following:

- Objectives of the Environmental Foundation;
- Legal aspects of the Foundation;
- Organizational and operational details pertaining to the Foundation, including:
 - Composition, selection, and functioning of the Foundation's Management Board;
 - Selection of the Foundation's Fund Investment Manager, Foundation Administrator, Community Development Facilitator, and Implementation Organizations;
 - Funding proposal review and approval procedures;
 - Procedures for the disbursement of approved funds; and
 - Monitoring/stewardship of funded programs/projects.
- Roles and responsibilities of the:
 - Management Board;
 - Fund Investment Manager;
 - Foundation Administrator;
 - Community Development Facilitator; and
 - Implementation Organizations.
- Procedures that facilitate organizations making contributions to the Foundation; and

- The financial management and fund disbursement specifications associated with COTCO's capital contribution to the Foundation.

The Environmental Foundation Plan also includes proposed Articles of Association and By-Laws for the Foundation and an implementation plan for the actual establishment of the Foundation.

7.8 OFFSITE ENVIRONMENTAL ENHANCEMENT PROGRAM

In order to mitigate for low-level residual impacts to biodiversity and natural habitat value resulting from the construction and operation of the Cameroon Transportation System, COTCO will undertake an offsite environmental enhancement program. Central to this program is COTCO's partial funding (*via* a capital contribution to the above-mentioned Environmental Foundation) of conservation projects in the following two areas:

- The Mbam-Djerem area; and
- The Campo Reserve area.

The Project's Offsite Environmental Enhancement Program, which appears in Volume 4 (Part II) of this EMP, features the following:

- Background information on the Mbam-Djerem and Campo Reserve areas, including a discussion as to why these two areas were selected for incorporation into the Project's offsite environmental enhancement program;
- An outline of the types and chronology of the ecological studies and conservation activities that are envisioned for the Mbam-Djerem and Campo Reserve areas;
- The manner in which \$US 2.9 million (1740 million FCFA) of COTCO's \$US 3.5 million (2100 million FCFA) capital contribution to the Environmental Foundation will be specifically earmarked and managed to provide monies for ecological studies and long-term conservation activities in the Mbam-Djerem and Campo Reserve areas;
- An overview of the conservation educational program proposed for the Campo Reserve area; and
- The protective mitigation measures and the administrative and financial commitments of the Republic of Cameroon with regard to the Mbam-Djerem and Campo Reserve areas.

7.9 INDIGENOUS PEOPLES PLAN

A small section (~120 km) of the Cameroon Transportation System's pipeline will traverse an area of the Atlantic Littoral forest between Lolodorf and Kribi. This area is inhabited by Bakola Pygmies³ and Bantu villagers upon whom the Pygmies have had a historical interdependency.

In order to mitigate any potential long-term indirect adverse impacts associated with constructing and operating the Cameroon Transportation System's pipeline in Pygmy/Bantu-inhabited areas between Lolodorf and Kribi, an Indigenous Peoples Plan (IPP) has been developed. The measures in this Plan are in addition to those listed in the Compensation Plan and in the Socioeconomic Table that appears in Chapter 2 of this Base Document of the EMP. Overall, it is the objective of the IPP to provide long-term benefits to the Project-affected Pygmy population *via* assistance to programs/projects that address Pygmy health, education, and agriculture in the region. In addition, due to the Bantu's historical association with the Bakola Pygmies in the Atlantic Littoral forest between Lolodorf and Kribi, the IPP also addresses some health issues of Bantu groups.

The IPP contains the following:

- A summary of available background information on the Bakola Pygmies and the interdependent Bantu communities in the immediate vicinity of the Cameroon Transportation System's easement between Lolodorf and Kribi;
- Results of the Project's consultation with Bakola Pygmy communities and interdependent Bantu communities between 1997 and 1999 and an evaluation of the Project's potential impacts on these populations;
- A description of the results of an intensive consultation program in March-April 1999 involving a draft version of the IPP that included the participation of Pygmy individuals and communities, local representatives of the Republic of Cameroon, and NGOs;
- A description of a potential organizational framework for developing and implementing IPP programs;
- Descriptions of potential IPP programs such as basic literacy and education initiatives, hygiene assistance, improved water supplies, and agriculture; and
- The manner in which \$US 600,000 (360 million FCFA) of COTCO's \$US 3.5 million (2100 million FCFA) capital contribution to the Environmental Foundation will be specifically earmarked and managed to provide monies for IPP-related programs.

³ According to the World Bank's Operational Directive 4.20 entitled "Indigenous Peoples", Bakola Pygmies can be classified as an Indigenous People.

The Project's Indigenous Peoples Plan can be found in Volume 4 (Part III) of this EMP.

7.10 WASTE MANAGEMENT PLAN

A comprehensive Waste Management Plan has been prepared for the Project; this Plan constitutes Volume 5 of this EMP. As was mentioned in Chapter 3, EPC Contractor-specific waste management plans for major construction activities will also be drafted during the final engineering and design phases of the Project - these plans will be reviewed and approved by COTCO prior to the commencement of construction activities. In addition, Contractors' waste management plans will be consistent with the Project's Waste Management Plan.

The Project's Waste Management Plan is designed as a reference tool for developing the more activity-specific EPC Contractor waste management plans and as a set of guidelines for general use by the Project. The Project's Waste Management Plan will be appropriately modified as necessary during the construction phase to reflect changes in waste generation or preferred waste management practices. Immediately prior to the commencement of the Project's operations phase, the Plan will be further modified and expanded to address operations-specific waste streams and waste management requirements.

The Project's present-day Waste Management Plan addresses the following topics:

- Identification and classification of waste types/streams;
- Avoidance of the use of specific materials and substances to reduce or eliminate the hazardous/toxic characteristics of certain wastes;
- Source reduction/recycling/reuse guidelines for selected wastes;
- Disposal requirements for non-recyclable/non-reusable waste types/streams;
- Handling, transportation, and storage requirements for each major waste type/stream;
- Waste tracking procedures;
- Locations of waste management facilities (e.g., the Project's engineered solid waste landfills, municipal landfills, etc.); and
- Design features, operating procedures, and monitoring programs for the Project's waste management facilities.

7.11 OIL SPILL RESPONSE

The prime focus of the Chad Export Project's oil spill countermeasures effort is incident prevention. Prevention of oil spills will be achieved *via* well-designed facilities and equipment, sound maintenance and operating procedures, effective training of personnel and contractors, and a high degree of awareness and concern by all those individuals associated with the Chad

Export Project. Despite these oil spill preventative measures, the possibility of an oil spill still exists. Therefore, in order to be adequately prepared in the unlikely event that an oil spill does occur, a General Oil Spill Response Plan is being developed for the Chad Export Project. This Plan will include the following:

- Presentation of the Chad Export Project's three-tier oil spill response strategy;
- Presentation, analysis, and response/clean-up strategies for eight oil spill scenarios;
- Potential response and clean-up measures to be undertaken in the event of a spill, including strategies for the use/deployment of:
 - Booms;
 - Mechanical recovery techniques;
 - In-situ burning;
 - Dispersants;
 - Washing; and
 - Bioremediation techniques.
- Appropriate spill trajectory predictions, especially regarding an FSO-related incident;
- General fate and effects of crude oil in certain environments encountered by the Chad Export Project's facilities;
- Specific fate and effects considerations re marine shoreline sensitivities and shoreline protection/cleanup strategies;
- Suggested inventories and locations of the Chad Export Project's oil spill response equipment;
- Discussion of the surveillance tools for tracking a spill;
- Guidelines related to:
 - Logistical support for oil spill response/clean-up efforts;
 - Wildlife rescue;
 - Waste management; and
 - Safety and health issues for response/clean-up workers.
- Communications and notification procedures in the event of an oil spill; and
- Outline of the organizations that will participate in response actions in the event of an oil spill as well as the individual responsibilities of these organizations.

The marine portion of the General Oil Spill Response Plan will adhere to international conventions and agreements such as the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

The General Oil Spill Response Plan will not be available for review prior to the issuance of the Chad Export Project's environmental documentation. Therefore, a document entitled "Oil Spill Response: Preliminary Approach" has been included in the Supporting Documents part of the Chad Export Project's environmental documentation. In addition to providing a detailed outline of the General Oil Spill Response Plan, the "Oil Spill Response: Preliminary Approach" document includes supplementary information necessary for preparing the final Plan. The General Oil Spill Response Plan is required before crude oil production commences and the FSO is put into service.

7.12 DECOMMISSIONING

In the latter stages of the Project's operations phase, a complete and comprehensive Decommissioning Plan for the Cameroon portion of the Chad Export Project will be prepared. This Plan, which will detail the decommissioning-related activities that will be undertaken by COTCO (including requirements/expectations related to environmental and socioeconomic topics), will be drafted after consultations with appropriate officials from the Republic of Cameroon and an assortment of other stakeholders. Overall, decommissioning of the Cameroon portion of the Chad Export Project will be in accordance with applicable Republic of Cameroon legislation and recognized international practices for upstream petroleum industry sites and facilities at the time that the decommissioning actually occurs. For example, if the Cameroon portion of the Chad Export Project were to be decommissioned in 1999, all land-based work would be performed in accordance with the requirements contained in applicable Cameroon legislation and with the standards outlined in "Decommissioning, Remediation, and Reclamation Guidelines for Onshore Exploration and Production Sites" published by the E&P Forum (i.e., the Oil Industry International Exploration and Production Forum) in October, 1996. Similarly, the subsea portion of the Cameroon Transportation System's pipeline would be decommissioned in accordance with applicable Cameroonian legislation and with the standards outlined in a document entitled "Offshore Pipeline Decommissioning" (E&P Forum, August 1997). Furthermore, decommissioning of the Cameroon portion of the Chad Export Project will be compliant with the decommissioning-specific terms and conditions contained in the Project's legal documents.

Decommissioning of the Cameroon portion of the Chad Export Project and facilitating the funding of the decommissioning of the Cameroon portion of the Chad Export Project will be the obligation and responsibility of COTCO - decommissioning work itself will be performed by contractors overseen by COTCO personnel.

COTCO will assign the tasks related to monitoring the environmental and socioeconomic aspects of the decommissioning of the Cameroon portion of the Chad Export Project to one or more of its environmental professionals. This monitoring will occur throughout the decommissioning effort. Other environmental specialists/consultants may be called in periodically to audit the environmental components of the decommissioning effort.

Appropriate officials from the Republic of Cameroon will be responsible for monitoring the decommissioning of the Cameroon portion of the Chad Export Project in order to verify compliance with applicable regulatory requirements the decommissioning-specific terms and conditions contained in the Project's legal documents. Independent consultants may be retained by the Republic of Cameroon to assist in this monitoring effort.

Additional details pertaining to the decommissioning of the Chad Export Project can be found in a document entitled "Project Description" - this document is contained in the Supporting Documents portion of the Chad Export Project's environmental documentation.

7.13 COMMUNITY HEALTH OUTREACH PROGRAM

A cost-effective community health outreach program primarily directed at addressing some of the public health-related impacts that are external to the Project itself will be developed and implemented by COTCO.

The community health outreach program is intended to target selected health issues in communities potentially affected by Project personnel and activities, with efforts being confined to those locations near permanently staffed Project field facilities (i.e., Pump Stations #2 and #3). Potential strategies of the Program include:

- Behavioral information, education, and communication (IEC) emphasis versus extensive technical and physical interventions;
- Culturally acceptable and sustainable interventions;
- Approaches that build upon and utilize existing organizational structures, whether they be governmental or nongovernmental, and which operate within the guidelines of the Ministry of Public Health's national plan for the decentralization of primary healthcare;
- Target specific diseases and public health conditions that have impacts on the community, the potential Project work force, and/or the Project's personnel and expatriates;
- Maximize use of the current healthcare infrastructure/system as the community healthcare provider;
- Capitalize on the Project's favorable impacts on the overall disease burden;

- Seek to address health impacts through Project contracting requirements with clear specifications relative to housing, water supply, sanitary services, environmental services, and disease vector control;
- Prevent health incidents related to water shortage/contamination by facilitating the installation of water wells in the Project area; and
- Limited direct funding to PVO/NGO programs which are focused on educational and other preventative/curative initiatives that address Project issues, which may include medical prophylactics and other technologically appropriate supplies.

It is anticipated that the Project's community health outreach program will be developed and evolve over time.