

## Gender and the flow of water

### Gender considerations in water management practices 2 case studies

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## Preface

This paper was written on behalf of the International Irrigation Management Institute (IIMI), but also part of the framework of a larger PhD-study on the indigenous institutional capacity for water resource management in the dry zone of Sri Lanka. Data were collected in Nallamudawa, Indigehawewa, Rotawewa and Padikkaramaduwa.

The fieldwork could not have been performed without the help of a research assistant, Priyanthi Chandrika, who did most of the actual interviews on gender and water management in those villages. The author further wishes to thank Doug Merrey and the IIMI for enabling this fieldwork by providing the necessary facilities and support.

Enschede, 22 December 1997

## Chapter 1 : Introduction and methodology

### 1.1 Background

In September 1997, a workshop was held, organised by the International Irrigation and Water Resource Management Institute in Colombo (IIMI) on Women in Irrigation. This workshop included speeches from speakers coming from different parts of the world, and a total of approximately 30 people participated.

Following this workshop and the increasing awareness within the IIMI on the need for more attention for gender issues in the irrigation sector, a study was executed as part of two case-studies of a larger research, in two cascade areas in Anuradhapura district, the first one focusing on a cascade around Nallamudawa, with at tail-end the Turuwilawewa, and one focusing on a small cascade in Padtkkaramaduwa, close to Huruluwewa. Both cascades are characterised by the presence of traditional villages (purana gama). The main difference between the two is however that the first one was chosen as an area with only few interventions, while the second cascade is one in which the SCOR project of the IIMI has been implemented (with a high intervention intensity).

### 1.2 Research objectives

This study aimed, as formulated in the proposal:

- to create more knowledge on the gender aspects involved in water resource management in general;
- to create more knowledge on the impacts of interventions, such as the transfer of management to water user organisations or farmer organisations, on the gender relations, roles and responsibilities.

### 1.3 Definitions and Methodology

In this study, the gender analysis focuses on the relations between men and women, and the roles they play on household and on supra-household level, in this case village level. Gender is defined as the social shaping of male and female identities and roles.

As indicated by the 'SCOR gender study' (IIMI, 1996),

“Gender analysis in the context of agriculture and thus natural resource management, is aimed at understanding the gender based organisation of productive and reproductive activities as well as the decision making surrounding those activities. The key questions to unravel the existing gender relations are: who is doing what, when and where; who has access and control over resources and who benefits from each enterprise. Central in this is how decisions are made and who has influence in the decision making process” (p. 1)

This paper will follow those lines of questioning to a large extent. Interviews were based on the following topics:

### 1. *Gender-based **division** of labour in water related tasks.*

#### Domestic:

- Domestic tasks and homegardening
- Specialised knowledge about water quality for different purposes
- Rules/traditions/norms ensuring enough water for domestic purposes
- workload men/women in domestic tasks and homegardening
- differences in the division of labour based on age/ethnicity/caste
- differences for maha/yala season
- time required for water collection
- social character of domestic water related **tasks**

#### Farming and animal husbandry

- cattle / livestock
- farming paddy and chena (men/women) (preparing the land, weeding, putting water on the land, sowing, transplanting, watching chena at night, harvesting, etc.)
- workload farming paddy and chena in maha and yala season (men/women)
- specialised knowledge about quantity/quality of water for farming and raining periods (forecasting)

#### General:

- changes in the division of labour over time and causes of those changes
- differences in division of labour for religion/age/caste/education
- social aspects of water related tasks

### 2. *Role of men and women in:*

- Household level decision making: expenditure decisions on household level, farming decisions on household level, power and authority relations and setting the rules on household level; head of the family and head of the household
- relations gender-based division of labour **with** the exercise of power and authority
- Participation of women in decision making on supra household level regarding water supply, irrigation and agriculture, other decision making/organisations, Samurdi program;
- participation of women in (solution **of**) conflicts
- access to resources and resource ownership of women (land, income, means of production)

### 3. *Roles of women in collective action and farmer organisations:*

#### Collective action:

- Involvement women in collective action (hire labour, shramadana, funeral association, seettu and ceremonies)
- Costs and benefits of participating in collective action

- Forms of Attama

Farmer organisations:

- Participation in farmer organisation (men/women) and membership criteria
- Incentives participation, location
- Costs and benefits of participation in farmer organisations, including social risks
- Information provision to women
- Indirect influence of women on decisionmaking (e.g. through their husbands)

4. *Impacts of current water resource management system on resource poor men and women*

- Ownership of land (freehold, leasehold, pimbure) paddy and chena
- Location (which tank, head-end, middle, tail-end)
- If no landownership: cultivation through tenancy, hire labour, or wage labour men/women
- Means of income during droughts
- Access to sources of water for different domestic purposes
- Favourability decisions kanna meeting for their plot of land
- Comparison current situation with the past (e.g. more rainfall, more attama, bethma, kattimaru, thattumaru, etc.)
- Comparison vel vidane system with farmer organisation system
- Participation in farmer organisation and reason for non-participation
- Encroachment on lands / water
- Sanctioning for encroachment on lands /water

5. *Interventions and impacts of interventions*

- Samurdhi programme
- Agrarian Service Department
- Irrigation Department
- NIRP
- Other
- Access to water before/after project for different purposes
- Effects of centralisation/decentralisation/community management on the water resource management system, and the involvement and workload of men/women (Gansabhas)
- Effect economic valuation of water.

The focus on gender-based division of labour, gender-based involvement in decision making, gender-based involvement in farmer organisations and collective actions, etc., involves the risk, by assuming that there can be a generalisation for women and men, regardless of their caste, religion, ethnicity, age, etc., to divide into *two* very heterogeneous groups. Even within groups of women with the same characteristics in those terms, differences might be present depending on the type of relationship between husband and wife, their upbringing, etc. Therefore, efforts have been made in the interviews to gather information on these characteristics as well, as to be able to make an analysis of the differences (if any) which occur in relation to this.

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The methodology used for this study included:

1. Group and individual interviews with both men and women in the village on the division of labour related to water and the use of water resources (random selection)
2. Group and individual interviews with men/women in the village on their influence in decisionmaking on household and supra-household level: e.g. on water for domestic use, agriculture, etc.(random selection)
3. Group and individual interviews with women participating in farmer organisations or collective action (random selection added with interviews with women active involved in farmer organisations or other organisations)
4. Participation in and observation at kannameeting
5. Interview with female grama nilidarie and women's organiser at the IIMI
6. Interviews with resource poor women and men in the villages.

In total a number of 32 interviews were held at village level. Apart from that, information was drawn from general interviews with grama nilidaries (including the female grama nilidarie of Padikkaramaduwa), chairmen of farmer organisations and with the youth and women organisor of the SCOR project. Ten interviews were held in both Nallamudawa and Padikkaramaduwa, 6 interviews in Indigehawewa and Rotawewa. In total 25 women were interviewed in individual interviews, of which 8 were selected as 'resource poor'. Time constraints resulted in the fact that only one group interview could be held (on the first three topics) in Nallamudawa, involving 9 women and 2 men. Further 5 couples were interviewed and 1 men (Nallamudawa). A kannameeting was attended in the first cascade, in Ratmalwetya.

#### **1.4 Constraints and limitations**

At the time of the study, especially in Padikkaramaduwa cascade and in Rotawewa and Indigehawewa, it proved to be difficult to speak during daytime with especially men, because most were very busy in land preparation, and other agricultural activities. Doing interviews at night would have been possible if housing would have been available in the village, but since the distance to the village was about 8 km, this was not considered to be an option.

Further, because of absence of a lot of people during day-time, group interviews were only possible in the first cascade, and interviews in the second cascade were hold with considerably more women than men.



## Chapter 2: Division of labour: domestic tasks and agriculture

### 2.1 Gender-based division of labour in domestic tasks

#### 2.1.1 *Domestic tasks and homegardening*

In the villages studied, Nallamudawa, Indigehawewa, Rotawewa and Padikkaramaduwa, the gender-based division of labour in domestic tasks is, regardless of caste, education, and age, based upon a strong tradition of women's involvement. With only one exception all women and men interviewed expressed that all domestic tasks are done by the women, being mothers, daughters and daughters in law. This includes cooking, washing of cloths, doing the dishes, cleaning house and compound, collecting water, and childcare. The only domestic activities in which men were found to be involved sometimes were the carrying of firewood and some childcare. The fact that carrying water is considered as typical task for women reflects that this division is not merely based on physical strength, but more on roles between men and women, and the tradition in this. Nevertheless, this tradition is not too rigid, as in Padikkaramaduwa 2 (out of 10) respondents indicated that their husbands had taken over the task of carrying water, since the distance to the drinking water tubewell is far away for the women to **carry** the water (see the paragraph on norms/values and traditions).

The time required to collect water is about half an hour to one hour each day, depending on the distance to the dugwell or tubewell, and the time spent on talking to each other). Water is usually collected 2 times a day, which may take from 15 minutes upto half an hour every time.

Different from what might be expected, the domestic tasks are further expanded during maha season, when cooking is done not only for husband and sons, but also for labourers and when the meals have to be carried to the fields (which might take upto 2 hours). Most of these tasks involve the use of water and this has a clear impact on the knowledge among women regarding the quality of water for different domestic purposes (see paragraph on the knowledge about the water quality).

In some of the villages, such as Nallamudawa, different sources of water were used for different purposes. The well being used for drinking water was not used for other domestic purposes. This means for the women a longer time for collection of water (water has to be collected from different sources), but might be an effective way to save water for drinking water purposes. The dugwells were said to **dry up** during daytime in very dry periods. In the morning all the women tend to collect water, and after that it may take until the afternoon, before there is enough water in the well again. Another way of saving water is bathing in the tank, if not in the nearest tank, then in one of the tanks which is always filled, like Mawatawewa.

Both men and women usually do homegardening. This includes: weeding, sowing, forming bunds, planting, application **of** fertiliser, carrying water, providing the plants with water and watching the home garden. There does not seem to be a clear division in the tasks performed for home gardening. Only cleaning and preparation of bunds, and the application of fertiliser seems to be more a men's task, while watching the home garden is done more by the women. The home garden supplies the family often with fruits or vegetables, which are either used for own consumption or being sold. According to the information provided by the respondents of the group interview in Nallamudawa, marketing of those products is done by both men and women. The home garden is thus an essential part of the food supply of the family. The joint responsibility is reflected in this, as it is comparable to the joint involvement of women and men in cultivation.

### 2.1.2 workload men/women in domestic task and home gardening

The workload of women in domestic tasks varies usually between 4 and 8 hours a day, depending on the involvement in cooking for labourers, and upon the season (4 hours in non-cultivation season, 8 hours in cultivation season). The average workload (with only small differences) in Nallamudawa and Indigehawewa is 6 hours during cultivation season, and 4 hours during a non-cultivation or yala season. In Rotawewa and Padikkaramaduwa, time spent on domestic tasks is less, 3.5 (no time spent on home gardening) to 4.5 hours during cultivation season and 2-3 hours during non-cultivation season. Bringing meals to the fields, which was reported especially in Padikkaramaduwa, requires a lot of time as well. These figures include home gardening, which requires (depending on the season, the crops and the acreage) upto 1.5 or 2 hours each day. In the cultivation season, the workload on domestic work usually increases.

With one exception, the participation of men in domestic tasks is limited to some occasional sweeping of the floor, and some childcare. In general this is less than half an hour each day. During a group interview in Nallamudawa, 2 men liked to emphasise that men participate considerably more in domestic tasks than in the past:

“Since ploughing with buffalo’s was replaced by ploughing through tractors (1988), the workload for men has decreased. As a result we (the men) are providing more input in the household, by helping with cooking when our wives are very busy or by doing some shopping”.

Although the women acknowledged having less workload due to some improvements (like a rice mill, in the neighbourhood) the 3 women present contradicted the statement of those men that men nowadays contribute more to domestic activities. The men do contribute considerably to home gardening though, and the time input of both men and women in homegardening depends on the season, crops, acreage and other cultivation activities and varies between no time at all (e.g. when only a very small homegarden is available) to approximately 2 hours a day.

### 2.1.3 differences in the division of labour based on age/caste/education:

As mentioned in the methodology, a distinction has been made between different characteristics, like education, ethnicity, age, religion and caste. The caste system, although less influential than in the past, still plays a major role in rural areas. It not only determines the possibilities for marriage, but is also related to profession and the position and status within the village and towards others. The caste system consists of:

1. Radala: headmen of villages, leaders like vel vidane
2. Govigame: farmers (patti govigame owing herds of cattle and govigame, don’t have herds of cattle); this was the caste which could be found in both Padikkaramaduwa and Nallamudawa
3. Karawe: fishermen
4. Kumbale: pottery makers
5. Kammal: jewelry smith
6. Hakaru: making jaggery (sweetener instead of sugar)

7. Rada: washing cloths
8. Berawa: drums makers
9. Panna: no special profession
10. Kinnara: gypsies

There seems to be no difference in the gender-based division of labour in domestic tasks with regard to either caste or education (one exception). Within the villages studied, the villagers all belong to the same caste (govigame in Padikkaramaduwa and Nallamudawa). There is a subtle distinction of position within the caste system though, but due to the sensitivity of the subject, it was not feasible to collect basic data on this within the short time available.

There is however a difference in age: younger women, who have small children or babies spend relatively more time on childcare within the time spent on domestic tasks. Their mothers or mother in law will spend more time on the other domestic tasks. Within the first year after a baby is born, the young mother sometimes stays at home to take care of the child(ren), and interrupts her participation in agricultural activities. (There is however a caste-based division of labour: higher caste people feel ashamed to go out as hire-labourers, even if their income is insufficient). It was not possible to make an analysis for differences in ethnicity or religion, as all respondents were Sinhalese and Buddhist.

#### *2.1.4 Knowledge about water quality*

The knowledge as expressed by men and women about the water quality for different domestic purposes is higher among women than among men, even though there are small differences of opinion among the women. Women more often mention not only where they get water for different purposes (like drinking, washing, etc), but they also mention the salinity of the water as reason why the water from tubewells or dugwells cannot be used for drinking purposes, and the iron taste of the water. In Nallamudawa the schoolwell is used for drinking purposes and without exception the women are of the opinion that this water is of a good quality, whereas other wells have higher salinity and the tubewell water has an iron taste. In Padikkaramaduwa different sources are used for drinking water: most of them use the tubewell in Matrigama, the water of which is considered without salinity, but one woman mentioned that the agrowell in Padikkaramaduwa is also with low salinity and thus good for drinking purposes. A few (2) women further mentioned to use their own or their neighbours dugwell for drinking purposes, because of the distance to Matrigama, even though the quality of water was considered lower than that of the tubewell in Matrigama. The men in the various villages are also aware of the quality of water in the sense that they know which source can be used for drinking water purposes, home gardening, cattle etc., but they are less responsive in mentioning the reasons (like iron taste, salinity).

The knowledge about the water quality and the limited availability of water sources for drinking water has in some cases led to a request for water supply or to a request of repair of broken tubewells, as in Nallamudawa. However, this has not led to a successful approach by either men or women in trying to get this problem solved. The lack of group formation amongst women (mostly just a saving programme) as well as the limited role of women in decision making can be expected to contribute to this. Even in a village like Padikkaramaduwa, with a female grama nilidarie, drinking water supply is not available (it is in the next village). Due to time constraints and limited office hours, not enough information could be gathered to tell whether this was because of a lack of efforts, or whether there is no drinking water supply because she was not able to influence any decision making in the relevant organisations(WS&DB)

The knowledge about the water quality for domestic purposes has resulted in practices ensuring the health of the people such as boiling water before drinking (depending on the health effects of drinking unboiled water), and boiling water for babies and elderly people. Unclear is still to what extent health and sanitation programmes have contributed to this knowledge in the recent past.

### 2.1.5 *Rules/traditions/norms related to water*

Rules or norms and values might be important in the economic use of water and in the management of water. Those norms and values can have an effect on both the use by and availability of water for different water users, but also on other aspects, such as the protection of women.

One rule which, surprisingly enough, was only mentioned by two male respondents (being the chairman of the farmer organisation and one other farmer in Nallamudawa) was the tradition that, if there is only a small level of water left in the tank (wewa), farmers are not allowed to use this water anymore for irrigation purposes, so that enough water is left for bathing and washing clothes. This seems to be contradictory with the statement of a lot of women that the tank water is only suitable and used by them for bathing and washing and doing dishes, if the water level is sufficient enough. If the water level is not sufficient to ensure a good water quality for those purposes, both men and women will go to the tank nearest by having sufficient water (Mawatewewa in the case of Nallamudawa). None of the women in Nallamudawa mentioned the existence of the rule as mentioned above.

A norm which is not as much directed to the use and availability of water, but to the protection of women, is the (very well known) norm that it is considered inappropriate for young girls (that is before their marriage) to take a bath in the tank around noon and in the evening. One respondent mentioned that this was related to the myth that ghosts / gods at the wewa's might bother them. Another case that reflects the protection of women, is that some traditions are open to change if the situation requires so. An example of this can be found in the Padikkaramaduwa village where women were traditionally collecting water. Nowadays 2 women indicated that their husbands had taken over that task, because the tubewell is too far away. This means for the women a reduction in tasks requiring a lot of physical strength, as well as protection in the sense that they don't have to walk long distances alone (or with more women) anymore.

### 2.1.6 *social character of domestic water related tasks.*

Although not openly spoken about, the time for collection of water as well as the bathing/washing time in the wewa is used as social / leisure time as well (by men, women and children alike). Chatting with others and recreation in the water is major part of the time spent there (1.5 to 2.5 hours, depending on distance to the tank). Men seem to spend as much time as women for bathing.

## 2.2 **Gender-based division of labour in farming and animal husbandry**

### 2.2.1 *Gender-based division of labour in farming (paddy cultivation, chena cultivation)*

The involvement of women in cultivation is quite high, and has increased over time. Although traditionally they were not as much involved in cultivation of paddy and chena, nowadays they basically do most of the same work as men, except for a few activities, such as ploughing, trashing, winnowing by machine or applying fertiliser and pesticides. One of the changes is that both men and women are now both more involved in day-labour in paddy cultivation, whereas men nowadays participate more in day-labour and wage labour that is not related to agriculture.

The involvement of women has become essential in the cultivation of paddy and chena-crops. Without their involvement, more expenses would be required for the salary of day-labourers or more work would have to be done through attam. The reason to participate as day-labourers is usually that the family does not have a regular income for living. In the past they could manage with the male income only, because the living conditions/requirements were not high, now this has become very difficult.

In paddy cultivation men are preparing the land, weeding, cleaning, ploughing, levelling, sowing, applying fertiliser and pesticides, cutting, threshing, transport of sheaves, and winnowing by machine. Women also participate in cleaning and preparing 'bunds, weeding, levelling, sowing, transplanting empty patches, cutting, transport of paddy sheaves and collection of paddy leaves and winnowing (by hand). Unlike men, they are not involved in ploughing or threshing, sometimes also not in the cleaning and preparing of bunds. Only women are involved in transplanting of empty patches and the collection of paddy leaves. One of the changes which occurred in the course of time, is that in the past women didn't participate in levelling and cutting, nowadays they do.

In chena cultivation women seem to be more involved than men. The women are involved in cleaning of chena land, levelling, sowing, weeding, cutting, cleaning chilliland bunds (women only), plucking of chilli, and harvesting. Men are involved as well in clearing of the chenaland, and in watching chena at night. The strong emphasis on chena cultivation activities by women is more obvious in Padikkaramaduwa cascade than in the Nallamudawa cascade, where there is a more equal division of agricultural labour.

Men are more involved in the application of water to the fields than women. According to interviews with the chairman of a farmer organisation, the farmers need to be on their lands during water issuing to their fields, which can be either in daytime or during the night. During those periods, the workload for men increases considerably. Further, men are mainly involved in the preparation of bunds (determining the openings for water to flow). Chena cultivation is however only rainfed, and some use is made of agrowells.

In chena cultivation (slash **and burn** cultivation) one can again observe some practices related to the safety of women. In the past women were less involved in chena cultivation because the chena lands were then still in dense forest areas, whereas nowadays most forestlands around have been cleared. Therefore it is now safer to walk to the chena fields than in the past. Further, watching chena **at** night is done exclusively by the men, this not only enables women to take care of the children at night, but can also be seen as protection measure.

Finally, hardly any of the respondents had cattle or livestock. For those families who did have livestock or cattle, the entire family was involved in taking care (man, women, daughters, sons).

### 2.2.2 *workload farming paddy and chena in maha and yala season (men/women)*

The workload in Nallamudawa cascade is, for men, around 7-8 hours a day in both maha and yala season if cultivation is possible. Women spend approximately 5-6 hours on fanning activities in this cascade, but also only if cultivation is possible. In a non-cultivation season (which is often in the yala season or during dry years), the time spent on farming in the own fields will be significantly less. If no paddy-cultivation is possible at all, no time will be spent on farming in the own paddy fields. If some (mostly chena) cultivation is still possible, the time spent in the own fields varies between 0 and 8 hours, but is quite irregular and is determined by rainfall, the acreage of fields cultivated and the growth of the crops. A lot of the villagers (except in Padikkaramaduwa) explained that they will participate in cultivation of fields in Maha Illuppallama or Mahaweli area as day-labourers. If men or women work as day-labourers on other people's fields, they will also work approximately 8 hours a day in cultivating

In Padikkaramaduwa the time spent in the cultivation is slightly less, for men around 6 -7 hours, for women 2-4 hours. They spend relatively more time on cooking for labourers and bringing the meals to the fields, than in the Nallamudawa cascade, where the women spend considerably more time on (chena) cultivation.

The workload on farming seems to be highest for day-labourers (either men or women), but also depends on the land acreage for those who work on their own lands, the size of the family, and the extent to which attam is practised.

### *2.2.3 differences in the division of labour based on age/caste/education:*

A number of differences were found, though not direct in relation to water. One of the differences was, that in Padikkaramaduwa, people were not involved in day-labour, even if their income situation required so. The reason for that can be found in the fact that all of them are relatively high caste, and they feel ashamed to work for others.

Another difference is the one already mentioned before, and also not directly related to water. Women with young babies are not or less involved in cultivation during the first year(s) of their babies, and more in domestic activities.

Religion and ethnicity was the same in all the villages, and thus not subject to analysis.

### *2.2.4 specialised knowledge about quantity/quality of water for farming and raining periods*

None of the respondents expressed specific knowledge on the quality of water for farming. One man however did express his knowledge on the quantity of water (so many days of rainfall within a particular period) that is required for successful cultivation. Women usually only responded by explaining the difference between maha and yala season.

### *2.2.5 Rules/traditions/norms related to water infarming*

The rules for water management are set by the farmer organisation. All farmers are expected to comply with those rules, but non-members and some members sometimes don't comply, e.g. by preparing their land in a later period than agreed upon in the pre-kanna and kanna meetings. Due to the sensitivity of the

subject and the short time available, no clear information could be collected as to the frequency of those non-compliances.

Traditional forms of water management which were still present, though declining at a rapid pace, in the areas under study were:

- Thattumaru and Kattimaru: rotational tenancy and rotational landownership. It involves cultivation and irrigation by tract. The rotation of water takes precedence, and determines ownership and tenancy rights. Thus access to land and land ownership are defined in terms of the season when irrigation water rights are accorded and cultivation is possible. The different forms of rotational tenure are meant to bind the community together and to spread each cultivator's risks and interests widely.
- Bethma: cultivation during a water-short season when the farmers share part of the command area. This results in the shifting of farmers from their original allotments and the temporary sharing of allotments belonging to others
- Attama: reciprocal exchange of labour: all farmers who cultivate within the same paddy tract, form a group which rotate from one holding to another, performing the given field operation. It functions on a Jaya basis (paddy tract fed by the tank)
- Shramadana: although the use of shramadana increased more recently, it is used in different forms, such as cleaning roads, temples, but also cleaning of bunds, tanks, weeding, etc.

Only in attama, women seem to be actively involved. Thattumaru and Kattimaru is mostly practised within a family. Bethma is nowadays hardly practised anymore. Although in Nallamudawa three respondents answer affirmative to the question whether it is still applied, they could not remember the last time when it was applied. Bethma was decided upon in the past by the vel vidane, now by the farmer organisation, in which (see next chapter) women are hardly involved. Some projects try actively to re-establish bethma during dry periods, but there is a lot of resistance from the farmers (especially those at head-end) who don't want to share their lands with others anymore. In the past this reluctance might have been there as well, but the vel vidane obviously had enough respect and authority to implement it anyway. With the farmer organisations this has become almost impossible.

## 2.26 *Social aspects related to water in farming*

Most of the respondents are very positive about the attama in cultivation, because it not only increases the efficiency and amount of work which can be done, but it also 'builds relations', it is considered to be very good for social relations among those who practice attama. This is similar to shramadana. Attama is either practised with relatives (can be the entire village), both men and women, or not among relatives and then gender-separated.

Another social aspect is water-related conflicts. Although not openly spoken about, every year there are a number of conflicts related to water, such as the breaking of bunds, diversion structures, breaking of concrete, etc. There is only a limited number of court cases available on this (last 5 years), probably because most farmers don't invest their valuable time in going to court which is in Anuradhapura. In the past such conflicts were solved at the Gansabhas or at the Rural Councils.

The involvement of women in (resolving) conflicts is, according to themselves, relatively low. According to all the female respondents they were not involved in any conflicts.

## **Chapter 3: the role of men and women in decision making and access to resources**

### **3.1 Role of men and women in household level decision making**

The role of men and women in decision making on household level is closely related to their bargaining power and the exercise of power and authority within the family. The role of men and women in household level decision-making further concerns different types of decision making. In this paper, a distinction will be made on decisions involving expenditures, domestic decision-making, and decisions regarding cultivation.

A large variation can be found with regard to expenditure decisions. Sometimes only the men take decisions regarding expenditures, sometimes both men and women, and sometimes the entire family. This occurs especially if sons and daughters provide the money to the parents for particular purposes. The same pattern can be found with regard to farming decisions, although the men are more dominant in decision-making regarding cultivation as when compared with expenditures. Women often take decisions regarding domestic issues on their own. Further it is usually the women (mothers) who set the rules on household level with regard to hygiene, children, cleaning, etc.

These patterns of decision making reflect the exercise of power and authority within every individual family, and is therefore also very diverse. In equal relationships (neither man nor wife are dominant) decisions are taken by both of them or by the family. In relationships where one of the two exercises authority (in general the men, but on domestic level might be the women), decisions are primarily taken by that person.

In all the cases, it is the man who is considered head of both the family and the household, even if it is the women who sets the rules and decides upon domestic issues. This is the traditional authority in the family and even though in reality it might work differently, which two women acknowledged, the man is considered to be the one having authority over all the others.

### **3.2 Participation of women in decision making on supra household level**

Participation of women in decision making on supra household level involves not only their bargaining power or influence as a group, but also involves considerable time investment, skills (being able to speak in public and to formulate opinions and arguments) and mobility (both physical and social). This paper looked into the participation of women in decision making regarding water supply, irrigation and agriculture, project activities and organisations, and in (solving) conflicts on supra-household level.

Although some problems with regard to the water supply in the different villages had been identified, such as salinity of the water, broken tubewells and lack of water sources for drinking water within short distance, no decision-making or actions were reported (apart from some requests to the government) to improve the situation. This might be either as a result of women's group formation, or the limited opportunities for women to exercise some influence on either village level or administrative level.

The participation of women in irrigation and agriculture decisions on supra-household level, like in farmer organisations is not very high, although there are differences. Even if they participate in the meetings of the farmer organisation, they usually keep silent, and inform their husbands about the decisions that were



taken. Noticeable is that in Indigehawewa 16% of the women is said to participate in the farmer organisation. In all the other villages, they only participate if the husband is not able to go (and then only to pass on information, not to participate in decision making) or if the husband died (see also chapter 4). In the case of participation in the meetings of the farmer organisation, the costs (especially time investment and the limited possibility or ability to speak out during those meetings) seem to outweigh the benefits, most women expressed their satisfaction with the fact that their family was represented by their husband. Only in Indigehawewa this was found to be different.

One of the issues being relevant in determining whether or not women can exercise any power or influence in the decision-making process through farmer organisation for planning of the cultivation season and issuing of water, is the question whether or not registration of land on the name of the man implies that women can not participate in the meetings of the farmer organisation. According to the respondents they can, because they consider it to be the family who is represented by the husband in the farmer organisation.

Women do participate in the women's organisation in Padikkaramaduwa of the IRDP project. In other programmes such as the Samurdhi and the Janasaviye programme, most people are recipients, but usually not involved in decision making. The women groups formed by the IIMI are part of a savings programme, and decisions are only taken with regard to saving of money.

Interesting to notice was further that Padikkaramaduwa has a female grama nilidarie. This was however not often mentioned by the respondents and sometimes even denied. Her influence on decision making on village level can therefore be expected to be marginal.

Finally, women expressed that they are not involved in (the solution of) conflicts on supra-household level. Conflicts regarding land, water and political issues seems to be the domain of men, or at least is not talked about openly among women.

### 3.3 Access to resources and resource ownership

**An** assessment of the legal and regulatory mechanisms governing tenure arrangements with specific attention for access to and control over resources by men and women was not possible within the time available for this study. The paper "Tenurial security and Natural Resources; Management in a Watershed Context" (P. Rajasekera, C.M. Wijayaratna and G.P. Batuwitage; undated) identifies 12 tenurial forms of tenureship in the watersheds of Huruluwewa and Nilwala watershed. Further research on the access to those different tenurial forms of land ownership in relation to gender, as well as checking basic data on ownership in the books of the grama nilidaries, would provide a better insight in women's access to and control over land resources.

According to the same study "the tenurial systems of land directly applies to the right to use water. Water which is a natural endowment is directly related to the land, and hence ownership or right to occupy and cultivate the land convey the right to use water on the land or diverted into the land" (P. Rajasekera, et al., undated, p. 29).

Based on the information from the interviews, ownership of land is not legally restricted to men. Four of the respondents answered that land (paddy land) was registered on the women's name; in two cases this concerned widows, in the third and fourth cases not. Further, after the death of the husband, ownership automatically shifts to the wife. In reality, most plots of land are registered on the names of the men,

though not always. In two cases a division in landownership could be found within the family, the homegarden belonged to either the man or the woman, and the paddy land belonging to the other partner. This land was called ancestral land.

Access to water is therefore not different for men than for women, although the source of water might be different. Women are found to be more involved in chena cultivation and less in paddy cultivation. In chena cultivation they usually rely on rainwater and agrowells, in paddy cultivation on rainwater as well as on tank water. Their access to water for cultivation is thus closely related (and restricted by) to the type of cultivation they are involved in.

Access to financial resources is according to the (most female) respondents no problem. Income is shared equally: the women don't have to ask for money.

Finally, access to means of production is usually an indirect access. Buying seeds, fertilisers and pesticides is one of the tasks performed by men (as is applying fertiliser and pesticides). Equipment is often handmade (**like** mamotes).

## Chapter 4: roles of men and women in collective action and farmer organisations

### 4.1 Roles of men and women in collective action

Collective action involves activities to achieve something that would be far more difficult by individual action, take considerable more time, or be more expensive. The existing forms of collective action in the two cascades studied were day-labour (see section below), shramadana, funeral associations, seettu and attama. Shramadana is voluntary collective action and can be used for clearing roads, cleaning the temple, weeding of the tank, cleaning of the bunds etc. This form of collective action was very visible during the field studies. Funeral associations were found in all the villages that were included in the case study, and all the respondents took part in the funeral associations. The association asks for a small contribution every month, participation in the meetings (at which the contributions are to be paid) and collective action in digging graves, decoration and cooking during funerals. Seettu is a collective saving scheme usually initiated by and for women. Finally, attam is reciprocal labour especially in cultivation.

One important aspect, which is understood by villagers as collective action, is day-labour in agriculture. They usually participate in day-labour activity as a group (with a slightly changing composition) in the fields of other people. Those fields can be found usually in Maha Illuppallama and in Mahaweli area. Non-agricultural labour will be referred to here as day-labour for non agricultural purposes.

In executing this study, questions have not only been asked about collective action in relation to water but also to collective action in general, because this might give a more general impression of the involvement of women in collective action.

#### 4.1.1 *Involvement of men and women in day-labour, shramadana, attama, funeral associations, and seettu and attam*

In both Nallamudawa and Indigehawewa, all respondents which were interviewed about this aspect (respectively 10 and 4), indicated to work (both men and women) as day-labourers, especially during the dry season or during dry years, like over the past 3 years, when cultivation under the Nallamudawa tank was not possible. One woman indicated that only her husband worked as day-labourer, since she had a young baby to look after. In Rotawewa two respondents indicated that their husbands participated in day-labour, but that they didn't. The reason was again childcare. Also one family was under the respondents where only the wife participated in day-labour since the man was not in good health anymore. Padikkaramaduwa gives a more diversified picture. In Padikkaramaduwa 3 of the respondents indicated clearly not to work as day-labourers, one man indicated to work as day-labourer, and one as day-labourer but only in their own village.

In general, the men participate in clearing paddy and chena land, preparing and cleaning bunds, ploughing, sowing and levelling, applying pesticides and fertiliser, cutting, transporting sheaves, transporting paddy, threshing and winnowing by machine. Three respondents answered that their husbands also work as day-labourers in e.g. the construction of houses. The women participate as day-labourer in cleaning paddy and chena land, sowing and levelling, weeding, transplanting empty patches, cutting, collecting paddy leaves, and transporting sheaves, winnowing by hand, cleaning chilliland bunds, plucking of chillies, cooking for labourers. In three of the interviewed families only the men participated

in day-labour; two families in Padikkaramaduwa and one in Nallainudawa. The reason mentioned for this is childcare.

Other forms of collective action related to cultivation, especially practised in Padikkaramaduwa, is attam reciprocal exchange of labour. Women are cleaning and cutting; and cleaning of chena and paddy land. Men are cleaning of chena and paddy land; cleaning of bunds, sowing, cutting, threshing, and harvesting. Women are more involved in attam in chena cultivation and men in paddy cultivation. Attam is applied either among relatives (mixed gender) or among the same gender (no relatives).

Most of them further participate in collective action which is not necessarily related to cultivation, such as:

- Shramadana activities like cleaning of the roads, the temples or the tank of weeds (e.g. under the World Bank Fund, August 1996: food for aid after 19 days of work). Usually both men and women participate in shramadana. Participation by both men and women was found to be high (with or without those incentives).
- Funeral association (women participate in cooking; men participate in digging the grave, decoration; and in meetings). Participation is 100% among the respondents (both men and women)
- Seettu (only women): a savings programme usually initiated by the women themselves: one has to make a monthly contribution (agreed upon from the start) and every month one of the members will receive the full amount. The participation among female respondents in the 2 cascades was relatively high.

#### 4.1.2 *Costs and benefits of participating in collective action*

The main benefit of involvement in day-labour is income generation. Farmers participate as day-labourers in cultivation if cultivation on their own lands is not possible because of the limited rainfall, or if they don't own any land. The social costs of participation in day-labour seem to be quite high in Padikkaramaduwa because of the high caste of the villagers. They expressed that they felt ashamed to participate as day-labourers for others. Interesting is that the people from Nallamudawa are from the same caste, but don't consider that as a major problem. The benefit of attam is its effectivity, and its social nature. The people who participated in attam didn't mention any costs involved. But the information from interviews in Nallamudawa, where attam is declining at a fast pace, showed that economic valuation of labour (every one wants to get paid) is one of the major reasons for its rapid decline.

The main benefit mentioned for participation in shramadana is its effectivity (to get something done on a scheduled time against **low** costs), the incentives provided (e.g. the food), the relation building character, the social nature of those activities and the social pressure. Often the answer was given that they participated because they didn't feel **lazy**. This might refer a form of social pressure by people: the way other people would consider people who don't participate, namely being lazy. This reflects a normative framework: participation is considered to be contributing to the society, non-participation is withdrawal from that. The leadership in shramadana often lies with the officials of the farmer organisation.

Participation in the funeral association is considered beneficial because this is a sort of insurance: the family will receive Rs. 5000 for all the costs to be made after a death in the family. Contribution and participation in the meetings is obligatory. Fines of Rs. 250 are installed if a family doesn't participate in one of the meetings without excuse letter. The normative framework is thus institutionalised by a system of fines. Leadership and authority lies with the officials of the association.

Finally, the participation in seettu is considered beneficial by the women, because it seems to be the only way of saving money. They don't rely on the large banks in towns.

## 4.2 Roles of men and women in farmer organisations

### 4.2.1 *Participation in farmer organisation (men/women) and membership criteria*

In all villages, participation in the farmer organisation was almost 100% among the families who were cultivating land. It is common practice that every family sends 1 representative, which is almost always the man. Only in Indigehawewa, 16% of the participants is female. Their participation is explained by the reason that the men are often too busy to go to the meetings so they participate and that is totally accepted. Female participation in the meetings of the farmer organisation in other villages is often restricted to those families headed by a widow. Women further participate if their husband is not able to attend the meeting.

Criteria mentioned for membership of the farmer organisation are, apart from a monthly contribution, land ownership. However, 3 respondents explicitly mentioned this is not a criterion. One of the reasons for not being a member, which was mentioned by one woman, was a practical reason that, being just married, this would be the first possible cultivation season after 3 years of droughts.

The involvement of women in decision-making in the meetings of the farmer organisation, regarding planning of the cultivation season and the issuing of water, is very limited, as stated above. They don't speak out at those meetings, and don't try to influence their husbands to do so either. They have to accept more or less the decisions as taken in those meetings.

### 4.2.2 *Incentives and disincentives, costs and benefits of participation*

Participation in the farmer organisation involves both costs and benefits, which might be different for men and women. It involves participation in the meetings, as well as compliance with its decisions on cultivation planning and water allocation and distribution.

The respondents mentioned that the farmer organisation promises all kinds of benefits, e.g. pesticides and fertiliser, loans, etc. as incentives to the farmers. Three respondents also stated however, that they didn't receive any of those benefits until now.

The location of the kanna meetings might be a disincentive to go for women in Nallamudawa, since it is held in the temple (where usually only men go). In all the other villages, the meetings of the farmer organisation are held in the community hall, which is a gender-neutral place.

The reason that women do not participate in those meetings is, as they say, because their husband already attends the meeting. Additionally, they consider it often more productive to do other work than to attend the meeting. If they participate they mostly listen, and don't actively participate. There are no social risks in attending it seems, but there seem to be some social risks in speaking out (although not admitted by the women). Not only social barriers might restrict speaking out (or active participation), but also by differences in education as compared to men.

### 4.2.3 *Information provision to men and women*

The announcements of the meetings are usually provided on notices in boutiques (small village shops). The information about the decisions taken is provided by either husbands or fathers, or neighbours. There is no direct information provision from the farmer organisation to women.

This indirect way of the way in which the women receive the information about the decisions taken reflects very much the culture with regard to decision making and organisation. The family is considered as an important unit, the respondents feel that it is their family that is represented by the male family members in the farmer organisation, and it is assumed that the male members of the family will share this information with the female members of the family. No complaints were heard from the women with regard to this indirect way of information provision to the women. It seems to function rather good for the women involved.

## Chapter 5: Impacts of the current water resource management system on resource poor men and women

### 5.1 Ownership of land and means of income

Ownership of land in the areas studied has been categorised in<sup>1</sup>

- Freehold (certificate for 99 years ownership)
- Leasehold (1 year ownership, to be renewed every year)
- Pimbure (ancestral lands, not registered as freehold/leasehold)

Next to those types of land ownership, almost all families cultivate chena, which takes place on encroached public lands.

The ownership of land among resource-poor does not depart to a large extent from those who are not considered to be among the poorest of the village. Most of them still have some land, either home garden or paddy land, or have chena lands (although in some cases, people didn't own any land). The interviewed people didn't own more land though than 1 to 1.5 acre of paddy land and home garden. Home garden-land and paddy-land was sometimes freehold (permanent ownership), sometimes leasehold; chena land is usually encroached public land.

Although people were reluctant to talk about encroached lands, most of them did mention they cultivated chena. According to chairmen of farming organisations, and respondents at the district court, encroachment on water (illegal tapping, breaking bunds and diversion structures) takes place, but the respondents in the villages were not very specific on this, due to the sensitivity of the subject. Although there are sanctions, in reality the sanctions for encroachment are usually not enforced. There was just one example of a farmer who had to pay a fine of Rs. 550 to the court (Padikkaramaduwa). Officially, if encroachment takes place, the farmer will be requested not to use that land for cultivation. If he ignores the advice, the case might go to Court, which can decide upon a proper fine. Women are more than men involved in chena cultivation, and thus in cultivation of encroached lands. A more strict enforcement of the legislation, and application of sanctions, can therefore be expected to have a more serious effect on the activities and income produced by women than by men.

Also with regard to the location of the plots of land of the resource poor, one cannot find a clear division in this. The location of the plots of land owned by those people varied between head-end, middle-end and tail end, and could be located under different tanks. There seems to be no clear relation between either the ownership of land and income or between the location of the plots under the tank and income from cultivation.

The means of income (both during droughts and in general) in addition to, or instead of, working on their own lands, as mentioned by the respondents, was:

- Day-labour in agricultural activities, especially in Maha Illuppallama and Mahaweli area (Nallamudawa, Indigehawewa and Rotawewa: both men and women,
- Day-labour in non-agricultural activities

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<sup>1</sup> A more elaborate categorisation can be found in the paper of P. Rajasekera, C.M. Wijayaratna and Gamini P. Batuwitage: "Tenurial security and natural resources management in a watershed context"; the categorisation in 3 categories is as it is used by the divisional officer of the Department of Agrarian Services

- Wage labour
- Middle-East Jobs
- Income provided by children.

Especially in Nallamudawa, Rotawewa and Indigehawewa, most of the resource poor people depended on their participation in day-labour (agricultural activities) for their income during droughts or if they didn't have landownership.

- In Nallamudawa, out of 167 households, 75 families were landowners, against 92 landless families; 75 (of both land-owners and landless) families were participating in day-labour in agricultural activities (men and women); 15 in wage labour (men in the army and the Phosphate company in Eppawala; women in garment factories); and a few women (no men) worked in the Middle-East as servants. All families were, according to the grama nilidarie, involved in farming, if not in paddy fields, then with some chena cultivation and home gardening, even if the man or women had a job in a company or government.
- In Indigehawewa, out of 122 households, there were 42 landless households and 80 households owning lands. As in Nallamudawa, 99% of the households were said to participate in farming. Some people were working as wage labourer (Phosphate company in Eppawala, some officers at public banks, 1 hospital labourer, 14 men in the army; 8 girls working for garment factories, 3 women working for other companies in the neighbourhood, 1 teacher and one environmental development assistant at the Central Environmental Authority); 5 women were employed in the Middle-East.
- In Padikkaramaduwa, out of 87 households, there were 27 landless households and 60 households owning lands; 50 families had cattle; 23 families were farming, and 4 people were working in wage labour (as teacher, for telecommunication services, in a co-operative shop, and in the Ceylon Transport Board)

Day-labour is usually done by both men and women, although 6 cases were found where only the man worked as day-labourer (because the woman was involved in childcare) or only the woman (because of the health situation of her husband). Wage labour is also done by both: men work either in the **army**, in the Phosphate factory, as teacher or in another function; women work mostly in the garment factories, or as teacher. In all the villages studied, some people were found who strongly depended on income from their (adult) children to survive. In Padikkaramaduwa this was more the case than in Nallamudawa cascade, because of their feelings towards working as day-labourers.

Wage labour and middle-east jobs were found more under the people who were not considered to be resource poor. Middle-east jobs are promoted to a large extent (cars coming through the village advertising jobs through loudspeakers) and in both Nallamudawa and Indigehawewa some women (only women) were found who had been working in the Middle-East for one to three years. Usually this provided them with, on average, more income than by (participating in) cultivation of land at home. Wage labour usually doesn't provide high salaries, but does provide more security. In every village relatively few people could be found who were employed in a company or organisation.

Though poverty directly influenced the living conditions of the people, it doesn't have a direct impact on people's access to water resources. On the other hand, the availability of water resources (rainfall) has a direct influence on the income (either in food supply or finances) of people. The poorer people are more affected by this than people with more resources because they don't have the financial resources to overcome such periods, nor to pay for fertilisers, seeds and pesticides at the start of a new cultivation season. Access to water supply for domestic purposes is not different for resource poor people than for other people in the village.



The poverty of people has a direct effect on the health situation of people: the number of meals is reduced, or the type of food is changed, in extreme cases leading to malnutrition, or increase in vulnerability for other diseases. Unclear is still whether women are more effected by this than men.

## 5.2 Impacts water resource management system in **past** and currently

Most of the men participate in the farmer organisation. The participation of resource poor families in farmer organisations is not different from others in the village. Interesting would be to see, over a longer period of time, whether there is a relation between the decisions taken on cultivation planning and water allocation for particular plots of land and the income of people cultivating those lands. This was however, due to time constraints, not possible to look into. Although people were asked about it, they were not able to give a clear answer on this.

Most of the resource-poor respondents were not able to give their opinion on the current situation of water resource management as compared to the water resource management in the past as they did not know about the differences regarding attama, bethma, thattumaru, farmer organisations and the vel vidane system. When talking about a vel vidane, most people were referring to the chairman of the farmer organisation, and not to the vel vidane.

The people who were able to make such a comparison were usually people who had been or were actively involved in the farmer organisation, or elder farmers (male). Without any exception, they praised the vel vidane system as compared to the farmer organisation because:

- (i) There was a respected leader, the vel vidane; nowadays the chairman is elected and less respected by the people
- (ii) The vel vidane was more committed to his work;
- (iii) It was more efficient, as he was able to enforce the decisions and to fine or rule in case of conflicts or if people did not comply
- (iv) There was no political influence in the farmer organisation (now the officials are usually of the ruling party).

Women were neither represented in the vel vidane system nor in the farmer organisation system. The development from vel vidane system to a system with farmer organisation has thus not directly effected the position of women, or their influence in decision making.

In the past traditional practices were much more common, such as attam, bethma, kattimaru, thattumaru. The reasons mentioned for the decline are usually related to economic motives of people, as well as to 'honesty'. Since most of those practices involve close co-operation and solidarity, conflicts arise more easily than in more individual cultivation. **Only** shramadana has increased during recent years, which is considered to be an **improvement**. (Interesting for next research: does this decline of traditional practices have any specific impact on women?)

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## Chapter 6: Interventions

### 6.1 Interventions

The interventions and programmes which were found in the villages studied were the Samurdhi programme, the Janasaviye programme, the Shared Control Of Natural Resources (SCOR) project (Padikkaramaduwa) and an Integrated Rural Development Project (IRDP) (Padikkaramaduwa). In the past, various rehabilitation projects of tanks have been implemented (funded by the National Irrigation Rehabilitation Project (NIRP) or the Asian Development Bank (ADB)).

Both the Samurdhi and the Janasaviye programme are programmes under which people can receive some money. Under the Janasaviye programme this was approximately Rs. 1475 per family per month, of which Rs. 475 had to be deposited in the bank. Rs. 1000 was for consumption. The recipients under the Janasaviye programme now still get the interest (Rs. 250 per month) from that programme. The Samurdhi programme included loans for cultivation (against a low interest rate) and also provided money to the people with a savings scheme. The programme provides Rs. 500 per month to a family, of which Rs. 20 should be paid for insurance, and Rs. 100 should be deposited in the bank. People who are recipients under the Janasaviye programme are not considered as recipients for the Samurdhi programme.

In both the Samurdhi programme and the Janasaviye programme most people are participating as recipient, if at all. The Samurdhi programme is not existing in all villages. Some complaints were expressed on the leadership of the Samurdhi programme: friends and relatives of the leader of the programme had a higher chance of selection as recipients than others. The Janasaviye programme was a programme of the previous government, which has been completed now, although some people still receive some interest from that. Neither of those programmes was related to water management, nor do they have a particular gender approach.

Another project in Padikkaramaduwa is the Integrated Rural Development Project. The IRDP project established some women groups and is involved in activities such as chicken farming, cattle raising, milking, and other income generating activities, though again, not related to water management. Women who participate actively in this project, face an increase in their workload, because they have to go to the meetings and participate in the activities. In Padikkaramaduwa, 16 women participate in those meetings. The programme further provides loans for those activities and training, e.g. with regard to health and sanitation. In looking at its gender approach, the IRDP project can be categorised under the anti-poverty approach. It emphasises income generation or increasing productivity in activities traditionally perceived as being the women's domain.

In the villages studied there was no particular intervention of the Agrarian Service Department going on with regard to rehabilitation, nor from the NIRP or other donor agencies (although some of the tanks have been rehabilitated in the recent past by those organisations).

All the interventions related to tank rehabilitation are usually being performed through the farmer organisations or in co-ordination with the farmer organisation. As such these interventions are directed towards men, although some of the rehabilitations involved the construction of bathing places (stairs into the tank) which are more used by the women than the men.

Interesting is that the handing over of the management of the tanks to the farmers is also done entirely through the farmer organisation. The Department of Agrarian Services (the Divisional Officer) or the

donor agency (NIRP for example) explain to the farmers (male) that after the rehabilitation has been implemented, maintenance and repairs are the responsibility of the farmers themselves.

## 6.2 The SCOR project

The Shared Control of Natural Resources (SCOR) project was started in 1993 by the IIMI in co-operation with the government of Sri Lanka and funded by USAID. It aimed at an alternative development process with a participatory holistic approach to land and water management in watersheds. The prime goal of the SCOR project **is** to develop and test a strategy to increase the sustainable productivity of the natural resources base in Sri Lanka in ways that will equitably improve the livelihood of people now and in the future with due regard to the environment.

The specific SCOR objectives are:

“(a) to improve the incentive and institutional context in which land-and water related activities are undertaken in pilot watersheds through appropriate modes of production and state-user partnerships to ensure both the productivity and the sustainability of these resources; (b) to get resources user groups and managers to consider environmental implications of land and water use more explicitly and to internalise environmental considerations in decision making and implementation at all levels; (c) to enhance information and the understanding about potentials of and prospects for the natural resources (land and water) base for production and protection and (d) to strengthen the capacity of the provincial/Divisional level government authorities in planning for land and water resources utilisation in an integrated manner, gradually transforming the strategy of development of land and water resources from a project mode to a programme mode” (IIMI, “Shared Control of natural Resources (SCOR): a participatory holistic approach to land and water management in watersheds”, 1995/96). At present the SCOR project is subject to considerable changes. Due to general curtailing of funds, the project will be terminated sooner (September 1998) than foreseen, and there has recently been a change in management of the project. Since it cannot be predicted how and if this will effect the gender strategy of the project, it has not been considered in the analysis.

One of the major characteristics is that the project emphasises both (environmental) protection and production. The project is active in two watersheds: Nilwala and Huruluwewa. Although the participatory approach of the SCOR project does not explicitly differentiate on the basis of gender (SCOR gender study, 14 May 1996), it has appointed a co-ordinator/catalyst for women and youth in the pilot area to achieve an active participation **of** those two groups. The activities of the co-ordinator for women and youth have only just started in Padikkaramaduwa.

The SCOR project activities in Padikkaramaduwa (Huruluwewa) include:

- Soil conservation: The IIMI teaches farmers soil conservation techniques, making parallel bunds in home garden to minimise erosion;
- Providing **some** plants and teaching them how to grow them. The plants provided are: orange, coconut, lime, yak, bamboo for planting on stream banks.
- Water conservation in home gardening: by making the bunds, they can increase infiltration (absorption of water in the soil) and by doing **so** they can maintain fertility. Surface run-off is with this (terracing) method going across the bunds, causing less erosion and water is cleaner.
- Organic farming: they cultivate paddy without pesticides and fertiliser; for maha they cultivate paddy, under yala they cultivate chilli with this method: biological pest management

Part of the respondents mentioned that the IIMI (SCOR project) has established women's groups with a saving programme.

The dual focus of the SCOR project on both environmental protection and production can be clearly recognised in this. According to the SCOR gender study of 1996 it is recognised that women are responsible for management of specific resources and the SCOR project has appointed a pilot area for involvement of women and youth. The objectives of the pilot project are: (1) development of home gardens and (2) involvement/active participation of women and youth. These pilot projects were to be replicated in other areas within the SCOR project.

Although home gardening activities form an important part of the activities of the SCOR project in Padikkaramaduwa (see the first three activities), the question which arises is why this should especially benefit women, since the interviews (see chapter 2) on the gender based division of labour clearly show that both men and women are involved in home gardening as well as in paddy cultivation and chena cultivation. Additionally, the activities in home gardening focus on the more 'male' aspects of home gardening, involving the construction of bunds.

The provision of plants, which is aimed at food sufficiency, as mentioned above is one of the activities which seems to be highly appreciated by the recipients, more than the conservation activities. Partly this can be contributed to the direct 'material' gains, and partly because of the differences in extra time investment. The new techniques for soil and water conservation as suggested by the project require a lot more time than planting new trees and taking care of those.

The SCOR project works closely with the farmer organisation, although non-members seem to be able to benefit as well. Women benefit from the programme through being a member of the family that is represented in the farmer organisation (through their husbands). Since their involvement in decision making and in participation in the farmer organisation is limited though (almost non-existent), they have no means of influencing those decisions. By working through the farmer organisation IIMI (as well as other organisations) leave out the gender aspects, and don't give women the opportunity to participate in decision making.

Further there seems to be an increase in the workload of men and women as result of the project, especially in home gardening, soil and water conservation and in organic farming (according to one of the respondents a doubling of time input required); according to the respondents, this increase is worthwhile because of the increase in income.

Women's access to financial resources have increased as a result of the savings programme by the SCOR project for those who are participating (check whether people don't confuse SCOR activities with IRDP programme). Those financial resources are mostly used for domestic expenses or for improvements to the house, and less to cultivation or as investment in means of production.

In Padikkaramaduwa, the women and youth organiser has just started her activities. Therefore it is too early to evaluate the impacts of the SCOR project on gender relations. The activities aiming at women in the pilot area (home gardening, cooking classes, processing of fruits, introduction of agro-chemicals and compost training for home gardens, time management, cultivation measures, and conservation of water) seems to comply most with the anti-poverty approach (as compared with the welfare approach, the equity approach, the efficiency approach and the empowerment approach, see Moser, 1989).

Until now, the access of women to land rights, involvement in water management and decision-making regarding cultivation planning and water management has not clearly changed, and based on the

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assumption of replication of the 'gender-activities' in the pilot area in Padikkaramaduwa, this will probably not directly change as a result of the project interventions.

However, women did not express their dissatisfaction with their access to land rights, involvement in water management and decision making. They claimed to feel represented by their husbands in the farmer organisations, and since this is the traditional way, they considered it as positive.

This would however be an interesting area of further research, since their opinion might be biased by the unfamiliarity with the researchers and a form of polite answering. Based on such research, it would be possible for the project to adapt a clearer strategy, whether the project aims to follow the welfare approach the equity approach, etc.

## Chapter 7: Conclusions

The two case studies show that gender roles are still very traditional in the division of labour, and have not been subject to much change. The change that has taken place is an increase in the involvement of women in cultivation, but this is not compensated by a higher involvement of men in domestic activities. The workload of women has thus increased in the course of time, although women express that they feel quite capable of doing the same types of work in cultivation as men.

In decision making on household level, women seem to have a good basis for bargaining and influence. Although not in all families, in relative many of the families, they are involved in decision-making regarding expenditures, domestic aspects as well as cultivation. In decision making on supra-household level they are however largely underrepresented. If participating at all, they don't have the opportunity or the ability to give their opinion, and the main reason for them to participate is to pass on the information to their husbands. Their influence on village and administrative level to achieve objectives, such as the construction of a tubewell, is limited, if not absent. Although identified as major problem for the women, they have not been able to change this.

The involvement of both men and women in collective action is high. The benefits of collective action clearly seem to outweigh the costs, being mainly time investment. There are no differences in this for men and women. Some types of collective action are gender-based, such as seettu, and sometimes attam. Collective action regarding water management, which is mainly done through shramadana (weeding of the tank and canals, cleaning of the bunds) is most a joint effort, although more men than women are involved in cleaning of the bunds.

Participation in farmer organisations is highly male dominated. This means that they have hardly any say in the cultivation planning nor in the decisions with regard to water allocation and distribution. Non-participation of women was caused by:

- High costs of time investment as compared to women's productive tasks
- Limited ability or opportunity to speak out
- Good functioning of representation by the male members, and dissemination of information to the women

This limited participation of women in farmer organisations and the perspective on women on this, touches an important point that might not have been highlighted enough in the past. Despite the traditional division of labour within the family, there seems to be a mechanisms within and among the families to deal with the gender roles by representation of women by the men which does not lead to large dissatisfaction among the women (unless they all give biased answers). Although traditional in the heading and representation of the family, the common interests of the family (including those of the women) dominate the relations within the family and are essential in representation outside the family. This is complemented by a certain extent of protection of women, in the sense that traditions are bend or determined in such a way that safety for the women is more secured. Their involvement in productive activities is high, and they provide through those activities the family with food and income in addition to the men, although they are not able to spend as much time on cultivation, due to their domestic tasks.

Their access to tenure and land ownership is legally not restricted, but in practice most of the lands are registered on the name of the men. This does not restrict their possibilities in participation in the farmer organisation. Membership is considered by the respondents as membership of the family, which might be represented by either husband or wife in the meetings of the farmer organisation. Their access to financial

resources is usually no problem; the incomes from cultivation or other activities seem *to* be equally shared among the men and women in the family. The women stated without exception that they have continuous access to financial resources, provided that they have enough income, and don't depend on their husbands to use it. Their access to means of production, like seeds, fertiliser, pesticides and equipment might not be restricted, but the division of labour is such that men to take care of buying those goods.

No clear relation could be found between decisions regarding water allocation and distribution, location of the lands, ownership of the lands and the income of people. Some of the respondents which were indicated by people in the village as resource poor, had ownership of lands (and not considerably less than others), which could be either head-end, middle or tail-end. Means of survival were mainly through working as day-labourers and through income by their children. They participated in the farmer organisations (and thus in the water management system) as much as less resource poor people.

Finally, the interventions which had anything to do with water management, like rehabilitation of tanks, canals, etc. did not have a particular gender strategy. The SCOR project, which is especially important for reasons of soil and water conservation in the area under study, just started with its gender activities in Padikkaramaduwa. Those gender activities mainly aim at activities such as home gardening, cooking, time management, introduction of agro-chemicals and compost training for home gardens, cultivation measures and conservation of water (by mulching, pitch irrigation, hydro-bunds, etc.). This means that the activities are mainly based on production of food especially within the home gardens, and some water conservation.

None of the interventions found, also those who are not related to water management, include a gender strategy with empowerment objectives (that is to change women's bargaining position, their participation in and influence in decision making, power position of women, involvement of women as officials). As stated by Goetz and Moore, one of the most difficult questions the participatory approach needs to tackle, and this can be extended to a gender empowerment approach, is that of power, conflict and power redistribution (in the gender case on household and supra-household level).

Before deciding upon such an approach, first the needs of women with regard to their identities and roles should be clearly defined. The first information collected in the short period for this paper indicates that most women are quite satisfied with the traditional ways (also in decision making). Whether or not this is based on biased answering (because of unfamiliarity with the researchers or because they are supposed to think that way), would require more in-depth studies, for most gender studies usually provides a different picture.

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