2004 TSUNAMI RELIEF, SOUTH ASIA

Case Study (Water)

Project Summary:

The December 26, 2004 tsunami in South Asia was a catastrophe of record proportions and far-reaching impact. The immediate response included an outpouring of donations and volunteer efforts that aided significantly in meeting the short-term needs of those affected by the disaster. However, longer-term solutions were essential to meet the demand for a wide range of infrastructure restorations in the tsunami-affected countries.

One of the most urgent longer-term requirements was the reconstruction of water and waste water systems, for reasons of both public health but economic development/redevelopment. In addition to the needs of the general public for potable water and good sanitation, many industries require a reliable source of this same potable water for their continued operation. The restoration and general improvement of these systems requires a protracted, focused effort that is both capital and technology intensive, and is therefore an excellent candidate for public-private partnerships (PPPs).

In order to encourage the transition from short-term relief efforts to reconstruction projects and to ensure clean water supplies in compliance with World Health Organization (WHO) standards, a large multi-national soft drink company entered into a PPP with the United Nations Foundation (UNF) and the United Nations Development Programme (UNDP), known as the Tsunami Relief Partnership (TRP). This partnership was particularly unique in that it fostered partnerships at the local level in a number of tsunami-devastated areas. The goal of each of these local partnerships is to undertake a sustainable, community-based approach to providing access to water and sanitation services for meeting redevelopment needs. Local partnerships have been launched in Indonesia, Maldives, Thailand and Sri Lanka. The initial funding for much of this effort was provided in equal shares by both the private company and the United Nations. In addition, the private sector partner provides management expertise to ensure the most efficient and appropriate use of the resources of both the primary partnership and each of the subsidiary (local) ones.
Today, partnerships are underway in communities in all four countries to improve the quality of water supplies and public sanitation facilities, and to develop community-based water resource management and long-term water supply activities.

**Project Objectives:**

Those responsible for development programs, at both the international and national levels, agreed on the important role of the private sector in economic growth, job creation and contribution to individual incomes. Domestic private sector development, vis-à-vis sustainable growth of micro, small and medium sector enterprises was therefore viewed as an essential aspect of post-tsunami reconstruction. PPPs have become a vital mechanism for harnessing and directing resources to achieve these broad development goals and promote sustainable recovery and development. The partnership between the global soft drink company and the UN fully recognizes these objectives, while focusing on specific development/redevelopment needs driven by the catastrophic tsunami.

This partnership seeks to achieve broad objectives that include:

- Recovery and rehabilitation of national entrepreneurial enterprises and general revitalization;
- Construction of infrastructure that has the ability to withstand the risk of future disasters;
- Incorporation of global codes and standards in the areas of reconstruction, including development of local skills and capacity; and
- Utilization of demand-based sustainable water and sanitation solutions determined in partnership with the local stakeholders for each project, to include the affected communities, the UNF and UNDP, and the soft-drink firm's local bottling companies.
Project Description:

1. Underlying Philosophy

It was fully realized that for the TRP to achieve global and national goals, implementation had to be done at the local level. The TRP set out to establish a framework for a series of local partnerships and to create an environment that would remove barriers to implementation of these partnerships. Key to this is the understanding that smaller and community-based enterprises must be included. Examples learned from earlier, failed development efforts had to be considered, and the lack of experience, public awareness, and public-sector capacity in implementing PPPs had to be addressed to create an environment in which this mechanism would have a greater likelihood of success. Successful PPPs would then be the mechanism through which resources were developed, allocated, managed and delivered to those left most in need by the tsunami.

The driving purpose behind the TRP was to promote sustainable water and ecological sanitation capabilities in selected tsunami-affected areas. This partnership, in addition to mobilizing financial resources, provided the opportunity to leverage the tremendous non-financial resources and combined capacity of the UN and the private partner (both globally and locally). In addition, the partnership aimed to build upon and explore linkages with relevant UNDP experiences and community-based programs already in place with local governments in the selected countries to address post-tsunami recovery. This ensured that the recovery and rehabilitation process had local participation and met the demands of the individuals and communities receiving the services. For this reason, the private soft-drink company agreed to provide not only capital but also in-kind management assistance and coordination with the UNDP country offices and recovery teams to ensure that the individual partnerships met the needs of the specific countries and localities targeted by the TRP.

2. Basic Framework for Local Partnerships

An initial framework for guiding the potential needs for water and sanitation services of the populations affected by the tsunami was agreed upon by all the partners, through the TRP agreement. This included agreement on the following framework:

- The primary focus would be on community-based sustainable water and sanitation with an emphasis on enhanced access to these services by the general public;
- There would be an emphasis on education, outreach and advocacy focusing on and engaging the communities;
• All activities must be demand driven, determined by national assessments and national development priorities and programs;
• The TRP would ensure participation in the programmatic activities by the relevant country, and local level teams, as well as the soft-drink company's affiliates in order to enable leveraging of non-financial resources and the combined capacity of all the TRP partners; and
• Strategic interventions would be used to balance the needs to urgently address water and sanitation requirements in the tsunami-affected countries and to contribute to a longer-term focus on service expansion of damaged water and sanitation infrastructure.

Once this framework was agreed upon, visits to five Southeast Asian countries were undertaken to assess the post-tsunami recovery needs in those regions. Not only did this assist the TRP in assessing the progress of the recovery and rehabilitation activities up to that point, it also exhibited the extent of the need for and the level of possible participation possible in local public-private partnerships in the specific countries.

3. Selection of Target Countries for Local Partnership Agreements

The TRP used the following criteria to select target countries for future partnership activities:

• Need and national demand for water and sanitation services in the recovery and rehabilitation phases;
• Expressed intent of the UN offices and the individual country government to engage with the private sector in relief and recovery and rehabilitation phases;
• Need for additional resources, particularly in the provision of sustainable water and sanitation services;
• Willingness of the country's government and other stakeholders to participate in and take ownership of the activities;
• Ability of these stakeholders to deliver and implement program activities;
• Possibility of linking the proposed project activities for provision of water and sanitation services with ongoing UN activities and making them sustainable; and
• Meeting with the interests of the private soft-drink company and its local bottlers.

On the basis of these criteria, it was determined that the TRP would encompass partnership efforts in Indonesia, Maldives, Sri Lanka and Thailand.

At the outset of each local partnership, agreement was reached on the expected output, communication strategy, risks, management arrangements, monitoring and evaluation, reporting,
characterization of contributions and the legal context. A detailed budget for each project was also developed.

i. Expected Output

Country-level activities are focused on providing tsunami-affected populations with community-based solutions to improve access to sustainable water and sanitation services. The projects engaged the local private bottling partners in identifying objectives and strategies to provide access to sustainable water and sanitation services for the populations that were most impacted by the tsunami disaster. Based on the on the in-country visits, specific outputs for each country were promulgated, but the overall expectations of the partnership activities were as follows:

- Stimulate the entire reconstruction and redevelopment process in the selected tsunami affected countries using sustainable water and sanitation as an entry point in an integrated strategy for sustainable livelihoods;
- Generate public-private partnerships initiatives that can be replicated in other developing countries;
- Address the reconstruction needs of the tsunami affected population, while creating opportunities for long-term engagement of the private bottling company with the UN agencies and institutions;
- Generate pilot activities which will lead to generating partnerships with other UN agencies, other countries and additional areas, including education, creation of entrepreneurs, and access to financial resources; and
- Create possibilities to leverage additional resources for replication within the country and also under south-south cooperation.

ii. Communications Strategy

The TRP recognized that the innovative nature of the project called for the detailed documentation and wide dissemination of the lessons of the projects. To that end the TRP created and implemented a strategic communications strategy that would highlight the country-level experiences at workshops, seminars and other forums. In addition, documentation included focused lessons that would be instructive in forming effective public-private partnership strategies for strengthening domestic private sectors in other countries.
iii. Risks

Although this project used a body of knowledge that is well known by the UN partners in this project, the process had not been previously applied specifically to post-disaster reconstruction. Additionally, the project was unique in that it relied on in-house expertise from various staff members at regional offices of the partners who would not be able to dedicate their total time to the project activities. This, in conjunction with the planned use of external consultants and partner organizations, made full coordination between all parties critical. Another risk was the reliance on the national political leadership and bureaucracy to provide momentum for the reconstruction and rehabilitation process. It was understood that the success of the partnership activities would be dependent on the ability of the national political and administrative processes to move forward and allow local public-private partnership activities to proceed. It was critical that the TRP coordinated its plans within the national priorities, reconstruction plans and guidelines developed by each target country.

iv. Management Arrangements

The proposed program was a part of the UNDP's global program to facilitate private sector capacities for development and was implemented and managed under pre-existing UN guidelines for projects of this nature. The Public-Private Partnership Programme of the UNDP provided overall management and oversight of the program. Specifically, the Water Governance Team, the Public-Private Partnerships for the Urban Environment and an employee on loan from the private soft-drink company provided guidance and services for the project.

v. Monitoring, Evaluation and Reporting

The standard monitoring, evaluation and financial accountability standards of UNDP global programs apply to this partnership. In addition to the ongoing evaluation of the TRP according to these standards, each local partnership is subjected to an independent evaluation, which is budgeted for at the outset of the local project. Bi-annual financial utilization, annual progress reports, annual certified or audited financial statements, final program reports and audited financial statements are required in accordance with existing UN guidelines.

vi. Charitable Contribution Clause

Due to the goal of the project to contribute to the rehabilitation of poor and distressed communities that were affected by the 2004 tsunami, all funds dedicated by the private sector to
the primary partnership and subsequent local partnerships are deemed charitable contributions. As a result, the soft-drink company is able to classify its contributions as tax deductible under United States tax law.

vii. Legal Context

The administration of the TRP is governed by UNDP rules and procedures. Each of the local partnerships was governed by the statutes and regulations of the individual host country. It was therefore necessary for each of the four countries participating in the PPP to have appropriate statutory and regulatory provisions to enable the successful implementation on PPPs.

viii. Budget

The United Nations Foundation and the private soft-drink company each contributed $1 million to the initial partnership. The private company also matched UNF employee contributions of $100,000 in a challenge grant. As a result, the total budget for the TRP is $2.2 million. In addition, the private partner also pledged $9 million in additional funds to be used in implementing local public-private partnerships in the target countries. This brought the total private sector contribution to $10,100,000 out of a total budget of $11.2 million.
Local Public-Private Partnerships Fostered by the TRP by Country:

1. Thailand

In 2005, TRP, the Chumchon Thai Foundation (a local NGO) and local communities launch a partnership for development to provide sustainable access to water in Thailand. The UNDP-led project is focused on the sustainable management of water resources on the island of Koh Lanta, in Krabi Province, Southern Thailand. Fresh water is limited on Koh Lanta, especially in the dry season, and the stewardship of water resources is a key developmental issue. An enormous amount of fresh rainwater simply runs off the island into the sea. Existing water reservoirs and wells do not currently meet the water needs of the island's population, particularly during the dry season. Implemented in collaboration with the Chumchon Thai Foundation, the project builds upon and is part of a broader partnership between UNDP and the Government of Thailand to bolster the post-tsunami recovery of Koh Lanta.

With funding from the TRP, additional funding support from the soft drink company, and the United Nations Foundation, the project is helping the tsunami-affected communities of Ban Sanga-U, Che Li, Hua Laem and Koh Por to plan, implement and maintain a series of activities to alleviate water shortage problems in their villages. This includes:

- Constructing 10 community check dams along the stream that runs through the fishing village of Ban Sanga-U on the southern tip of the island. These community check dams are now collecting and retaining rainwater, providing 117 village households with a long-term supply of water.
- Constructing a gravity-fed water system (including a reservoir and sedimentation tank) in the village of Hua Laem.
- The drilling of artesian wells on a nearby island reduced difficulties in terms of water access and availability.
- Constructing an organic farming irrigation system in Che Li village on the western side of the island for enhanced livelihood security.

The project emphasizes constant community dialogue and active participatory planning. Local Water User Groups have been set up as a multi-stakeholder Project Steering Committee that includes local community leaders and government representatives.
With a focus on the long-term sustainability of this initiative, project staff will also work with communities in Koh Lanta to build capability at the local level, providing training in basic accounting, project monitoring, water distribution and maintenance skills.

2. Indonesia

In 2005, UNDP, UN-HABITAT, the private soft-drink corporation, the UN Foundation and PDAM (a municipal water provider) launched a partnership to provide sustainable access to water and sanitation services in Indonesia. This partnership project is supporting the rebuilding of the hard-hit Aceh region, where the freshwater system was severely damaged by the tsunami. Most of the shallow water wells and parts of the deeper wells were flooded by salt water or otherwise ruined by the preceding earthquake.

In the first phase of the TRP work in Indonesia, the soft-drink company's Foundation Indonesia provided $300,000 in parallel funding to the German Federal Institute for Geoscience and Natural Resources (BGR) to help the Indonesian government obtain comprehensive hydrological data on water resources in the Pidie district of Aceh. The helicopter-borne survey was complemented by additional electromagnetic and hydrological studies in the area. The results provide the first-ever comprehensive mapping of freshwater supplies in the region.

The second phase of the project now builds on these results through a joint UNDP/UN-HABITAT initiative providing safe and regular water supply and sanitation facilities to six villages in the districts of Pidie and Aceh Besar. The activities have been financing through matching funds from the soft drink company and the UN Foundation.

The project supports UN-HABITAT's "Aceh Nias Settlement Support Programme," a housing and community infrastructure program for tsunami-hit villages that links with UNDP's tsunami recovery program in Aceh. Access for safe and regular water supplies is an extremely important issue for villagers in this area. After intensive consultation with the village communities, UNDP and UN-HABITAT are collaborating with PDAM to provide clean water for rural households in this coastal area. Due to limited capacity, PDAM had previously not been able to cover these tsunami-affected villages. As such, the project is helping to build the capacity of PDAM to rehabilitate water treatment plants in the area and extend its water supply network to six of the most decimated villages in the districts of Aceh Besar and Pidie. Each household is being connected to the new water distribution network, reaching approximately 7,700 people and greatly improving sanitary conditions. This is the first time these villages have ever had access to
tap water for household use. Villagers have been closely involved in the project design and directly involved in the construction and implementation.

As an entry-point for longer-term community empowerment, rainwater harvesting, public sanitation facilities (including latrines, common waste disposal and wastewater drainage facilities) and a hygiene and sanitation awareness component are also being implemented in each village through this project.

3. Maldives

In 2006, UNDP, UN-HABITAT, UNICEF, the private soft-drink corporation, the UN Foundation, the Australian Agency for International Development, the Government of the Maldives and Dhambidhoo Island residents launched a partnership to provide environmental sanitation on Dhambidhoo Island. The project is focused on the remote island community of Dhambidhoo, situated 228 km to the south of the capital, Male. Dhambidhoo Island was badly hit by the tsunami disaster. Forty-eight houses were damaged and another twenty-nine were destroyed. In addition, salt-water incursion exacerbated the vulnerability of the island environment, meaning that full recovery of the freshwater resources is expected to take years.

In support of UNDP's post-tsunami recovery program, the soft drink company, the UN Foundation and the Australian Agency for International Development have funded a much-needed water and sanitation project on Dhambidhoo. When completed, this will be one of the first islands in the Maldives other than Male and the resort islands to provide sustainable sanitation services to all its residents.

At the completion of this project, all households and public buildings will be fitted with a durable, water-tight septic tank and connected to a sewage network. Through this sanitation model, the effluent discharge from household septic tanks will be channeled safely through a network of pipes to a treatment plant and, after passing through a biological filter, will be used for irrigation or disposed to a soakage pit to recharge groundwater. This will bring an end to the pre-tsunami practice of discharging raw sewage directly into the island's lagoon or into the groundwater. In this way, the project strongly supports the post-tsunami approach of "building back better."

The project is being implemented in close partnership with local authorities, community leaders and the Dhambidhoo Island Development Committee to ensure continued local relevance, true community ownership and sustainability.
The new sanitation system will be managed by the community and will be both environmentally and financially sustainable. Island residents will be provided with the necessary training and technical assistance to operate and manage the system in an effective manner. Provision of adequate sanitation has been identified as a pressing national challenge and is an integral component of the UN's post-tsunami Shelter Recovery Project, a joint collaboration between UNDP and UN-HABITAT. The "Dhambidhoo model" has been designed to be replicable in other island communities across the Maldives.

4. Sri Lanka

In 2006, TRP, local communities and local governments launched a partnership to provide community empowerment through water and sanitation in Sri Lanka. This local public-private partnership is providing essential water infrastructure and sanitation services to two separate tsunami-hit areas of the country: Kattankudi in the east and Kalupe in the south.

i. Kattankudi

Located in Batticaloa district in eastern Sri Lanka, Kattankudi is one of the most densely populated townships in Asia. Situated on a thin strip of land between the ocean and a large lagoon, the closely-spaced houses lack safe drinking water and basic sanitation facilities. Much of the water is saline, there is no water table, and sewage often backs up into the houses. The lack of infrastructure for water, sanitation and waste management results in poor health and environmental degradation. Pollution in the lagoon is also severely affecting fisheries-related livelihoods.

The project is supporting the most vulnerable members of the Kattankudi community through access to improved water and sanitation services. The main component is the provision of a sustainable sanitation and wastewater management system including septic tanks, soakage pits, bio-cells and a chlorine tank. Bio-cell technology has not been used in the east of Sri Lanka and may prove to be a replicable, low-cost, community based solution to the sanitation and sewage disposal needs of densely populated cities in the rest of Sri Lanka.

As an initial pilot, this system is being implemented through local community-based organizations and provided to 19 of the most vulnerable households as part of a larger project targeting 7,000 people within the township. In addition to this integrated sanitation and
wastewater management system, rooftop rainwater harvesting units will be provided to each of the pilot households.

**ii. Kalupe**

The village of Kalupe, Hikkaduwa is located in the district of Galle, an area in the south of Sri Lanka that was badly hit by the tsunami. Through this project, a two kilometer pipeline is being built to connect the village of Kalupe to the Greater Galle Water Project to deliver safe drinking water to tsunami-affected people in and around the village.

Beyond this permanent pipeline infrastructure, the community is being engaged through training and awareness-raising to monitor the implementation and jointly "own" the process - part of UNDP's "Aid Watch" strategy to ensure transparency and accountability in post-crisis recovery. Community members in Kalupe will communicate and work directly with representatives from UNDP, the UN agency implementing this project under the overall technical guidance of the National Water Supply and Drainage Board. In addition to this "Aid Watch" component, both projects also include a focus on community training and awareness-raising on water, sanitation and hygiene practices, led by expert health and hygiene promoters.

**Commentary:**

The Tsunami Relief Partnership is unique in that it established a system for development and funding of a number of local public-private partnerships to address multi-country, regional problems. Both public and private sector management skills and resources have been combined to provide a guiding mechanism for the establishment of these individual local PPPs, while ensuring substantial involvement from local stakeholders in establishing the parameters for each project.

While Corporate Social Responsibility was no doubt a component in the decision for the soft-drink company to undertake this partnership, there was also an economic benefit that would be received by the company. In addition to the tax deduction implications, there is a private sector benefit with the restoration of a potable water supply and waste water systems that aid in continued operation of the local bottling companies. And finally, the visible and recurring good will toward the company generated by these may also provide some positive stimulation to its local markets.
Of particular value is the objective of the TRP to create replicable models that could apply in almost all developing countries. The sharing of resources of both the public and private sectors, both globally and locally is an integral part of this effort and a clear model for other possible partnerships to not only address catastrophes but also general infrastructure and service needs in these states.