



Urban Agenda Platform

The global platform for sharing progress, action and knowledge on the implementation of the New Urban Agenda to achieve sustainable urban development.

Building resilience to mitigate the negative effects of climate change through construction of safe and sanitary wells and waterproofed latrines in the coastal area of El Salvador

Region

Latin America and the Caribbean

Sustainable Development Goals

Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

Summary

Communities on the Pacific Coast of El Salvador are most vulnerable to climate change, facing periods of drought and frequent flooding of local rivers. In addition, widespread poverty and limited access to basic services restricts the resilience and ability of these communities to adapt to extreme weather events. When floods occur, the provision of water for human consumption becomes extremely contaminated due to the overflow of latrines and other contaminants that adhere to traditional wells.

Background and Objective

Situation Before the Initiative Began: The area suffers annually of floods, its farmers farmers, workers and caretakers of cattle, the main subject is the health and control of diseases gastrointestinal and the respiratory ones. The majority of the affected population are women and children, as they did not have safe sources of water in communities. **Establishment of Priorities:** 1. Commitment to communities through an alliance with communities development associations that requested support. 2. Education on water quality, hygiene and adaptation to climate change. 3. Leadership development in the community through existing and new Water Committees. 4. Commitment of the municipal government (Mayor, key local / municipal level actors, and the Ministry of Health) to support the construction of wells / latrines and community management and maintenance, taking into account unpredictable future climate events. 5. Construction of wells and latrines **Formulation of Objectives And Strategies:** The goal of the project is to increase the resilience of people living in 14 communities in Zacatecoluca, El Salvador to weather variations, building healthy Wells and sealed organic manure latrines and providing related education on water, hygiene and climate change. This objective will be addressed through the construction of infrastructure that is resistant to climatic events, lead community organization, create greater awareness in communities and municipal governments (which includes the Mayor, actors at the local / municipal level, and the Ministry of Health), and improving drinking water management and hygiene. **Mobilisation of Resources:** Financial resources were managed by Oxfam America in coordination with PRO-VIDA as an intellectual actor in the design of healthy wells and funds are managed by both organizations. World Bank, approved funding for the construction of wells, latrines and for the training and training of water committees in 14 communities of grasshoppers. Oxfam America, provides technical advice, project monitoring staff, for overhead. Mayor's Office, made available to the project the payment of skilled labor in a community and provided support to the population. Pro-life, has technical and administrative staff available for coordination in the project field; It also provided material resources such as the use of vehicles and computer equipment to facilitate project execution processes.

Actions and Implementation

It is important to mention that the wells have the characteristic that they are built on a artesian well, that well is improved with a filter of black volcanic rock and that is protected with the concrete wall of the well and a PVC pipe that reaches down the water Cleaner in the aquifer. The volcanic rock filters the water before it reaches the point of entry of the well (to the bottom of the PVC pipe). The single piece of pipe prevents the seepage of contaminated water from entering the inside of the well, forcing the water to seep through the rock before entering the well from below. In the case of the latrine, the drying room is waterproofed and built from a high iron to avoid flooding because it is at ground level. The project in its development has had to face a delay because of a land where after doing the feasibility study was not possible to build because what had to negotiate with the settlers a new land which did not generate difficulties because the community Is very cooperative and soon another inhabitant offered its land for the construction of the same one. It is important to emphasize that the municipality collaborated with the process facilitating local authorizations and also in the case of a community helped with the payment of labor for the person who dig the well, as well Oxfam America that increased its economic contribution for payment Unexpectedly as in some cases the wells came out more expensive depending on the source or because they had to duplicate the analyzes of water quality before starting the works. The 21 ADESCOS organized to support the works as well as the teachers of the schools that were beneficiaries all contributed in the organization of the committees of communitarian water and all agreed to contribute a symbolic amount according to the number of population to obtain to



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maintain the wells And their latrines in their community. On the other hand, Oxfam America has hired supervisors of the works that attest to the quality of the infrastructure and there is a monitor team paid by the project that monthly visits to the communities to analyze the quality of water coming out of the wells And verify in that way if they have fulfilled the commitments to maintain it.

Outcomes and Impacts

- Financial: the project was executed financially with the resources provided by the partners and including the in-kind contribution of the beneficiaries of the fourteen intervention communities. No loans were required.
- Social and economic: It was possible to influence the implementation of Gender Equality, giving the opportunity of important positions for women in decision-making within the committees of water that by culture have been granted only to men, the project Has been able to include 67% of women in that of importance within the committees and in addition it is trained to all the committees to obtain the administration of the incoming funds by the payment of monthly quotas because use, maintenance and provision of a well like Source providing the water resource.
- Cultural: The project in its development has practiced respect and consideration for different attitudes, behavior patterns and cultural heritage of the area.
- Environmental: The project implemented the use of technologies in favor of the environment in order to reduce pollution levels especially in the area of ??latrines, which, as a dry soil, protects against the contamination of aquifers and promotes the use of dry feces in fields As well as organic fertilizer, as well as the wells using innovative technology hinders the introduction of contaminating materials in flood situations and ensures the quality of water in time of emergency.
- Institutional: National laws or regulations formally recognize the problems that have been addressed through the provision of healthy wells and latrines; For that reason the design of the latrine has been included as one of the endorsed by the ministry of health and in the case of healthy wells being an innovative technology PRO-VIDA followed the whole legalization process of this design as rights Of intellectual property that accredits as the only subject of rights before the authorship of the design.

Gender and Social Inclusivity

This practice arose after having cleaned 605 artesian wells where communities were involved and was a disaster because 4 months later the wells were flooded and returned to the same condition. So it was proposed to Oxfam America allow us to do a test to make a well that had constructive characteristics to the area and that the wells were accompanied by a new technique that would prevent fecal matter from contaminating the waters. Similarly, latrines were searched for a technique that prevents fecal matter from contaminating water, later the University of El Salvador and the University of Hardware and made an evaluation of this practice and found 3 elements one that the works helped Consumption of clean water, two this was linked to the training of the villagers for their proper use and three community organization was strengthened through community committees of health or water committees.

Innovative Initiative

- The community organization must comply with all legal documents to facilitate the processes of management and execution of projects that benefit from the construction of healthy wells and waterproofed latrines. That is to say, it is not enough that a group is appointed as a communal directive but must be legalized before its municipality.
- It is necessary to take into account that paperwork for authorization of construction takes time and this can lead to delays in the execution of the project.
- Awareness of the population facilitates the execution of projects, organization and participation are key to generate changes in people's habits.
- Monitoring water quality in cantons and hamlets generates shock or impact in the community who, when listening to results, is mobilized in order to improve the quality of their water, otherwise there are conformist communities.
- The promotion and education is the basis for a project to be sustainable in the future otherwise it does not generate changes in the population.
- That the design of salubre wells has been a success because after the storm E-12 was verified its good operation after the disasters.

Conclusion

The wells are backed and registered as a technology with rights reserved to its creators who are Mrs. Karen Ramirez manager of the hydrica management and decontamination program and Mr. Edwin Trejos, consultant engineer of PRO-VIDA. References: No. Title Source Author Publication Title Volume Number Date Page Number 1 ESTUDIAR EL IMPACTO Y EFICACIA DE “POZOS SALUDABLES” EN MITIGAR EFECTOS NEGATIVOS EN LA SALUD A CAUSA DE AGUA CONTAMINADA ANTES, DURANTE Y DESPUÉS DE INUNDACIONES EN LA ZONA BAJA DEL RÍO LEMPA, JURISDICCIÓN DE ZACATECOLUCA, DEPARTAMENTO DE LA PAZ. INFORME Lic. Guillermo Napoleón Morán Orellana, Geologo CONSULTOR ESTUDIAR EL IMPACTO Y EFICACIA DE “POZOS SALUDABLES” EN MITIGAR EFECTOS NEGATIVOS EN LA SALUD A CAUSA DE AGUA CONTAMINADA ANTES, DURANTE Y DESPUÉS DE INUNDACIONES EN LA ZONA BAJA DEL RÍO LEMPA, JURISDICCIÓN DE ZACATECOLUCA, DEPARTAMENTO DE LA PAZ. 1 San Salvador, febrero de 2009 17 Edit 2 SISTEMATIZACIÓN: EL IMPACTO EN LA VIDA DE LA POBLACIÓN DE LAS COMUNIDAS LAS SALINAS E ISLA MONTECRISTO EN EL MARCO DEL PROYECTO: “RESPUESTA DE EMERGENCIAS COMPLEJAS” SISTEMATIZACION OXFAM SISTEMATIZACIÓN: EL IMPACTO EN LA VIDA DE LA POBLACIÓN DE LAS COMUNIDAS LAS SALINAS E ISLA MONTECRISTO EN EL MARCO DEL PROYECTO: “RESPUESTA DE EMERGENCIAS COMPLEJAS” 1 JULIO 2016 ALL DOCUMENT