

# ENVIRONMENTAL MANAGEMENT PLAN

*Procurement of Specialized  
Equipment and Training*

Ka'h-Lohil Tepal  
Women's Group

**Table of Contents**

**PROJECT BACKGROUND** ..... 2

**PROJECT OBJECTIVES**..... 2

**ACTIVITIES**..... 2

**EXPECTED RESULTS**..... 3

**EXPECTED IMPACTS**..... 3

**MITIGATION MEASURES** ..... 3

**MONITORING PROGRAM**..... 4

**LINES OF RESPONSIBILTiy** ..... 4

**COST ESTIMATES AND SOURCES OF FUNDS**..... 4

**ADDITIONAL INFORMATION:**..... 5

## **PROJECT BACKGROUND**

Cristo Rey Village located in the Cayo district, is situated on the Santa Elena - San Antonio road on the eastern bank of the Macal River approximately three miles from the twin towns of San Ignacio/ Santa Elena, and about five and a half miles from San Antonio village. Cristo Rey village is predominantly mestizo, estimated at 975 people. The economy of Cristo Rey village depends mainly on the tourism sector. The nearby tourist resorts employ about 65% of the working population, the other 10% include general areas of work, and the other 2 to 3% are self-employed mainly in the agricultural sector. The work force represents about 37% of the entire village population.

In June 2012, the Ka'h-Lohil Tepal Women's Group was formed with the goal of engaging in activities that would provide economic benefit through supplementary income generation. The group has a membership of thirty 30 women. The Ka'h-Lohil Tepal group is engaged in the making of primarily sewn and crocheted handicraft, and the making of bread products for sale to the public. The group intends to expand and market its products outside of Cristo Rey village in order to increase sales and market share.

The purpose of the Project, *the Procurement of Specialized Equipment and Training for the Women's Group*, is to provide for equipment and specialized training to the Ka'h-Lohil Tepal Women's Group Arts and Craft Center. These very much needed inputs would greatly improve and develop the efficient fabrication of arts and craft goods, and the proper and hygienic preparation of baked food, due to the lack of resources that currently hold the group back. Complementing the procurement of the specialized equipment would be the obtaining of necessary technical training, in order for the women to use such equipment efficiently and profitably. Likewise business management training would ensure the sustainable management, profitability, and viability of the Women's Group as a business entity.

## **PROJECT OBJECTIVES**

General Objectives:

1. To improve the livelihood of members and their families in a sustainable manner through supplementary income generation using skills in handicraft and pastry making.
2. To expand and market its products outside of Cristo Rey village in order to increase sales and income.

Specific Objectives:

1. To acquire specialized equipment that will be used to produce high quality baked goods, crochet and embroidered products, and garments.
2. To engage in specialized contemporary training for the optimal use of equipment, and for efficient business management of the Women's group.
3. Develop the project into a self-sustaining income-generating business.

## **ACTIVITIES**

1. Source and acquire specialized equipment for the baking, sewing and crochet.
2. Execution of the specialized training to start the following activities:

- a. Arts and Crafts
  - i. Crochet and Embroidery products
    - These include the making of bags, caps, etc., by the use of wool and knitting instruments.
  - ii. Hammock making
    - The process involves the weaving by hand of special strings into hammocks.
  - iii. Sewing
    - The women use of sewing machines to sew cultural apparel specially geared for the tourism market.
- b. Food Preparation
  - i. Bread Baking
    - The dough is prepared and it is baked at the right temperature. The bread is packaged for sale.
  - ii. Pastries
    - The dough is prepared with special sweeteners and baked at the right temperature. The pastries are then packaged for sale.

## **EXPECTED RESULTS**

The completion of this project implementation would definitely upgrade and strengthen the Women's Group which will consequently be able to do as follows:

1. Operate on a continuous basis and a larger scale,
2. Increase income and profit levels, and
3. Become better established and formal in its business dealings.

The results of this project, the equipment procurement and membership training, will ensure the increase of part-time employment and income to members of about 30 households in an economically deprived village. The resulting local investment/job creation initiative will be a direct contribution to the overall socioeconomic development of the community.

## **EXPECTED IMPACTS**

There are few environmental impacts from the implementation of this project. The primary concern would be the improper disposal of food product containers by customers. This will be addressed by ensuring that garbage containers are conveniently placed around the facility and frequently emptied. The western part of the country is now part of the Solid Waste Management Project that has a transfer station in San Ignacio and a sanitary landfill at Mile 24 on the George Price Highway. Hence the adequate disposal of garbage will not pose a problem.

## **MITIGATION MEASURES**

The mitigation measures will include:

- Ensuring that garbage containers are strategically placed around the facility;

- Reduce on the amount of solid waste generated;
- Adequately dispose of solid and liquid waste in the manner as prescribed for establishments of that type;
- Ensure that they follow best practices for the production of the items they will produce.

## MONITORING PROGRAM

Any monitoring program will of necessity be an integral part of the maintenance and upkeep of the facility and will follow Public Health Regulations.

## LINES OF RESPONSIBILITY

The Executive Committee of the Ka'h-Lohil Tepal Women's group will be first in the line of responsibility. Next in line will be the general membership. While the community has a role to play it will be difficult to guarantee commitment to the project from community members who are not beneficiaries. Any person working in the building will be under the supervision of the person selected as the operations manager. That person will report to the Executive Committee.

## CULTURALLY APPROPRIATE CONSULTATION AND PARTICIPATION

## COST ESTIMATES AND SOURCES OF FUNDS

### 1) Project Budget:

| Line Item                          | JSDP      | Beneficiary<br>Contribution | Total     |
|------------------------------------|-----------|-----------------------------|-----------|
| Personnel                          |           |                             |           |
| Administration /Operating Expenses |           | 1,300.00                    | 1,300.00  |
| Equipment                          | 23,071.00 | 950.00                      | 24,021.00 |
| Materials                          |           | 2,250.00                    | 2,250.00  |
| Training                           | 10,100.00 | 1,440.00                    | 11,540.00 |
| Building construction              |           |                             |           |
| Renovations                        |           |                             |           |
| Other Costs                        |           |                             |           |

|               |           |          |           |
|---------------|-----------|----------|-----------|
| <b>TOTAL:</b> | 33,171.00 | 5,940.00 | 39,111.00 |
|---------------|-----------|----------|-----------|

Note: Grantee must contribute a minimum of 15% of the total cost of the project.

**ADDITIONAL INFORMATION:**

Liquid waste disposal in most of Belize is done through a septic system. The facility already has a functional septic system that was installed when the building was constructed and is currently being used. The current capacity of the system was designed to meet any normal increases in usage over the short to medium term.

The village of Cristo Rey has a garbage collection that collects garbage from individual premises twice per week. This garbage is then transferred to the San Ignacio/Santa Elena – Benque Viejo Transfer station. The station is approximately 5 miles from the village. The municipal government is responsible for ensuring that the garbage is collected, transported and delivered to the transfer station in a timely and sanitary manner.

The Solid Waste Management Authority is currently managing two waste Transfer Stations, namely the Belize City Transfer station, San Ignacio/Santa Elena – Benque Viejo Transfer station. These are located at the old Belize City dumpsite and the old San Ignacio/Santa Elena – Benque Viejo dumpsite.

These Waste Transfer – Transfer Stations play an important role in a community’s total waste management system, serving as the link between the community’s solid waste collection program and the final waste disposal facility, in this case the regional sanitary landfill located at Mile 24 George Price Highway. A transfer station provides a safe, efficient, and cost-effective means to process and transfer solid waste from the waste generators to a final disposal site.

Wastes are brought to the facility by collection vehicles (garbage trucks) as well as self-haul vehicles ranging from pickup trucks to dump trucks. The waste is dumped onto a concrete floor (the “tipping” floor) inside of the transfer station. Recyclable materials such as PET bottles (soft drink and water bottles), HDPE bottles (chlorox/bleach bottles), glass bottles, aluminum and steel cans are sorted out manually and removed from the facility. The residual waste is then loaded by a front end loader into large-capacity transfer trailers and hauled to the regional sanitary landfill.

The Sanitary Landfill is located at mile 24 on the George Price Highway approximately 2 miles heading due north along the paved access road. This facility was inaugurated on July 30, 2013. It started receiving waste on August 6, 2013. This is the country’s only Sanitary Landfill. The entire parcel of land where the landfill facility is located is 370 acres. This is the final disposal location for waste originating from municipalities in the Western Corridor (Belize City, San Ignacio/ Santa Elena – Benque Viejo, San Pedro Ambergris Caye and Caye Caulker). The first Municipal Solid Waste cell (Phase I) occupies approximately 5 acres. The Mile 24 Regional Sanitary Landfill was designed, constructed and supervised in accordance with internationally accepted standards for municipal solid waste landfills.

The following pieces of legislation provide the framework for this Environmental Management Plan:

Food Safety:-

PUBLIC HEALTH ACT, CHAPTER 40, REVISED EDITION 2003, SHOWING THE SUBSIDIARY LAWS AS AT 31ST OCTOBER, 2003

SECTIONS:

Annex 1: Bakery Regulations

Annex 2: 22. Removal of Refuse By-Laws

PUBLIC HEALTH ACT, CHAPTER 40, REVISED EDITION 2003, SHOWING THE LAW AS AT 31ST MAY, 2003

Section 53.

- (1) Where any lot, house or premises is without a drain sufficient for the effectual drainage of flood water or domestic waste water a medical officer of health may by written notice require the owner or occupier of the lot, house or premises within a reasonable time therein specified to make a drain or drains emptying, in the case of flood water, into any public drain, and in the case of domestic waste water, emptying into such sump or pit or place as a medical officer of health may direct.
- (2) A medical officer of health may require any such drain or drains to be of such material, construction and size and to be laid at such level and with such fall as may appear to him to be necessary and proper and may require any sump to be of a size and type approved by the Director of Health Services.
- (3) If such notice is not complied with the medical officer of health may after the time specified in the notice do the work required and may recover in a summary manner the expenses incurred by him in so doing from the owner, or may declare the same to be private improvement expenses.
- (4) For the purposes of this section "domestic waste water" means any water or liquid matter other than ordinary flood water.

Effluent Regulations:-

Annex 3: ENVIRONMENTAL PROTECTION ACT CHAPTER 328 REVISED EDITION 2003, SHOWING THE SUBSIDIARY LAWS AS AT 31ST OCTOBER, 2003; ENVIRONMENTAL PROTECTION (EFFLUENT LIMITATIONS) REGULATIONS

**Read in conjunction with**

Annex 4: ENVIRONMENTAL PROTECTION (EFFLUENT LIMITATIONS) (AMENDMENT) REGULATIONS, 2009

Solid Waste Disposal:

ENVIRONMENTAL PROTECTION ACT, CHAPTER 328 REVISED EDITION 2003, SHOWING THE SUBSIDIARY LAWS AS AT 31ST OCTOBER, 2003

Section:

35. No person shall deposit waste in a place other than on a site approved by the Department for the elimination or storage of waste or for the operation of a waste treatment plant or a waste management system.
  
36. For the purposes of Regulations 32 to 35: (a) “waste” includes solid or liquid residue from industrial, commercial or agricultural activities, rubbish, household garbage, used lubricants, demolition debris, pathological waste material, bodies of animals, motor vehicle wrecks, chemical and radioactive material, and empty containers; (b) “waste management system” means a combination of technical and administrative operations for the removal, collection, transport, storage, treatment and final disposal of waste.