

The Women and the Agriculture Sector in India

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I. Introduction

India although blessed with 'abundant natural resources and low cost labour was never in the forefront of agricultural produce. India's agricultural productivity still continues to remain far below the benchmarks set by the western and European nations. The reason behind this lag is clearly attributed to the technology vacuum. Needless to say, that the early post independence era saw a sharp decline in agricultural production leading to famines and deaths due to starvation. The Indian farmer then was not very receptive to modern methods of farming and hardly practiced and crop rotation methods. This coupled with minimal irrigation and plant protection techniques, farmers only depended on the monsoons for water. These were the practices that portrayed India's dismal agricultural scenario.

It was only during the mid fifties that the importance of agriculture as a high growth and high potential industry was realized and seeds of the "Green Revolution" was sown. This revolution required the use of high quality fertilizers, modern farming machines coupled with effective use of insecticides. The then drafted agriculture policy focused on critical issues like subsidies on agricultural products, improved farming methods, efficient irrigation and water management techniques, development of high yielding varieties of seeds and last but not the least educating the farmer towards orienting himself to mechanized farming techniques.

Several schemes were launched to cater to the Indian farmer and make his yields more superior and profitable. The High Yielding varieties Program (HYVDP) coupled with the Intensive Agricultural District Program (IDAP) and major land reforms saw considerable expansion in cultivated area and created dramatic changes in the agricultural mindsets. It was during the mid sixties that India's wheat production increased three fold and the irrigated area increased to almost 60%.

Agriculture is still the backbone of India's economy and despite the rapid pace of industrial development agricultural activity still holds a prime place of importance in the Indian diaspora. The Indian economy can be categorized into three sectors (viz. primary, secondary and tertiary) of which agriculture is categorized as a primary sector. Estimates indicate that the total amount of land in India is over 300 million hectares are now under cultivation. Cultivated areas are used either for cash crops or food crops. Cash crops by definition are crops that the grown by farmers and sold for money examples are cotton, oil seeds, sugarcane etc. The food crops on the other hand are crops grown by farmers for their needs and the available surplus is then sold for money. On a broader level the agricultural sector can be divided into food grains (i.e. Rice, Jowar, Bajra, Maize, Pulses etc.) and non-food grains (i.e. oilseeds, cotton, jute, fibre crops, plantation crops etc.)

Economists indicate that the agricultural industry supports approximately 65% or the total Indian working population and contribute nearly 32% of India's national income. Surrounding the agricultural industry are a variety of major and sub ancillary industries. The cotton industry, textiles, fertilizers, jute industry, agricultural machinery, tractors, pump and pump set industry etc all depend on agricultural productivity for their revenues (i.e. higher the income generated from the agricultural classes higher will be the demand for agricultural goods). Of the ancillary industries the tractor and pump industry have direct linkages to the farming sector.

II. Current Scenario & Issues

The population explosion in the country had led to the increased demand for food and consequently reduced the per capita availability of land that can be cultivated. Another major threat to India's agricultural produce is the constant deterioration of the ecosystem by the emission of harmful gases. Scientist therefore conduced that there are distinct possibilities of adverse changes in the ecological balance and bio diversity that may have a direct impact on agricultural produce.

Major efforts are on to increase the gross agricultural production of the country through effective irrigation programs and distributing higher yielding seed varieties to farmers. The sustenance of the green revolution clearly depends on the reliable source of water supply.

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The association is continuously working towards increasing awareness about the correct and proper usage of pesticides among farmers. In order to minimize the adverse impact on the environment and human health, the members are striving to introduce greener technologies in India.

Women are playing an important role in agriculture. She performs the all the roles that are being done by the men in agriculture. She works very hard equal to a man still she earn on an average three fourths pay of males for the same work .women's access to ownership of land is extremely limited. Only in case of widows when there is no sons it is listed under her name . The laws also have failed to protect women's interests in spite of the enactment of women's rights. The patriarchal systems and its use in perpetuating a predominantly male inherited system sexual -division of labour, discrimination in resource allocation has helped perpetuate male dominance.

Listed here some of the women's problems in existing Indian rural systems.

1. women does not have property or land on her name.
2. women have no control over common property or land.
3. shortage of fuel wood, drinking water, and fodder.
4. more work load. An average woman works for 18-20 hours a day
5. the increased rate of illiteracy causes absence of skills in a woman. no occasional skills to divert from agriculture labour and generate income from other sources.
6. low wages and wage discrimination.
7. no control over the hard earnings of a woman for herself.
8. no decision making power for women on the crops.
9. no sufficient storage of food grains for a year or period. Nutrition is not at all a point for woman. She struggles for filling her family with food each day without starvation.
10. Loss of income due to forest degradation and due to several other ecological problems.
11. women are not aware of the market opportunities for their products.
12. women are not usually allowed by their men to attend to public meetings.
13. women have hardly their representation in decision making bodies.
14. girls are very vulnerable and they are deprived of several of their rights. They have no school education. They work in the lands for meager wages.
15. no social security for single and old women.
16. women in India experience unacceptable level of violence in the family, within the community, at the work place, public places and the custodial institutions. 80% of the women suffers from sexual abuse at work places.
17. sanitation facilities are lacking for women.
18. the kitchens are filled with smoke which leads to health problems.

The women's status is gradually being taken care by several agencies and organizations .though the govt. has introduced several welfare schemes for the empowerment of the women in agriculture, the schemes are not reaching the poorest of the poor as these women have no access to awareness, education and also due to social backwardness.

III. Women & Nutrition In South India

In recent years there has been a remarkable upsurge of interest in the health and nutrition problems of women in the country. It is important that the scientific foundation of our present concern with respect to women's health and nutrition are clearly articulated and understood. To be sure, during the last 50 years, there have been some impressive gains with respect to women's health. Life expectancy at birth for the female in the country, which stood at 31.7 in 1950, rose to 59.7 in 1991. Female infant mortality had declined to 76 and female child mortality (0 to 4 years) to 132.

The hallmark of poor maternal nutrition and poor antenatal care in a community is the high proportion of babies born with low birth weight less than 2.5 kg (small for gestational age). This proportion was reported to be nearly 38 percent in poor rural communities in South India in 1952. Studies carried out nearly 30 years later, indicated that the situation had not changed much indeed, a study in Calcutta revealed a shocking proportion of 56 percent of low birth weight babies among deliveries in urban slums. Even today, nearly 33 percent of the children born in our country are low birth weight offspring is not only an evidence of poor maternal nutritional status but is also an indicator of possible poor future development of the baby. Maternal nutritional status thus determines the state of the future course of its development

IV. Nutrition Of Women

The Nutrition Monitoring Bureau had conducted a survey on height and weights of children in different parts of the country for the period 1975 - 1979. A repeat survey conducted by NNMB almost ten years later, has revealed that data (pooled for all states) on heights, weights and body mass index, show a definite improvement with an increase in values of measurements for heights and weights in almost all age groups for both males and females. Height increments tended to be more in the case of children while weight increments were more visible in adolescents and adults. According to data gathered by the NNMB, 15 to 20 per cent of adult Indian women in the reproductive period, in 10 states of India have body weights less than 38 kg and 12 to 2 per cent have heights less than 145 cm. These women, according to the generally accepted criteria proposed by WHO, fall into the high risk category - i.e. they are likely to suffer obstetric complications and give birth to offspring of low birth weight, especially in situations where antenatal care and most obstetric services are below par. These observations broadly indicate the magnitude of the unfinished tasks with respect to improvement of the health and nutritional status of our women. It must be emphasized that poor performance with respect to upliftment of the health and nutritional status of women is not to be dismissed as a failure of our health system alone.

V. The Wasted Years Of Adolescence

Even with the existing levels of poverty, a significant impact of maternal nutritional status and birth weights of offspring can be achieved through just bringing about a rise in the age at marriage of our rural girls. The period 14 to 18 years is a period of active growth for our girls. The mean age at menarche in the rural girls of the country at present is about 14 years. A very large percentage of our girls are pushed into marriage very early, the marriage being consummated almost immediately after menarche. Thus, their arduous reproductive journey begins almost from their 14th year, and teenage pregnancies are by no means uncommon. It is estimated that 35 per cent of rural girls of 17 years of age have weights below 38 kg and 23 per cent have heights below 145 cm, levels generally considered to be indicative of not only poor obstetric risk as per the WHO criteria, but also of greater chances of low birth weights in the offspring. Thus, raising of age at marriage could possibly be considered to have a considerable impact on maternal, foetal and infant nutrition even in the current context of poverty in our rural communities. The 1991 census figures show that the mean age at marriage of currently married women in the country as a whole has increased from 16.7 years in 1981 to 17.7 years in 1991. The "singulate" mean age at marriage (the mean number of years that a girl remains single) of females has also shown an increase from 18.3 years in 1981 to 20 years in 1992.

A stunted woman who starts on her pregnancy with a body weight of 38 kg or less and a hemoglobin level below 8g per cent is unlikely to achieve a body weight increase of more than 5 to 6 kg, and a hemoglobin level of 11g per cent, by the end of her pregnancy with the type of inputs which our health system is now able to provide. Clearly, therefore, the answer lies in ensuring that the opportunities provided by the precious years of adolescence are not wasted by our health system. Programmes aimed at improving the health and nutritional status of girls during adolescence and programmes such as supply of iron and folate tablets to anaemic adolescents are necessary so that the girls can enter their pregnancy without serious handicaps.

VI. Support To Nursing Mothers

While adolescent girls are totally out of focus in our present health system, a great deal of lip-service is being paid to nursing women with; however, no concrete action plans. Which extol the value of breast milk and laud women of our poor communities for breast feeding their babies for prolonged periods, no special attention is being bestowed towards improvement of the health and nutritional status of the nursing mother even during the first six months of her lactation. One of the great physiological marvels, which is still not fully explained, is the fact that our poor women despite a diet which generally provides no more than, 1800 to 2,000 Kcal per day with only 45g of vegetable protein daily, are able to produce 400 ml to 600 ml of breast milk; and are able to achieve this feat only at considerable cost to themselves through depletion of their own tissue.

The marginal loss of body weight in the course of lactation does not fully reflect the extent of tissue depletion. A serious threat to exclusive breast feeding for even up to four months could arise from the fact that in the wake of rapid urbanization, a large proportion of rural women are now migrating to urban areas where they get jobs in the unorganized, labour sector. With no guaranteed maternity leave, the mother in the urban slum will now be able to exclusively breast feed her infant for no more than a month.

VII. Anaemia

Among nutritional deficiency states currently afflicting our women, anaemia is the most widespread. Its clinical manifestations are not spectacular and for this reason the disease is often ignored. Recent studies have indicated that in states of iron deficiency apart from anaemia there are impairments of physical stamina, of learning ability, of immunocompetence, and of behaviour in general. Severe anaemia also adds to obstetrical risks. Because of its high phytate content, bio-availability of iron present in habitual high cereal diets is expected

to provide the additional iron needed either through a programme of fortification of some commonly used food item (like, say, common salt) with iron. This must go hand in hand with programmes aimed at the improvement of diets, especially with regard to increase of vitamin C rich foods such as green leafy vegetables and fruits; which could increase the bio-availability of food iron. Most pregnant women are deficient not only with respect to iron but with respect to other micronutrients such as zinc as well.

VIII. Endemic Goitre

According to official estimates, 167 million people in the country live in goiter endemic regions and 54 million are actually suffering from goitre-. The answer lies in the vigorous implementation of the salt iodation programme. It has been warned against resorting to iodine injections in pregnancy. There are no doubts whatsoever about the efficacy and safety of the well tried out salt iodation procedure and this is what we should pursue without allowing ourselves to be deterred by powerful vested interests.

IX. Gender Bias

The major thrust of aggressive women's movements in the country in recent years has shifted towards combating 'sex discrimination'. It is true that in many households (if not in all) across the country, parents (both mothers and fathers) prefer to have sons rather than daughters. It is also true that where couples have already had three daughters in a row, sex determination tests are carried out to ensure that the next baby is a boy; selective abortions of female fetuses are apparently being undertaken. It also appears to be the case that women in poor rural communities seek medical assistance for illnesses of their sons more frequently and promptly than for illnesses of their daughters.

Supplementary feeding includes milk, egg, vitamin tablets/ tonics and health- improving drinks (branded items popular in the market). The responses as to whether any supplementary feeding (other than the usual food) is given or not, have been presented in Table. it is revealed that all the girl children who are deprived of any supplementary feeding belong to the lower income households whereas in the higher income groups, the girl children have access to supplementary feeding. In respect of the boys, even the lower income households have managed to provide supplementary food to most of their children. Only four boys (against 10 girls) are not given supplementary food. Interestingly, in the higher income group (Rs. 15,000 to 20,000), all the 12 households provide supplemental feeding to all their daughters but two sons. Thus, the higher income group has a tendency for "positive" discrimination for girl children, which is a welcome feature. The lower the income level, the greater the interest in sons than in daughters; there seems to be a necessity to make preference on the basis of future value of a child to the household. Probably, these low income households consider it economically rational (from their perception) to. Nurture sons better than they do daughters. The pattern in supplemental feeding and nutritive strength between sons and daughters is also reflected in the health care pattern, explained in the following section.

The incidence of sickness shows that among the lower income households, girl children are prone to greater incidence of fever and cold. The differences, though marginal in respect of fever, seem to be larger in respect of cold affecting the girls. The situation is rather different when it comes to higher income households. In these households, the girls suffer relatively lower incidence of fever whereas colds has affect girls almost the same way as boys.

X. Conclusion

Thus the reasons for the malnutrition among Indian women may shortly be concluded that

- poverty makes a woman more vulnerable in all aspects
- illiteracy and un awareness of the opportunities
- Social and cultural systems made the woman an inferior to her partner.
- Negative value system

XI. Household Income And Supplemental Feeding

Table – 1 According to supplementary feeding

Monthly Household Income	No. House Hold of	Supplementary Feeding			
		Son		Daughter	
		Yes	No	Yes	No
1000 – 5000	17	15	02	11	06
5001 – 10000	08	06	02	07	01

10001 – 15000	12	12	–	09	03
15001 – 20000	12	10	02	12	–
20001 and Above	01	01	-	01	–
Total	50	44	6	40	10

Incident Sickness

Table – 2 Number of times the children were affected by sickness in a year (annual average per household for the respective income group)

Income	No. of Household	Fever		Cold		Diarrhea	
		Son	Daughter	Son	Daughter	Son	Daughter
1000 – 5000	17	23	27	26	38	05	06
5001 – 10000	08	07	12	10	10	-	-
10001 – 15000	12	09	10	14	07	-	02
15001 – 20000	12	20	15	12	14	01	-
20001 and Above	01	6	02	03	04	-	01

Table – 3 Expenditure on childcare including food, clothing, education and medicine (average per month per child in rupees)

Income	No. of Household	Food		Clothing		Education		Medicine	
		S	D	S	D	S	D	S	D
1000 – 5000	17	635	492	1030	610	980	600	120	50
5001 – 10000	08	720	520	1300	980	1600	950	200	150
10001 – 15000	12	1200	920	1700	1800	2180	2100	220	180
15001 – 20000	12	1530	1100	2890	2980	2700	2980	180	200
20001 & Above	01	1800	1920	2500	2500	5150	5100	150	200