



## THE MATTER OF WATER: GROUP EFFORT ANSWERS A BASIC NEED



Water: precious resource  
for the country's  
"vegetable belt" in  
Northern Luzon

**T**HE "integrated water resource development" projects initiated by Northern Philippines Tribal Communities Development Center (NPTCDC) are in Region I and the Cordilleras – that is, those mountainous parts of Benguet, Mountain Province, La Union, Ilocos Norte, Ilocos Sur, Abra and Pangasinan provinces dotted with the indigenous communities of the Kankanaey, Bago, Ibaloi and Tingguians. "Water," explains NPTCDC Executive Director Manuel Ano, "is the starting point of everything." Not only is it essential for household use and health and sanitation, water is also the fulcrum of the communities' main livelihood – vegetable gardening and livestock raising. (The province of Benguet alone, it should be noted, is the "Salad Bowl of the Philippines," being the primary source of the country's "cold-weather" vegetables – cabbage, carrots, potatoes, cauliflower, broccoli, and various legumes.)

Manuel also points out the organic relationship between the availability of water in the community and watershed management. With the mountains in the north severely denuded due to decades of unregulated logging, unsustainable farming and forest fires, the preservation of the remaining watersheds is

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crucial. Hence, water in the communities allows the people to put up and maintain nurseries, and undertake regular replanting. The tributaries in the mountains lead to the Agno River that runs through Abra, Ilocos Sur, Mountain Province, Benguet and Pangasinan, all the way to Tarlac in central Luzon. The river feeds at least two-thirds of the water supply of the entire Luzon island group.

It is not enough, therefore, that NPTCDC makes water available in the community. The organization also engages in training and education – on environmental preservation, gender issues, and leadership skills. But the key component of the project is the community’s organization of a water association that would be responsible for the maintenance of the newly built water system and the collection of tariffs. “We have developed a basic formula for setting the tariffs based on the number of household members,” says Manuel, himself from the indigenous community of Sagada in Mountain Province, but now based in Baguio City. From the monthly water dues collected, a percentage is set aside for the maintenance of the water system so that this is sustainable.

### **A Basic Model**

Because of the region’s rugged terrain, a spring from which the community would draw its water could be as far as five to 10 kilometres. At the source, the water containers (four-gallon tin cans) are all lined up in queue, each woman waiting for her turn at a makeshift stand. Each woman would scoop water and carry on her head a container-full of water. Sometimes, men would carry the cans, two at a time held together by a pole balanced on their shoulders. At the source, the women also did the laundry and bathing. All in all, then, this source was less than hygienic for the households’ other water needs, including drinking and sanitation. Precious time was wasted pooling water instead of more productive economic activity.

NPTCDC’s “water system” is a curious adaptation of plumbing technology to such conditions. Over the years, it has devised a relatively “uniform” gravity-fed design consisting of an intake tank at the source, a network of pipes made from galvanized iron, and a reservoir tank set atop a hill overlooking the community. The pipe network includes strategically positioned public faucets, with five to ten households sharing in one faucet, depending on the community’s population.

Since it was established in 1983, NPTCDC has implemented more than 500 of these water development

The community's labour is essential to the project's success.



projects, about 100 in the last five years alone. Of these, only three had to be replaced. In two instances, this was because of the presence of mineral in the original spring sources, which destroyed the pipes; in the third instance, because the water was found lacking in iodine. This iodine deficiency was precisely the cause of endemic goitre in the community, a problem that was finally solved when a new spring was tapped for the community's water needs.

NPTCDC has also helped several footbridges in the region, including the longest in the Philippines, a 560-meter steel-matting suspension footbridge in Luba, Abra.

Canada Fund supported 15 of these water projects and one footbridge endeavor, mostly in Ilocos Sur. The first was in 1985 when the organization was still called the Aplai Tribe Development Center, and the project was the Bab-asig water system in a remote part of Quirino, Ilocos Sur. The following year the organization approached the Canadian Embassy for assistance in the construction of a footbridge that would allow community members to cross the river safely (see pp. 12-15).

The water project in barangay Sugpon in Ilocos Sur was visited by then Ambassador Stephen Heeney. "It was the first time the people there had seen a helicopter and they ran to the dried paddies, which had been converted to a landing area, in a throng. They were very excited. Some had their carabaos with them, their cows. As the helicopter was to touch the ground, the carabaos ran in all directions. The women, all the children were there to welcome the ambassador. The pilot was aghast and kept waving them away," Manuel chuckled.

The latest project assisted by Canada Fund, which is in Aggasi, Pagudpud, Ilocos Norte, was also visited by Ambassador John Treleven during the inauguration.



The projects include reforestation and other basic-needs components, not just the water system.

**right:** A visit by Ambassador André S. Simard to one of the water projects in Ilocos Sur

**below:** A community's sense of fulfillment during the inauguration of its water system



The embassies of Australia, Germany and New Zealand are also major partners, as well as large church-based funding agencies in Europe.

### **Counterparting: The Success Factor**

Through these water system projects, NPTCDC has developed the expertise and drawn several lessons in implementing community development projects. As much as possible, it involves the local government units (LGUs) in the area. The NPTCDC head explains: "Some LGU executives are very responsive and realize the needs of the community, especially the ones in the really remote, impossible-to-reach pockets of the mountains. But then again some LGU executives pay you no mind. These are not vote-rich areas."

Some LGU executives are the ones who approach NPTCDC for support for its planned water systems. Involving the LGU, however, is almost always a slow process, Manuel admits. "And sometimes the LGUs can not help it. Their revenue allocations are delayed or cancelled altogether. When I sense they're just dragging their feet, I say to them, 'Look if you don't come on board, I'll just bring the project to another community,'" Manuel says.

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The LGU may be completely absent, but at all times, the community has to be involved. NPTCDC does not even attempt to implement a water development project on its own initiative. “The communities already know this. They know that when they come to us for their water system, they have to be prepared to give their labour to the project,” Manuel says.

The detailed design and engineering supervision come from NPTCDC, but the community performs all the other tasks – from hauling the materials to masonry to the fabrication of the concrete tanks to the inlaying of the pipe network. Even the women and the older children help out in the ferrying of materials – the aggregates such as gravel and sand – from the river or spring. The women would be waist-deep in the river passing basins of the stones or sand from one to the other until these reach the site of the intake or reservoir tank.

“It is essential that the community is involved so they have ownership of the water system. Or else they don't see the need to maintain this,” Manuel stressed. “Most of these communities are terribly poor – they have only the barest of essentials, and at times not even these.”

Many of the communities NPTCDC helped with their water systems are not electrified even now. “But electricity is not an immediately felt need for these people. Water is, and they are prepared to take care of their water system – if only they have one,” Manuel said. Years of working with the communities to bring water – as vital to life as air – within easier access have proved the people will unite and safeguard their access to basic needs.



A personal contribution to setting up the water system is a step toward collective ownership of it.