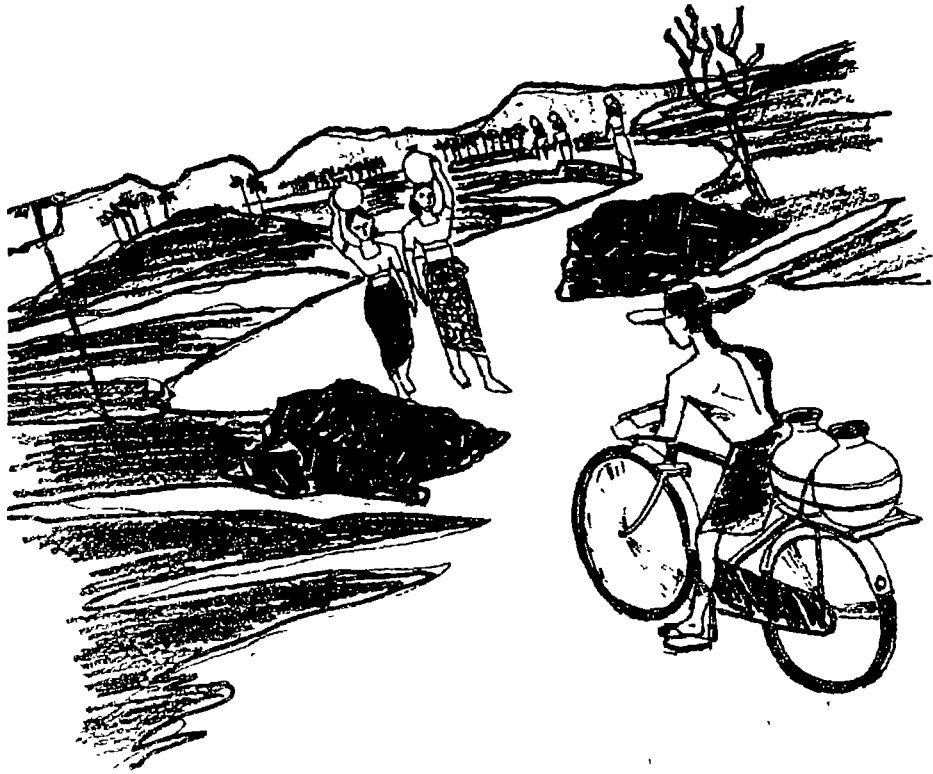




CWSSP

## CASE STUDIES



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**May 1995**

**Community Water Supply & Sanitation Project  
Ministry of Housing, Construction & Public Utilities**



## Arthacharya and CWSSP

Arthacharya is one of the earliest organizations identified by CWSSP to implement its Programme in all three districts. During the formative stages of the programme Arthacharya implemented a large scale programme in Badulla while it had two small scale projects in Ratnapura and Matara. Currently Arthacharya is among the partner organizations which implement the largest numbers of projects in three districts with total number of projects amounting to nearly 50. In the process of implementing and completing these projects Arthacharya together with the beneficiary communities and the CWSSP was able to learn many a lesson.

The most important opportunity offered by CWSSP was that it allowed Arthacharya to work in partnership with the Government of Sri Lanka to satisfy a basic need of the community. In Sri Lanka only a few NGOs had any experience in working with the government at the time CWSSP was introduced. Arthacharya was able to understand the bureaucratic requirements of the government and comply with them. Similarly Arthacharya has observed that the CWSSP changed itself to a considerable extent to suit the flexible movements of the partner organizations. During the first two years both the partners and CWSSP were able to gather experience which helped them to consolidate the programme.

### Erepola

The Erepola scheme counts three water supply service areas providing water to 800 people, through 30 standposts and 18 yard taps; 2 dug wells and a spring box serving another 8 families. The project was started in June 1993 with a mobilization phase and completed in January 1995. Another 83 households in the community were deemed to have an adequate WS service.

The Partner Organization, Arthacharya Foundation, learned about the community from other NGOs as Erepola had sent many requests to government and NGOs for assistance in water supply improvement. The normal procedure within CWSSP is that all funds for development and construction are channeled through the Partner Organization. However, in the case of Erepola the PO was impressed with the enthusiasm and degree of participation of the community during the mobilization phase. Upon a review of the CBO skills, it proposed to transfer the financial management for the construction of the scheme to Samagi Praja Jala Sampadaba Samithiya, the Erepola CBO. The PO closely monitored the books and found that the CBO was very capably handling the funds.

The project was completed in time, with a large community contribution, not in the least because of the leadership of the CBO and the inspiration offered by the Buddhist monk.

Upon completion of the project, Arthacharya audited the expenses and found that the CBO had made substantial savings, through its judicious use of funds for hiring labour or buying construction materials.

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	Estimated Cost	Actual Cost	%
CWSSP Contribution	627,007	395,070	55%
Community Contribution	295,000	237,800	33%
Sub Total	922,007	632,800	88%
Arthacharya Support			
Mobilization	41,000	41,000	6%
Construction Supervision	42,000	42,000	6%
<b>Total</b>	<b>1,005,007</b>	<b>715,870</b>	<b>100%</b>

1. Actual Cost Saving 37% of estimated cost
2. Transaction Cost of 6% for Mobilization generate a direct saving on Construction Cost alone of over Rs. 230,000

The community mobilization investment here shows to have created substantial savings in actual expenditure. Not just that however, the capacity of the community to take on future challenges is the real justification for CBO development and in the Erepola case it has already become clear that this capacity is present. Recently the community contacted the zonal engineer of the CWSSP to get her advice on an extension of the one of the three gravity schemes. The CBO wanted to lay another pipeline from the source to some 15 houses initially not served as they were supposed to have an adequate supply. However, seeing the success of the Erepola scheme, they would like to improve their own water supply system as well. Money was not requested as the CBO had already collected Rs. 50'000 from the beneficiaries to lay the pipeline. It was just the technical advice they wanted to make sure about the source yield and the alignment of the pipe line.

The people of Erepola busy themselves to make their water supply scheme and that bodes good for future functioning of the scheme.

# Arthacharya Foundation, a profile

## Introduction

The meaning of Arthacharya in Sanskrit, well understood by both the Sinhala and Tamil communities in Sri Lanka, is "meaningful" or "constructive" socio-economic activity. Arthacharya is also one of the four cardinal principles preached by the Buddha for the well-being of the society, which, over many centuries, shaped the cultures and value systems in Asia.

## Arthacharya

The Arthacharya Foundation is since 1992 the Sri Lankan chapter of the Rural Development Network of the International Liaison Committee for Food Crops Programme (CILCA International). Having its headquarters in Puebla, Mexico, CILCA has experience in rural development in Africa, Latin America and Asia since 1979. The overall goal of CILCA is to build capacity at the institutional level in developing countries to assist rural communities in raising the living standards of the people through their participation in decision making, building effective community based organizations, creating networking activities among CILCA activities, and satisfying basic needs. Although the Arthacharya Foundation is an independent, legally registered non governmental development organization with its own Board of Directors. The Sri Lankan programme is largely inspired and shaped by CILCA International, Arthacharya has developed a realistic development strategy for the Sri Lankan context.

## Objectives of the Foundation

The overall goal of the Arthacharya Foundation is to assist its target groups in their plight of reducing poverty, hunger and malnutrition through a process of social mobilization which taps their initiatives, institutions, technologies and resources. Specific objectives are;

1. To socially mobilize the communities, enabling them to analyse their problems, and involving them in designing and implementing their programmes leading to sustainable development activities.
2. To increase the potential of locally available and environmental resources for the benefit of the communities.
3. To organize the rural and urban poor under their own institutions so that their needs are addressed directly.
4. To develop and refine a low cost poverty alleviation model that can be replicated.

## **Arthacharya Projects**

The Arthacharya Foundation currently has fourteen projects in various districts of Sri Lanka. All projects feature a common initiation phase of social mobilization of the poorest of the poor, followed by small group formation and the starting up of a savings component. Depending on the starting point of the projects, these currently focus on nutrition, environment, activities based on credit introduction, food production and micro enterprise development.

The Foundation emphasizes and stimulates the role of women professionals at technical and administrative staff level. The development activities at field level are aimed at support for mixed strategies with close attention for ecological degradation, restoration and the role of women as environmental and household managers. Training of both technical team staff and villagers is a basic features of all Arthacharya projects.

## Dematawelhinna Case Study

The women of Dematawelhinna village know drudgery. Several times a day they have to carry drinking water in a 10 litre "kaleya" (water pot) from springs located at the bottom of the hill. Each trip takes about an hour. There are over 200 households in Demamatawelhinna and all face this problem. At Rs. 10 local wage per man hour a cubic meter of this water costs Rs. 1000/- just for delivery.

The CWSSP Regional Office is just 6 km away and CWSSP staff regularly visited the community to help them find a solution. Gravity fed piped water is not possible. There are no suitable springs near by, while wells are not possible due to high elevation.

Pumped pipe water is possible, but at a cost. Water needs to be bought from the National Water Supply and Drainage Board. The water would need to be pumped in two stages up to the village.

In terms of capital cost it would be possible to construct the scheme, but the monthly electricity charge that each household would have to pay Rs. 140/- per month, makes it impossible to sustain. As most of the villagers have no regular income, the system will never work for a long time. W.A.Somapala, the Chairman of the Community Based Organization, clearly states that it is not possible to collect the money needed to manage such a scheme regularly.

Eventually, rain water harvesting was suggested as an option. Upon investigation it was found that 90% of the houses have a roof that would permit collection of rain water.

Studies done by CWSSP show that the capital cost for a rain water collection system in the Dematawelhinna area - calculated on a ten year period - would amount to Rs. 18 per cubic metre, mainly to build the 5 metre cube storage tank. This would provide an amount of 100 l per house a day in a normal year, adequate for drinking and cooking.

The advantage is that the maintenance costs of the system are negligible. It is the ideal solution under the circumstances. But the community is not yet convinced. Rain water is too mysterious for them.

To build confidence, CWSSP decides to construct a demonstration tank. As the storage tank begins to fill with blue rain water, the people, and especially women begin to show interest. Before long, all households apply in writing for a rain water harvesting system to be constructed at their respective homes, and pledge their contribution.

With the help of a SANASA as Partner Organization, the people start planning their schemes. The system turns out to require some 20% more cash contribution than is common in CWSSP. However, as the economic and social benefits outweigh these extra costs, CWSSP grants this higher household contribution. Work on 10 tanks has already started, and altogether over 200 tanks are planned. The tanks are constructed by masons from the village trained by CWSSP. Thus some Rs. 250'000 in labour charges will ultimately remain in the village and in its own way contribute to economic progress.

Rain water harvesting has been promoted in the Matara, Badulla and Ratnapura district since the middle of 1995. Gradually, through training of PO staff, CWSSP notices a greater interest in Rain Water Harvesting as an option in rural water supply. On another level this has also become clear through the formation recently of a National Forum on Rainwater Harvesting aimed at promotion and sharing of information and experience on rain water harvesting throughout the island.

## Mirissa, Learning at Community Level

The Mirissa water supply project was completed in April 1995. Mirissa is a fishing community, and has a cooperative that cleans and freezes fish for despatch to Colombo. At Mirissa is literally located only a few meters from the sea, all wells are brackish and drinking water is not available. Thus, Mirissa was included in the CWSSP. Upon evaluation of the technical options, pumping from a large well located at the bottom of the hill some 400 m from the sea was the only reasonable option. However, in view of the cost of pumping and erratic income of the Mirissa people, CWSSP advised against this solution. Apart from rainwater harvesting no other water source was available and the Mirissa community insisted on getting drinking water through a pumping scheme. Ultimately, CWSSP approved a pumped scheme with standposts serving 80 households.

As the scheme was not very large and the community enthusiastic the scheme was completed rapidly. Upon completion of the scheme standposts provided water throughout the day. No doubt wastage also occurred. Great was the shock of the CBO when they started receiving the electricity bill. The bill was many thousands of rupees larger than they had expected or were able to collect from the users. The CBO closed down the scheme as it could not pay the bill. The community was very disturbed and arguments broke out. It was clear that a different water supply management system was needed. The chairman of the influential village Fishery Society took the lead and convened several CBO meetings to resolve the problem. For about six weeks to two months, discussions went on until the solution was found in selling water to the fishing boats, and using the income as a cross subsidy for the standpost supply. Simultaneously, the hours of operation of the scheme were reduced to a three hours in the morning and three hours in the evening. This still was too much and hours had to be reduced further to two hours in the morning and the evening. Not everyone agreed to pay for the monthly water rates, and so the scheme continued with around 40 families participating in the scheme.

People have adjusted to the system and have purchased 100 l drums to store drinking water during the day. Water for other domestic purposes is taken from the sea or from the brackish shallow wells.

Financially the scheme has flourished since it was decided to sell drinking water to the fishing boats. Monthly the caretaker collects Rs. 4,500 from the boats. This pays for the direct charges for electricity which range from Rs. 4,000 to 5,000. The caretaker draws his salary of Rs. 1,500 from the collection of water rates which amount to around Rs. 3,000 a month. The balance is kept in the bank. In April 1996 Mirissa scheme had Rs. 13,000 in the bank, and had to do some repairs on one of the two pumps. Rs. 2,000 was expected to be required that could easily be paid from the healthy bank balance. As the scheme is moving along nicely, several families that withdrew from the scheme have returned as consumers.

The caretaker trained initially has left the project area for other employment. Instead a local mechanic, who also repairs the boat engines, is now looking after the pumping scheme.



The Mirissa case has taught CWSSP that it should remain vigilant against agreeing to pumped schemes as it is very difficult for communities to meet the monthly dues. Hours of pumping will need to be curtailed to save money and that has a direct effect on the level of service that can be offered. The latter has had no direct impact on the Mirissa community because their primary purpose was to get safe and wholesome drinking water, as they could provide for all other water requirements through other sources. Even then it was a close shave or the project had not been financially viable. And it was good that the community identified the fishing boats as a possible client for their water.

Another lesson, or at least surprise at the impressive will of the Mirissa people to have the scheme they wanted, and their resolve to come to a solution they could handle with respect to the management of the scheme. Surely, the demand for fresh water was very obvious and that will well have helped strengthen their resolve to make it work. It shows that when a community wants something it can do it, but at the same time puts a large scale programme in a dilemma as it does not have the capacity to identify or guide these risky processes. And it is for that reason that the programme has officially made it a policy that pumped schemes should be undertaken by CWSSP with great reluctance and only after explicit approval of the District Engineer and the Regional Director.

Several years ago, the Badulla Pradeshiya Sabha had constructed a water supply scheme in Uduwela. However the scheme was now not functioning for some years and provide only a little water to a few households. The community with the support of the Pradeshiya Sabha had tried to clean out the intake and pipelines, but even then the supply was not adequate. Neither was the scheme capable of meeting the present demand of this growing community close to Badulla town.

The Uduwela community thus requested CWSSP to support the construction of a new scheme. The Badulla Pradeshiya Sabha was invited to act as partner organization. Mobilization for the Uduwela scheme was started in December 1994, and a CBO was constituted chaired by a female employee of the PS who was living in Uduwela village. When construction worked started a lot of hard shramadana (community labour) was provided.

Progress of the work was good until August 1995 when several project staff of the PS left its employ. At that time the project was nearly completed. The PS was not able to continue the work and told CWSSP that they had to stop. Work in Uduwela came to a halt. The PS still had to settle some accounts with the CWSSP but failed to do so. As these accounts were not settled, the Regional Office could - for bureaucratic reasons - not give the project to another PO to complete. The community felt duped and met many times with both the PS and the RD to try and resolve the stalemate. In the process they also constituted a new executive committee of the CBO, chaired by Mrs. Vasantha Rathnaweera. The CBO has 7 female and 8 male members, with the secretary being the other female office bearer. This committee was more active and eventually managed to come to an agreement with the Regional Directorate about the completion of the scheme. Funds would be released for the construction and the CBO would directly construct the scheme without an intermediary PO.

Vasantha is very confident that the CBO would be able to do this with a bit of technical backing up by Mahinda, the senior technical officer of the Regional Directorate. Hemapala, her husband, is a lecturer in an agricultural school in Matara, 150 km to the South, had come home for a funeral in the village. He affirmed his support for his wife's efforts and was very appreciative of the progress made by the present CBO. Vasantha, smilingly said that as many women were taking care of their families on their own during the week, it makes sense for them to head the CBO and ensure that the project gets completed. The Water Supply Scheme employs slow sand filtration for treatment, and the CBO was already planning to make arrangements for caretaker treatment and the longer term O&M needs of the project.

Uduwela, close to Badulla Town, has quite some educated people who earn their living in different capacities in the country. They are keen to live in Uduwela, rather than Badulla, which is so more congested, and they seem capable of undertaking and managing not just the maintenance of the scheme, but also the construction. The strength of the CBO has given the Regional Director the confidence that the CBO can indeed complete the project and so, the CBO has been given that responsibility.

Thus, through their own efforts, the Uduwela community will enjoy safe and plentiful water for its 600 population through 27 standposts. The secondary school will also get 4 taps from a separate storage tank. The system is geared towards a gradual transfer to houseconnections, and with the determination of the CBO being what it is, it can be expected that a continuous improvement of the level of service can be directed by the

community themselves with only a little external technical advice.

## Beramada - Village

Beramada is about 15 km. off Badulla town in the Uva Province, Sri Lanka. Located in a hilly area close to a mountain range there are 228 families living in the village. Majority of families depend on subsistence agriculture, some as tenant farmers. Considerable member of men and women also work as labourers in adjacent tea plantations. Beramada lacks basic infrastructure facilities. The distance to the nearest medical dispensary is about 8 km. One third of the families receive government food subsidy. In this sense this is a remote and poor village.

In 1989 Uva Rural Assistance and Development Foundation (URAD) interacted with the village through its community education programme. A few girls and boys were trained as catalysts for implementation of food, nutrition and environmental conservation activities. In 1993 the village requested URAD some form of assistance for improvement of water and sanitation facilities. This assistance was extended to the village through CWSSP towards end 1994.

URAD started a community mobilization program for water and sanitation in the village through a community facilitator. Small groups consisting about 10-15 families were formed. These groups were brought together in the form of a coregroup and subsequently developed into a community based organization (CBO) end 1994.

URAD in collaboration with CWSPU trained key members of the CBO in community mobilization techniques, organization of skilled and unskilled labour, construction management, taking care of facilities and community based resource management. By mid 1995 the CBO was able to complete eight small scale gravity water supply schemes and 108 toilets.

A trained caretaker has now been placed and a maintenance fund has now been established to look after water and sanitation facilities. Towards end of construction of water and sanitation facilities, (December 1995) URAD facilitated a forward planning sessions of the CBO in order to address issues relating to CBO sustainability. Members of the CBO expressed their concern about long-term stability of the CBO. They felt that the CBO has now become less fruitful to the community because it does not address practical problems related to their day-to-day community living.

The members appreciated the fact that since Mr. Martin left the CBO to join Samurdhi movement as a Niyamaka (Facilitator). Mr. Tilakaratne was comfortably walked into his shoes because recent constitutional changes encouraged youth to take up responsibilities and new challenges. The members of the CBO felt that the financial capacity of the CBO should mediate be developed.

In order to raise additional funds, following extra activities were commended in January 1995.

- Hiring of left over tools used for construction work of the water and sanitation project for a nominal fee.  
e.g. (wheel barrows, steel pans, mammoties, pick axes etc).
- Purchase of two spray machines and hire them at a nominal fee.

- Commencement of a small farmshop to sell seed vegetable, grains fertilizer and chemicals.
- Saving scheme for the members compelling each family to save a fix amount and deposit in a Rural Bank.
- Credit systems for member to obtain loans upto about Rs.1000/= either to meet emergencies or to start petty income generating activities.
- Purchasing products of members in bulk and marketing them on whole sale to prevent middlemen making profits.  
(e.g. Kitul Jaggery and treacle produced by members are collected and marketed by the CBO).

CBO has understood that most of the activities so far introduced are related to existence and function of the CBO and not largely connected with opportunities for community survival. Therefore income generation activities targeted at creating employment opportunities for members of CBO are being considered by the CBO at present. Some of the following proposals for this purpose are being considered now.

- Flour milling packing and marketing them. (e.g. Kurakkan, green gram etc.)
- Small scale cottage industries (e.g. production of joss sticks, ratton baskets, clay pots, poultly farming etc.)

The CBO has now been re-structured with several committees functioning as follows to address diversified community interests.

- Death donation and welfare committee.
- Women & income generation committee.
- Health & Environmental committee.
- Security and legal committee.

The CBOs supported by URAD are being brought together to form a new network of CBOs, the active functioning of which would allow URAD to phase out its inputs.

## Ginnaliya Village

The CWSPU, Matara came to know Ginnaliya through Dharma Vijaya Foundation (DVF), a temple based national level NGO. As far back in 1990 DVF had started a Dharma Vijaya Samaya, at Ginnaliya temple to facilitate a spiritual advancement and social development program.

Ginnaliya North was the most backward part of the village. DVF started mobilizing this community in January 1993 for improvement of water and sanitation facilities. A trained community facilitator of DVF resided in the village and promoted formation of small groups to ensure participation of each and everyone in the village. A participatory survey was facilitated and conducted by the small group representatives. The survey results revealed that 90% of the house hold did not have sufficient water supply and 68% did not have basic sanitation facilities. DVF further promoted formation of a community based organization (CBO) through a process community mobilization recommended by the CWSPU.

Activities went ahead smoothly through village self-analysis and community mobilization assessment until village participatory planning (VPP) started. VPP called for inputs of a technical officer for calculation of water demand, source measurement, study of options, feasibility studies and preparation of technical plan etc. DVF found it extremely difficult to manage provision of technical inputs for planning water and sanitation facilities. DVF, therefore, informed the CBO of its inability to support these activities.

This happened when participatory planning had just begun. Inevitable result was to stop participatory planning indefinitely. This created a disappointment among the members of the community with following consequences.

- Interest of the community started fading away.
- Members of the communities began to disbelieve partnership agencies.
- Emerging community leadership shattered.
- Small groups had started fallen apart.
- Linkages of the CBOs with partnership organizations relaxed.
- The hope of the community for improved water and sanitation facilities became nearly a dream.

The CBO Ginnaliya subsequently approached the Sathmaga Participatory Development Forum (SPDF) in 1994 to remedy this situation. Believed in community empowerment for no poverty and no affluence society. SPDF agreed to re-mobilize the community and provide required support. Its facilitators had already been trained by SPDF and CWSPU trainers.

Mr. Sanjeewa was specially picked up by SPDF to meet this challenging situation. He resided in the village and started experimenting ways and means of bringing the project back to normal.

The first few community meetings facilitated by him became futile. Then he started studying social organizations, their structures and ramifications etc. He realized that members of the community could be re-organized by utilizing their inter-connected social relations.

In Ginnaliya most of the families were interrelated due to blood relationships and marriage relationships within the community. He started motivational programs to reach members of the community through these relationships. In fact he resided in a family nucleus which facilitated his work. He also tried to identify informal groups and communicated through them to establish formal relationships. He played the role of a facilitator helping people to cure sick people, select high breeding seed varieties, chemical, fertilizer and to train selected youth in modern farming practices etc. He also brought useful institutional contacts to the village for community financing and entrepreneur development etc. Through this process he could revive small groups formally established by DVF and re-oriented them to form a revised CBO.

Meanwhile SPDF supported Sanjeewa with necessary guidance and closely monitored his activities and made available Mr Sunimal, a full time technical officer to assist the CBO for participatory planning. With this support the CBO was able to motivate the community and finalize VPP and undertake construction work.

The CBO has now completed two gravity schemes 20 shallow wells and 125 toilets. SPDF is guiding the CBO to prepare maintenance schedules, place trained community care takers at work, raise maintenance funds. An integrated development package has been developed by the CBO having thrust on rural credit agriculture and agro forestry.

## Pallegama Village

Pallegama is an isolated mountain area near Sinharaja tropical rain forest in the Kotapola Divisional Secretariat Division, Matara District. Socio-Economic and Environmental Development Institute (Seedings), a regional based NGO first developed its contacts with the village in 1991 under its community management training program. Pallegama is legally protected by environmental conservation laws of Sri Lanka since it forms a part of catchment area of Gingaga and Nilwala river commencing from Sinharaja.

Pallegama contains many species of animals and plants thus representing wide diversity of flora and fauna and ecosystems. The availability of high natural forest canopy and unique natural habitat with bio-diversity demanded this village special attention by forest authorities.

Despite the natural streams and water falls in the village members of the community suffered perennial drinking water scarcities over the last decade. Therefore, they requested assistance from Seeding for improved water and sanitation facilities.

The community facilitator of Seeding promote a participatory survey by the small group representatives and found 490 house holds lack sufficient drinking water facilities. Besides people were walking long distance from one hamlet to another to fetch drinking water.

After series of community meetings, the Community based Organization (CBO) decided to tap the water source of the Diyadawa forest reserve. The CBO approached the regional forest officers and requested permission to :

- Use Diyadawa lhalankande and Kotuwadola springs and use 2% of water to provide water to the village through three gravity schemes.
- Construct three storage tanks.
- Construct a diversion canal for 100 meters.
- Have access to the water source and storage tanks for maintenance purpose.

The forest authorities agreed to this proposal verbally. Yet, they did not want to give permission in writing. Asked whether the CBO could proceed with proposed work the forest authorities simply said "yes".

The CBO therefore, proceeded with initial work and started construction of the storage tanks. Unexpectedly, an injunction preventing the CBO proceeding with work was served. Repeated discussion with forest authorities by the CBO officials to go ahead with work proved futile. Seedings helped CBO to devise a four stage strategy to resolve this issue.

- Revival of environmental education program and creating greater environmental awareness in the village.
- Invite forest authorities to observe environmental conservation program implemented by the village and demonstrate environmental friendly activities inclusive of street theater drama.
- Prepare a written representation addressing all possible concerns of the forest authorities and confront them with counter arguments.



- Resort to legal action if first three steps fail.

This strategy was adopted over a period of eight months during which time CBO started inventorizing all resources available in the forest reserve in question. They were also able to identify environmental friendly income generating activities (e.g. medicinal plant growing in home gardens, production of herbal seed oil). The CBO was able to launch a public awareness campaign against illicit timber felling and established vigilant committees. The CBO was also able to demarcate boundaries of communities which would depend on the forest for survival.

On completion of the first three stages forest authorities were convinced that activities of the CBO would eventually result in conservation of this strict forest reserve. The request of the CBO to utilize the water source in the forest reserve was, therefore, allowed by the forest authorities without resorting to litigation.

Pallegame has now completed 3 small gravity schemes, 1 tube well and 26 shallow well to serve 537 families. The CBO is now engaged in source protection and income generating activities to keep up the spirits and interest of the members of the community.

## Case Study

### Small Town Water Supply and Sanitation Project

The Small Town Water Supply and Sanitation Programme (STWSP) is a component of the CWSSP for which the National Water Supply and Drainage Board (NWSDB) has been contracted as the Partner Organization. The NWSDB was invited to undertake this component first of all because it is an organization with the technical competence to build schemes that at times require technically more sophisticated solutions than regular rural schemes. At the same time it would provide the NWSDB an opportunity for further learning with respect to community mobilization and community management options. The latter will be an important capacity building element for its newly established Rural Water Supply Section.

The sub-project started effectively in early 1995 when the feasibility surveys of the first 6 towns were taken up. Altogether the Programme will construct water supply and sanitation schemes in 17 small towns in the three CWSSP districts. The Programme is of significant importance as it may well develop the methodologies and expertise needed to help serve a further few hundred small towns in Sri Lanka.

The philosophy of the Small Town Programme is basically the same as the CWSSP with a community based decision-making process, a minimum of 20% contribution for investment costs and the formation of a community based organization capable and committed to a fully community financed and managed operation and maintenance system.

*Small Towns Water supply Scheme is a scheme providing water supply to between 3000 to 6000 inhabitants (in year 1995) and including commercial, institutional and small scale industrial establishments in a small town setting OR a fast growing rural centre, where pipe borne water supply is a condition for economic development*

#### Cost sharing for a higher level of service

The community mobilization was undertaken by experienced CWSSP POs, except in Passara where the NWSDB preferred to use its own community development staff. The community development process was done on a house by house, street by street basis, ensuring the broadest possible understanding and participation, resulting in neighbourhood groups. Representatives of the neighbourhood groups in turn participated in the small town level discussions on technical options, level of services, household contributions required, and O&M arrangements. On the basis of its own experiences, CWSSP had curtailed the subsidy per household to Rs. 10'000. This amount was in sharp contrast to the Rs.30'000 per household initially put forward by the NWSDB. Costs over Rs.10'000 have to be borne by the community on top of the 20% contribution they are anyway required to contribute.

In the formulation of the Small Town component it was considered difficult to obtain such an important community contribution. However, the confidence gained in piloting CWSSP and the issue of equitable treatment for all, made it possible to lay down this rule.

As a matter of fact, except for Denipitiya, all communities showed a high degree of compliance with the contribution in cash and kind as indicated in table 1.

## SMALL TOWN WATER SUPPLY PROGRAMME

### Project Development and Construction Costs of Six Pilot Towns

Name of Small Town	Tech. Applied	Number of Premises Served	Population Served	Total Capital Cost	Government Contribution	Community Contribution	Comm. Contr. as % of Capital Cost	Comm. Contr. without House Connection Charges
Kuruwita	Pumping Scheme	1100	5500	19,011,512	11,000,000	8,011,000	42%	19%
Denipitiya	NWSDB Extension	999	5337	13,672,500	9,999,000	3,662,000	27%	12%
Passara	Gravity Scheme	793	3230	11,300,000	7,930,000	3,370,000	30%	23%
Kalawana	Gravity Scheme	656	3280	10,030,000	6,560,000	3,470,000	35%	24%
Koslada	Gravity Scheme	322	1610	5,780,000	3,220,000	2,560,000	44%	38%
Kirinda/Puhulwella	Pumping Scheme	781	3900	14,516,577	7,810,000	6,706,000	46%	26%

Table 1

Obviously, the financial limitations and the requirement of substantial community contributions made it imperative that the engineering design was appropriate, not unnecessarily wasteful, and fulfilling the people's wishes. This was achieved in a twofold manner. On the one hand 3 to 5 different technical options were developed by NWSDB staff and - with figures on costing for investment and O&M in hand - discussed with the community in several public sessions. Before and during these consultations, feedback from the CWSPU and the IDA supervision mission to the NWSDB design team ensured the development of efficient technical solutions that were affordable to the consumers.

Refer to table 2 on the next page: capital cost and monthly O&M charges

The Rural Water Supply Section of the NWSDB initially was not very much at ease with this consumer-led design process, but quickly learned that in the effort there was a lot to be gained in quality of design and cost of construction.

For instance, road reinstatement charges to the Road Development Authority to repair the road after trenching amounted to several million rupees in all project estimates, ranging from 10 to 30% of project cost. CWSPU insistence that it would be possible to avoid or reduce these charges through consultation with the community and the RDA, has resulted in these charges falling to below 10% in all small town sites, except Denipitiya where road reinstatement charges amount to 38% of total capital cost.

Similarly a 100 m<sup>3</sup> storage and filter tanks constructed in ferro-cement will bring down the cost of storage from Rs. 1 million for a 100 m<sup>3</sup> concrete storage reservoir to some 15 - 20% of that amount. These substantial gains straight away translate in a more affordable project design and lesser capital investment to which the community has to contribute. Thus, good design combined with consultation with the community about the consequences in costs and level of service of such design changes, results in benefits for all stakeholders.

In Kuruwita, the first and most active small town, the CBO leaders and the community have contributed their share through cash and kind, as appropriate for each household. Whereas a contribution Rs. 2283 was required, according to the project estimate calculated on the basis of standard rates for building construction, the people felt they could also manage with an individual contribution of Rs. 1500 per household. So far it appears that they are right, as the work done in trenching, excavation and other manual labour, is completed at substantially lower rates by the community supervised labour. Not only that, but money that otherwise would flow out of the town, can now be paid to casual labour resident in the town area.

The community involvement in the Kuruwita scheme has further enabled a design change which would make it possible to improve the scheme as soon as additional construction funds become available. Presently, the Kuruwita scheme is designed to draw water from a river. However, at some distance of the town a stream can be tapped that would allow water to flow by gravity. Although this stream would not be able to give sufficient water for around two month of the year, it was the communities desire to incorporate this stream in the scheme in a few years time, so as to make its scheme more reliable and affordable. NWSDB engineers have dimensioned the major pipelines on that side of the scheme in such a way that the future connection can be made without having to replace sections of the distribution network.

Many more striking examples have been experienced in the Small Town Programme as people because of their direct and genuine involvement in planning and implementation, show a far greater concern for the quality and the reliability of the source and the system, and have proven to be willing to contribute to it, to a far greater extent than initially assumed.

The Small Town Project has also drawn the attention of the civil authorities who have always, by law, have been charged with the provision of water supply services. Low level of service and lack of funds has brought on a vicious cycle of disrepair and limited functioning. For O&M, several models have been put forward, some including government institutions supposed to provide water supply. Even though the legal framework is only partly existing, the civil administration has recently made it clear that in Kuruwita it prefers a maintenance arrangement where the CBO is the primary actor, with the local government body confined to a supervisory role. Quite a promising turn around from the past position of full government control.

PS May 15

Last Monday during our monthly review meeting the Small Town Project informed me that in Kalawana the CBO has now arranged with the People's Bank that a loan can be obtained for the house connection to the WS scheme of maximum Rs. 7000. Some Rs. 150'000 had in this way been obtained from the People's Bank for this infrastructure development. In Kalawana, where half of the premises are business (cum-household) establishments this is a perfect way of generating additional funds through short-term credit. It is the first time that a bank has shown interest in supporting infrastructure development and underlines our contention that small towns have an economic growthpotential within which it would hardly carry a risk for a bank to issue a reasonable credit to a particular business premise, more so because the value of land and business premise will go up once facilities have been provided.

Name of Small Town	Tech. Applied	Number of Premises Served	Total Capital Cost without H/C Charges in Rs. Million	Capital Cost per premises served	O&M Cost per HH per month
Kuruwita	Pumping Scheme	1100	13,511	12,282	Rs. 39
Denipitiya	NWSDB Extension	999	11,380	11,391	Rs. 51
Passara	Gravity Scheme	793	10,325	13,020	Rs. 25
Kalawana	Gravity Scheme	656	8,580	13,079	Rs. 33
Koslanda	Gravity Scheme	322	5,195	16,133	Rs. 38
Kirinda/Puhulwella	Pumping Scheme	781	10,611	13,586	Rs. 39

Table 2

## Kopakanda WS&amp;S

	Estimated Cost	Actual Cost	%
CWSSP Contribution	1,113,596	735,034	57%
Community Contribution	582,148	465,000	36%
P.O. Support			
Mobilization	41,000	41,000	3%
Construction Supervision	58,000	58,000	4%
<b>Total</b>	<b>1,794,744</b>	<b>1,299,034</b>	<b>100%</b>

1. Actual Cost Saving 39% of actual cost
2. Transaction Cost of 3% for Mobilization generate a direct saving on Construction Cost alone of over Rs. 465,000

