

"THE OUTLINE FOR A FILM ON WOMEN
AND AGRICULTURE"

1. BACKGROUND :

a. THE DISCOVERY OF AGRICULTURE: Historians of agriculture (Gordon Child, D.D. Kosambi, M.S. Swaminathan and others) have attributed the discovery of agriculture to women. They believe that while men went out hunting and trapping women were collecting roots, fruits, tubers, edible leaves and other small grains and food articles around and within short distances of their shelters. This gave women the opportunity to observe the behaviour of plants in different situations. It could be possible that she left unused wild edible grains on the soil. From these, she might have observed and grown plants to yield grains. This view is strengthened by the fact that women have been traditionally seed-selectors.

Women also started using digging sticks first to take out roots and tubers, and this tool subsequently was being used to make holes to put seeds into the soil. Subsequently, the more refined variety of digging stick developed as we see today with the shifting cultivators - among whom women wield the implement. Then came the development of the hoe, and in the beginning and even today in many areas women use the implement.

b. SLASH AND BURN : The various forms of this type of cultivation surviving in the North-East region of India form a link for the study of the change in woman's role in agriculture.

2. THE RURAL WOMANS WORK LOAD:

a. LAND PREPARATION: All operations incurring the use of machinery and draught animals are performed by men - preparation of the fields, ploughing, harrowing and levelling of the fields with a wooden plant drawn by bullocks. Also, in rice cultivation, the digging of wells and of the small irrigation canals between the rice fields, and the making of bunds around the fields is men's work. But there these operations demand direct manual labour, such as putting the mud from the canals on the bunds, or removing stones or thorns from the fields, this is usually done by women.

Men are also responsible for the irrigation of the fields. For rice cultivation, women have to put cow and buffalo dung, on the seed-beds and fields at the beginning of the monsoon, an operation which is done by hand. Sowing the rice into the seed-beds is done by women, who also prepare and clean the seed beds, remove stones and thorns and level the ground with hands and feet.

Rice transplantation is entirely women's work. This is the most labour-intensive operation in rice cultivation, since each rice plant has to be transplanted by hand. Women and girls pick the plants from the seed-bed, tie them into bundles, and carry them to the rice field. The women work in batches, putting the seedlings into the wet soft soil through which they wade. The mud reaches up their legs. The entire operation is purely manual labour and does not involve any tools.

Weeding is also exclusively women's work. Like transplantation, this means bending down the whole day, wading through the wet soil and working with one's hands in the muddy soil.

Where H.Y.V. have been introduced, the spraying of pesticides is ~~xx~~ usually done by men. Though the spreading of chemical fertilisers is done by women but in most cases in the presence of men.

Harvesting is both men's and women's work.

Threshing is done on a threshing ground in the fields. Usually men drive animals over the rice. Women winnow the grain with a simple winnowing fan made of cane, which they shake gently in the air. When small quantities of rice are harvested by poor peasants who do not possess cattle, men and women beat out the grain with sticks.

Transporting, in the case of small peasants, is done by women who carry the grain home as head loads. Drying, cleaning and processing of rice are done by women. De-husking is also done by women if there is no rice-mill.

A similar work pattern can be drawn for other crops like jowar, tobacco, etc. If we compare women's and men's work the following points show up:

(i) Women perform more agricultural operations than men in total;

(ii) they have on an average less work in the fields in an year than men;

(iii) Women's work involves hardly any tools or work instruments, whereas practically all men's work is performed with the help of agricultural implements and draught animals.

b. LIVESTOCK CARE: Women are responsible for feeding and maintaining the livestock. If they own a buffalo the cutting of grass is usually their responsibility. This is usually done twice a day, early in the morning and in the evening on their way back from their field work. They cut the wild grass with their sickle, bind it into a big bundle and carry it back home on their heads. The preparation of a feed-mix of water and rice-husk is also women's work. The women also sweep the area where the buffalo is tied and remove the cowdung which is used as raw-material for fuel as well as for plastering and cleaning the huts. Milking of the buffaloes is also women's work. Men's contribution to the production of milk is rather limited. In some cases they are incharge of taking buffaloes and cows to graze. But

in most cases they are responsible for selling the milk.

Women are responsible for the maintenance of all other livestock too.

c. PROCESSING: Women are by and large responsible for food storage and processing. Typical work includes cleaning, threshing, grinding, making cheese or curds, etc.

In fisheries, once the catch is brought to the shore it is the responsibility of the women to choose, select, dry and market it.

d. HOUSE WORK: The tasks related to running the household could be listed as follows:-

- (i) cooking;
- (ii) cleaning the house,
- (iii) washing the utensils;
- (iv) fetching water;
- (v) fetching fuel;
- (vi) child care;
- (vii) feeding, eating and cleaning up.

Reproduction and skill transfer to the girls are important tasks for women. Studies have shown that where the mothers have not been involved in agricultural work, the daughters have found it impossible to take up these tasks.

Thus we see that because of the number of tasks a woman has to perform she has to be a manager and a worker rolled into one. The work processes require a high degree of organisation, of planning and of co-ordination. The greater the number of functions performed in and around the house, the more they have to be inter-related and co-ordinated.

3. THE ODDS AGAINST WHICH THEY WORK:

a. LACK OF ACCESS TO LAND: Access to land means access to livelihood. Various processes are creating a large population of landless families in rural India. While men migrate to cities in search of jobs, the women have to stay

back and fend for themselves and their family.

An additional problem is that women have never actually owned land. Heavily involved in agricultural productions, women, however, seldom sold rights to land in their own names. In villages where land is the most important means of production, this lack of control over land and all that goes with it (status, availability of credit and other inputs) can become a major source of economic dependence.

b. LACK OF ACCESS TO FUEL, WATER AND TRANSPORT: Water is one of the most important necessities for productive activity. Women's responsibilities in carrying water for domestic use are closely associated with their roles in food production, preparation and processing. Fuel is vital in the preparation of food and, in many cases, in processing too. Scarcity of fuel and lack of easy access to any kind of water source contribute heavily to women's poverty, ill-health and overwork. This question is directly linked to the degradation of environment and its impact on women.

Transportation is something which is central in women's lives. In rural areas women carry everything from water, fuel-wood, agricultural inputs, food crops and fodder to marketable surpluses. Distance of fields, water sources, forests and markets mean that women walk several hours a day with heavy loads. The resulting health hazards are extremely serious.

c. LACK OF ACCESS TO MONEY: Historically, women farmers have been left out of the cash economy. Today, one of their main problems is being able to get credit. If agricultural is to improve, the farmers must have money to buy new inputs: seeds, fertilizers and equipment. The cycle of increased production and subsequent increased income must start with credit.

Unfortunately, credit facilities are often tied to land ownership which disfavours women. Women are not considered

good investments and their legal status sometimes bass them from obtaining loans.

d. LACK OF CONTROL OVER INCOME: Although it is obvious that the agricultural labour or marginal cultivator women's families can only survive if the incomes of all members are pooled, this does not mean that this income is equally distributed within the family. Usually, the distribution of the consumption fund within the family follows the patriaschal pattern with the men getting or keeing to themselves a bigger share of the cake.

As a rule, the men consider women's wages as their own income, particularly if they are money wages, and they give only a certain part to the women for family needs. Women, usually, have no control over the husband's & income. Therefore, wage increases for men or better earning possibilities in the cities do not always mean a bigger consumption fund for the families. Men often use a share of their income for drinking, smoking, etc. The women, on the other hand, spend all their earnings on the immediate family consumption needs, their daily wages being used to buy the daily food. Also, all supplementary income from their non-wage subsistence work is used immediately for day to day family consumption.

e. LOW HEALTH AND NUTRITIONAL STATUS: Although women are so inextricably bound up with food production, they are not necessarily well nourished. Studies of food allocation within families show that women eat less of the food that they need than do men. Girls and pregnant and lactating women are the most malnourished.

f. THE UNDERVALUING OF THEIR WORK Although women's work is crucial to agriculture, their labour is undervalued or even ignored. New skills and large scale production organisations triggered off by forces of moddrnization ~~an~~ tend to pass them by, leaving them confined to marginal and

traditional tasks. Widespread socially sanctioned prejudices about women's capacity to manage complicated machinery, to make quick decisions or even to undertake steady, regular loads to the limiting of women to low productivity, repetitive occupations and to a general degradation of what are women's tasks.

Two kinds of discriminatory practices can lead to women's inferior position:-

(i) for identical tasks women are paid less than men;

(ii) women are confined to a limited number of relatively inferior tasks.

The main differences between male and female activities which can have significant effect on their relative productivities and hence earnings, appears to be in the tools and technologies they use. The tasks given to women are usually to be performed by techniques using relatively less capital per worker than the ones that men do. The processes they participate in tend to be more primitive, using cruder tools which are mostly worked by manual energy. What are called women's skills are generally ingenious ways of substituting physical labour for capital and to get the best out of inferior tools. The identification of women's skills with low technologies leads to another problem. Anytime the technique of production moves towards further mechanisation, it becomes a signal for women to be pushed out and men to be ushered in. Thus we have a situation where, whenever, an agricultural operation gets branded as a woman's task, its relative wage rate and visibility are depressed while if the task gets mechanized or upgraded it goes to a male.

FEMALE HEADED HOUSEHOLDS: In a large number of rural households women are the sole adult income earners. According to an estimate about 18.7 per cent of households in India are defacto female headed, and the incidence of poverty amongst these households is observed to be higher than among male headed households.

The rising incidence of female headed households in rural areas results from at least two inter-related processes - impoverishment and migration.

Impoverishment and growing landlessness have had the effect of straining family bonds and their ability to maintain collective responsibility towards the more marginal members of the household. Widows and deserted women, for example, have therefore been forced to set up on their own and seek their own means of survival.

Another reason for women becoming heads of households is seen in outmigration usually by men due to rising landlessness and lack of employment opportunities within the country side.

Generally speaking female headed households in rural areas are amongst the poorest of the poor. The main characteristics of these households seems to be poverty, the need for all family members, including children and old people, to work and below average education and skill level. Women struggle with their responsibility as head of households in an economic and political environment that does not recognise them as full legal adults and shies away from giving them access to land, credit and other resources. A large number of female headed households are landless and their level of unemployment/~~is~~^{is} greater as compared to male headed households. The task of maintaining a family weighs a woman down under the burden of drudgery. She has to combine household work with earning a living, with a limited resource base.

4. IMPACT OF COMMERCIALIZATION, MODERNISATION AND TECHNOLOGY

ON WOMEN: Despite women's crucial role in food production and processing, under-enumeration and under-valuation of their work due to its invisibility in the subsistence production and on family farms and unequal access to assets, skills and resources, have already worsened their position. Technological changes, in ^{many} cases have not only displaced a large number of women or reduced their employment in pre and post harvest operation (use of chemical herbicides, advent of harvesters, thrashers and rice mills, maize shellers, etc). Case studies indicate that post harvest operations by grain processing mills have displaced women from poorer households but programmes of land reforms, technology transfer, credit and extension services have shown class and male bias, thus increasing class and gender polarisation. Punjab, the heartland of the Green Revolution has the lowest rate of women's participation in the labour force i.e. 1.18 per cent. The new agrarian technology in terms of pumpsets, tractors, threshers, etc has caused a reduction of labour force to about one-fifth of that involved in the traditional farming. In Thanjavur District of Tamil Nadu the number of male agricultural workers increased from 583.3 thousands in 1961 to 699.8 thousands in 1971, while the number of female agricultural labourers came down to 175.6 thousands from 321.2 thousands.

However, in certain areas the introduction of HYV rice has increased work opportunity for women. This does not mean their status has improved. Where women are working more it is first of all likely to imply an overall increase in their workloads, since the women would continue to be responsible for non-field related work, including housework and child care. Secondly, although the introduction of HYV rice may be assumed to increase the overall crop production

and income of these households, this may not benefit the women insofar as the additional income is likely to be controlled by the men and they are more likely to spend much of it on personal needs or perhaps on farm production items, rather than on the needs of the women.

The mechanisation of fishing industry since 1950s has in the last few years led to many violent agitations in Kerala, Tamil Nadu and Goa. The superimposition of modernisation on a traditional industry has created a crisis for those who subsisted on fishery. The issues raised by the fisherfolk were:-

- (i) noise of the trawlers drives away the fish;
- (ii) propellers of new boats tear the nets of artisans/fishermen;
- (iii) bottom trawling operations by large fleet of mechanised trawlers have resulted in drastic fall in fish catches per fishermen.

The Marine Fishing Regulating Act has helped small-scale fishery but the laws have yet to be effectively implemented.

A study of the coastal fisherwomen of Kanyakumari reports, that in 1978 when fish netmaking machines were brought by a private trader, it cut into the meagre income of women weaving fishnets at home. The Tamil Nadu fisherfolk protested against the granting of licence to import automatic net making machines as 30,000 women engaged in making nets manually at their homes, would have lost their jobs. The study found that increasing urbanisation and the growth of markets has also affected women negatively on two counts: the introduction of nylon nets fabricated by machines have deprived them of income and introduction of auction system has forced women to compete with large traders causing them loss as marketing was their traditional activity.

The impact of commercialisation of forests and of excessive irrigation resulting in salination is quite well-known.

'Many of the agricultural roles fulfilled by women require considerable skills, for example, in seed selection, storage and pre-germination testing, organic recycling, the identification and control of pests, pathogenesis, and weeds, and post-harvest technology. Nonetheless, many of the jobs undertaken in rural areas by women involve much drudgery and result in little income. As men's decision making roles are more publicly visible, government policy makers, scientists, and manufacturers of agricultural machinery have generally tended to neglect women's technology needs. Women have also been generally bypassed by extension services. Consequently, they continue to remain as unskilled workers with uncertain income'.

THE CHALLENGER The challenge thus lies in an integrated development process which is sensitive to the historical link between women and agriculture and the changing scenario with the modernisation of agriculture as well as their status in society.

a. WOMEN'S ORGANISATIONS: There is need for women's organisation which would act as:

(i) 'as mobilising agencies for the masses of women particularly poor women in rural and urban areas;

(ii) as liaising and coordinating agencies for delivering all development inputs;

(iii) as organising agencies of working women in unorganised occupations in both rural and urban areas to protect exploitation and providing supportive services for child care;

(iv) as agencies to make women aware of the importance of exercising their legal, economic, cultural and political rights'. (New Delhi Document on Women in Development. NAM 1985)

The efforts at Bankura, Udaipur and Ahmedabad have shown that the formation of strong women's organisation have helped in improving their position considerably.

In a span of seven years the Bankura project has evolved from spontaneous ground activity to a widespread movement of wasteland reclamation and income generating activities, directly covering 36 villages in two districts. Benefits are reported by all the 1500 members of the 12 Samities. Estimates show that 1500 women have supplementary employment in the local area, with a management system which women control.

The potential of non-agricultural wasteland development through rural women's organisation has been exploited in Udaipur district to produce fuel, fodder and medicinal herbs.

In the Ahmedabad region SEWA has also organised women to form dairy cooperative and to develop wastelands.

From the experiences of these groups we can draw certain inferences:

- Control over a productive asset such as land by a women's organisation increases their bargaining power.
- Employment is an effective means of mobilisation, which generates a creative environment for programmes of broader reform.
- Wasted private assets can be regenerated by local women's groups, provided ownership of the asset vests in the group.
- the local government machinery tends to support women's groups more readily than individual women. (At a project in Jaunpur district, the District Magistrate got stuck in the 'kuchha' approach to the village where he had come to see the women's efforts. He immediately ordered the construction of a road.) However, government district and Block officials are not always adequately informed about the provisions of different schemes for assisting women's groups.

b. CONTROL OVER LAND: The projects in Bankura, Udaipur and Ahmedabad have shown that women's organisation can play a crucial role in the development of wastelands. But in all these three areas the land owned by the organisations was wasteland, similar projects with organisations owning agricultural land are needed.

There is need for 'ensuring women not only opportunities for but actual ownership of land'. This 'is a new strategy that could stimulate a different type of structural change which would be equitable and more conducive to acceleration of rural and agricultural development. The World Congress on Agrarian Reforms recommended varied forms of ownership, including joint and co-ownership. Such a recognition of women's role and status by the State would undoubtedly stimulate a series of changes in perception, in relationship and in attitudes within rural society as well as at other levels of the community'. (NAM DOCUMENT)

c. WATER SUPPLY, FUEL SUPPLY AND ENVIRONMENT: To reduce the terrible amount of time and energy which women waste on fetching water can best be done by bringing water supplies nearer to women's homes. An improvement in water supply would also make a major contribution in improving family health, in reducing child death and illnesses.

Alternative sources of energy can be found to save women's time and burdensome labour in fuel collection. More pertinent, though, might be tree-planting programmes directly involving and geared to women. Social forestry officials should work in close collaboration with movements like Chipko.

But it is vital that women be involved in the development of any water or fuel technology. Various programmes have failed because the experience and advice of women were not taken in their ~~own~~ development.

d. MODERNISATION: Scientists and planners have to take into account whether the technologies being developed and provided in the rural areas to reduce drudgery and increasing the energy input would lead to a diversification of labour use and income or only to the displacement of women wage labourers from their traditional occupations.

Certain technologies which have been developed could have a positive impact in giving women employment and skills. Some of these are: tissue culture, induced fish breeding, hybrid cotton work, flower emasculation and pollination.

For women involved in agricultural field work and development of improved tools is of utmost importance. Without having to go all the way to an elaborate combine harvester, women's work can be alleviated enormously by the simple introduction of long-handled hoes, hand-operated seed planters and weeders, etc.

Linked to the possibility of earning money, access to credit and loans is vital for women. Also related to this is extension of training and demonstration workshops by extension workers. The problem of extension work has been that most of the workers are male and therefore when they go to villages they either cannot interact with women or they just talk to the men. The WYTEP Project of Karnataka Government to train women extension workers is a notable exception.

POLICY MEASURES: The Sixth and Seventh Plan have taken stock of the measures needed for improving the status and situation of rural women. The film will try and document some of the measures undertaken by the government, for eg, WYTEP.

THE CHALLENGE TO SCIENTISTS: Technological progress is the beystone to development. Unfortunately, it has been observed, that more often than not, the development and introduction of technologies show a gender bias. When existing technologies are upgraded or when new technologies are introduced they very often are directed only towards the men. Women are either left to do the unskilled labour or are marginalised with technology upgradation. A case in study are the introduction of rice mills. A study conducted in Maharashtra has revealed that 1500 women, who traditionally did not rice husking manually, were unemployed with the introduction of rice mills and 45 men took over their entire work. Thus the need is for the scientists to become sensitive to women's needs and to foresee whether the technologies developed by them for reducing drudgery and increasing the energy input-output efficiency ratio would lead to a diversification of labour use and income or only to the displacement of women wage labourers from their traditional occupations. There are several examples where the scientists have fulfilled this need and women have become skilled. Some of these efforts are in the areas of tissue culture, induced fish breeding, hybrid cotton,, seed production, etc. But these efforts need strengthening and promotion.

Scientists will have to become sensitive also in the area of reducing drudgery for women in their field work as well as at home. Many of the technologies associated

with the Green Revolution have reduced the work load of men without in any many way affecting the drudgery of women. It has also been seen, in Green Revolution areas, that while there have been considerable improvements in the technology handled by men, there has been little improvement in the women's kitchen apparatus. This is true for even economically well-off households.

M. Shekhar Pathad
PAHAR, Nainital

The film aims to sensitize scientists and planners working on agriculture and rural development to the needs and aspirations of the rural women. This we propose to do by:

- a. pointing out the crucial role women ^{play} in all aspects of agriculture;
- b. showing the adverse circumstances under which she lives and works;
- c. documenting the impact modernisation has had on her life; and
- d. arguing that the agricultural revolution in this country will not be complete unless women are incorporated into the modernisation and development process. The challenge to the scientists and planners lies is not only providing her with technology to reduce her drudgery but also in upgrading her skills & so that she becomes a more 'visible' and active participant in the development process.