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DEVELOPMENT PLANNING AND GENDER
INEQUALITY: A CASE STUDY IN THE
MAHAWELI DEVELOPMENT PROJECT,
SRI LANKA*

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INTRODUCTION

Although development is defined in diverse ways, its ultimate objective is to promote the quality of life. Planning guides the development process towards this target. In the developing countries where the majority of the population lives in rural areas, such planning aims to promote the quality of life of the rural people. In Sri Lanka too, rural development is the main objective of most development projects and they account for a large volume of local and external resources. In a situation where rural development is given such a high priority, it is of vital importance to examine whether development planning benefits everybody regardless of one's class, caste, and gender or any other difference. This study will examine whether rural women have benefitted from projects in Sri Lanka, or if, as has often been the case elsewhere, they are discriminated against. If such discrimination exists, women will not only be deprived of benefits but will also fail to be active participants in development activities. Integrating women into the development process benefits not only the women themselves but also, in many cases, is essential for project success. If projects are to be re-oriented to benefit men and women equally, it is necessary to understand the underlying reasons for the adverse effects that result from male-bias in development projects.

This paper will examine the impact on women of a major development project in Sri Lanka, the Mahaweli Development Project. It will compare the status of women in project communities with those in traditional villages in order to identify possible adverse effects on women's employment, household work load, and community participation and to suggest some possible measures that should be taken to enable the rural women to enjoy the benefits of development projects. It is based on data collected from a field survey which was conducted in the System H of Mahaweli and in three traditional villages in the Anuradharura district, namely Kapugollewa, Magollagama, and Pahala Divulwewa. The methodology involved both a conventional questionnaire survey and a Rapid Rural Appraisal (RRA). To initiate research a pilot survey was conducted in the System H of Mahaweli and in adjacent traditional villages in order to select suitable sample areas for the study. This pilot survey included wide travelling in the area and brief discussions with key informants. On the basis of information collected from the pilot survey, Nochchiyagama Block of the System H of Mahaweli was selected to represent the

Mahaweli project. It was not possible, however, to find villages with typical traditional characteristics close to the Mahaweli Project area as initially expected. Therefore, three traditional villages had to be selected far away from the Mahaweli Project.

For the purpose of sample selection in the Mahaweli Project area, the inhabitants were categorized into four major groups: (1) settlers; (2) re-settlers; (3) evacuees; and (4) squatters. Then the sample households were selected in proportion to the total number of households in each category as indicated in Table 1.

Table 1: Household Types in Project Area Sample

Category	Number of Households
(1) Settlers	29
(2) Re-settlers	34
(3) Evacuees	16
(4) Squatters	<u>18</u>
Total	97

Sample households in the traditional villages were selected in consultation with key informants and village leaders, paying attention to factors such as family income, land ownership, family size, and age of the eldest child. The rapid appraisal was also conducted in the selected traditional villages and in the Nochchiyagama Block of the Mahaweli System H. This exercise involved discussions with informants, group discussions, informal interviews, and direct observations. In order to collect quantitative data on the identified major issues, two brief questionnaires (one for the Mahaweli settlers

and the other for the traditional villagers) were constructed, pretested, then administered to the housewives of the selected households.

This study was badly disrupted by the unsettled condition and political disturbances that have prevailed in the area since the beginning of 1989, with the result that the field survey had to be postponed several times. It was not easy to generate fruitful information from discussions with housewives for a number of reasons. Although it was necessary to interview housewives in isolation from their husbands in order to get their genuine views, most of the time their husbands unnecessarily interfered and influenced their responses. The women were also very busy with household work, so that sometimes it was very difficult to continue discussions. The project officers were found to be biased when they provided the information, often overestimating the project's successes and underestimating failures. They also blamed the settlers for most of the failures. Because only limited information could be collected from direct observations, information given by others also had to be used.

BACKGROUND OF THE STUDY AREA

Sri Lanka is an island of 65,600 square kilometers in area with a population of 15.2 million. Agriculture is the important sector of the economy. While the export-oriented sector of agriculture produces tea, rubber, and coconut, the small farmers in the subsistence sector focus on the cultivation of rice and other subsidiary crops. The island is geographically divided into two regions, namely the wet zone and dry zone. The dry zone, which covers almost three quarters of the island, is characterized by a long dry season and high annual rainfall variability. It is particularly important for rice production, contributing 77% of the total production and 72% of the total paddy extent. Though this

region is less developed in terms of physical and institutional infrastructure, historically it supported a prosperous agrarian economy. The early settlers who migrated from northeast India to this region in ancient times, developed means for local storage of rain water by damming streams or building embankments to retain water in natural depressions. At least from 4th century B.C. onwards, small village tanks were built and brought into being a society based on a one-tank one-village ecological system. From about 1200 A.D. for a variety of reasons, prosperity of the dry zone economy declined, and population migrated from the dry zone to wet zone. Since then, the dry zone has remained sparsely populated and isolated. In the beginning of this century the state began to make efforts to restore the ancient tanks and to re-establish agrarian prosperity. The Mahaweli Development Project is the greatest effort ever made to develop the dry zone. At present, the dry zone has both old settlements (traditional villages) and new settlements established under the development projects.

The Mahaweli Development Project aims to use water in the Mahaweli River, the longest river in the island, for irrigation and for producing energy by constructing dams at various points along the river and diverting water to irrigate the dry zone. The goal is to strengthen the national grid by adding over 500 MW of installed hydropower and irrigating 130,000 ha of new land for agricultural production. It is anticipated that newly opened lands, supported by a modern infrastructure including a network of roads, townships, power and communication lines, schools, hospitals, transport services, banks, and so on would become the new environment for over a million people. Small nuclear families settled as production units were provided with one ha of irrigable land and 0.2 ha for homestead development. The smallest production unit, the farm family, is expected

to function as a commercial enterprise guided by project officials. Hamlets consisting of 100-125 families are expected to function more or less as a village. For these new settlements all necessary infrastructural facilities are provided by the state.

Traditional villages still remain outside the project area. In general, in a traditional village, paddy cultivation is, in the past as well as at the present, done on the land just below the irrigation reservoir (tank); the residential area (gangoda) was located somewhere between the paddy tract (yaya) and the tank-bund, minimizing the distance to both. The gangoda consisted of several clusters of houses (gam medda). Each gam medda included several houses located around a common compound which was an extended living space and play ground. Leach (1961) indicated that the household group was more important than the family one in the traditional society. The compound group as a piece of ground is a continuing entity, transmitted unchanged from generation to generation (Leach, 1961). The catchment area of the tank was hidden in the jungle which was preserved in order to maintain the ecological balance. Slash-and-burn cultivation (chena) was practiced in the jungle elsewhere on rotational basis. Under this system, vegetable, legumes, and various kinds of coarse grains were cultivated. Almost every household had 1-2 pairs of buffalo or cattle. Fishing was conducted in the irrigation system, and in the paddy fields when they were flooded. In general, all the families were related to one another, and all of them belonged to the same caste. However, now traditional villages are gradually losing these characteristics.

WOMEN'S HOUSEHOLD WORKLOAD

In Sri Lankan society, within the household sphere a housewife has threefold duties: as a mother, as a housewife, and as a farm woman. All are equally important for

the existence of the family, and therefore she cannot overlook one for the sake of another. Most of the time she has to perform several duties simultaneously. For instance, she collects firewood while clearing land for cultivation,, and nurses babies and feeds children while attending to cooking or other farm yard work. As a mother her prime duties are nursing babies, looking after children and feeding them, guiding them in their education, and attending to sick in the family. Maintaining the nutritional status and health of children is a part of her responsibility. If elders live in the same house with her, she also has to cater for them. As a housewife, she is expected to perform a multitude of responsibilities, including sweeping, cleaning and upkeeping house and yard, fetching water and firewood, and cooking. She must also attend to preservation of food for subsequent uses. After the harvest, she has to process the yield including winnowing and parboiling rice and drying, husking and cleaning legumes, yams and tubers. During the cultivation period, she plays a very important role as a farm woman, performing labor intensive operations such as seeding, weeding, and harvesting. While the heavy farm operations such as ploughing and puddling are considered to be men's work, the light but most labor intensive operations are considered to be women's work. As the readily available source of unpaid labor, she has to work harder during the peak periods. Her share in farm operations in upland farming such as chena cultivation and home gardening is greater than in paddy cultivation. She is expected to grow yams and tubers, legumes, vegetables, coarse grains, and fruits in chena lands and in home gardens for family consumption. Apart from seasonal farm work, she is also responsible for animal husbandry and milking almost throughout the year.

The duties of women as housewives, as mothers, and as farm women are same in both traditional villages and in Mahaweli settlements but the amount of labor that they spend is greater in the latter than in the former. The Mahaweli settler women receive less help from others with her household workload than her counterparts in traditional villages. Furthermore, Mahaweli settler women have to do extra work which is being newly added to their traditional duties. The heavy work load of Mahaweli settler women can be explained in terms of some different socioeconomic characteristics of traditional villages and Mahaweli settlements (see Table 2).

Table 2: Social Characteristics of Study Communities

Traditional Villages	Mahaweli Settlements
(1) Extended Family	Nuclear Family
(2) Social Uniformity	Social Diversity
(3) Traditional Farming	Modern Farming
(4) Subsistence Agriculture	Commercial Agriculture

(1) Extended vs Nuclear Family: The extended family system in the traditional villages enables housewives to get help from close kin who live in the same household or in the same Gam medda, including their parents, sisters and other close relatives. Such help is particularly important for cooking, fetching water and firewood, and feeding children (Table 3). The cluster of houses consisting of several families provides co-operation which crosses the borders of individual families. Thus, the extended family is

very advantageous for the housewives and it undoubtedly relieves their burden of household work. Conversely, under the nuclear family system which was established by the settlement planners in the project area, there are fewer adult women in the household to share the workload, because the nuclear families consist of husband, wife, and children

Table 3: Support for Women's Household Activities in Traditional Villages

Activity	Supported By				
	Husband %	Children %	Sisters %	Parents %	Others %
Cooking	02	37	60	37	29
Fetching water	10	20	40	65	27
Fetching firewood	08	32	38	45	37
Upkeeping home	12	40	51	12	08
Washing clothes	00	17	20	30	00
Food processing	00	37	40	57	00
Food preserving	00	21	58	18	00
Feeding babies	15	28	65	32	00
Educating children	27	25	58	37	00
Attending to sick	25	26	30	08	00
Home gardening	22	42	30	23	00

Source: Field Survey, 1989

only. Most of the settlers are migrants, and have no close kin around their households. Women in these settlements, therefore, have to perform most of their duties alone. Table

4 indicates that they receive help only from their husbands and adult children. It is evident from this table that husbands in Mahaweli settlements help their wives more than their counterparts in traditional villages, but the housewives in Mahaweli settlements get

Table 4: Support for Women's Household Activities in Mahaweli Settlements

Activity	Supported By				
	Husband %	Children %	Sisters %	Parents %	Others %
Cooking	22	12	07	00	00
Fetching water	18	10	00	00	09
Fetching firewood	15	08	00	10	00
Upkeeping home	12	12	09	00	00
Washing clothes	09	10	00	00	00
Food processing	05	22	00	00	00
Food preserving	00	08	00	00	00
Feeding babies	32	19	11	00	00
Educating children	26	41	00	00	00
Attending to sick	32	10	00	00	00
Home gardening	12	12	00	14	00

Source: Field Survey, 1989

less help with work from their children. This is because, in contrast to the children in traditional villages, most of the children in the Mahaweli settlements go to school. In the traditional villages housewives are supported by their young female children who drop out

from schools at an early age, whereas in the Mahaweli settlements where access to schools is easy, most of the young female children go to schools, leaving all household work to their mothers. They do, however, often remain at home to help farm work during busy periods. During such periods, some settlers invite female kin from their villages of origin to help in farm work. Nevertheless, although husbands in Mahaweli settlements help with their wives' household workload more than do their counterparts in traditional villages, what they provide is not equal to the help that the wives in traditional villages get from the close kin who live in close proximity. Therefore, the women in the settlements have to expend a greater amount of labor on their household workload. It has been pointed out that settler women have limited opportunities to leave their children in another's care and usually had to bring their children along with them. As young men and women were generally the only adults in the households, the mutual help between the sexes and age groups characteristic of the traditional villages did not exist (Lund, 1989).

(2) Social Uniformity vs Social Diversity: The uniformity prevailing in the social system of the traditional villages facilitates and strengthens a community spirit which leads to co-operation in all domestic as well as agrarian matters. This relieves the burden of the women's tasks. But in the Mahaweli Project area, housewives have few opportunities to associate with one another because of differences in their cast or places of origin. The social environment prevailing in the new settlements does not favor development of a system of mutual co-operation among the settlers.

In the Mahaweli settlements, housewives have to undertake new tasks in addition to their traditional ones. In traditional villages, the system of exchange labor (i.e. attama

and kaiya) facilitated the labor intensive farm practices in paddy cultivation, but such a system of exchange does not exist in the new settlements. In the Mahaweli Project area, in the absence of such a system, settlers have to recruit hired labor at relatively high cost. Therefore, at the beginning of a new life in the project area, settlers have to exploit their family labor intensively, especially the labor of housewives. Thus, the women have to engage in some male activities too, such as preparing land in paddy fields, traditionally a male activity.

(3) Modern vs Traditional Farming: The intention of Mahaweli development planners was to increase agricultural production rather than to reduce the cost of production. Settlers were therefore encouraged to utilize modern farm technology including the Green Revolution package of technology. As shown in Table 5, modern farm inputs such as HYVs, chemical fertilizers, and pesticides are more heavily used by the settler farmers than by the farmers in the traditional villages. Some of these modern farm practices also increase the women's work load. For instance, in contrast to the traditional practice of paddy sowing which was usually done by men, transplanting is now done when HYVs are cultivated; weeding is another important operation in the new situation. Both these operations are now mainly done by women. One study revealed that 58% and 77% of interviewed women in the Mahaweli settlement area have done transplanting and weeding respectively (WMSP, 1983). Furthermore, female labor is used for application of chemicals. Table 6 shows greater female participation in the application of fertilizers than in pesticides. This is because unlike fertilizer, which is simply mixed into soil by hand or mamoty, the application of pesticides involves lugging a heavy sprayer on one's back, a task more commonly seen appropriate for men.

Table 5: Use of Modern Inputs and Cultivation Practices in Mahaweli Settlements and Traditional Villages

Input	Mahaweli Settlements %	Traditional Villages %
Tractor	72	18
HYVs	95	44
Transplanting	78	32
Weeding	57	23
Chemical Fertilizer	64	12
Pesticides	71	18
Weedicides	69	20

Source: Field Survey, 1989

Table 6: Division of Labor in the Use of Modern Inputs in Paddy Cultivation

Activity	Male %	Female %
Ploughing	92	18
Transplanting	36	64
Weeding	27	77
Application of pesticides	74	26
Application of chemical fertilizers	57	43

Source: Field Survey, 1989

(4) Subsistence vs Commercial Agriculture: Some serious changes in the cropping system have taken place in the Mahaweli Project area as new cash crops were introduced by the project. Today, cultivation of cash crops such as chile, onions, cowpeas, soya beans, and gherkins is common in the Yala season when water is scarce. Cultivation and harvesting of these crops are mainly done by women. These operations are highly laborious and time consuming, and, therefore, it seems that men dislike doing them. Therefore, in the Yala season, women have to spend much time with cash crops. Table 7 points out that more female labor tends to be employed in Yala season so that women's time spent in cultivating these crops is considerably greater than in growing paddy. Although more women were involved with and shared agricultural work with men, there is no reciprocal sharing of child care and domestic chores by men. Consequently, women in the settlement areas have less leisure time than their counterparts in the traditional villages. Results of this study points out that women's leisure time is 3.8 hours per day during the cultivation period in the traditional villages whereas it is only 1.3 in the Mahaweli settlements.

Table 7: Division of Gender in SFC Cultivation in Yala Season in Mahaweli Settlements

Activity	Male %	Female %
Seed bed preparation	54	46
Seeding	66	34
Weeding	87	13
Application of Pesticides	42	58
Watering	77	33
Harvesting	87	13

Source: Field Survey, 1989

Some of the measures taken by the Mahaweli Development project (e.g. child-care centers, fuelwood plantations) are intended to relieve the household workload of the settler women. However, this study points out that these measures do not yield the expected results. Though the child-care centers appear to work well, they do not reduce the mothers' household workload for several reasons. First, mothers have to take their children to and from the child-care center (CCC), adding to their workload. Hence, some mothers, particularly those who live far away from the CCC, are reluctant to send their children there. Poor attendance in CCCs has been noticed during the cultivation period in which mothers are very busy with farm activities. Second, the attendants of the CCCs are not well trained, and most mothers are not satisfied with their performances. There are no regular training programs for the attendants and they are not adequately paid or promoted. Hence, they have no incentives to acquire advanced training. Third, some mothers are reluctant to entrust their preschool children to outside agencies. The CCC is a new concept for the traditional society, and mothers lack experience with them. Traditionally children are looked after by either grandparents or other elder members of the family. Mothers are not used to leaving their children with outsiders.

At the beginning of the Mahaweli project, firewood was readily available from the cleared forest lands in the vicinity. Now those sources have been exhausted, so that firewood demand is increasing and has become a serious problem in the study area. Fire plantations in homegardens and in firewood blocks have not yet yielded the expected results. Thus, collecting firewood adds a lot to the women's workload. The project does offer some services to alleviate the women's work load (e.g. health centers, shopping centers, and drinking water are provided in close proximity of the residences), but the

overall burden of women's work has not decreased because of extra work in paddy and cash crop cultivation accompanied by household chores and child care without the assistance of kinship groups.

WOMEN'S ACCESS TO INCOME-GENERATING OPPORTUNITIES

In agrarian economies, access to income-generating opportunities is mainly determined by one's access to production inputs such as land, capital, market, training, and extension services. While those who have control over these inputs gain higher income, those who have no control gain less and have to depend only on their own labor. Such people belong to the lowest strata of the social hierarchy. This section of the paper will describe women's control over these major production inputs in relation to men's in selected traditional villages and in the Mahaweli settlements in order to identify the impacts of settlement planning on women's access to income-generating opportunities. Women's access to income is very important because it is these funds that are mainly used for the welfare of the family, ensuring the quality of living.

Among the production inputs in an agrarian society, land is the most important since it is essential for farming. Those who have control of land undoubtedly gain higher income than others. After land, livestock is important. In traditional villages both men and women have almost equal access to land and livestock. After the parents' death, all properties are distributed equally among all male and female children, according to the law of bilateral inheritance. Thus women have an equal right to the main production inputs in the traditional agrarian economy. While 78% of the women interviewed in the traditional villages had right to land, 56% had right to cattle and buffaloes, gained through bilateral inheritance.

According to the customary matrilineal (binna) marriage which was widely practiced in the traditional villages, wives stay in their parents' house with the husband. This enables women to maintain their control over the shares to which they are entitled by bilateral inheritance laws. In the case of virilocal (diga) marriages in which wife has to move to her husband's house, women often rent out their shares to their kin who live in their villages and get some income. Thus, women in traditional villages can keep control over land. Even widows and separated women are able to look after themselves and their children since they have equal rights to property.

In contrast to traditional villages, in the settlement projects in the dry zone, including the Mahaweli settlements, land titles are granted to the heads of households. According to the Land Development Ordinance of 1935, the allotment can only be inherited by one heir in order to prevent fragmentation, mortgage or division among many heirs. This rule discriminates against women because, according to the patriarchal values prevalent in Sri Lanka, the heir is always a male. Thus the only women who were granted land in the settlements were widows and women who received land in lieu of property owned by their parents in reservoir areas. In the second generation, land ownership is transferred to the eldest son of the family, leaving all other family members landless. Although this measure prevents land fragmentation, it discriminates against women. In consequence, the majority of the women on the project area have no legal right to land. Their claim to land rests on their relationship with men. In case of divorce, separation or abandonment, they lose their right to land and thereby means of subsistence.

Women's exclusion from land ownership reduces their access to the means of production for three reasons. First, to obtain credits from formal institutions, one must

have land ownership, institutional credit often being tied to land as security. Women in the Mahaweli settlement are, therefore, deprived of institutional credit because of their lack of access to land rights. Second, cooperative societies always limit their membership to the heads of households who are landowners, hence settler women are unable to join the local co-operative societies from which the members get a wide range of benefits including credits. The survey results show that membership of co-operative societies is almost exclusively confined to men. Third, when extension and training programs are provided for settlers, only those who own land and are heads of households are invited, thus depriving women. Indeed, only 26% of the women interviewed in this study have taken part in training programs.

In traditional villages, apart from the lands that women inherited from their parents, they have the right to use the common property resources. They used to practice slash-and-burn cultivation (chena) in the village jungle which was considered as a common property. About 40% of the family income is derived from such cultivation and, as shown in Table 8, it was women who contributed a large share of labor for this cultivation. Everyone in the village, regardless of gender, has a right to the village jungle where the slash-and-burn cultivation is done. Therefore, women in traditional villages could earn some income and food for the family by slash-and-burn cultivation, whereas in the Mahaweli project area, since there is no common land for such a purpose, women do not have such an opportunity.

Table 8: Labor Use for Slash-and burn Cultivation in Traditional Villages

Activity	Male %	Female %
Land clearing	78	22
Burning	64	36
Land preparation	51	49
Sawing & planting	71	29
Protection (night)	100	00
Protection (day)	12	88
Weeding	78	22
Watering	91	09
Harvesting	81	19

Source: Field Survey, 1989

Animal husbandry, mainly of cattle and buffaloes, has been an integral part of the household economy of traditional villages. In all three traditional villages we have studied, 65%-87% of households were involved in cattle and buffalo keeping; in all cases, women claim ownership of animals and play a vital role in their care, deriving income and also milk for family consumption. They are able to keep one or two pairs of animals without much difficulty since adequate common lands have been available for feeding animals. By comparison, in the Mahaweli Project area, it is extremely difficult to keep livestock because communal lands for grazing are not allocated. Only 12% of the settler families interviewed had livestock. Settler women thus cannot get income from keeping livestock as their counterparts in the traditional villages do.

Cultivation of home gardens is also a good source of income for women in traditional villages, and a source of food for the family. They cultivate a wide range of perennial trees such as coconut, jak, lime, breadfruit, plantain, and some other seasonal crops. In these villages, the residential area (gangoda) is located just below the tank so that the ground water level is close to the surface, even in the dry season. This permits some crops which are not normally grown in the dry zone to be successfully cultivated in the home gardens under the ecological set-up of the traditional villages. But the home gardens in the Mahaweli Project area have no such easy access to ground water because there are no small irrigation tanks in each hamlet as in the traditional villages. Instead, irrigation water is provided by long canals coming from a large reservoir located elsewhere. It is, therefore, extremely difficult for the settler women to cultivate crops successfully in their home gardens. Furthermore, it seems little guidance and incentive are offered for homegardening and that the size of the home gardens given to the settlers is hardly sufficient for growing crops.

It is evident that modern agricultural inputs are heavily used by the farmers in the Mahaweli Project. As shown in Table 9, 69%-82% of the farmers among the settlers interviewed in Mahaweli use HYVs, chemical inputs, and tractors. Conversely, farmers in the traditional villages use much smaller amounts of modern inputs, and they depend heavily on locally available farm inputs. In contrast to the farming system in traditional villages, which is dependent almost exclusively upon locally available resources, the farming system in the Mahaweli Project area requires a sizeable amount of capital investment, but access to capital in the Mahaweli project area, as already pointed out, is almost confined to men. Settler women are not in a position to gain full benefits from the

modern agricultural inputs. In consequence, application of modern inputs and modern cultural practices is minimal in the case of home gardening, slash-and-burn agriculture, and animal husbandry which are mainly done by women. Its ultimate result is the lower productivity of women's labor, and thereby a lower income.

Table 9: Use of Modern Cultivation Practices by Mahaweli Settlers and Traditional Villagers

Item	Mahaweli Settlers %	Traditional Villagers %
Tractors	69	18
HYVs	82	43
Chemical fertilizers	63	27
Pesticides	71	31
Weedicides	74	29

Source: Field Survey, 1989

It is apparent that training programs and extension services which are provided by the Mahaweli Project to promote labor productivity and income give few benefits to women. Their participation in the training programs and workshops is extremely low when compared to men's. Table 10 lists reasons given by the women for their poor participation in the training programs and workshops organized by the Mahaweli Project. Most report that they cannot find sufficient free time to attend because of heavy domestic work load, including child care. Some women also consider training programs as

inappropriate. Some training programs directed towards women have been criticized for their low relevance. For instance, 'Home Development Centers' which were established to train women were criticized because they are based on social policies which see women as 'housewives', while economic policies are directed towards men (Jayaweera, 1985). Such programs only succeed in preserving the subordinate role of women as housewives and keeping them away from the mainstream of development.

Table 10: Reasons For Not Participating in Training Programs

Reasons	Percentage
Lack of time	37
Husband's disapproval	12
Child care & domestic chores	33
Lack of transport facilities	21
Inappropriate training	18

Source: Field Survey, 1989

It has also been found that the settler women derive very little benefit from the extension services provided by the Mahaweli Project. Though women contribute considerably to agricultural production, extension services are directed to the men. Most of the extension officers are males, and when they visit houses, only the males come forward to talk to them. It is also said that the extension officers give higher priority to the activities which are mainly performed by men, for example, paddy cultivation. All this

evidence suggests that the new technology is hardly available to the settler women. When new technology is not available to women, their productivity in comparison to that of men declines. This means that not only is there a widening gap between the productivity levels of men and women, but that females become more economically dependant on males (Staudt, 1978).

WOMEN'S PARTICIPATION IN DECISION MAKING AND COMMUNITY ACTIVITIES

It is the mother's responsibility to ensure family welfare and the standard of living. She can fulfil this responsibility only if she has control over family earnings and expenditure. Her participation in decision making about farm activities and the family budget is thus very important. This section examines women's participation in decision making about farm activities and the family budget with a view to identifying the adverse impact of the settlement planning policies on women's participation in decision making.

In the traditional villages, women have certain control and influence over family-level decision making, particularly about the family budget, farm production, and marketing, as they have ownership right to land and other locally available production resources. As is shown in Table 11, women in traditional villages have considerable control over decision making about farm activities pertaining to slash-and-burn cultivation and home gardening. They have strong control over selection of crops and marketing. In both cases, 58%-61% of respondents said that mainly women decide what crops to cultivate and at what price their products should be sold. In the case of selecting cultivation practices, they often consult their husbands who are knowledgeable about technology, but they mainly use production inputs which are locally available, and which they can obtain independently. Since they use locally available resources and traditional

technology, women can continue their production without the support of the credit, training, and extension services which are normally directed to men. Women's control over decision making about the selection of crops and marketing is very important because it enhances their capacity to fulfil their responsibility as mothers and housewives. They can cultivate the crops which they think necessary to feed their family. They sell the excess at the weekly fair (pola), and purchase the needs for the family. They also store non-perishable products, e.g. finger millet, that they produce on slash-and-burn cultivation land to be used during the off season. Women use their stocks as a 'savings bank' and every time they need money, they sell their stock in small quantities. It seems that women's control of the returns of their labor is important for maintaining the family's quality of living.

Table 11: Decision Making About Farm Activities in Slash-and-Burn Cultivation and Home Gardening

	Farm Activity		
	Selection of Crops %	Cultivation Practices %	Marketing %
Wife alone	34	22	37
Wife dominant	27	17	21
Husband dominant	13	31	08
Husband alone	08	13	05
Both equally	18	17	29

Source: Field Survey, 1989

By contrast, women's control over decision making about farm activities in paddy cultivation is comparatively poor. Male dominance is noticeable in all activities. For instance, in 51%-73% of households, males dominate the decision making about the selection of cultivation practices, labor recruitment, and marketing. But there are some exceptions. For instance, women who moved to the husband's village after the marriage still maintained rights to the paddy fields in their native villages that they got from their parents. They get their shares in kind. So, in such cases, they make decisions about marketing the share of paddy that they receive from tenants.

Since women in the Mahaweli project area have no ownership rights to land, and no access to other production inputs, extension services, and the market, they have little influence on decision making regarding production and marketing. As heads of household, men have the legitimate control over all these matters. In the case of paddy cultivation, it has been found that in 78%-81% of households interviewed men dominate decision making about selection of cultivation practices, labor recruitment, and marketing. When compared with the situation in traditional villages, it seems that the women in the former enjoy a little better position than those in the Mahaweli settlements.

With regard to the women's control over decision making about activities relating to home gardening and cultivation of upland crops on paddy fields in Yala season, it is evident that, in contrast to the traditional villages, men exert a firm control over the selection of crops, cultivation practices, and marketing. As is shown in Table 12, settler women's control on these matters is less than that of their counterparts in traditional villages. This difference can be explained in the following terms: (1) While women are more interested in cultivating food crops, men are interested in cultivating cash crops.

Table 12: Decision Making About Farm Activities in Home Gardening and Cultivation of Upland Crops in Paddy Fields in the Mahaweli Project

	Farm Activity		
	Selection of crops %	Cultivation practices %	Marketing %
Wife alone	09	00	10
Wife dominant	13	07	07
Husband alone	37	42	39
Husband dominant	33	37	42
Both equally	08	14	02

Source: Field Survey, 1989

However, the economy of the Mahaweli Project is highly commercialized, and therefore even with reluctance, wives have to agree with husbands to cultivate cash crops. (2) The knowledge of modern technology which is necessary for the cultivation of newly introduced cash crops is given to the men through extension services and training programs, so that in contrast to the women in traditional villages, the settler women have to depend on men for technology. (3) Most of the final products of the cash crop cultivation are sold to the purchasing outlets of the Marketing Department, Co-operatives, and other formal purchasing centers. It is men, as heads of households, who deal with these institutionalized purchasing points. It is also evident that men often sell all excess products, without stocking for future needs. Some of the new farm products, unlike finger millet, cannot be kept stored for long, the whole stock is sold at once for cash which is subsequently controlled by men.

One study that observed household decision making about farm activities and allocation of surplus in relation to class structure points out that women's participation in decision making tends to decline as family income and social status rise (Rajapakse, 1989). Among rich peasant households, agricultural decisions appear to be made by the husband, and allocation of agricultural surplus is also restricted to male household members. Since middle peasant women tend to be more involved in agriculture than the rich, agricultural decision making is not done solely by the husband, although the ultimate responsibility is his. Conversely, in poor peasant households, there is little agricultural surplus to be controlled and no major decisions to be made. Further, the decisions to sell one's labor, including the methods of spending one's wage rests with the individuals concerned. The husband cannot hope to dictate whether or not the wife works -- both he and she must sell their labor power to survive.

Among the Mahaweli households interviewed, men control all the domestic financial transactions in 68% of the families, and all family earnings, including the returns of their wives' labor. Male control over the family budget is shown in Table 13. It reveals that decision making about purchasing farm inputs, purchasing of durables, and expenses on social functions are male dominated. In 60%-71% of households, decisions on these matters were made by either husbands alone or by both, but dominated by husbands. In comparison, women's role is noticeable in the purchasing of food items, clothes, and for health-related expenses. Informal discussions, however, indicate that men indirectly dominate decision making about these items by controlling the allocation of money. Since men keep all family earnings in their hands, women have to depend on them for purchasing food, clothes, and all other items which are essential for very survival of the family.

Table 13: Decision Making About the Family Budget in Mahaweli Households

Expenses on	Women alone %	Women dominant %	Men alone %	Men dominant %	Both equally %
Farm inputs	12	15	39	27	07
Food items	41	29	07	09	14
Clothes	22	31	14	10	13
Medicine, etc.	33	20	19	22	06
Social occasions	13	16	29	15	27

Source: Field Survey, 1989

Women in traditional villages have comparatively higher control over the family budget. As is indicated in Table 14, women's control over decision making about purchasing food items, clothes, and health expenses in traditional villages is very much greater than that in Mahaweli Project area. It seems that women in traditional villages participate even in making decisions about purchasing farm inputs which is highly dominated by men in Mahaweli Project area. The fact that they have equal ownership right to land and all other production inputs may be one reason for women's higher control. Since women sell their surplus products in the weekly fair themselves, they get cash into their hands, and therefore, are in a position to purchase whatever they want for the family. The survey responses indicate that 62% of housewives in traditional villages keep a share of their family income compared to only 31% of settler women in Mahaweli. In the majority of households in the Mahaweli Project husbands keep all the family earnings. Only 21% of Mahaweli households had bank accounts, and all these accounts were in the name of husbands.

Table 14: Decision Making on Family Budget in Traditional Villages

Expenses on	Women alone %	Women dominant %	Men alone %	Men dominant %	Both equally %
Farm inputs	23	13	34	18	12
Food items	41	18	09	11	21
Clothes	33	24	11	14	18
Medicine, etc.	39	18	09	16	18
Social occasions	18	12	22	10	38

Source: Field Survey, 1989

If development planning is not to be biased against women, planners should start the planning process by identifying women's specific needs and problems. Women, however, also need to participate actively in community organizations and make their voice stronger. By active participation in development oriented organizations, they can communicate their specific needs and problems to the policy makers and planners. Such active community participation would help them to identify themselves as a separate target group, and to have their needs accommodated by planners. This activity is particularly important in the planned settlements where the whole socioeconomic set-up is formed by planning.

In the Mahaweli project area the survey data reveals that women's participation is low in community organizations concerned with economic development such as co-operative societies, credit societies, and agricultural societies. Among the women interviewed, only 8% and 12% hold the membership of the credit societies and co-

operative societies respectively, and none of them hold any responsible position in those societies. By contrast, most of the women hold membership in welfare and religious societies, and 53% of the women being members of the death donation society and 61% of the local women's associations.

Table 15 shows the reasons given by the settler women for their poor participation in community organizations. Most are aware of the importance of these organizations, but their participation is poor for a variety of reasons. Though the development oriented organizations generally are open to both male and female members, normally only one person from each household can obtain membership. As the heads of households, it is men who get the membership. Most of the women think that it is not necessary for them to join since their husbands will represent their family. As can be noticed in Table 15, 35% of the women hold this opinion. Their heavy household work load is another constraint. The women in the project area have very limited ability to leave their children in another's care. Since the housewife is the only adult female in the home, and has no one to help her, she has to attend to all the traditional household tasks plus child care. Consequently, women's mobility is restricted, inhibiting their community participation. Distance from the meeting places and their husbands' disapproval are other factors which prevent the settler women from participating in the community organizations.

Table 15: Reasons for Poor Community Participation by Settler Women

Reason	Percentage
Husband's participation	35
Lack of time	21
Too far	15
Domestic workload	22
Husband's disapproval	07
Useless	00

Source: Field Survey, 1989

In the traditional villages studied, such formal organizations are nonexistent, but the women participate in a wide range of community activities in an informal way. For instance, although a death donation society does not exist, women act cooperatively on such occasions. There is no organized co-operative society, but co-operation can be seen in all occasions. In traditional villages, women are more free to move and to communicate than their counterparts in the Mahaweli project area, mainly because of the widespread kinship network in the village, the co-operation among the women, and the egalitarian nature of the traditional society. As they live among their close kin, they feel safe to move freely within the community. For farm operations such as weeding and harvesting, women form labor teams and work together; they also go out to fetch water and firewood as teams. These occasions are ideal opportunities to enjoy company, gather information, and exchange ideas. They need not depend solely on their husbands for information.

In contrast to the women in traditional villages, women in the Mahaweli Project area who live among outsiders cannot enjoy such a freedom in social relations. Attempts have been made to settle families arriving from the same district or the same village in the same location within the project. But the situation prevailing in the project settlements is quite different from the extended family network of the traditional villages. Some settlements of the project area are mixed according to caste. Another study has pointed out that 'several women claimed that this mixture was one reason why they disliked leaving their homesteads. One woman said her neighbors were not suitable for social interaction because they belonged to a low caste' (Lund, 1989). Thus, they have neither close kin in the neighborhood, nor friends. Instead of the trust and intimacy found among the women in the traditional villages, the women in the project area suspect and distrust other women. In contrast to the co-operation prevailing among the women in traditional villages, the isolation of each nuclear family in the project leads settlements to competition.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Conventional economic development theory assumed that prosperity in one sector, or in one class, would spread gradually to all others, so that the benefits of development would reach to all classes and social groups. In settlement planning too, it was assumed that all social groups could enjoy the benefits; it was also expected that benefits of settlement planning would reach to men and women equally. Women, the most disadvantaged category among the disadvantaged social groups, have not been considered as a separate target group. Women's role as wives, child bearers, homemakers, mothers, and farmers have not been taken into account in planning. The family

was considered as a unit without considering its internal gender difference and gender roles. As a consequence, development planning has adversely affected women in rural areas.

This study documents the adverse impact of development planning on rural women in a major development project in Sri Lanka: Mahaweli Development Project. The status of women in the Nochchiyagama Block of the System H of Mahaweli was compared with that in three selected traditional villages outside the project with a view to identifying the impact of current development planning on rural women. It was found that women's status in the planned settlements was much inferior to that in the traditional villages in terms of the burden of their household work load, their access to income generating activities, and their participation in community and development activities.

Women in planned settlements worked much harder than their counterparts in the traditional villages because they had to perform many new tasks and responsibilities in addition to the traditional ones. At the same time, women in the planned settlements were deprived of the help that their counterparts in the traditional villages received from family members and close kin. In the traditional villages, the extended family system and the compound housing units made it easier for women to get some support from kin who lived nearby. Such help was virtually nonexistent in the planned settlements where imposition of the nuclear family system caused housewives to be rather isolated.

Many income generating opportunities that are available to rural women in traditional villages, i.e. slash-and-burn cultivation, livestock husbandry, rural craft, rural manufacturing and rural trade, are not available in the planned settlements. Further, some advanced technology introduced into the production system of the planned

settlements has imposed negative effects on women's traditional income generating opportunities. Women's participation in community and development activities has been found to be lower than that of men. Although the cultural uniformity and the widespread kinship network prevailing in the traditional village facilitated the rural women's community participation, it was constrained in the planned settlements by the social diversity stemming from caste differences and different places of origin. Also because of their heavy household work load, women could not find any spare time to participate in community activities. As heads of households, men participated in most of the development oriented community organizations. Unless development planners pay due attention to gender differences and consider women's needs and burdens, development will not benefit women and men equally.

Women are the focal point of family welfare. They not only provide basic needs to sustain life, but also transform and deliver them to the point of final consumption. Therefore, any adverse impact on their status adversely affect the quality of life of the family. In traditional villages, since women have certain control over the family earnings and returns on the labor they expend in slash-and-burn cultivation, home gardening, and livestock, they are in a position to feed the family with their own products with only limited support from their husbands. Women also collect a wide range of food items from the common property resources available in the traditional villages such as the village forest, irrigation tank, and other common lands. In the Mahaweli Project area, men as the head of household, and the owner of all production inputs, have the authority to control all the family earnings, including the returns of women's labor. In consequence, a lower proportion of the family income is allocated to provide basic needs for the family. It is

said the husbands spend too much money on luxury articles, alcohol, tobacco and gambling. In contrast to the traditional villages, common property resources from which women could derive various items to meet basic needs of the family are nonexistent in the Mahaweli settlements. In this situation, the women in the project area are not in a position to feed their families as their counterparts in traditional villages do.

It has also been found that women's inability to grow their own food crops in the new settlements is contributing to food shortages. In the project area, irrigable allotments were allocated for paddy and other cash crops, and they are controlled by men. The 0.2 ha compound provided around the home was hardly big enough for a latrine and few fruit trees. Bad soil and the improper location of home garden plots further aggravated the fertility of this land. In some cases, most fertile parts of the home gardens are allocated by men for the cultivation of cash crops. Though women in traditional villages could collect various edible items such as wild fruits, leaves, and yams from common property resources such as communal lands and from the village jungle, and edible aquatic plants from the village tank, in the absence of such communal lands, a jungle, or a tank in the Mahaweli settlements, women are unable to collect such items.

The traditional diet of the villages has been finger millet, rice, various other grains and pulses, vegetable and wild leaves, fruits, tank-fish (weu malu) and fish from paddy fields (wel malu), salted fish, fruits and milk. The greater share of these food items are provided by women. When women have a firm control over decision making about the selection of crops and the return of their own labor, they can feed the family with all their products. Conversely, when women have no such a control, they are unable to satisfy the basic needs of the family. It has already been pointed out that the nutritional status

in the Mahaweli Project area has deteriorated. Ten years after the commencement of the project, the highest percentage of chronic undernourishment in Sri Lanka was recorded in the Mahaweli H zone. A study conducted by the Ministry of Plan Implementation in 1980 in this area showed the very high rate of malnutrition of 19.6% among preschool children, much higher than the national average of 6.6%.

Furthermore, the food shortage adversely affects the women because, according to a widely accepted tradition in the traditional society in Sri Lanka, housewives take food after serving the husband and all other male family members. Thus, very often men get the best food and the biggest share, leaving the housewives undernourished. The resulting undernutrition among mothers adversely affects other family members too. In the case of pregnant women and nursing mothers, their undernutrition badly affects the babies, the next generation. Furthermore, if a mother falls ill frequently, she fails to work in the field when her labor is badly needed and also fails to feed her family members. All these circumstances hurt family welfare and the quality of life. It has been pointed out that 'such harsh work profiles of women, who are frequently nursing mothers or pregnant, go a long way to explain why women's life expectancy in some areas, such as parts of southern Asia, is less than men's, whereas in the developed countries it generally exceeds men's by several years' (Palmer, 1979).

Women play a very important role in agricultural production, including food processing, preservation, and food preparation. For all these activities, they still use primitive and less productive methods. Consequently, the productivity of their labor is lower than that of men who often use modern technology. As has already been mentioned, most of the training programs and extension services being provided by the

Mahaweli Project are directed to men. Men's major labor intensive farm activities relating to paddy cultivation such as ploughing, application of agrochemicals, and threshing have already been mechanized whereas women still do their laborious farm work such as transplanting, weeding, harvesting, husking and cleaning manually, relying on primitive methods which they have been using over hundreds of years. So they work longer hours than men, but their labor productivity is lower than men's. In the household too, they still use laborious methods for their duties such as cooking, washing, cleaning, sweeping and so on. Women's labor productivity, therefore, continues to be low. This is undesirable not only for women themselves, but also for the total economy, because the low labor productivity of women who represent more than half of the settler population is a serious constraint to the development. Projects fail to achieve their objectives because of the low labor productivity of women.

In the light of the findings of the present study, the following measures are recommended in order to promote the status of women in the Mahaweli Development Project.

(1) To ease the work load of the settler women:

1. Appropriate technology should be introduced to relieve the domestic work load of women. This technology should be appropriate for productive as well as non-productive work. Such technology would reduce the time that the women spend for domestic work and also increase their labor productivity.
2. Training programs on women-specific appropriate technology should be provided at appropriate times and places so that women can participate. Such training programs should aim to promote women's labor productivity.

3. Appropriate measures should be taken to persuade men to share women's work load during the crucial periods. They should be made aware of the fact that such assistance would benefit not only women but also the whole family.
 4. Child-Care-Centers should be re-organized so that they contribute to easing the women's work load. Such re-organization should involve proper training for the CCC attendants, efficient transport service to and from the CCC, and longer opening hours.
 5. Women's groups should be organized in order to promote a system of reciprocal exchange labor among the settler women. Such groups could contribute to reducing the women's work load during the peak period and promote mutual understanding.
 6. Electricity and water supply for settler families would undoubtedly relieve the settler women's work load. More efficient and low-cost appropriate kitchen equipment should be introduced simultaneously so the women can make use of electricity.
- (2) To promote the settler women's access to income generating activities and to enable them to satisfy their family's basic needs:
1. Information on talents and skills that women have gained from former generations should be studied, and measures should be taken to make use of their skills and talents for income-generating activities.
 2. Small-scale livestock husbandry which could be done within the domestic sphere should be promoted for the benefit of the settler women. Raising cattle and poultry and bee keeping may be appropriate for women since they could be

undertaken while the women attend to other domestic work.

3. Training programs on such income-generating activities should be provided for women. It is better to employ female instructors for such training programs, and they should be provided during the off season.

4. As an experiment it would be a good idea to establish women's collectives or cooperative farms where they can grow their own crops without the interference of their husbands. Such a step would enable them to grow food crops.

5. Measures should be taken to enable the settler women to obtain credit for their own initiatives. Since the settler women have no land rights, there should be an alternative method for security of loans.

(3) To promote the settler women's participation in community and development activities:

1. Development oriented organizations which are open only for women should be formed. Since the present organizations are open to both men and women, as heads of households men participate in them to represent the family. Therefore, there should be such specific organizations only for women.

2. In addition to free time, education is also crucial in promoting the people's participation in development. Since the settler women's level of education is lower than men's, it is necessary to take steps to initiate adult education programs for women.

3. Religious and cultural ceremonies should be organized at appropriate times as they are in traditional villages. Such ceremonies would contribute to promoting friendship, mutual understanding, peace, and harmony among the settler women.

4. Seminars and workshops should be organized for planners, administrators, and other bureaucrats in order to persuade them of the need to integrate women into development, because many officials are not aware of the need to integrate women's needs into the development process.

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