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Drudgery encountered by farm women in rice cultivation in Chhattisgarh

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Abstract
Women play a pivotal role in household, farm and allied activities. They are the veritable back-bone of subsistence agriculture in Chhattisgarh, because about eighty percent of the field work in agriculture, from sowing to harvesting, post-harvest management and dairy management is done by farm women. For assessing out the work pattern and drudgery level of farm women, 125 respondents from two villages of namely Chataud and Tarra were selected.

Keywords: Women, agriculture, rural and villages

Introduction
Majority of Agricultural farms in Chhattisgarh are not mechanized. Here animals and human labourers are the prime power source. Rural women contribute in farming activities to a great extent. Women share a number of farm operations with men in this region. Farm operations like transplanting, weeding, harvesting, threshing, winnowing, storage of seeds and grains are mainly carried out by women. Some of these operations require high level of physical activities, strain and labour, which result in muscular pain, injuries and headache.
Human beings generate energy from food which contains fats, carbohydrates, proteins and vitamins. These nutrients produce energy on digestion. This energy is consumed during physical activities done by human being. This study mainly deals with the involvement of women in farm operations and the energy use pattern of women in growing paddy crop.

Methodology
The study was carried out in the neighbouring rural areas of Raipur in the villages Chataud and Tarra. The sample consisted of 125 women labourers. The respondents were selected by adopting simple random sampling technique. Data were collected with the help of a pre-tested interview schedule. In addition to it the extent of involvement of women was personally observed during field visits and the observations were recorded. To determine energy use pattern, the actual working hours of women labourers to perform different operations were recorded. The working hours required to accomplish an operation were converted to energy units using standard coefficients. The data were collected personally regarding types of activities performed (household, farm and allied activities), frequency of performance, time spent on each activity and their perception regarding each activity performed by them i.e. exertion perceived and discomfort score to find the most drudgery prone task on hierarchy basis. Time spent in doing each of these activities was calculated on hours/day basis. The extent of participation of women in different activities and the exertion and discomfort perceived during performing these activities was worked out. Majority of farm women spent an average time of 2-4 hours/day in agriculture and less than two hours in livestock and poultry. Data on perceived exertion by the women highlighted that agricultural activities were experienced as moderately heavy to heavy types in exertion and fatigue. Main activities were harvesting/plucking, storage and post-harvest which were light to moderately heavy in exertion range. Involvement in livestock activities caused mild pain. All the chores were measured as moderate on the scale.

Table 1: Involvement of women agricultural labourers in different operations of paddy cultivation

S. No.	Operation	Extent of involvement						Total scores	Mean scores	Rank
		Always		Seldom		Never				
		No.	%	No.	%	No.	%			
1.	Field prepn.	0	0	0	0	125	100	-	-	-
2.	Nursery raising	0	0	6	4.8	119	95.2	6		VII
3.	Transplanting	116	92.8	9	7.2	0	0	241		I
4.	Plant Protection	0	0	0	0	125	100.0	-	-	-
5.	Irrigation	0	0	5	4.0	120	96.0	5		VIII
6.	Weeding	102	81.6	18	14.4	5	4.0	222		III
7.	Harvesting	110	88.0	7	5.6	8	6.4	227		II
8.	Threshing	73	58.4	15	12.0	37	29.6	161		IV
9.	Winnowing	73	58.4	15	12.0	37	29.6	161		IV
10.	Storage	20	16.0	48	38.4	57	45.6	88		VI
11.	Transport	54	43.2	16	12.8	25	20.0	124		V

Findings and Discussion

Results depicted in Table-1 shows that transplanting is the operating in which the women contribution is the highest (92.81%) followed by harvesting (88%) and weeding (81.6%). The farm women do not contribute in field preparation and plant protection operations (Table 1).

Table 2: Human energy required in different farm operations in paddy cultivation

S. No.	Operation	Energy required (M J/ha)	Rank
1.	Field preparation	99.48	VII
2.	Nursery raising	49.08	VIII
3.	Transplanting	515.35	I
4.	Irrigation	42.75	IX
5.	Fertilizer Appn.	124.36	VI
6.	Weeding	134.50	V
7.	Plant Protection	16.50	X
8.	Harvesting	310.99	II
9.	Threshing	262.72	III
10.	Transport	134.64	IV

Similarly, the highest human energy is required in transplanting, as this operation is done by manual labourers only, and requires a considerable time. This is followed by harvesting, threshing and weeding under transplanted paddy cultivation system. But under Biasi (Busani) method of rice cultivation weeding was found to be the highest human labour consuming operation.

The women farm workers were asked about drudgery and problems associated with different operations. About 80% of farmwomen experienced the transplanting as the most cumbersome operation. Maximum fatigue was occurred in this operation because this operation is done in bent posture. Weeding was ranked at the second position with 60% fatigue followed by threshing with 50%. Rest of the operations were not found as difficult as the above operations and scored less points in the ranking on the basis of fatigue by the women workers. Some of the major problems encountered by the farmwomen while carrying out different agricultural operations are backache due to bending while transplanting operation, wounds in legs due to working in mud for several hours, itching in hands etc.

Dust and fine particles of crop are inhaled by the workers during threshing operation. It causes irritation in throat, cough and other respiratory problems. Harvesting a crop is also found a cause of backache as the labourer has to bend upon the crop and to move forward while cutting the plants with sickle. The respondents offered some suggestions to reduce drudgery. Almost all the respondents suggested to have some rest periods between continuous working. They said that, it will improve the work output of an individual and will decrease the backache. Use of improved hand tools may also reduce drudgery in harvesting and weeding operations. Use of protective clothings and masks in threshing will protect the labourers from dust and consequently from respiratory problems.

Women are considered as the backbone of agriculture which is regarded as the largest sector of the economy. Women in this state perform various activities to earn livelihood for the family. The farm women are involved in extensive work on fields and at household levels daily and are hence exposed to all the risks of ill health, poor nutrition and inadequate care. The women also have to undergo a very hard life. All the agricultural operations are time-consuming and full of drudgery leading to pain and discomfort in different body parts which are high risk factor for muscular stresses in women. This huge amount of work in the absence of proper nutrition and health care creates serious health repercussions. Many research studies have reported that nutritional and health status of farm women is unsatisfactory and needs interventions. The agricultural policies and programmes need to be more nutrition-sensitive to impact the health.

Conclusions

Following conclusions can be drawn on the basis of this study

1. Among all operations, transplanting is the highest energy consuming operation, which also involves the highest drudgery.
2. Role of the farm women in carrying out the major operations is vital in Chhattisgarh. They contribute a large share in these operations.

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