

PEOPLE-CENTRED APPROACHES TO WATER AND ENVIRONMENTAL SANITATION

Technocracy meets ethnicity: A World Bank water supply project in the Mekong Delta

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Water supply and sanitation are severe problems in the Mekong Delta due to pollution of rivers, canals and ponds with agricultural chemicals, sewage and other wastes. A World Bank project to increase access to water in rural Soc Trang Province, Vietnam is assessed for its adherence to principles of sustainability and social justice, focusing on gender sensitivity of the intervention. The water infrastructure introduced by the project consisted of three components with varying levels of success. The community had most input into the construction of a piped water system, and this was most successful. The use of UNICEF hand-pumps and Thai design water jars were specified by the World Bank and were less successful. The project beneficiaries are mostly Khmer people who have a relatively gender egalitarian society, but several times the project implementation undercut Khmer gender equality. This project shows that gender sensitivity requires ethnic sensitivity.

Introduction

This study examines the ethnic and gender sensitivity of a World Bank funded water project entitled Quan Lo Phung Hiep – Water and Sanitation in Rural Areas in Soc Trang Province, Vietnam. We selected Vien Binh Commune which is made up of three villages-- Tra Ong, Lao Ven and Dao Vien-- where ethnic Khmer people are the majority of the population. The Khmer are the indigenous people of southern Vietnam and have been there for over 2000 years, but are a numerical minority in the country. The Khmer have a culture and language distinct from the majority Kinh ethnic group.

The main sources of livelihood in this commune are rice farming, gardening, animal husbandry and small-scale industry. Agriculture, mostly rice production, comprises 2,883 ha out of 3,074 ha. The percentage of poor households is 28.12%. The average income is VND 120,000 per month (USD 8.23 or about USD 100 per year). 62% of the households have electricity. A canal system is ubiquitous but water is heavily polluted by agrochemical run-off, domestic and industrial waste. Clean water supply and sanitation are severe problems in terms of health and quality of life. Because of geographical features, only 5.4% of households are able to access ground water by family hand-pumps. People collect rainwater in ponds and purchase drinking water but rely heavily on polluted sources. Use of household latrines is minimal (AusAID 2002), with most people using drop toilets constructed over ponds and canals.

Three types of water supply infrastructure were made possible by the project. The most expensive and technical option is a system that taps deep underground water and distributes it through a piped system to households within a specified range. This system is used in areas with many

households. In Tra Ong and Lao Ven villages, the constructed water systems are able to serve approximately 160 out of 500 households. UNICEF hand-pumps are the second option; these are capable of tapping underground water at a depth of 80-150 meters, and are placed for shared usage among households located in clusters. These were sited at Dao Vien village because of geological criteria. The third option is large water jars distributed to households to store rainwater or water brought or purchased from other sources. These are used where households are more remote and cannot easily use shared facilities.

Data and Research Methods

We were interested to know to what extent users have been able to participate in the terms of the project; to what extent local management is being operationalized, and how gender awareness has been incorporated. Data collection methods included:

- Semi-structured interviews with the head of project agency, local authorities in the commune, and officials in the Provincial Vietnam Women's Union in order to know the issues involved in water supply and sanitation from government and technical perspectives.
- Mixed sex focus group discussions. These were conducted with both water project users and people not in the project, in order to know the community and how the project is being implemented.
- Depth interviews with the commune leader of the Vietnam Women's Union; the local manager of the water project; and doctor and nurse in the commune clinic in order to know issues around community identity, health, gender, and livelihoods.

Results

The Khmer have a matrilocal tradition in which 60-70% of couples reside with the woman's kin. Women are key members of the household who traditionally control the finances. But legal authority and household headship rests with men. Because of the particular pattern of this social system, it may be termed bilateral; and in fact men and women refer to themselves as equal partners. We observed communication to be open and warm between men and women. Hanh (2002) found that Khmer society is more gender-equal than Kinh society in making educational decisions for children. However, a depth study of Khmer gender ideologies and how they may be affected by "development" has not been undertaken.

Khmer people are rural based. Analysis of their intra-household division of labor and organization of production reveals a surprising departure from 'normative' gender roles. Khmer men are responsible for water collection and most agricultural work. 'Heavy' work is strictly for men, while women are household managers who control the purse. The gender division of labour is shown in Table 1. The roles are flexible in some areas but not in others. In general, it appears that in this household production-based context, the public realm of men and the private realm of women are not very distinct.

Our study focused on the organizational structure of the project and the way it interfaced with the community. The project was funded by a World Bank loan to the Vietnamese government and was implemented by the Provincial Department of New Settlement Area and Rural Water Supply. It was found that Khmer people have good representation in local government at the village and commune levels but not at higher levels. Khmer women likewise are found in the commune authority and have begun to be represented in the Provincial Women's Union, but like men are not found in higher governance structures. Though the Provincial Women's Union was given some responsibility in the project, it was a marginal role consisting of hygiene education. The vast majority of the project "implementers" were Kinh men, and above them were more layers of Kinh and male-dominated national government bureaucracy and ultimately the World Bank. In this scenario it was not too surprising to find a top-down implementation style in spite of attempts at inclusiveness. The Khmer users/beneficiaries of the project are reportedly able to go through their local manager, a Khmer man, to have input into the project implementation.

Piped water system

Of the three options, the piped water system was the most technical, and trained technicians had the major decision-making role. Villagers were involved in supportive roles. In this way, hierarchical "participation" was created. Gender was also constructed hierarchically. Men villagers were mobilized to build the foundation around the water system and dig the long trench from the water station to each household for piped system connection. Women were organized to cook

Table 1. Khmer gender division of labour, Soc Trang Province, Vietnam

Work	Gender allocation
Rice cultivation	Mostly men's work. Women and children may assist.
Digging ponds	Men's work only.
Vegetable gardening	Men plant and water vegetables, and care for garden. Women may assist.
Animal husbandry	Women may raise ducks, chickens or pigs.
Fishing	Both women and men fish in rivers, canals, ponds, flood plains, and rice fields. Fish may be cultivated in household ponds.
Exchange (paid) labor	Both men and women may be hired labor; perhaps men more often because women keep up the household work.
Water collection	This is men's job but women and children may assist. Two buckets of water are suspended from a pole balanced on the shoulder and carried to the house from the canal, river or pond. Women collect rainwater at the house.
Cooking	Women's work only. Rainwater is used for cooking and drinking. When rainwater is finished, water is purchased (delivered to the house by water owner carrying buckets).
Washing and cleaning	Women's work only. Use of pond or canal water.
Childcare	Women's work. Pond or canal water is most often used for bathing, and entails health risks.
Household management	Women control the household money but husband and wife make decisions jointly.
Tailoring, small business	Women's work.

Source: field work, April-June, 2003.

for the technical staff and working men. There were meetings between villagers and provincial staff to discuss the price of water connection and the commitments associated with connecting to the piped system. In line with Kinh norms, men heads of household were invited to these meetings. But in line with Khmer norms, women came to the meetings uninvited. Registrations for the service were in men's names, even though Khmer women are responsible for making payments. The local, paid manager collects payments, cleans the tank, is able to make simple repairs, and is the liaison with provincial technicians in case of any problems. This man became the manager not only because of being a man but also because, as a bachelor with no children, he was free to donate his land to the community for construction of the water service.

Provincial technicians test water quality every month. However women are recognized as the daily quality checkers, as they are the ones who discover water quality changes first, and immediately report them to husbands and the manager. For women, two short training courses were held on Clean Water and Sanitation. In the course in Tra Ong, there were 49 women and 5 men participants. The course in Lau Ven had

39 women participants and 5 men. Villagers were instructed on how to perform simple tests to check water quality (for example, adding tea water to a water sample will produce color changes if the water contains iron or high acidity). Hygienic practices were taught such as washing hands before eating, drinking boiled water, and advice not to build latrines over ponds or canals. It is of note that Khmer men, like the women, came to meetings because they considered the topics relevant to them, even though men were not invited.

The users/beneficiaries feel that the piped water system is an outstanding contribution to their quality of life. They reported that the biggest difference from the water project is in improved health. There were several prevalent health problems related to exposure to contaminated surface water: itching, diarrhea, eye infections, and gynecological infections. Being able to take a bath with clean fresh water after working in contaminated ponds, canals and rice fields has reduced the prevalence of these complaints. Vien Binh clinic records show improved trends in dysentery and malaria that occurred along with the project implementation in 2002.

UNICEF Hand Pumps

The other infrastructural components of the project were less successful. Constructions of the UNICEF hand-pumps were restricted to Dao Vien village because of aquifer conditions. While some users reported good water quality and no problems with the handle, others complained of both aspects. Some people had acquired hand-pumps prior to the project that were locally made and of smaller size. They were quite happy that even children could use these pumps. In comparison, the UNICEF handle was less easy to use. Beneficiaries' negative comments included: 'The handle of my UNICEF hand-pump is rather tall and fits more to men than women like us' and 'If I knew that there are various kinds of hand-pumps, I would choose the one fitting to me because I use water often.' From this information, we might ask whether some locally designed hand-pump might have been more suitable for these people than the project-supported UNICEF model.

Water jars

Large size was also a problem with the water jars put in place by the project. Efficient storing of rainwater is crucial to the household water supply, and provides the best water for drinking and cooking. While the water storing capacity of the households is increased by the addition of the jar, there are problems in ease of use. The jars promoted by the World Bank are of Thai design. The standard Thai jar contains 2m³ of water, which is much larger than the water jars commonly used in this area. Local practice has evolved in a way that requires smaller jars. Rain is collected off roofs into jars, but the supply of rainwater does not last the whole year. When the rainwater supply is finished, additional water must be purchased or carried in buckets to the household and poured into jars where it is left to settle before use. Transferring water from buckets to jars is much easier with the smaller jar. With

the large project jar, it is necessary to stand on a stool or chair in order to pour water from buckets into the jar. Users have expressed: 'The jar is too big so that it is not easy for me to clean the jar and to pour water into it.' Technicians agreed that the jar is too big and creates some difficulties for users but 'it is constructed by Thailand technique and is specified by the World Bank.'

Lessons Learned

Though the project clearly has brought benefits to this community, the World Bank exerted control over some key aspects where user concerns should have been the deciding factors. The project, in spite of participatory language, is recognized to have had a technical orientation and to have been conceived and carried out largely in a top-down manner. Decision-making on the infrastructure developed by the project was not open to local input, either from the implementing agency or the beneficiaries.

Although the piped water system is very popular, it utilizes expert knowledge of outsiders, not local knowledge. As a cultural minority, there are no Khmer with technical training. In the past, local knowledge has been an important coping strategy of the inhabitants (for example the knowledge of tidal action permitted capture of cleaner fresh water). Though the deep-drilled fresh water may well be the best option in the current polluted context, the message given to the indigenous people is that outsider knowledge is superior to their own. They have been recruited to provide labor and day to day overseeing of the system. This gives them "ownership" of the project but in a sense diminishes their power of knowledge. While men received useful training on maintenance of the water pumps, women were relegated to cooking. Though such arrangements are a type of collaboration, overt social hierarchies are being set up that were not there previously. Perhaps the local people participated on these terms because they saw it as an expedient, temporary arrangement to get water they need.

The provincial implementing agency does not have any internal equal opportunity policies that would guide hiring and training in the department. Thus all the technical positions are held by Kinh men. An ideal case would be one in which the implementing agency has both women and Khmer people on the team in representative numbers so that hierarchies in the society, as well as in projects, would be minimized. An equal opportunity policy could be developed with the help of the Provincial Women's Union.

There are several ways in which gender inequality was introduced in the project, as follows: 1) household heads were invited to the meetings, and the women had to show up without being invited; 2) only men were trained in maintaining and repairing pumps; 3) hygiene education was deemed to be for women, and men had to show up without being invited; 3) the piped water service was registered in mostly men's names; and 4) gender division of labor was practiced. Finally, the one paid staff, the Local Manager, is a man.

Most of these gender biases are in accord with the Khmer

gender ideals as seen superficially. But we think that the project's interpretation of Khmer gender roles may not have included the equal regard with which Khmer people infuse gender differentiated roles. Internally, the Khmer have mechanisms that enable women to assert themselves. Perhaps Khmer men traditionally carried out their public role without using it to become dominant over women. But as constructed by outsiders, women's role is reduced to "housewife" and their flexibility curtailed, while men are brought into closer contact with Kinh men and Kinh norms. Though Khmer women and men asserted their cultural flexibility about gender by attending meetings even if they were not invited, it might be predicted that with continuing Kinh contact, their traditional gender egalitarianism would be affected.

Having a project implemented by a government agency, even when mandated to be participatory, risks eroding the equalizing mechanisms of gender egalitarian people if officials are not fully familiar with the beneficiaries' culture. If they speak different languages, have different knowledge systems and different gender values, the overall effect is likely to be the degrading of the beneficiaries' way of life and the elevation of the officials' way of life, in spite of good intentions.

Managers must therefore be much more than technicians, as the social impacts of water projects are as important as the infrastructure that is put into place. To avoid institutionalizing gender inequality, projects should explicitly invite both men and women to all the meetings, make sure that both can attend, extend training to both men and women in both 'men's' and 'women's' subjects, and in general, facilitate flexible gender roles. Registration should be in both names. All should be done sensitively with great awareness of and

respect for local culture, and with active mediation by the commune representatives. It would be most meaningful if provincial officials working in projects with Khmer people could speak Khmer language. These aware practices would assist the social justice goals of the water project.

We were not able to observe the hygiene education conducted by the provincial women's union, but cleanliness is perhaps an area that requires great ethnic sensitivity. We suggest that the sanitation and hygiene education offered to Vien Binh commune is best facilitated by Khmer women who are of the community. Strong links and equality can be built up between the provincial and commune women's unions in carrying out this aspect of the project.

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