

TIERRA BOMBA RECYCLES: COMMUNITY STRENGTHENING AND RECYCLING

1 BACKGROUND

Tierra Bomba, 10 minutes by speedboat from Cartagena is an island connected to the city and the neighboring marine ecosystems. Its inhabitants are a capable, intelligent and powerful community that has survived despite the difficulty, the invisibility due to corruption and the negligence of the state. There is an environmental and cultural crisis in Tierra Bomba, due to abandonment and lack of knowledge of its own history. Its inhabitants live in precarious conditions, without job opportunities, without water or sewerage, suffering the ravages of extreme weather.

However, there is hope in the community of Tierra Bomba, because cultural and behavioral changes begin to be seen and felt: resources are being taken care of, recycling is begun and waste is organized, and the quality of life is improving.

The Fundación Bahía y Ecosistemas de Colombia executed in 2017 the environmental project "Tierrabomba Limpia: Cultural Change for the Sustainability of the Bay." The general objective of this initial project was to encourage a cultural change for the adequate management of solid waste and thus improve the quality of life of the inhabitants. Through the project it was possible to characterize solid waste, with the support of the community and strategic partners there, Tierra Bomba Community Council, Aseo Urbano and Dones de Misericordia.

The specific objective reached in 2017 was the implementation of a solid waste management plan (PMIRS) for Tierra Bomba, with the active participation of the community, complemented by the activities of Environmental Education, training, dissemination and artistic and pedagogical exercises that they facilitated the learning and internalization of better habits in waste management and the importance of this in the improvement of living conditions. The community actively participated in cleaning and artistic development activities, saw its village embellished by 7 murals, participated in activities of dance, music, braids and sculpture, which fostered a sense of belonging that today is felt in the pride of its inhabitants.

La Fundación Bahía took approximately 1,000 volunteers during the project in an effort to give visibility to the island and its problems, achieving a true cultural exchange, with the participation of volunteers from ESENTTIA, Universidad Los Libertadores, SENA, Red Jóvenes de Ambiente, Tecnológico Comfenalco, WWF, la Armada, UNIBAC, Plato Lleno Cartagena, Colfondos, entre otros.

During the development of the Waste Management Plan, the project team, with the support of community leaders and a local group of environmental managers, carried out the Characterization of the Residues. This study of the waste generated by the community, showed that 0.52 kilos per person per day are generated, and that 30% are usable.

In the second phase we proceeded with the consultation, formulation and dissemination of the Integrated Solid Waste Management Plan (PMIRS) of Tierra Bomba. With the participation of the community, a total of six programs were formulated and the characteristics of an adequate waste management were proposed, which starts from an efficient service offered by the toilet operator and depends largely on the community's separation in the fountain. The PMIRS also promoted the use and valorisation of non-hazardous solid waste and minimized the negative environmental impacts associated with the inadequate handling thereof.

The last phase was monitoring and strengthening of the implementation. The structure of the PMIRS was adjusted and, in turn, the harvesting program was modified by changing the selective collection route. Transformation and commercialization of the collected materials was obtained at the start of the implementation phase and the specifications required for the conditioning and sustainable operation of the temporary storage warehouse were detailed. In addition, waste pickers present in the community were linked.

The Tierra Bomba Limpia Project reached all the indicators and developed all the activities planned with success. In addition, a greater number of workshops and events were given to those originally planned in support of the general objective of achieving cultural change. Today, the Tierra Bomba community is ready to start recycling.

2 JUSTIFICATION

Starting in 2016, thanks to the accompaniment of the Bahia Foundation and Ecosystems of Colombia together with the environmental managers of Dones, the community of Tierra Bomba managed to clean their satellite dumps and adopted responsible behaviors at the time of the delivery and presentation of the waste; In the same way, the cleaning operator was able to dispose of sweeping workers and increase the frequency of waste collection.

With the Tierra Bomba Limpia project in 2017 it was possible to work with a direct approach to each of the families of the community, a waste characterization, training and workshops were developed in order to achieve the participatory formulation of a comprehensive management plan for solid waste, seeking to provide the community with a tool that would allow adopting responsible behaviors regarding the handling of waste. Source separation and recycling were promoted, linking waste pickers of the community and delegating in them the operational responsibilities that would allow the sustainability of the development of the PMIRS.

Bearing in mind that the Community Council of Tierra Bomba expressed concerns about the island's tourism projections and the rapid growth of the population and asked to consider broadening the accompaniment to the implementation of the Plan, the Bahia Foundation has identified the opportunity to strengthen the community organization, leaving installed capacities for the administration (responsible for monitoring and implementation) of the PMIRS. In the solid waste utilization component, the basic endowment of a temporary storage warehouse for recyclables is sought and to facilitate the formalization of the recyclers (in accordance with the current regulations Decree 596 of 2016), also following the lines of Education Environmental, training the community on environmental issues to continue to encourage cultural change and maintain a clean and recyclable Tierra Bomba.

We identified strengthening needs to ensure greater sustainability of Tierra Bomba PMIRS when led by the community. Being consistent with the above we present this proposal whose main objective is to strengthen the community organization, for the administration of the PMIRS and to potentiate the results obtained during the 2017 project "Tierrabomba Limpia".

OBJECTIVES

- **General objective**
 - Strengthen the community organization for the monitoring and implementation of the PMIRS, leaving installed capacities in the community that allow them to adequately and sustainably implement the programs of the plan, specifically in the component of solid waste management..
- **Specific objectives**
 - Train and facilitate the formalization of waste pickers identified in the community.
 - Provide the temporary storage warehouse for usable waste from the community of Tierra Bomba.
 - Train the community in environmental issues aiming at achieving the cultural change required for a clean and recycling Earth.

4. METHODOLOGY OF THE PROJECT

Through the Tierra Bomba Recicla Project, technical and methodological knowledge in the management of solid waste is provided, seeking to leave installed capacity in the community, directly in the persons that the Tierra Bomba community council indicates appropriate to lead the sustainable implementation of the management plan integral of solid waste - PMIRS - formulated, disclosed and tested in the development of the previous project "Tierra Bomba Limpia".

For the execution, three phases are established which would be developed in parallel:



These phases will also be complemented with the communications strategy in which activities are carried out that generate impacts on cultural and environmental changes, mostly through presence and educational campaigns with environmental sense in networks, events and / or pedagogical outings.

ORGANIZATIONAL STRENGTHENING AGAINST THE PMIRS - PHASE I

In this phase, the aim is to promote leadership actions in the community that allow them to adequately and sustainably implement the plan's programs, and will also work on consolidating a manual of functions for those responsible for complying with the plan's schedule. The following are the goal, activities and products of this phase:

GOAL.

- ✓ Form, train and guide a committee to monitor and review the PMIRS during the course of the project.

ACTIVITIES

- **Formation and presentation of the PMIRS monitoring and review committee.** It is necessary that the Community Council approve the conformation of the Committee in which duties and responsibilities of oversight will be delegated on the implementation of the Plan. The Committee must be presented to the entire community.
- **Training** for the planning, monitoring and review of the PMIRS, leadership, planning of environmental campaigns, environmental legal module on waste.
- **Guidance** in the execution of the functions of the Committee; formulation of the functions and responsibilities manual.

PRODUCTS – PHASE 1

- *Formation report Monitoring and review committee of the PMIRS*
- *Function Manual SRP Committee*
- *Schedule of activities to be followed by the Committee (1 Document)*
- *Community training workshops (4)*

FORMALIZATION OF RECYCLERS AND BASIC ALLOCATION OF THE TEMPORARY STORAGE WAREHOUSE - PHASE 2

This phase has two specific goals; the activities required to achieve them are related and described:

GOAL 1.

- ✓ Facilitate the formalization of waste collectors from the community to lead the technical management of the temporary storage warehouse for usable waste from Tierra Bomba in the first quarter of the project.
- ✓

ACTIVITIES:

- **Administrative management for the formalization**, provide waste pickers with the necessary guidance for the formation of an association and administrative procedures required, registration and participation in the waste pickers census of the city of Cartagena and link to the network of the Collection Center Cartagena Friendly, relationship with the local hotel sector, and initial endowment (uniforms and EPP).
- **Training to recuperators to guide the formalization process**, begins with two modules on the topics of integrated waste management GIR emphasizing the appropriate separation to optimize the recovery of waste and environmental legislation to identify and project the important role that develop, two financial modules to indicate cash flow management for the sustainability of the temporary storage warehouse and generalities of responsible revenue management. Two modules of human development to strengthen teamwork and assertive communication.
- **Define and establish an operational scheme**, work plan for the distribution of the sectors, frequency, schedule and manning of the harvester (cart type), two are required that respond to the needs identified as sectors of difficult access due to having lanes and another considered for wide streets. In this activity, the direct relationship with the organizational strengthening phase against the PMIRS is contemplated.

GOAL 2.

- ✓ Achieve the minimum endowment of the **temporary storage warehouse** for usable waste, according to the characteristics and possibilities of the place taking into account the environmental and safety guidelines that apply in the second quarter of the project.

ACTIVITIES:

- **Temporary storage cellar installation**, the designated space must have a reception area defined: place where solid waste arrives RS. Breakage area: determined section to break the bags and the packaging of the RS. Separation area: space designed to make the individualization according to the recovery of waste. Storage area: by type of waste.
- **Contingency plan**, solutions will be proposed for the eventualities that may arise during the development of the harvesting activity. The risks that exist in the process are recognized and, therefore, a contingency plan will be designed to provide answers to any problems that may arise: Congestion in the reception area. Excess waste. Accumulation in the separation area. Receipt of non-recyclable materials.

PRODUCTS PHASE – 2

- a. Basic strengthening of the temporary storage warehouse for harvestables (1)
- b. Formalization of recyclers of trade (Act formalization)
- c. Workshops (4)
- d. Document Technical operation guide and contingency plan of the temporary warehouse (1)
- e. Playful event (1)

ENVIRONMENTAL EDUCATION IN THE COMMUNITY - PHASE 3

This phase contemplates the pedagogical activities to be carried out in the community (sensitization, workshops, specific groups, approaches to housing, others) necessary for the recall of the responsibilities of the community regarding the proper handling of waste and articulate with all the actions mentioned in the previous phases.

GOAL

- ✓ Develop the environmental education strategy in specific groups and community in general with the leadership of the PMIRS monitoring and review committee and the environmental managers.

ACTIVITIES

- **Train and raise awareness** about the importance of classifying SRs and their contribution to the development of PMIRS Tierra Bomba and the environment.
- **Develop a sustainable and continuous process** of environmental education to manage the SR in the educational institution.
- **Reinforce the commitment** of the community to separation at the source.

PRODUCTS PHASE – 3

- a. Pedagogical campaigns (2)
- b. Workshops (4)
- c. Pedagogical trips with volunteers (6)