

### **Abstract**

This paper looks at women in landowning households in Chingleput District of Tamil Nadu, India, one of the main traditional rice-producing regions of the state. Also, occasional references are made to other parts of the state and to other states. It discusses: (1) what constitutes a farm family; (2) the general nature of the sexual division of labor in agriculture; (3) the constraints to production and marketing activities which female land owners face (and even females who manage land belonging to their husbands or sons); (4) the effect on the sexual division of labor and on management activities of caste, size of land holding, and family structure; and (5) ways in which innovations in extension might be useful for these households, especially those that could improve the income available to women.

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## **South Indian Female Cultivators and Agricultural Laborers: Who Are They and What Do They Do?**

by

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## SOUTH INDIAN FEMALE CULTIVATORS AND AGRICULTURAL LABORERS: WHO ARE THEY AND WHAT DO THEY DO?

This paper<sup>1</sup> looks at women in landowning households in Chingleput District of Tamil Nadu, India, one of the main traditional rice-producing regions of the state (see appendix for background) though occasional references will be made to other rice regions in Tamil Nadu where I have worked, as well as to Kerala and West Bengal. First, I discuss the question of what we mean when we talk about a "farm household" in the context of a highly stratified society, with a wide range in farm size and a sizable landless laborer population. This is not merely an academic question, because unfounded assumptions by Indian planners about what constitutes a farm household continue to influence extension policy.

The remainder of the paper deals with the following questions: (1) What is the general nature of the sexual division of labor in agriculture? (2) What constraints to production and marketing activities exist when females either own the land or are the main managers? How do they cope, and what alternatives are available to them? (3) How are the answers to these questions affected by factors such as caste, size of holding, and family structures? (4) How might innovations in extension affect women?

The answers to these questions are complex, so I am limited to sketching out some of the main factors that have to be taken into consideration in formulating answers. Furthermore, these questions cannot be answered in isolation from each other, and thus my comments on them will be interwoven throughout the paper.

### The Household in Rice Cultivation

What is a "farm family" in the context of Indian rice farming? Three salient points need to be made about Tamil Nadu in general, and Chingleput District in particular, before trying to answer this question. (1) Despite the Hindu ideal of joint family living, the less land a household owns, the less likely it is to have more than one married male living in the household. (A household here is defined as a group of related people who share common cooking arrangements, live in the same or adjacent structures, and have independent living arrangements vis-a-vis other households.) Thus in 1961 in Chingleput District, among those with less than one acre, approximately 15 percent of the households had more than one married couple (either a married son or brother), whereas among those with at least 10 acres more than 40 percent of the households had at least one additional married couple.<sup>2</sup> Furthermore, there seems to have been a steady decrease among the landed in the number of people in each household between 1871 and 1961. (2) In a significant number of farm households one or more males are actively engaged in non-agricultural activity, and this number has been increasing since the turn of the century. (3) A major percentage of labor in the fields (even in those districts where the Farm Management Studies of the 50s were carried out) has always been done by hired laborers, both male and female. (For more details about Chingleput District, see Mencher 1978 and Appendix A.)

The traditional rice-producing states and districts of India have always had the densest populations on the sub-continent. This is no accident, because rice, which produces greater yields per acre than any other grain crop, can feed more people. In addition, these regions have also been the most highly stratified: from the earliest times they were characterized by a minimum of three tiers, including (1) landless or semi-landless workers who belonged to either untouchable castes or tribal groups, (2) a middle rung of low and middle-ranking communities whose members either cultivated as tenants of larger and/or higher ranking landowners, or worked as managers directly under the landowner, and (3) the landowners themselves, who had holdings of varying sizes but shared the characteristic of not working physically on their land (though some did supervise in the fields, and males of some castes, participated in plowing for the few days per year when this work was required).

The "self-sufficient farm family," which owns and works the land primarily with family labor, hardly exists in the rice regions of India. Rice cultivation needs large numbers of landless laborers during the short intensive periods of work activity. The Indian pattern has always been to use attached or hired labor for these tasks. Even small landholders normally employed others for tasks such as transplanting even though their wives might go and work for others the following day. In a study comparing the 1961 and the 1971 censuses, Ramachandran noted that the proportion of agricultural laborers to the total work force had not only increased throughout the state, but had done so particularly in districts which were below the state average in 1961. In those taluka (administrative subdivisions smaller than a district) which had significant tubewell-irrigation, the percentages of agricultural laborers in the working population increased by an average of 94.72 percent during the decade (Ramachandran 1980:153). Thus the introduction of new irrigation resulted in a massive increase in rice production, leading to an immediate increase in the reliance on hired labor.<sup>3</sup>

#### Female Participation in Agriculture and Related Activities

I have discussed elsewhere the question of family farm labor in Tamil Nadu (Mencher 1978), and have pointed out that actually most of the manual work in rice cultivation—even on the smallest farms—is carried out by wage labor, both male and female. The types of work women do depend on the social class to which they belong. Among the landless there is work both in the field—helping with sowing, trampling the dirt as it is being leveled, transplanting, weeding, harvesting, and so on, and helping in the house or compound of the employer to get seeds ready for sowing, and after the harvest in threshing, winnowing, dehusking, and polishing the paddy, and transporting it to mills—though women participate in activities which differ by region, caste, or community (see Mencher 1974a, 1974b), by training, by age and health, and so forth (see Mencher and Saradmoni 1982). Among the small landowning households as well as the tenant households, women (especially if they are not of high caste) work on their own lands, sometimes work for others, and also are involved with the purchase of inputs, preparing of food for laborers, frequently supervising field operations, and taking care of all sorts of small tasks that come up in their own or their neighbors' households.

Among the larger landowning households women do not do manual work in the fields, but according to our data at least some women (including those with husbands of working age who live in the village) do take a very major role in supervision of field operations. Furthermore, throughout Tamil Nadu, in every village where I have worked I found among both small and large landowning households a number of female-headed households where the women in charge take the major responsibility for farm management (even if they have grown sons). The proportion of female-headed households varies greatly from village to village, even within the same taluk. What can be said without question is that they exist in all villages and for some in sizable numbers; furthermore, many of them occur among the more innovative, enterprising farming households.

As noted above even the smallest landowning households in Tamil Nadu employ outside help for at least some operations (Mencher 1978:203). Thus for farms with holdings between 0.1 and 1.0 acres, 87 percent use hired help to assist with plowing, 81 percent employ women to transplant, 81 percent employ women to weed, and 93 percent employ men and women for harvesting (Mencher 1978:203). This is not to say that the household members do not work on their own land, but it does mean that agriculture is not carried out by single isolated "farm families." Yet many planners speak about farming families as if the household were an isolate, or as if dependence on wage labor affected only an insignificant percentage of agriculturalists.

In Tamil Nadu women do a great deal of the manual work in the cultivation of rice and other related crops. While plowing and other activities that use draft animals are normally done by males (see Mencher 1987), these activities account for only a very small amount of the time spent on agriculture or related work, and there are very few other activities associated with paddy cultivation or related crops that are not done by women in at least some districts. In Chingleput District women participate in a wide variety of activities. It is easier to delineate the activities in which they do not participate than to list all that they do. Apart from work with bullocks, they are excluded from: (1) climbing trees, (2) most operations involving irrigation in the fields (though these women may use a water lift to water vegetables grown in a household garden around their compound), (3) applying chemical fertilizers (though they do apply natural manures), (4) digging for bund construction, (though they sometimes dig in their own kitchen gardens), (5) applying pesticides (interestingly, this restriction is not for the women's protection, since in any case they are exposed to pesticides regularly when weeding and transplanting; rather, it is because most males do not feel that women should be trusted with such costly supplies, and (6) driving and repairing tractors and other machines. As I have discussed elsewhere, when an activity is done by women it is considered easy work, but when the same activity is done by men, it is regarded as hard work (Mencher 1987).

In Tamil Nadu as well as elsewhere, census materials have tended to under-report the involvement of women in agriculture. Several factors are involved in this, including the fact that most of the rural enumerators are males, who mainly talk to male members of households; also, the census is usually taken at a time in the year when there is relatively little agricultural activity. In examining the 1971 District Census Handbooks for Chingleput District, I found that for some villages the reporting is quite accurate on the number of female agricultural laborers, but for many others either none is reported or some very small number is recorded. Some of these villages in which few or no

female laborers are reported include villages within our sample for which we have documented details from women about their work, as well as photographs of them working (Mencher 1978:223).

On the basis of my survey I estimated that in this one district alone there were close to 100,000 more women agricultural laborers than reported, or that the ratio of female to male agricultural laborers was actually about 208 women for every 222 men, or .94, as opposed to the reported .48 (108 women for 222 men). The provisional 1981 census seems closer to reality (or our estimates) in that the ratio reported is .80, or 182 women for every 228 men, though even here it is likely that many women may have been missed by the census takers.

When it comes to cultivators the census is even more inaccurate. There are many confusions in the census figures for females who are cultivators, and this figure has not been corrected in the 1981 census. One problem is that the category of "cultivator" is poorly defined. Thus, most of the women listed as cultivators are living in households without adult males, that is, widows or women whose husbands live away for most of the year (where men are migrant wage earners away from the village, returning only for occasional visits). But many women in Tamil Nadu, West Bengal, and Kerala play a significant role in agriculture even when they are not working in the fields (for examples from Kerala, see Mencher and D'Amico 1986). Males in the rice regions (in Tamil Nadu and elsewhere) rarely hesitate to turn more and more agricultural supervision over to their wives, if they have something else they would prefer to do. On the other hand, when questioned by a census taker, the male "head of household" would certainly claim to be the cultivator.

As noted above, in all of these states among the middle and upper classes, especially those households belonging to upper castes or high-ranking communities (such as the Mudaliars), while some agricultural management was often carried out by household members, the actual physical work was done mainly by agricultural laborers. Apart from plowing (usually with teams of hired males), the only other activities in which the male landowners participated involved supervision, which could be carried out while holding an umbrella (as protection against the sun or rain) and wearing clean white clothes. Some landowning women, especially those belonging to lower castes and untouchable or tribal groups, also worked in their own fields along with their hired laborers. Nevertheless, in South Asia as a whole, white collar or supervisory or managerial ability has always been regarded as superior to manual skills.

Most of the better-off households had land in a number of plots in different places. This was not just the result of complex inheritance patterns or the way land was purchased, but in many instances it represented rational decisions about diversifying the type of land owned, about staggering timing of water release (when the land was watered from canals or lakes), or about the types of crops that could be grown. Often the wife would be the supervisor at one site and the husband at another. In addition, many men of the upper classes or even the middle classes were not primarily interested in agriculture. They lived off their land, or at least had it as a reserve economic base, but they pursued other interests. For Brahman men, and even for some of the other high castes, the temple was often the main focus of interest. In addition, men traditionally were involved in warfare, village

management, or local politics. During the past century, men's options have increased enormously. With education, many landed men entered a wide range of professions, took government jobs, went into teaching, or started businesses (from small general stores to rice mills, bus lines, brick factories, cycle shops, and so on), or became itinerant traders. While young wives were not expected to go out and do all of the managerial things a husband might do, a woman of 35 or so could begin to do more and more in many of these households (especially those that chose not to employ a male supervisor). In addition, there are numerous women whose husbands are too ill to work and who have no adult sons. Such households are not rare, given the traditional practice of marrying women to men at least five to ten years older than themselves--often as much as 20 or 25 years older.

Are landowning women doing more agriculture-related work in these regions today than in the past? It is not possible to give a simple answer to this question. With more alternatives open to males, some of them are handing over more and more responsibility to their wives or mothers. In addition, partly because of population increase, partly because of the shift from subsistence agriculture to landlord-managed capitalist farming, many women whose parents once belonged to small landowning or tenant households are now landless, and many who were in medium-sized landowning households are now in much smaller ones. Some of these women, whose mothers did not work in the fields, are now forced to do so. The increasing costs of agriculture resulting from the need to buy pesticides, fertilizers, and sometimes seed, as well as having to invest in equipment such as pump-sets, have also created a situation where more women must actually work in the fields. On the other hand, we also know that even in the past, many women did supervise agriculture, though perhaps fewer women belonging to higher castes did any manual work in the fields.

Some idea of the activities of landowning women can be obtained from their diary excerpts. The diary excerpts which follow are taken from those kept by a number of landowning women as part of the data collected in a recent project carried out in Tamil Nadu, Kerala, and West Bengal (see Note 1). The examples include women both with and without husbands involved in agriculture.

Dairy 1: Selvasundaram, widow (2 sons, both employed outside the village). She herself owns 1.70 acres of paddy land and 50 cents (one-half acre) of garden land. (During the year prior to our study she had also taken 2 acres on lease from a relative, but she claimed that he had cheated her so in the year of our study she was back to cultivating her 1.70 acres). During transplanting and weeding she used to go to the field and supervise the workers, but now she will not go to the market to sell the produce. That must be done by one of her sons. Also, he and one of the workers go to the market or the Block cooperative society for purchasing inputs. She both works in the fields and supervises agricultural work. If she wants any suggestions she consults her husband's brother. However, when asked about her use of fertilizers and pesticides she replied forcefully: "I am having a radio. I will listen to the farm news and from that I will tell my son what sort of fertilizers we should use and what kind of pesticides to buy." She says that if it is hot when the harvesting is going on, she will use an umbrella and sit and supervise the workers.

25 August 1979: This morning I went to the field. Fourteen persons had come for harvest. I also participated along with them. At noon

my husband came to the field and I left for the threshing floor. The laborers had gone for lunch. They came back by 3 P.M. and brought the bundles of harvested crop to the threshing floor. I then asked the laborers to come the next day to harvest the rest of the 1.50 acres of land.

26 August 1979: Today harvesting could only be done in one acre. Thirty-one persons had come for the work. My husband did not attend school today, and therefore I also could not go to the field. I was at the threshing floor only. In the afternoon the laborers brought the bundles of harvested crop and seven persons were engaged in threshing the crop that was harvested the previous day. They also arranged the hay in large heaps. Today's bundles were stored and sealed.

4 September 1979: This morning went to the field and took a round. Six plows were present, until 11 A.M. plowing went on. I was also there till the end. I watered the land and checked whether any holes were there leading to subterranean streams and found some. After plugging them came back home.

5 September 1979: Went to the field again today. Six plows were present and at work. But I found that some of the plowmen were not very serious in their work. They were not holding the plow tightly and thus the plowing was not deep enough. I gave them necessary instructions to be effective in their work. Then I irrigated the fields and returned home.

16 September 1979: Went to the field this morning and looked around. Seven plows were busy in tilling the land. One plow was engaged in harrowing the ploughed area. One man was engaged in applying pieces of oil-cakes. The same person then became busy in untying the bundles of seedlings and distributing them to the people involved in transportation. Four bags of oil cakes and one bag of complex manure were applied. Twenty-five female laborers did the job of transplantation. One more acre of land was transplanted with seedlings today. Eight hundred bundles of seedlings were plucked.

1 October 1979: Went to the field and watered it. Cut the grass for the oxen. Plugged a few holes found in some places. After returning home soaked 150 kilos of paddy for sale.

2 October 1979: Went to the field, again irrigated it, cut the grass and came home. Boiled the soaked paddy. Again soaked 150 kilos of paddy today. [This paddy after drying, will be sold in the market as food.]

29 November 1979: [This entry is two months later than the proceeding one. The paddy mentioned here is meant to be used as seeds.] Went to the field, applied water, cut the grass and brought home. Dried the paddy seeds. Asked my husband to purchase a chemical called "Agaram" which is mixed with water in which the seeds are soaked. This chemical helps in the germination of the seeds.

Diary 2. Jagadeswari, wife of K. Mudaliar, is a high caste landowner with 4 acres of land (no other adults in household).

18 February 1979: This morning I went to the field and found the rice plants pale. I thought of applying urea. I also thought of harvesting the field. I spoke to my husband and he agreed that urea must be applied and also insecticides. Only in this way would the plants gain their natural look. He insisted that it be done immediately. I made arrangements with the laborers to buy the urea and pesticide.

24 February 1979: This morning reached the field and waited for the arrival of the laborers. When they reported, asked them to continue the harvest. I also joined hands with them. After the harvesting the crop was bundled up. The bundles were brought to the threshing floor. I guarded them until the arrival of my husband and then returned home.

6 March 1979: Went to the field this morning and watched the plows in operation. Asked the workers to plow the land deep and without leaving any gap. Also asked the helpers who were spading the mud to do their job in a fitting way. Told them to scatter the green leaves on the mud. Then came to the threshing floor and engaged myself in drying up the paddy grains with the help of the laborers.

Dairy 3. Lakshmi, wife of Ezhumalai Naicker. Lakshmi is 41 and her husband 43. Their 20-year-old son has graduated from high school, their 18-year-old completed the 9th grade, and the others are still studying in school. They own 12 acres of land and belong to a caste that ranks fairly low, though nowadays there are many landowners in his community.

30 August 1979: Today by 12:30 P.M. I went to the field carrying food for the people who were working there. One acre of land was sown with Ponni seeds. Distributed the food and came home by 2:30.

4 September 1979: Went to the field at 7:30 A.M. Engaged 6 persons in weeding. Paid them Rs. 2. Came home at 2 P.M.

6 September 1979: From 6 A.M. to 7 A.M. made dung cakes. At 7:30 took 11 persons to the field and did weeding. Paid them Rs. 22 and came home at 2 P.M.

14 October 1979: Early morning by 4 A.M. my son and I went to a groundnut field. Pulled out ripe groundnuts. We were paid Rs. 3 as wages. Came home at 6:30 P.M.

12 November 1979: This morning by 8 A.M. my son and I took 12 laborers with us to the field. Weeding was done. Came back home by 2 P.M. Paid 27 Rs. to them at Rs. 2.25 each.

31 January 1980: This morning my son and 6 workers harvested the ponni paddy at Achikkattu field. I carried food for them to the field.

Dairy 4. Devaki has a husband and an adult son, and several younger children living in her household.

9 January 1979: This morning went to the field and waited for the laborers to reach there for harvest. When they arrived, asked them to immediately start the work. I also joined them. After the operation, the stalks were bundled up and the bundles were brought to the threshing yard. Stayed there guarding the bundles till my husband arrived and then went home.

10 January 1979: This morning reached the threshing yard early and waited for the laborers to arrive. When they came, the job of threshing began. I also participated in the work. Instructed them to be extra careful in the work so that the paddy grains do not get into the side by heaps of hay. After my husband came there from the field, I asked him to take care of the work and went for food. Then I inspected a different field to see if it has been irrigated sufficiently for plowing. After doing that came home.

25 January 1979: Went to the field in the morning as usual. Persons working in the adjacent field had thought that the water in their field was a hindrance to their job of transplanting and hence had cut the ridge of our field to make way for the water to flow into our field. Therefore the water level in our field was in excess. That may cause a subterranean stream through which the dissolved phosphates would also be lost. Besides these harms, the seedlings would also get rotten. I was sad that knowing fully well all these things, the neighbors had acted in a irresponsible way. Then I tried my level best to extricate the extra water, and plugged the holes leading to the subterranean stream....I also asked my neighbors not to cause further damage to our field by their unfriendly act of diverting their field's extra water into our field.

#### Constraints on Females as Landowners and Supervisors

What are the main impediments that landowning women face in managing their own land? As I have noted elsewhere (Mencher 1987), the most serious difficulty for landowning women is not their lack of physical strength but constraints in dealing with the outside world. The main times these women need help seem to be (a) to buy essential inputs, for which they need to go to shops (normally outside the village), and to bargain with people, or even to go to the government depot and deal with the male officials there; and (b) to sell their produce, if the merchant does not come to or near their house. (Where merchants come to the house, women are often able to drive fairly hard bargains.) These town shops, where they are not personally known, are male domains and women do not feel welcome when alone, though some women feel comfortable if they are accompanied by a male relative or farm servant. Apart from these two domains, some women are able to deal with the problems of supervision and still get good yields (Mencher 1984:7-8).

As noted above, the farming population of villages in Chingleput District, as in the rest of Tamil Nadu and in India in general, is stratified in terms

of both caste and socio-economic class. Although there is a fairly strong correlation on the bottom (i.e., many untouchables are landless) and on the top (most large landowners belong to a high caste), there is no one-to-one correlation between caste and class. Yet both caste and class play a part in influencing task allocation and general intra-household dynamics as they relate to agriculture. Other factors that are significant in the Tamil Nadu context relate to household composition, for example, the number of adult males and females, the number of children, their ages and sex, the number of generations in the household, whether the household is female-headed, and a number of idiosyncratic factors, including the personalities of the woman and her husband.

There are additional factors that also influence the amount of supervision done by women, such as (1) the distance of the family's fields from the village, (2) whether the husband is involved in other non-agricultural activities or enterprises, (3) whether a woman has had any training in agriculture before marriage, and (4) village or regional custom, an elusive cultural variable. (There are sub-regional differences in this, but the reasons for the variation are not yet understood; see Mencher 1982, 1985, 1987). As a result, in trying to describe intrahousehold dynamics, one cannot pinpoint one or even two general patterns. Each of the villages I have studied in Chingleput shows a very wide degree of such variation. The following brief descriptions give some idea of the circumstances of landowning village women.

1. Saroja is a widow. She belongs to a high-ranking agriculturalist caste.<sup>4</sup> She has a son who is a teacher in a neighboring village, an unmarried daughter, and a son in school. They own 2.50 acres of land. Her husband used to work as a car driver in Madras. She supervises the work in her own fields, and manages to earn a little extra supervising others' fields during the harvest. She sends her sons when they are free to learn about agriculture. Her son purchases all inputs, but she does the spraying of pesticides, helps in sowing, and pays the laborers. Her son (the teacher) also helps at times. She is deeply devoted to agriculture, and once attended a conference at the block office. She says:

I supervise all the work, transplantation, weeding, and so on. Especially I am careful in noting the duration of the transplantation work. I also watch how much time a worker takes for doing a certain work. I do this in my field and in others' fields.

She engages a head laborer who is in charge of hiring others. She pays him 1/12 of the produce, so he is eager to get good workers to increase the yield. She does not do any of the more arduous or dirty manual work herself.

2. Saradamma lives with one son and her brother's daughter. She started to manage her land when her husband became ill. After his death, she sold some land to pay off debts and since then has run her farm quite efficiently. She says:

I go to the fields and supervise. I do everything that a man does. Sometimes I even go and sell, sometimes I send an agent. I also listen to the radio and go to seminars or training camps whenever the Mathersangam (women's club) sends me.

She has a total of 7 acres, 4 of wet rice and 3 of dry land given over to peanuts. Saradamma herself managed to get a borewell to convert some of her dry land into wet. Her mother and her mother-in-law both used to supervise agriculture. Saradamma supervises all the work now, though as her son grows up he is helping by going to shops for inputs. She attended a four-day training program in the nearby town, where she learned about seeds for different types of soil.

3. Selvakumari lives with her husband, her children, and her mother-in-law. (They are also high-caste agriculturalists.) They have 2 acres on which they grow mostly paddy, though if there is not enough water they also grow sesame seeds. She only got involved in agriculture after her marriage. She works along with the laborers to transplant, weed, and harvest, and helps with the supervision. Her husband is a school teacher and has little time even for supervision. First he tried using an agent but found that the yields were poor, so he decided to train his wife to do the work. She claims that she is being teased by the other women of her caste for doing manual work in the fields. However, she comments:

If we go to supervise they work all right. But if we work along with them they work better. They feel more responsible to work the same way we work. They think that we may say something if they do not work well. If we only go to supervise and ask to them to work well they will answer back saying what do you know about this work. But if we work with them they cannot say like that. However, I can only go and work in the field because my mother-in-law is in the house to do all the housework, attend to the children's needs, and cook for the workers--not all women have this help.

This case gives an indication of some of the other tasks performed by women in agriculture that are often ignored totally by development planners in India. In this household, the mother-in-law is not only responsible for the maintenance of the family and child care, but also for the other agriculture-related tasks which must be done by the wife in a nuclear household. Whenever the size of a family's holding increase and the family becomes more prosperous, the women are required to do many new agriculture-related tasks which keep them away from the fields, and make them in a sense less visible as agriculturalists. These include: (a) cooking food for laborers during the transplanting, harvesting, and threshing seasons, (b) providing all equipment for the laborers, (c) paying the laborers and keeping some kind of record, (d) supervising tasks done in the house such as soaking seeds before sowing, (e) taking care of other things associated with paddy preparation, such as cleaning and sorting seeds to be stored for the following crop, taking paddy to the rice mill, cleaning, measuring and storing the dehusked paddy, (f) taking care of cattle, including cleaning cow sheds, feeding the cows, milking them (if not done by hired labor), and churning the milk, (g) taking care of small kitchen gardens, preserving food, taking care of goats and chickens, and even trading at times. Women sometimes keep small amounts of grain in their own private "kitties" for emergency use. Among the poor this includes even hoarding and distributing the small remains of rice in the times before a harvest, or when a family is threatened with starvation (see K. Markandaya's novel, Nectar in a Sieve, 1956). Often it is farm wives with little help from their men who are responsible for the prevention of post-harvest losses. The amount of time involved in these tasks increases with the size of the holding.

It is frequently stated that women tend to withdraw from agriculture as the size of their holding increases. The reason often given for this relates to the family's "prestige" and the man's need to feel that he is providing for his wife. Uma Lele notes:

In Asia there is significant evidence suggesting increased substitution of hired labor on farms for household female labor with increased household income. Preference for improved childcare must...play a part in domestic vs. income-earning activities... Conflicts between women's income-earning and household responsibilities especially childcare appear to be considerable in traditional Asian households with important implications for short- and long-run outcomes with regard to the derivation of women's own utility, household utility and the development of their families and the families' long-term capabilities and preferences (1985:16-17).

I would submit that apart from child care, an equally important factor is the simple fact that as land-holding size increases many women do not have the time to participate in agricultural activities outside the home, because of the new tasks that they have within the home, which are directly related to agriculture though often ignored in planning and in extension work. This is not to deny that we are dealing with a society where manual labor is looked down upon, and the fact that a wife whose husband could "spare" her from field work would traditionally have higher status. (In this connection, note that Selvakumari's husband is an educated man who is consciously breaking with tradition.) However, the role of women in these subsidiary agricultural activities may be far more time-consuming and important than is generally understood.

During the recent research on women in agriculture, when we were seeking women who would be willing to keep diaries, we ended up with a disproportionate number of widows and women whose husbands were employed outside the village. The reason for this is informative: many of those women who do not supervise work in the field insisted that they did not do anything in connection with agriculture. Indeed, it was hard to convince them that we were interested in knowing about many of these so-called domestic activities, which we conceptualized as being related to agriculture. It is true that among the large landowners some have servants (both male and female) to do these things, but this is not always true. And even many of the wealthier women who had household servants put in long hours measuring out food for the laborers, cooking for them, checking on the work, and so on. During the second stage of our study, instead of asking women to keep written diaries, we handed out printed diaries, with a sheet for each week divided into seven days. The activities were grouped into the 20 categories listed on the left of Table 1. All the women had to do was to make a check mark for each activity they had participated in on that day. Table 1 is based on a summary of a few printed diaries. It gives some indication of how often these tasks were performed during the study year.

Many of the lower-caste landowning women who worked in their own fields also worked occasionally for others. At first this seems surprising, but on reflection one comes to realize one of the reasons for this. The literature on Africa indicates that in many areas the non-pooling of resources by spouses is often the predominant budgeting arrangement, even when pooling is the

stated ideal. In India, on the other hand, it has always been assumed that there is a common pool controlled by the male head of the household, who gives his wife what is required for day-to-day household needs. However, our project data show that of the women belonging to landless laborer households, most of them do not hand over their earnings to their husbands (see Mencher 1986c). In these households, I have shown that women's income is absolutely essential to family survival (see Mencher 1986b). In most of the landless laborer households the husbands either keep what they feel they need for the maintenance of their male status, or in some cases give everything to the wife and then take back from her what they need for their personal expenses.

In the landowning households, especially those with substantial holdings, most of the women say that their husbands manage all of the finances. If this is generally true (though it remains to be checked further), then it is possible that some women would continue to do field work beyond the point of absolute necessity in order to have some income that is completely their own--even if their social status would suffer slightly as a result. I have shown elsewhere (Mencher 1985a, 1985b, 1988) that female income is most often used for meeting household needs, whereas income controlled by males is more likely to go in part into their "male status-producing activities" or to unproductive consumption. Thus, even some women with medium-sized holding of 4 to 5 acres may feel that they need outside earned income to give them more flexibility in managing the household--and perhaps in satisfying their own personal needs (such as an occasional extra sari) (Mencher 1989b). Although the circumstances which provide an incentive for a landowning woman to continue to work as a day laborer cannot be fully described from the data collected on this project, we must acknowledge that this work pattern does occur in some village households. These are areas which require more research.

### Extension Policy and Women

In order to more concretely pinpoint the policy implications of women's involvement in agriculture as cultivators, it is important to take into account the fact that this is a highly stratified society and that innovations or inputs could have one of three possible effects: (1) they might benefit both the cultivators and their employees, that is, the landless or marginal agricultural workers; (2) they might be neutral, that is, they might not have a negative impact on the laborers and also not be of much use to them; or (3) they might benefit those who own land at the expense of the workers. This is rather obvious in a class-based society where the economic interests of workers and employers are often divergent, though at times they may converge. In connection with this last point, in the context of south Indian rice regions, I refer to such inputs as herbicides which decrease the quantum of labor needed for weeding, thus decreasing employment opportunities (though for landowners they may decrease costs), various kinds of labor-saving machinery such as transplanting equipment, and the like.

#### 1. Shared Needs

It is clear from the preceding discussion that multiple activities are carried out by women in support of agricultural production, whether they are still working in the fields or are no longer active. Recognition of these multiple roles by policy planners could be extremely helpful in making

extension more useful and responsive to women's requirements. Because of their multiple roles, women's work entails certain general requirements which often conflict with their being able to operate productively; for example, the need to have water and cooking fuel more readily available, a need which applies equally to poor and rich.

a. At least for states like Tamil Nadu which have nucleated settlements, and even for some parts of Kerala where there are some nucleated hamlets, the question of fuel availability is one that could be far better tackled on a village or hamlet basis, or even a street or locality basis. It makes sense to develop bio-gas plants in Tamil Nadu located at one end of each street. These small-scale plants could make use of animal dung collected by children from that street after school, human waste (filtered through clay pipes so that no human being has to go near it and thus be polluted), and agricultural waste products from the lands or share of crops of the street dwellers. Such plants would greatly ease women's work by providing cooking fuel and improving the quality of their lives as well as the lives of their children and husbands by improving sanitation. It would cost something to install the bio-gas plants, but labor of the beneficiaries could be used as much as possible. It would also not be easy to install the clay pipes and latrines, but to do so would have considerable payoffs for the women. Along with providing more cooking fuel, they would significantly decrease worm infestations and thus improve their overall health.

In addition, the work involved would provide, at least for a number of years, additional income to supplement agricultural income, and would allow time for planning more lasting forms of alternative employment for rural women. If this were done, and bio-gas were made more available to even the poorest households, it would also be necessary to produce cheap ranges that even the very poorest women could obtain. This may seem impossible at present, but with sufficient attention given, it could turn out to be feasible.

Some of this goes against traditional caste and culture, but culture is not immutable. And outreach programs making use of skits and dramas as well as constant propaganda can help to change people's receptivity to change. Methods like those used in the massive program against worms in the southern U.S. in the years between the two World Wars, with widespread publicity of the horrors of hook worms and tape worms along with pictures of how they spread, might help enormously.

Improvements in firewood production is another way in which women could be helped with their problems of obtaining cooking fuel. While a few of the landless women manage to earn something collecting firewood, the long-term ecological effects of this practice are disastrous. Furthermore, the growing of trees for firewood in Government poramboke (wasteland) close to the village might in fact increase employment for the poor and save enormous amounts of time, since nowadays women often have to walk farther and farther to obtain their cooking fuel, as forests recede.

In addition, it makes sense to devote more time and energy to the development of alternative fuels which would save women time and work. These include solar cooking arrangements whereby cooking can be done indoors in the evening, not outdoors as some of the current appliances require.

b. Water is clearly the bottom line for most of these women—water to cook with, to wash pots, dishes, and clothes, water for bathing, and above all for growing things in and around the house compound. In India, kitchen gardens have a tremendous potential which has hardly been considered. Yet if the focus is to be in part on women as constituting "half the sky," then clearly convenient water should be a priority. However, even in areas where large-scale irrigation projects are underway, no one thinks about domestic water. Water is only for the fields, for grain production. There is little if any planning for water to grow vegetables or fruit, let alone to ease women's work burdens. Yet this is as important for landless women as it is for landowners. Landless women often have a small amount of land around their huts where they might be able to grow a few vegetables, creepers, or even some trees if they had enough water available. Women who own fields of 4 or 5 acres usually have slightly more land around their homes than the landless women, and could thus grow even more vegetables for domestic consumption. Even a very small plot of land which has enough water and regular sun throughout the year can make a significant difference in the diet of a household. It would take very little in the way of growing carrots for example to eliminate blindness in children. In areas of nucleated settlement, it is true that the poor villagers would need help to get wires and other materials to protect their small gardens from domestic animals, but even if there were a nominal charge for this, it would save enough to make it worthwhile.

All of the women lose considerable time and/or money to get water for drinking and cooking. While some of the wealthier households might pay servants to get water and such jobs might be less available if all homes had domestic water close by, the women who work as agricultural workers are particularly burdened with water-carrying activities during the peak season when they are also working hard in the fields.

Since landowning women are often responsible for cooking the food for their laborers during the transplanting, harvesting, and threshing seasons, having cooking fuel and water readily available could certainly shorten the amount of time devoted to this activity and free them for other productive work.

## 2. Extension programs to help women with their multiple roles

a. To begin with, more training camps for women are needed--camps which provide training in new technologies using a format which encourages extension personnel to listen to the women talk about their problems, their reasons for using or not using specific new inputs, or new techniques, and so on. As noted above, land-owning women are responsible for keeping accounts and paying laborers, cleaning and sorting seeds, checking on the availability of machinery, and food preservation. Training in modern methods which are both cost-effective and time-effective would certainly be much sought after by women if it were made available to them. The more time that the land-owning women can save in these activities, the more time they have for other kinds of work and/or leisure.

b. In addition, it might be suggested that local-level organizing of land-owning women would be extremely useful. Though there is a strong tradition of

competitiveness among households, it is possible to overcome this since most of the female cultivators have similar problems, and being organized could make a difference. Nowhere is this more evident than in their search for ways to overcome some of the constraints facing female cultivators. I refer here to the availability of new inputs close to home (in the village if possible); this includes having a variety of inputs available within the village, so that women cultivators can make choices about which ones to purchase. And secondly, I refer to new ways to coordinate the sale of their produce so that they are less dependent upon merchants who come to the village, or upon farm servants, their own sons, or recalcitrant husbands. (When husbands take care of this, it is not an issue, but for the households where there are no husbands, or where the men are away most of the year for outside work, or where they have other interests or concerns, this issue is crucial.) Cooperating for marketing could mean better prices for all of these women, if they control the organization themselves.

c. One of the other activities that engages the attention and time of both land-owning and landless women is the care of animals. Indeed, programs to make goats, or poultry, or even milk cows available to all women would benefit a much wider group. A woman who has an animal in her own name can also have greater control over its products. In one of our sample villages in Kerala State, where there has been an influx of Middle-East money, many of the landless women have managed to get cows, and this has greatly improved their situation. But most of the time extension workers, even when they are trying to get loans for villagers to buy animals, tend to focus on the male applicants even though females have an excellent record of paying back loans. Even more important, though we found among the landless and marginal households that the women often are in charge of all household finances, women of land-owning households often do not have less ready access to funds, either for their own uses or for their households. Yet, many of these women would like to have more disposable cash. An increased program of animal husbandry would be of benefit not only to these women, but also to the landless and to agricultural workers with only a few cents of land.

### 3. Innovations that are potentially disastrous for the poor

As noted above there are some innovations which are already on the drawing board or in place in some areas, that benefit the landowners at the expense of the poor agricultural workers. For example, the introduction of equipment for transplanting might be of benefit to the landed, but with the scarcity of available employment for the agricultural workers, it would be disastrous for them. Actually, most innovations which decrease the availability of work for those who are already suffering from a shortage of work, without major improvements in the availability of alternative employment, could involve severe hardship. It is not that these women enjoy the kind of work they do, but that they do need to work and are quite desperate to avoid anything that reduces it. It is essential that programs that benefit the cultivators focus either on that which would be of benefit to all women, or at least would be neutral as far as the landless are concerned.

Summary

I have argued in this paper that women do play significant roles as cultivators and/or managers in South Indian villages. Their economic importance is not restricted to households without adult males, though precise figures are not available on the number of women who play major roles even when there are husbands or adult sons in the house.

The importance of some of the so-called subsidiary activities carried out by farm women have also been noted. I suggest that these are arenas in which extension could make a valuable contribution in improving the income of these households, as well as indirectly improving the status of these women by increasing their personal sources of funds beyond what they are able to receive from household males.

Table 1  
Number of Times Each Activity Carried  
Out By One Diary Holder in Each Village

Activity	Busy Season				Lean Season			
	Kerala		Tamil Nadu		Kerala		Tamil Nadu	
	Alleppey	Palghat	Thanjavur	Kanya	Alleppey	Palghat	Thanjavur	Kanja
Talking with others in the house about pesticides, fertilizers, seeds, laborers, etc.	6	1	30	1	9	0	21	1
Buying needed inputs (seeds, pesticides, fertilizers, or equipment)	9	0	30	5	0	5	0	2
Distributing inputs or equipment to laborers	12	15	30	4	3	5	3	0
Supervising field work	6	17	0	0	0	0	0	0
Supervising work in the house compound	30	15	31	30	16	0	30	14
Supervising work in the garden	28	3	31	0	9	5	13	0
Doing work related to agriculture like stacking straw, threshing, or winnowing in the house or household compound	26	17	2	30	0	0	0	14
Getting laborers for work	13	24	30	10	0	6	16	0
Making food for the laborers and serving them	21	0	31	8	0	0	6	10
Taking meals to the fields	0	3	0	11	0	4	0	2
Giving the laborers their wages	22	23	30	8	11	11	16	0
Supervising harvesting and distributing the laborers' share or paying them in kind	0	15	0	8	0	9	0	0
Supervising workers boiling and/or measuring paddy	31	10	1	25	2	0	0	0
Personally boiling paddy, drying paddy, etc.	7	15	2	10	3	12	1	14
Taking or sending paddy to mill for husking	28	7	2	30	3	0	0	0
Looking after livestock (grazing cattle, feeding cattle, milking, etc.)	29	31	31	30	16	30	30	14
Looking after chicken or pigs or catching and drying fish	29	0	31	30	16	0	0	14
Talking with agriculture officials; reading something connected with agriculture	22	0	31	0	0	0	16	0
Talking with other women (landowners or laborers) about agriculture	6	6	31	10	0	0	2	0
Writing accounts of agricultural expenses	25	27	31	0	16	14	16	17

APPENDIX

Background Data on Chingleput District

1. Location

- a. India
- b. Tamil Nadu
- c. Chingleput District

2. Environment

- a. Latitude  
12.5' to 13.5' north of the equator
- b. Elevation  
sea-level
- c. Temperature  
110° F: maximum in summer (April-May)  
65° F: minimum in winter (mid-Dec. to mid-Feb.)

d. Precipitation

Two rainfall regimes

- 1. sub-coastal: Oct.-Jan. 23-35 in., with peak in Nov.  
June-Sept. 16-23 in.

2. western part of district:

- Oct.-Jan. 16-23 in., with peak in Nov.  
June-Sept. 16-23 in.

Area fits into Medium Tropical Transitional Bioclimate. Area is subject to considerable variability in rainfall (one of the sample villages is in a pocket with extraordinary variability).

e. Soil

Black and red, each with three varieties of loam, clay, and sand. In taluks, black soil accounts for 55% of total in Madurantakam and Kanchipuram, and 21% in Sriperumbudur. Black loam soil gives Madurantakam and Kanchipuram high fertility, with the irrigated areas most fertile.

3. Socio-economic

- a. Size distribution of farms (based on a 1970-71 survey of 8 villages). Recent work in two of the villages reveals no substantial change in pattern of distribution.

SIZE (in acres)	% POPULATION		% LAND	
0.00	48.7%		0.00	
0.01-1.10	16.8%	92.8%	5.7%	48.7%
1.11-7.50	27.3%		43.0%	
7.51-15.00	4.7%	7.2%	24.1%	51%
15.10+	2.5%		27.1%	

- b. Two major types of tenancy
  - 1. 50/50 sharecropping (called varam)
  - 2. fixed share (called kuttagai)

Also a kind of tenancy in which a man takes complete charge of the work in exchange for 1/6 of the produce, while the landowner makes all decisions and pays for all inputs; also owner cultivation with the help of hired labor; approx. 35% of total land leased, with considerable variation from village to village.

- c. Tamil speaking. Villages divides by caste, with agricultural labors belonging to untouchable and low castes. Strong correlation between caste and land ownership.
- d. Easy access to markets.
- e. Access to credit through nationalized banks, agricultural coop banks, and traditional money lenders (often rich farmers).

#### 4. Nature of cropping system

- a. Subsistence/cash objectives

Both subsistence and cash. Main cash crop in area is rice, which is also consumed by household. Other crops also for cash and subsistence.

- b. Labor requirements

- 1. Female/male

Per acre female labor requirement is equal to or higher than male, but females are paid less than males. Many tasks sex-specific.

- 2. Distribution over time

Long periods with no work, with high demand for work in short period of time. Male tasks tend to be more spread out than female tasks. Two main seasons: some villages have one extra season for irrigated land; there is a correlation between amount of land given over to paddy and extreme seasonality.

- 3. A very high percentage of work is carried out by hired labor. Even the smallest holdings make use of hired labor. Among the lower-ranking communities people may both work for others and hire labor for tasks such as plowing, transplanting, weeding, and harvesting.

c. Energy requirements

Most plowing is done by bullocks, though more and more cultivators are using tractors. When plowing is done with bullocks one usually finds two or more plows, one following the other. Apart from plowing, animal power is used to transport products to the market and to bring back inputs to the village, and for trampling grain (for threshing).

Electricity generates tube-wells that bring sub-soil water to the fields.

d. Cash requirements

Key inputs

1. seed: mostly use own old seed. If purchased, price varies greatly from season to season. Mostly it is a very small proportion of cost of cultivation, approx. 6.5% (1981 prices approx. Rs. 120 per acre).
2. fertilizers (cow dung is collected locally), chemical fertilizers (in 1981 approx. Rs. 419 per acre) about 23% of costs of cultivation
3. pesticides (approx. Rs. 170 per acre in 1981)
4. electricity: approx. Rs. 500 per acre in 1981, though this varies depending on the extent to which village is dependent on tube-well irrigation
5. Labor costs amount to about 25% of the costs of cultivation, though this can vary by village.

e. Price of products

During period 1979-1981, price per quintal (100 kilos):

1. ragi (a millet, Eleusine coracana) = Rs. 120
2. paddy varies by week between Rs. 99 and Rs. 120

In 1980-81, \$1 = approx. 8-9 Rupees.

### Notes

1. The research on which this paper is based was carried out over a period of 25 years, starting when the author first worked in a village in Chingleput District in 1963. She has lived and worked intensively in villages in Chingleput District several times since that initial stay (see Mencher 1978). In 1981, she also participated in an intensive study in one village in the neighboring District of South Arcot. This was one of the villages that served as part of a larger study of women and rice cultivation, carried out in collaboration with Dr. K. Saradamoni of the Indian Statistical Institute, New Delhi, and funded by the Smithsonian Institution and Indian Council of Social Science Research. The work on this study has been carried out in ten villages each in Kerala and Tamil Nadu, and eight villages in West Bengal (including one where the author had worked previously in 1963). Two of the ten villages in Tamil Nadu were ones in Chingleput District where the author had lived previously. For a detailed discussion of the methodology used in this study, see Mencher 1980.
2. This is discussed in more detail in Mencher 1978. The census has a category which states "percentage having married males living in household" and includes separately sons and other males (mostly brothers). There is no way of knowing whether the same households have both sons and other males, or if they are different households. The 1971 Tamil Nadu census actually lists 38.9% of households with more than 50 acres having married sons, and 40.3% having other married males. If one simply added them together, that would come to close to 80% of all households with lands over 50 acres. On the basis of village-level data, it seems likely that among the better-off households those that have sons are also more likely to include brothers, or occasionally a member of a still older generation (since people tend to marry quite young).
3. In addition, Ramachandran points to a "rapid 'agricultural labourization' of the population from among cultivators and others...pushed into the force of agricultural labors" (1980:155).
4. To date no research has been done anywhere on the subcontinent on the relationship between women's involvement in production and yields. It would be extremely useful to know if there is any difference between households where the women are more active and ones where they are not (other things being equal). In this context there are two types of households: those where landowning women play a very active role in supervision, decision-making, etc., and those where they also work in the fields. In cases of the first type, it would be useful to find out if households where women are deeply involved in supervision in the field, as well as in planning, are any more successful than households where they are less involved. Among households of the second type, it might be useful to see if yields are any better when the women of the household transplant and weed along with hired help. Many women have told me that they thought the hired help did their work better when the owners worked along with them, but there are no actual data to support this claim. If it turned out to be true, the implications could be important.

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