

Case Study: A Participatory Water Supply Scheme on a Tea Estate in Central Sri Lanka.

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1. Introduction.

Sri Lanka's total population estimates 16 million, of which about 850.000 people live and work in the plantation sector (tea, rubber and coconut). Most of them live in the mountainous Nuwara Eliya District, in the Central Province, on tea estates. The people are Tamils whose ancestors came from South India. Unlike the majority of Sri Lankans, who are Sinhalese Bhuddists, Tamils practice the Hindu religion. They were brought to Sri Lanka in the last century to work as labourers in the tea plantations, because the European planters could not find sufficient workers locally.

Spending most or all of their life on the estates in often isolated settlements surrounded by tea bushes, the worker communities were kept completely dependent on the management of the estate (first European, later non-Tamil Sri Lankan) for all their basic needs. The management was responsible for providing the families with work, housing, water, health care, education and sanitation. The quality of the facilities offered was low, and the living condition of the people usually very bad. Workers were discouraged from taking initiative in improving their own situation. The plantation industry was and is very hierarchical and undemocratic in nature.

Although the situation is slowly changing, living and working conditions of most estate communities continues to be poor. Most plantation workers still feel the management is responsible for making sure their basic needs are met. At the same time, the majority of estate managers have an old-fashioned attitude towards the workers, whom they believe are backward and unable to take care of themselves.

Since the government of Sri Lanka privatised the plantation industry in 1992, responsibility for the approximately 500 estates in Sri Lanka was passed on to private plantation companies (about 20). The companies in turn, employ the estate manager and the other estate staff. Subsequently, District and Provincial government programmes for housing, water supply and sanitation, health care and education in the village sector, do not reach the estate communities. The plantation companies in turn, claim they are unable to afford social welfare programmes due to low profits in the tea industry.

In this context, there are special social welfare programmes for the estate population. These are always implemented in cooperation with the estate management (National Sector Coordination Programme for Water Supply and Sanitation, 1995). The Plantation Social Welfare Organisation<sup>2</sup> (PSWO) carries out such programmes. The

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<sup>2</sup> A tripartite organisation in which the government of Sri Lanka (Ministry of Plantations), the trade unions and the plantation companies are represented.

PWSO is assisted by a Rural Development Project (RDP). The main objective of RDP is poverty alleviation and improvement of the living situation of low-income groups in the village sector (Sinhalese farmers), and the estate sector (Tamil labourers). This paper focuses on the estate sector only.

Since 1995, the RDP together with the PSWO implement community based water supply schemes for worker settlements. Experience has shown that most water supply schemes which have been planned and built without beneficiary participation, and rely completely on the management for maintenance, stop functioning properly a few years after completion. To counter this unsustainable method of supplying drinking water to estate settlements, attempts are made to involve men and women workers in identification of the need, in decision making on the design, in forming Water Committees and Maintenance Teams, in providing labour during construction, and in the operation and maintenance of the scheme. In this way, they feel more responsible for the scheme, and are enabled to take care of it.

This case study is about a water supply scheme in Luckyland Estate, Tulloes Division, where social and technical officers of the PSWO and RDP worked together on developing a more participatory approach in drinking water supply programmes. The methods developed in Tulloes Division were used and worked out further in schemes which followed.

After a general description of the location, in section 2, a short gender analysis will be done for the situation as it was before project intervention. Topics are: division of work; ownership, income and expenditures; access to and control over resources; decision making power and gender ideology. In section 4 the project methodology will be explained. In the last section the gender analysis is repeated for as far as the situation after completion of the scheme has changed<sup>3</sup>. It shows what impact the programme has had on gender relations in Tulloes Division.

## 2. Tulloes Division.

The water supply scheme described in this case study serves the "School settlement" of Tulloes Division. The population of this settlement is about 450 people. As in all tea estates, people live in so-called line rooms: long rows of up to 12 housing units under the same roof, each family lives in a unit. Although the situation is worse in some other estates, here too the line rooms are small, dark, badly ventilated and often the roofs leak. Few families have access to a latrine, instead they go between the tea bushes.

About 180 people (women and men) are permanently employed in the estate, 45 (mainly men) work outside the estate. Some families have a small piece of land, where the men, sometimes helped by their wives, cultivate vegetables to sell on the market. Livestock and poultry are reared at a small scale, the products of which are marketed too.

The School settlement is near to a small town, enabling men and women to go to shops, the market, and mix with people from outside their own community. Most estates are

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<sup>3</sup> Source of data in section 2,3 and 5: Gender Impact Assessment of a Community-Based Estate Water-Supply Project. ETC Lanka, 1997.

much more isolated. As the name suggests, there is a rather large primary and secondary school in the settlement. In addition, there is a crèche, a room for the Estate Medical Assistant to run his clinic, a cricket field, and some small shops. Nearby there is a Hindu temple. All these facilities were there before the water supply programme started.

Before the completion of the water supply scheme, there was only one water-point for all the 110 families. This was a pipe without a tap, from which water flowed continuously. Without any storage system, the water pressure was never high. Some of the houses were up to 1 km away from it.

### 3. Gender analysis in Tulloes Division, before the project intervention.

#### 3.1 Division of work

From the age of 16 onwards, almost all women start working for the estate. The main work they do is plucking tea leaves<sup>4</sup>. This is very hard work: climbing steep slopes with heavy baskets of tea leaves hanging from their heads. In the burning sun or pouring rain, without protective clothing or footwear. They work from 8 a.m. until 5 p.m. with an hour lunch break, in which they go home.

Before and after work, women are responsible for all domestic tasks: fetching water and firewood, cooking breakfast, lunch and dinner, cleaning the house, taking care of children, old and sick people. They might also help their husbands with work in livestock- and poultry rearing and agriculture, if the family owns animals and land.

For young married women with small children, the burden of domestic work is heavier than for older women with big children. Especially adolescent girls help their mothers with much of the housework, such as fetching water. Old women who are no longer able to pluck tea, stay at home and look after the small children.

Although less regular, men also work in the estate. They hardly ever pluck tea, which is considered women's work. They prepare land, apply fertiliser, spray pesticides, uproot old tea bushes, prune, work in the factory, as drivers or are the field supervisors of groups of pluckers. Most of this work is done in the morning, so that after lunch they are free to do what they like. Those with land and livestock will spend time on that, they might go to town for shopping, selling products and drinking tea, and they might fetch firewood or fodder. They will not fetch water, cook, clean or take care of children. In families without women, neighbouring women will fetch water for them.

In particular from March to May, and October to November, the peak seasons in tea plucking<sup>5</sup>, women's heavy workload caused them serious mental as well as physical stress. Women had no free time, they are the first to get up in the morning, and the last to go to sleep at night. With only one water-point, women and girls spent 4 to 6 hours each day (per family) waiting in the queue until each had filled up their pots under the slow trickle of water. This situation of very busy women with no time to waste, and not

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<sup>4</sup> They pluck the top leaves from the bushes: two leaves and a bud.

<sup>5</sup> During these months the tea bushes "flush": grow more top leaves. The management pays women, and sometimes also men, to work overtime to pluck all the leaves.

enough water, frequently led to stand-post fights.

### 3.2 Ownership, income and expenditures

Officially the rooms families live in are not owned by them. The same counts for the small pieces of land they might use.

For plucking tea, women earn 82 Rs. (about US\$ 1.60) a day. In most estates, men collect the monthly wages of their wives, because they regard the women to be too uneducated to notice if they are cheated by the estate staff. When they work in the estate, the jobs mentioned in the section above, men earn the same amount for work which they usually finish in half a day. The income generated through agriculture, livestock and poultry keeping, the afternoon activity for some of the men, in general stays with them too.

Because the most labour-intensive part of the tea industry is plucking, there is always more work for women than for men. So in general, women work more hours and earn a higher monthly wage than men.

Men do most of the household shopping, although women from Tulloes Division also go to town now and then. In more isolated areas, women hardly ever leave their estate.

### 3.3 Access to and control over resources

Although not always of reliable quality, education, medical care, housing, water and crèches are provided by the estate free of charge.

As mentioned above, before the completion of the water supply scheme, there was one tap for the whole settlement. The water consumption was limited to 3 to 4 pots per family per day. Everybody in the settlement had equal access to the drinking water, irrespective of gender, age, income level or caste. In the house, women control the water and decide about handling and storage.

At community level, water was controlled by the management. An estate-appointed caretaker is responsible for the operation and maintenance of the water system.

As there is a school in the settlement, attendance of boys and girls is rather high. Girls stop going to school earlier than boys do.

Health conditions were not optimal, an example being people with diarrhoea all year round. Hygiene standards in and around houses were poor. Basic medical facilities are available.

Mainly due to low incomes, families do not always have enough nutritious food. After cooking, women serve their husbands first, after which the children are fed. She eats what is left, this might not be much.

The manager decides which men get the right to use a certain plot of land. Not all men have equal access to this precious resource. Those who are favoured by the

management have more chance of getting and keeping (the user right of) a plot. Likewise, women and men are dependent on the manager and his staff to give them regular work. A good relationship with the field supervisor can earn plucking women the right to for example pluck a less difficult section of the tea field.

### 3.4 Decision making power

As household heads, men are supposed to be the representatives of their family, acting in the interest of all of the members. In reality, men are often not fully aware of the specific needs and interests of their wives and daughters. They seldom pass on information to the women, not even if it concerns them directly. This limits women's understanding of what is going on, and their ability to take decisions.

At household level, men take most of the decisions. Since they do the shopping, they also decide what food and other household goods will be bought for the family. Even though in most families women earn more than men, men decide about how to spend the money.

On public matters women have even less decision making power. At meetings and training sessions, men speak and women are silent, even when the issue discussed concerns women more than men, such as water, or child-care.

In this settlement there are seven female headed households. Single women have more freedom than married women, who are more restricted by husbands and lack of time to attend meetings, and to take decisions for themselves.

All women are members of one of the trade unions. They however do not always know which one, as their husbands often decide for them. Very few women are active in trade unions, so there too decision making on issues such as working conditions and workers' rights is done by men. Which brings us to the context which limits even men's freedom to take decisions.

On tea plantations, the manager is the boss, followed by his assistant managers and other staff. Compared to a normal village situation in Sri Lanka, inhabitants of estate settlements have very little to say about how they want to organise their lives. Combined with the poor standard of living, this situation causes a lot of men to feel frustrated.

### 3.5 Gender ideology

If men get drunk regularly, physically and psychologically abuse their wives and children, or spend money earned by their wives on their own entertainment, they will not be condemned by their community. They are cold and frustrated, so it is understandable that they do these things. Men have the right to behave in such a way, and not few men do.

Women are not supposed to behave in that manner. In front of men, women feel shy to speak out. They are supposed to take care of the family. For the rest they should keep quiet, obey and respect their husbands and fathers. Cultural norms and values

discourage women and girls from coming to public meetings, giving opinions and taking part in decision making. The same culture has taught men and older boys that they do not have to listen to women and girls.

#### 4. Project intervention.

As was described in the Introduction, the social organisation in tea plantations is still rather feudal. Up until the very recent past, people's participation in decision-making was strongly discouraged by the management. Having been totally dependent on the management for all basic facilities, people hesitate to act on their own initiative. This counts for men, and more so for women. Even open-minded managers are sometimes doubtful whether the normally subservient workers will be capable of taking over responsibilities.

In this context it required large amounts of time and energy of the social mobilising team<sup>6</sup> to encourage management and beneficiaries to change the century old system. RDP and PSWO officers made numerous visits, walked for miles, had countless discussions and meetings, asked for, listened and reacted to everybody's complaints, hopes and doubts, and often only left after nightfall. Sometimes participation had to be pushed and pulled a bit, if no initiative came from the people involved. Especially concerning the involvement of women, who were not at all used to be asked for their opinion.

The following is a short description of how the programme was implemented.

##### 1. Needs assessment:

- house to house visits
- informal discussions with small groups of men and women, mixed and separate
- a workshop with representatives of all lines (half men, half women)
- social mapping, transect walks

##### 2. Planning and design:

- general meetings to inform community about programme
- organisation building: setting up Water Committee with representatives of each line (half men, half women)
- meetings with Water Committee to discuss and adapt design of the gravity drinking water supply scheme
- meetings to discuss the working of the Water Committee
- setting up Maintenance Team (half men, half women)
- meetings to discuss labour contribution for construction

##### 3. Training:

- technical briefing of Water Committee members in quality control
- Thorough technical training for Maintenance Team, in operation and maintenance

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<sup>6</sup> The PSWO Social Mobiliser, the RDP Women & Development Advisor, The Estate Family Welfare Supervisor, and the RDP Technical Officer.

- gender sensitisation of Water Committee and Maintenance Team

### 3. Construction:

- people (those with time: so mainly men and unemployed) contributing to unskilled labour
- people (those at home: men and women pensioners, unemployed) supervising contractor

#### **Box 1: Technical description of the water supply scheme.**

Two springs and a small stream are the water sources used in the system. The major components of the water scheme are three spring intakes, a sedimentation tank, two reservoirs (a new tank of 6800 litres and an upgraded tank of 9000 litres), a break pressure tank, cistern tanks, stand posts, and pipe lines with diametres between 2 inch GI and half an inch PVC. All tanks are provided with a control system through gate valves and ball valves.

This gravity water supply scheme is designed to cover 113 resident worker families in ten housing units, four twin cottages, a crèche, one staff quarters, and nine self-help housing units.

Source: Gender Impact Assessment of a Community-Based Estate Water-Supply Project, ETC Lanka, Sri Lanka, 1997.

### 4. Operation and maintenance:

- O&M, small repairs by Water Committee and Maintenance Team
- large repairs by the estate caretaker

In each step, men and women's participation was ensured by:

- knowing men and women's needs (through needs identification)
- informing each household about the programme, before and during the implementation
- management's support in giving half days paid leave for women to attend meetings and training sessions
- motivating women to come to meetings and training sessions, by explaining them the importance of their participation, by going line by line to pick them up just before the meeting, and by proving to them at the meetings and training sessions that it is worth their time.
- encouraging women to give their opinion in public, by asking them what they think, and stressing the importance of their ideas.
- getting men to listen to women, by explaining women's crucial role in water supply issues, and women's rights to express their ideas in general.

These efforts have led and are still leading to positive results, both technically and socially. Compared to the previous methods of implementing water supply projects in tea estates, more top-down interventions of blueprint schemes with little or no involvement of the water users, the new approach is an improvement. The following section illustrates this.

## 5. Gender analysis after project intervention.

### 5.1 Division of work

Now that each line has a cistern tank, women and girls spend far less time on fetching water. They can look out of the front door, and if a tap is free go and fetch water. The water pressure is higher due to storage overnight. The number of pots fetched is far more than before. The time spent on fetching water is 15-30 minutes per day per family. This leaves women and girls with hours of extra spare time each day.

What women and girls do with this free time differs per individual: taking part in water committee or maintenance team activities, spending extra time with children and other household members, taking more time for sleep and rest, and engaging in income generating activities. What counts for all women and girls is that there is less physical and mental stress and more peace of mind.

A positive effect for the manager is that women report to work in time, now that they are no longer delayed by queuing up at the water point.

### 5.2 Ownership, income and expenditures

For some families the income has increased because they have used water for agriculture and livestock keeping. Women also have more time to spend on income generating activities.

### 5.3 Access to and control over resources

All inhabitants of the School settlement now have access to reliable drinking water. There are no more stand-post fights.

At community level managing the water supply scheme is the responsibility of the Water Committee, the Maintenance Team and the estate management through the caretaker.

The health situation has only improved slightly, with diarrhoea occurring during the dry season. Home hygiene has also not improved enough.

Women feel far less mental and physical stress because they have more time and energy for their daily work.

### 5.4 Decision making power

Men and women are growing used to the fact that women participate in decision making on water at meetings, and in committees. In fact, woman turned out to be more interested than men in the issue. They continued to attend all meetings and training sessions whereas not all male committee members did. Women of all ages are actively involved.



## 5.5 Gender ideology

Women's self confidence is growing. They no longer keep quiet in mixed public gatherings if they have something to say. This started with the issue of water, but is spreading to other topics as well.

One of the women from Tulloes Division explains about how gender ideology has changed in the quote below:

*"Men think that our articulation capacity is too poor to explain the situation to the management or outsiders. Therefore they won't allow us to go forward. In this water scheme, the social mobilising team played a key role to break through the traditional practices by making personal visits to housing units, discussing with family members, especially with men and women together, explaining the importance of women's participation and contribution when we had meetings. We are members of the water committee and maintenance team, this is building up our self confidence and creating a new image that women can also take part in water related issues."*

## 6. Concluding remark.

This was a description of one participatory water supply scheme in a tea estate, which serves as an example for estate social welfare programmes. Undoubtedly, much can still be improved. But the programme has shown that, with much effort from project staff, estate management and beneficiaries, estate men and women water users of all ages can be encouraged to participate actively in improving their own living conditions.

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