

Women Labour Participation of Agricultural Production in Sindh Pakistan

Ms. Irfana NoorMmemon^{*1}, Sanaullah Noonari¹, Mushtaque Ali Kalroo², Zarmina Memon² Amber Pathan²,
Attia Manzoor², Maria Pathan²

1. Assistant Professor, Department of Agricultural Economics, Faculty of Agricultural Social Sciences, Sindh Agriculture University, Tandojam Pakistan

2. Student, Department of Agricultural Economics, Faculty of Agricultural Social Sciences, Sindh Agriculture University, Tandojam Pakistan

Abstract

This study was conducted to investigate the *economics analysis of women labour participation* in agricultural production in Mirpurkhas, Sindh during 2013. The results of the study showed that that the women labourers got maximum employment in agriculture during *kharif* (67 days) and rabi season (53 days). The women labourers got 120 days of employment in agriculture in a year. The labourers got maximum number of days of employment in weeding (64 days) followed by harvesting and post harvest operations (34 days). They received wages in cash for all operations except harvest and post harvest operations. They worked for 7-8 hours a day. The women labourers had maximum unemployed days in summer (120 days) as this is the off season for agriculture in the study area. Their family consumption expenditure, their savings and debt position is presented the average debit amount was Rs.3100.00 in kharif . It increased in Rabi Rs. 4700.00. The impact of seasonal woman unemployment in agriculture on the income of the labourers, their family consumption expenditure, their savings and debt position .That the during *kharif* season the labourers got on an average Rs. 19700.00 as income. But during rabi they received only Rs. 18000.00 as income from wage earnings in agriculture .The expenditure on food item was on an average Rs. 10300.00during *kharif* . It reduced by 13.94 per cent during rabi 8300.00. The expenditure on non-food items also decreased from Rs. 7500.00 to Rs. 6200.00. The change was Rs.1300.The lack of employment opportunities in agriculture during off season compelled the women labourers to seek alternative employment sources like activities, construction works, tile making *etc.* The seasonal woman unemployment in agriculture has caused a severe impact on the income of labourers, family expenditure, their savings and debt position.

Keywords: *Women labour*, Agriculture, Consumption, Kharif, Rabi, Mirpurkhas

1. Introduction

Women have been the invisible and unrecognized link in the cycle of economic development of a country. Women also play a significant role in the social development of a country. In rural areas, from which males have migrated in large numbers in search of work, many farms are managed by women, who may not have legal control of the farms and are performing their household maintenance tasks. Women in South Asia keep the rural way of life alive. They participate in all operations pertaining to livestock management, crop production' such as sowing, transplanting, weeding, harvesting as well as the post-harvest operations such as threshing, winnowing, drying, grinding, husking and storage of the products. It has been estimated that a working class village woman in South Asia works from 12 to 16 hours a day. In Nepal, for example on an average women work for 12.07 hours, 47 percent higher than men who work on average 8.21 hours. The engagement of women in agriculture is spread over a large number of activities. In fact in most regions, they perform more tasks than men. The participation or involvement of women in South Asia agriculture depends on a number of factors such as the type of activity, the crop in question, the particular geographical area, socioeconomic status of the family. On agricultural farms, where men and women work together, women participate in almost all activities related to crop production, but there are certain tasks that cover greater female participation than others (S.M, 2003).

Pakistan is going through a demographic transition where the proportion of productive young person's is increasing. It is in fact the demographic dividend for future development of Pakistan. The economic development of the country reveals the fact that both male and female are contributing in the market activities. It is evident from various studies, as in the early phases of economic development the female participation increases specially as unpaid family worker in the agriculture sector. Later, their employment increases in the manufacturing and services sector. As female's education improves so do their opportunities in the services sector. Education not only guarantees higher income but also provide opportunities in the labour market. Therefore, there exist a strong causality between female labour force participation and the level of economic development (Fatima *et al.* 2009).

In the rural areas of Pakistan, agriculture land is owned by men and they use family labour including women for producing crops. Women are not paid but are fed, clothed and provided dowry by father at time of marriage, ornaments from cradle to grave and are not mourned as men are. Their mud covered graves are leveled

up by occasional rain runoff. In recent years some families educate them so that chances of marriage in well to do families are ensured. Sindh Rural Women's Uplift Group tried to help women by engaging a number of between 10-15 on the farm under the guidance of women Farm Supervisors paid same salaries as men and gave them similar hobs to perform. Their monthly output of two groups of men and women were being compared. The women were the best in case of mowing, grasses for mulch, collecting fallen leaves, twigs, bark and etc. Their full time employment in sustainable agriculture in the past 2 years, in preference to men has changed the life pattern of a group of 12 women consisting of one couple of parents, their daughters, daughter-in-laws and nieces. In two years since starting of operations house-hold life pattern of these families has changed. In the beginning men took away all the salaries of women but gradually women have asserted and now they are better clothed a women have asserted and now they are better clothed and say that they will send their children to the school. Man's attitude toward the social set-up in the house has changed somewhat and are a little more considerate but, time may bring about further changes (Farzan, 2012).

Pakistan is basically an agro-based economy in a way that the biggest chunk of economic resources is generated by agriculture sector. Described the total population of Pakistan reached to 166.45 million in 2011-12, majority of which depends upon agriculture which remains the dominant sector in its capacity of labour absorption and in employment creation for 45 % of population. Pakistan Ministry of Finance (2012) in its overview of Pakistan's Economy reported that after much diversification in agriculture sector, it still remains the largest sector of economy which contributes 23.3% to GDP by engaging 42.1% of the labour force in the year 2010. In Pakistan's economy women play an active role. But their contribution has been grossly underreported in various censuses and surveys. Consequently, official labour force statistics show a very minimal participation of women. For example, the 2010 Labour Force Survey revealed that only about 16% of women aged 10 years and over were in the labour force and in comparison, the men's participation rate was 84%. On the contrary, the agricultural census showed that women's participation rate in agriculture was 73% and that women accounted for 25% of all full-time and 75% of all part-time workers in agricultural households. Also, the 1990-1991 Pakistan Integrated Household Survey indicated that the female labour force participation rate was 45% in rural areas and 17% the urban areas. Thus it is clear that if women's contribution to economic production is assessed accurately, a conservative estimate of women's labour force participation would be between 30% and 40% (ESCAP, 2011).

Agricultural and allied industries absorb the largest proportion of employed persons, both women and men, particularly in the rural areas. However, the proportion of the persons engaged in the agricultural sector is higher among rural women (79.4%) as compared to rural men (60.8%). The Human Development Index (HDI) rank of Pakistan is 119 th of 146 countries, indicating low life expectancy at birth, low educational attainment and low income. It demonstrates that Pakistan is faced with a difficult task in human resource development. The Gender-Related Development Index (GDI) rank of Pakistan is 120th of 146 countries. This illustrates that the human development gap is further aggravated by substantial gender disparities. The difference between HDI rank and GDI rank is -1, indicating that the country performs relatively worse on gender equality than on general achievements alone (UNDP, 2000).

Labour is one of the primary factors of production. It is considered to be important not only because it is productive but also because it activates other factors and makes them useful for production purposes. The size of labour force in a country is determined by the number of people in the age group of 15-59 years as generally children below 15 years and old people above 59 years do not participate in production activity. India's labour force consists of 459.1 million workers (2004-05), growing at the rate of 2 per cent annually. Out of this 268.1 million workers are employed in agriculture as cultivators and laborers' (Nagaraj, 2007).

2. Objectives

1. To analyze the role of rural women in agriculture operations.
2. To measure the season wise employment of woman labour in agriculture
3. To examine the pattern and composition of woman labour employed
4. To study the impact of seasonal woman unemployment in agriculture.

3. Review of literature

Usharani *et al.* (2003) conducted a study to examine the gender differential in work participation in various operations of crop and livestock enterprises in semi-arid areas of Rajasthan. In the study female labour days of 8 hours were converted into man-equivalent days. One day work of woman was taken as equivalent to 0.75 man day. The major female labour absorbing operations are weeding, harvesting and threshing. Farm women spent about 85 per cent (on large farms) to about 89 per cent (on marginal farms) of their time in these operations only. The overall women participation rate in dairy enterprise was as high as 94 per cent as against 6 per cent only for men. The women work participation was minimum on marginal farms (86.24%) and maximum on large farms (99.12%) indicating positive relationship with the size of the holdings. In all farm size groups, female labour use was 58 per cent of the total labour use.

Akmal *et al.* (2004) reported that in comparison with the participation in crop production activities, the rural women's share in livestock related activities was much higher in interior Sindh. The activities of most of the females were mainly focused on fodder cutting, watering, cleaning animals and their sheds. Milking the animals and milk processing had also at times been assigned to women folks permanently. The activities exclusively meant for rural women included manure collection, preparation of dung cakes and maintenance of animal sheds.

UNDP (2006) surveyed in village named as Banda Golra that consists of about 120 households in areas of Pakistan. The most men in that village were day laborers while the women played the traditional roles in the household apart from their little share in making important decisions. In result of the women's abandonment of using family planning methods, most of the families were large. The men had the education till primary while the majority of women were illiterate. Women, playing the multi folded role, worked at home, managed livestock and fulfilled other household duties. A recurrent problem in this area is to have access to water. The only water sources of the village were two natural springs which were simultaneously fulfilling the needs of the human beings, the village livestock and wild animals. The storage of drinking water was the responsibility of women which consumed three to four hours of their working period while another full day was for livestock and other household purpose, every week.

Hashmi (2008) conducted a study in the rural areas of the Punjab about "role of livestock in poverty reduction" and found that most of the activities related to livestock were performed by females. However, milking and fodder chopping were two activities which were mainly performed by male members of the livestock farmers. Male members only spent 2.83 hrs per day while female spent 4.71 hrs per day towards livestock activities. As the women's participation in various livestock related activities had increased, the proportion of income from this source also increased and subsequently poverty reduced.

Kachroo (2005) in her study has examined the economic contribution of female labour in farm and non-farm sector towards family income in rural Jammu and Kashmir State. A three stage stratified random sampling procedure was followed with two development blocks of Jammu district viz ., R.S.Pura and Bishnah. The study revealed that the percentage share of rural women in cultivation income was 43.86 per cent in R.S.Pura and 47.93 per cent in Bishnah. In dairy farming, their contribution was highest, that of 73.83 per cent and 74.66 per cent in R.S.Pura and Bishnah respectively. The wage employment of these farm women was either nil (R.S.Pura) or negligible (Bishnah-5.80%) as compared to their male counterparts. The share of females in total agricultural income was 44.76 per cent in R.S.Pura and 50.44 per cent in Bishnah. This implies that women do not lag behind in contributing the agricultural income on par with men, but it is not accounted for. Womens' contribution towards non- agricultural income was found to be 1.55 and 2.37 per cent respectively in RS.Pura and Bishnah. The overall contribution of females towards household income was 21.24 per cent in R.S.Pura and 27.18 per cent in Bishnah.

Dhillon *et al.* (2007) conducted a study in three agro-climatic zones of Punjab on the involvement of farm women in agricultural and allied activities. Multistage stratified random sampling technique was used to select the sample of 120 farm women. The results of the study showed that the age of the farm women ranged between 24-56 years. Majority of the respondents belonged to the age group of 35-45 years. Majority of the respondents were illiterate. Majority of the farm women (42.5 %) belonged to the families having 0-6 family members. Majority of the families in zone-III (62.5%) were holding large farm size of more than 10 acres, followed by zone-I (37.5%) and zone-II (22.50%).

Arshad (2009) conducted a study about "role of rural women in decision -making regarding livestock management in Tehsil Jhang" and found that 100 percent female participated in milk processing. Their contribution was 90, 87.5, 82.5, 77.5, 75.8, 72.5, 68.3 and 67.5 percent in making and storage of dung cakes, collection of manures, caring of diseased animals, watering of animals, making feed concentrates and feeding of livestock, cleaning of animal sheds, fodder chopping and calf rearing respectively.

Alam *et al.* (2005) stated that about 70 percent of the Pakistani work force in agriculture sector comprised of women and their job conditions were really tough, yet their share of toils remained unheeded and unaccounted. They further said that Millions of females were engaged in farming operations like tillage sowing, planting, hoeing, weeding, cotton picking, cleaning fields, collecting cotton sticks, feeding and milking the animals, sifting seeds, grading and packing the fruits and working in the cotton ginning enterprises. They also had miscellaneous domestic jobs to perform. Women also took care of rural poultry farming. It was also stated that about 2.6 Million females were actively associated with cotton picking in nine districts and their participation in ridge making was 2 percent, sowing seeds 26 percent, weeding 22 percent, cotton thinning, 16 percent manual weeding 20 percent, cotton picking 86 percent, cutting cotton sticks 8 percent, collecting cotton sticks 23 percent, and cleaning the fields 8 percent, in addition to the help the provided in the post harvest activities. They suggested that the earning level of women can be increased by giving them training in the fields of vocational training, handicraft, poultry farming, sericulture, beekeeping and other post production techniques. It was the role of state and private sector to influence and mobilize rural women enrollment in schools and

continuing education in order to enhance literacy among them.

Nosheen *et al.* (2008) embarked upon a study in the Chakwal District about exploring the gender involvement in agricultural decision making. They reported that majority of the women (60.1 percent) were engaged in livestock management activities, while 58.5, 38.5, 28.0 and 26.5 percent were involved in crop production, animal production, animal protection and poultry husbandry respectively. However, majority of male respondents (51.0 percent) participated in crop production, followed by 35.0, 3.25, 22.0 and 13.5 percent in animal protection, animal production, crop protection and marketing of crop produce, respectively.

4. Methodology

The present study was designed from and conducted in District Mirpurkhas. Primary purpose of this chapter is to explain various tools and techniques in the selection of sample, collection, analysis and interpretation of data relating to research. Intend of this study was to investigate the existing women labour participation District Mirpurkhas. Planned strategy was used to study the area, type and number of respondents without which it would be an ineffective effort. Therefore, it is essential to define variables included in the research to make it more scientific and objective.

4.1. Study Area

The study was based on primary data. The data was collected through field survey using face to face interview with farmers simple 60 households are engaged in agriculture activities in Mirpurkhas area.

4.2. Sample Size

The samples were supposed to contain poultry farmers. A sample size of 60 respondents was selected through random sampling. For data collection, Multi-stage random sampling technique was used to select villages and respondents. A village representing average conditions was randomly selected from Mirpurkhas district.

4.3. Data Collection

Interview schedule (questionnaire) was used as a research instrument to elicit information on women participation in agriculture activities. A well structured questionnaire was prepared for the collection of data. Efforts were made to keep it simple and understandable so as to capture all the necessary information on family income, household composition, age groups, and participation of men and women in agriculture. This interview schedule was pre-tested and modified according to the feedback from respondents. The primary data for this study was collected through a household survey.

4.4. Questionnaire Development

In all statistical surveys questionnaires are considered as the medium for recording the information obtained in a standardized manner. Keeping in view women labour participation a comprehensive questionnaire was developed; Questionnaire included important questions to obtain information about marketing pattern in women labour participation District Mirpurkhas along with other socio-economic characteristics of the farm house hold.

4.5. Socio Economic Characteristics

The status of the sample respondents can be well described through socio economic characteristics. In this study, different indicators of respondent's socio economic features identified:

4.5.1. Age

Age factor plays an important role on the workability and efficiency of the person's contribution in different farm and nonfarm operations.

4.5.2. Education

Education is taken to be a most important feature of respondent's status which describes its awareness, approach and reputation. In this study education of the respondents is expressed in years which he spent in any institution for gaining knowledge.

4.5.3. Farming Experience

Farming experience has its impacts on the farm production. With the passage of time a person gains experience and gets well familiar to the utilization of resources and the conditions of farm and output markets. The more the experience a farmer gains it has positive effects on productivity and profitability.

4.5.4. Family Size

Most of the labor to perform various farm operations is taken from farmer's family. Therefore family size of the farmer has a significant impact on productivity. Family size contains all those individuals who have a share in the yield and farm income.

4.5.5. Land Holding

Total land hold by the farmer on which it performs farm operation and from which he gets the income is called

the land holding. Land holding involves the land owned or rented in or out by the farmer.

4.5.6. Marital Status

Marital status is the condition of being married, unmarried, divorced or widowed. Marriage is a legal contract between people called spouses. Widowed this category includes persons who have lost their legally-married spouse through death and who have not remarried. Divorced this category includes persons who have obtained a legal divorce and have not remarried. Single this category includes persons who have never married. It also includes persons whose marriage has been legally annulled who were single before the annulled marriage and who have not remarried.

4.6. Data Analysis

Data analysis was conducted to find out the required results of the study. Women participation in agriculture activities was measured in man days/seasons and one day consists of 8 hours. The following model was used to study the relationship between women participation in agriculture activities and a few selected but relevant variables with a view to identify factors that would have significant impact on women participation.

$$WP = f(E, M, A, D, SY)$$

WP = Participation of women in agriculture activities (man day/Season)

E = Total income of family (Rs per annum)

M = Number of adult male in household

A = Age of respondent

D = Dummy variable for Tenure status

SY = Schooling years

4.7. Econometrics Analysis

To quantify the impact of various variables on Women participation, the following econometric model was used.

$$WP = B_0 + B_1 INC + B_2 M + B_3 A + B_4 SY + B_5 T + E$$

Where, INC is income of household, M is number of adult man, A is the age of respondent, SY is education level of respondent and T is tenancy status of sampled respondents are independent variables. These independent variables were considering having possible effect on the dependent variable and regressed on the dependent variable.

5. Results

The study area was Mirpurkhas District of Sindh, Pakistan. The study was expressed into two subsections.

5.1. Age

Age is very important demographic factor, which influences the efficient allocation of resources'. More aged people are more skillful and experienced than the less age people.

Table 1: Distributions of the respondents according to their age

Age	No. of farmers	Percentage
81-22 years	13	21.66
23-35 years	12	20.00
36-45 years	15	25.00
46-50 years	13	21.66
More than 50 years	07	11.66
Total	60	100

It is evident from the table 1 that majority of the women labourers, 25.00 per cent belonged to the age group of 36-45 years. About 21.66 per cent were in the age group of 81-22 years, 20.00 per cent were above 23-35 years of age. Only less number of women labourers was in younger age group that is 21.66 per cent in age group of 46-50 years and 11.66 per cent in age group of above 50 years.

5.2. Education Level

It is expected that education has a positive effect on the behavior of farmers about the adoption of new innovations and improved technologies

Table 2: Distribution of the respondent according to their education level

Education level	No. of farmers	Percentage
Illiterate	13	21.66
Primary	15	25.00
Middle	20	33.33
Matriculation	10	16.66
Collage/University	02	3.33
Total	60	100.00

The educational level of labourers showed table 2 that 25.00 per cent of the labourers had primary education, 21.66 per cent of the labourers were illiterate, 33.33 per cent of the labourers had middle education, 16.66 per cent of the labourers had matriculation education and 3.33 per cent of the labourers had Collage/University education.

5.3. Occupation

Expert and specialized knowledge in field which one is practicing professionally.

Table 3: Distributions of the respondents according to their occupation

Occupation	No. of farmers	Percentage
Self Farming and Labour	08	13.33
House wife	03	5.00
Agriculture Labour	49	81.66
Total	60	100.00

Among the women labourers showed table 3 that 81.66 per cent women had agriculture labour as their main occupation. 13.33 per cent women labourers did both farming and labour activities. Only 5.00 per cent women house wife.

5.4. Family type

Two or more people who share goals and values, have long-term commitments to one another, and reside usually in the same dwelling place.

Table 4: Distributions of the respondents according to their family size

Family Type	No. of farmers	Percentage
Nuclear family	15	25.00
Extended family	28	45.66
Joint family	07	11.66
Total	60	100.00

It is observed from the Table 4 that 25.00 percent of the women labourers belonged to nuclear family, 45.66 per cent of the women labourers belonged to extended family and 11.66 per cent of the women labourers belonged to joint family.

5.5. Marital Status

Marital status is the condition of being married, unmarried, divorced or widowed. Marriage is a legal contract between people called spouses. Widowed this category includes persons who have lost their legally-married spouse through death and who have not remarried. Divorced this category includes persons who have obtained a legal divorce and have not remarried. Single this category includes persons who have never married. It also includes persons whose marriage has been legally annulled who were single before the annulled marriage and who have not remarried.

Table 5: Distributions of respondents according to marital status in the study area

Marital Status	No. of farmers	Percentage
Single	17	28.33
Married	37	61.66
Divorced/ Widow	5	8.33
Total	60	100.00

It is observed from the Table 5 that 61.66 per cent of the women labourers were married, 8.33 per cent of them were widows, 28.33 per cent of the labourers were unmarried.

5.6. Type of labour

The aggregate of all human physical and mental effort used in creation of goods and services.

Table 6: Distributions of respondents according to Type of labour in the study area

Type of labour	No. of farmers	Percentage
Skilled	17	28.33
Un-Skilled	43	71.66
Total	60	100.00

It is observed from the Table 6 that in the study area are 71.66 percent not technically skilled. 28.33 percent skilled works. They worked for 7-8 hours a day.

5.7. Type of work

Full-time or part-time work schedule / full-time and part-time employments.

Table 7: Distributions of respondents according to Type of work in the study area

Type of work	No. of farmers	Percentage
Permanent Labour	0	00.00
Casual Labour	52	81.4
Cultivators cum Casual Labour	18	18.6
Total	60	100.00

It is observed from the Table 7 that in the study area are 81.40 per cent labourers worked as casual labour. 18.600 per cent worked as both cultivators and casual labour. There was no permanent labour in agriculture in the region.

5.8. Season wise employment of woman labour in agriculture

Table 8: Distributions of respondents according to Season wise employment of women labourers in agriculture

Season	Employment days per worker	
	Days	Percentage
Kharif	67	55.83
Rabi	53	44.16
Total	120	100.00

The season wise employment of woman labour in agriculture is given in Table 8. There are two main agricultural seasons in the study area Kharif and Rabi. They worked for 7-8 hours per day.

Table 9: Distributions of respondents according to Employment of women labourers in agriculture during kharif season

Months	Employment days per worker	
	Days	Percentage
June	23	34.32
July	11	16.41
August	6	8.95
September	27	40.29
Total	67	100.00

It is observed from the Table 9 that in the Kharif season generally extends from June to September. The women labourers got on an average 67days of employment in agriculture during this season. They got maximum employment in the month of June (23days) which accounted for 34.32 per cent of the total employment in the season. In September they got employment for 27 days (40.29 %). In July and August they got employment for 11 and 6 days respectively.

Table 10: Distributions of respondents according to Employment of women labourers in agriculture during rabi season

Months	Employment days per worker	
	Days	Percentage
October	21	39.62
November	10	18.86
December	6	11.32
January	13	24.52
Total	53	100.00

It is observed from the Table 10 that in the Rabi season extends from October to January. In this season

the labourers got employment for 53 days in agriculture which accounted for 44.84 per cent of the total employment in agriculture in a year. They got maximum employment in the month of October (21 days) which accounted for 39.62 per cent of the total employment in the season. They got 13 days of employment in January, 10 days of employment in November and 6 days of employment in December.

Table 11: Distributions of respondents according to No. of farmers of women labourers employed in agriculture

Months	Number of women agricultural labourers
June	60
July	60
August	60
September	60
October	60
November	60
December	60
January	60
February	4
March	30
April	30
May	0

Table 12: Distributions of respondents according to Operations carried out by women labourers in crop production

Operations	Type of implements	Wage in cash (Rs.)	Number of days worked		Total days
			<i>Kharif</i>	<i>Rabi</i>	
Raising the nursery	Hand	200.00	2	1	3
Transplanting	Hand	200.00	16	15	31
Weeding	Hand/sickle	200.00	20	19	39
Gap filling	Hand	200.00	2	2	4
Irrigation	Pot	200.00	2	2	4
Harvesting	Sickle	200.00	12	11	23
Threshing	Hand/Thresher	200.00	4	3	7
Winnowing and sun drying	Hand winnower	200.00	6	4	10
Total			64	57	121

It is observed from the Table 12 that in the study area the women labourers are involved only in crop production activities. The women labourers were mostly involved 2, 16, 20 and 12 days in nursery transplanting, weeding, harvesting activities in agriculture and 4, 6 days in threshing and winnowing.

Table 13: Distributions of respondents according to Season wise unemployment of women labourers in agriculture

Season	Unemployment days per worker	
	Days	Percentage
Kharif	138	57.50
Rabi	112	42.50
Total	240	100.00

It is observed from the Table 13 that in the study area during *kharif* season the women labourers were unemployed for 138 days. 57.50 per cent of the total unemployed days in the season. During *rabi* season the women labourers were unemployed for 112 days. 42.50 per cent of the total unemployed days in the season.

Table 14: Distributions of respondents according to Alternative sources of employment for women labourers in agriculture

Alternative sources	No. of labourers involved	Months	Average number of days	Wage rate (Rs. per day)
Domestic work	15	February, March	30-100	150
Harvesting	20	February, March, April	32-40	250
Home industry	11	March	24-26	220
Construction	3	February, March	21-23	200
Small industries	4	February,	40-42	220
Handicraft	7	February,	45-50	180
Total labour	60			

It is observed from the Table 14 that in the study area among the 60 sample labourers activities during off season. About 15 labourers also worked as domestic servants. They worked for 30-100 days and the wage rate was Rs. 150 per day. The labourers also worked in home industries and in construction. They worked for 25-30 days and earned Rs.220 per day as wages. Some of the labourers got employment in small industries and handicrafts.

Table 15: Distributions of respondents according to Impact of seasonal unemployment of woman labour in agriculture

Variable	<i>Kharif and rabi</i> (Average in Rs.)	<i>Rrabi</i> (Average in Rs.)
Income (wage earnings)	19700.00	18000.00
Expenditure on Food items	10300.00	8300.00
Expenditure on. Non-food items	7500.00	62000.00
Saving	1800.00	1300.00
Debt position	3100.00	4700.00

It is evident from Table 13 that the impact of seasonal woman unemployment in agriculture on the income of the labourers, their family consumption expenditure, their savings and debt position is presented the average debit amount was Rs.3100.00 in kharif . It increased in Rabi Rs. 4700.00. The impact of seasonal woman unemployment in agriculture on the income of the labourers, their family consumption expenditure, their savings and debt position .That the during *kharif* season the labourers got on an average Rs. 19700.00 as income. But during rabi they received only Rs. 18000.00 as income from wage earnings in agriculture .The expenditure on food item was on an average Rs. 10300.00 during *kharif* . It reduced by 13.94 per cent during rabi 8300.00. The expenditure on non-food items also decreased from Rs. 7500.00 to Rs. 62000.00. The change was Rs.1300.

6. Conclusion and suggestions

The study "economics analysis of women labour participation in agricultural production in Mirpurkhas Sindh" concluded that majority of rural women from Mirpurkhas district have strong participation in activities such as crop production, livestock husbandry, poultry keeping, food grain processing and storage, home management and handicraft making. Almost all of the respondents were desirous of having information about crop production, livestock and their preventive measures.

- In addition, the high income study subjects were in need of training in agriculture related skills.
- Credit should be provided at government level to interested women who want to start small business industry.
- Government should take initiatives to promote local handicrafts. Mirpurkhas is well known for its handicrafts throughout the province. The public sector institutions need to patronize and promote this industry by providing ample trainings.
- Skill development training programs should be arranged for women focusing on crop production, handicrafts making and interior decoration in order to enhance their earnings for quality life.
- Development of sound infrastructure can't be ignored anymore. No development can be achieved unless paved roads, hospitals and schools are built. Access to clean drinking water sanitation and electricity is a must.
- A well orchestrated infrastructure of amenities like clean drinking water, sanitation, electrification,

schools and hospitals would change the fate of desert women.

- Women agricultural agents should be appointed with a special focus on rural females and to bridge the information gap between applied research and rural women.
- The role of rural women labour should be strengthened through print and electronic media.
- By engaging local community boards, training programs should be planned in areas such as home management, budget making, child care, education and saving strategies.
- Agricultural policy maker should give such type of alternative in which farmers can provided their own energy. Such as befool plants should be given at subsidized rate so that farmers can produce energy.
- The farmers of our Sindh province are mostly un-educated and lack of new technical knowledge. So Government of Sind must be positive in the farmer's education.
- The majority of our farmers are very poor and they often live in a hand to mouth position. Most of them are always under heavy burdens of debts. Government must be financial support through the micro-finance and other sides.

References

- Anjugam, M., Raveendran, N. and Alagumani, T., 2000, Performance of agricultural labour market in Madurai district. *Indian J. Agric. Econ.*, 55 (3): 334-335
- Akmal, N. and S. Sajida, 2004. *Women and Livestock Management in Sindh*. Pakistan Agricultural Research Council, Islamabad.
- Alam, S. M. and R. Manzoo, 2005. Neglected rural women. An article published in daily "Dawn" dated Nov. 14, 2005. Pakistan.
- Arshad. S. 2009. Role of rural women in decision-making regarding livestock management in tehsil Jhang. M.Sc.(Hons.) Thesis, Deptt. of Agricultural Extension, Univ. of Agri., Faisalabad, Pakistan
- Beohar, B.B., Sarawgi, A.K. and Chaudhari, A.K., 1999, Women's contribution in paddy cultivation : A case study of a village of Chhatisgarh region of Madhya Pradesh. *Indian J. Agric. Econ.*, 54 (3): 323-324.
- Bryceson, D.F., 2002, Multiplex livelihoods in rural Africa : Recasting the terms and conditions of gainful employment. *The J. Mod. African Stud.*, 40 (1):
- Chawhan, S.K. and Oberoi, R.C., 1990, Role of tribal women in farm operations. *Indian J. Home Sci.*, 20 (2): 33-36.
- Chawla, J.S., 1999, Changing education cum employment status of female labourers in rural areas of district Amritsar (Punjab). *Indian J. Agric. Econ.*, 54 (3): 319
- Dahiya, P.S., Saraswat, S.P. and Sharma, A., 1999, Participation of women vis-a-vis men in labour force in farm and non-farm sectors in Himachal Pradesh. *Indian J. Agric. Econ.*, 54 (3): 325-326.
- Deshpande, R.S. and Khalil Shah, 2007, Agrarian distress and agricultural labour. *The Indian J. Lab. Econ.*, 50 (2): 257-272.
- Eapen, M., 2005, Women in informal sector in Kerala-Need for Re-examination. *Econ. Politic. Weekly*, 36 (26): 2390-2392.
- Elumalai, K. and Sharma, R.K., 2003, Non-farm employment for rural households in India. *Agric. Econ. Res. Rev.*, Conference Issue, pp.1-19.
- Fatima et al, 2009. Participation of women in livestock activities in the rural areas of Charsadda District. M. Sc (Hons) Thesis, Deptt. of Agric. Econ. Agric. Univ. Peshawar, Pakistan.
- Farzan, 2012, Distribution of workers and non-workers, Provisional population totals, Series-6. Paper 3 of 2001, FAO. 2003. The uplift and empowerment of rural women in Pakistan. FAO, Rome. [Online] Available:<http://www.fao.org/sd/2003/kno506a-em.htm>.
- FAO. 2005. The role of women in crop, livestock, fisheries and agro-forestry in Pakistan. A synthesis Report of Near East. FAO, Rome. [Online] Available at: <http://wvyw.fao.org/sd/docrep/x0176e/x0176eo5.htm>.
- FAO. 2006. Gender and Food Security, Agriculture. Online: www.fao.org/gcnder
- Farooq, M., K. Shoukat, M. Asrar, S. Mussawar and S. Faisal, 2000. Impact of female livestock extension workers on rural house hold chicken production. *Livestock Research for Rural Development*; 12(4).
- Feldman, S., B. Fazila & E.M. Florence, 1987. The role of rural Bangladeshi women in livestock production, Working Paper 149.
- GoP 2004, Participation of women in comparison with men in agriculture and allied activities. M.H.Sc. Thesis, Univ. Agric. Sci. Faisalabad
- GoP 2007. Pakistan Economic Survey. Ministry of Fin. Econ. Advisor's Wing, Finance Div. Islamabad Bora, L., Hazarika, P., Borgohain A. and Hazarika, M., 2000,
- Hassan, 2008, Agricultural labour in India - A close look. *Orissa Rev.* Feb-March.
- Hashmi, A. 2008. Socio-economic analysis of livestock towards poverty alleviation and gender participation in livestock management in rural areas of the Punjab-
- Kachroo, J., 2005, Rural farm womens' contribution to family income in Jammu District. *J. Rural Dev.*, 24 (4):

- 481-500.
- Kalamkar, S.S., 2003, Agricultural growth and rural non-farm sector in Maharashtra. Agric. Econ. Res. Rev., Conference Issue, pp.31-47
- Kumar, N.P., 2007, Trends and determinants of female employment in agriculture : An inter- district analysis in rural Uttar Pradesh. The Indian J. Lab. Econ., 50 (2): 317-330.
- Nosheen, F., T. Ali., M.Ahmad and H. Nawaz. 2008. Exploring the gender involvement in agricultural decision making: A case study of District Chakwal. Pak. J. Agri. Sci., 45(3): 101-106.
- Nagaraj, R., 2007, Labour market in India - current concerns and policy responses. Paper presented In: Seminar on Labour Markets in Brazil, China and India , OECD, March, 28.
- Panghal, B.S., Singh, H. and Luhach, M.S., 1999, A comparative study on the efficiency of women labour in agriculture in Haryana. Indian J. Agric. Econ., 54 (3): 325.
- Qadri, S.M.A. and J. Akbar. 1982. Women in agriculture. Sindh Women's Div. Govt. of Pakistan, pp. 239-245.
- Role performance of farm women in animal husbandry practices in Arunachal Pradesh. Indian J. Soc. Res., 41 (1): 71-76.
- Radhadevi, D., 1981, Women workers in Kerala : A census analysis. In Dynamics of Population and Family Welfare . Ed. Srinivasan K. and Mukherjee, S., Himalaya Publishing House, Bombay, pp.269-298.
- Rajesh, R. and Kombairaju, S., 1999, Impact of technological change on women employment in dryland agriculture. Indian J. Agric. Econ., 54 (3): 302-303.
- Ray, A.K. and Haque, T., 2000, The system of contract labour in agriculture - A case study of Hoogly district in West Bengal. Indian J. Agric. Econ., 55 (3): 355-356.
- Singh, S.L. 1988. Rural Development Programme for Women. Solidarity SAARC Women. Women Div. Govt of Pakistan, Islamabad
- Sajjad, H., 1998, Employment of landless labourers. BR Publishing Corporation, Delhi, India.
- Sharma and Kumar, 2003, Functioning of agricultural labour market : Micro evidence from an agricultural developed region of Himachal Pradesh. Indian J. Agric. Econ., 58 (4): 695-714.
- Sharma and Kumar, 2003, Functioning of agricultural labour market : Micro evidence from an agricultural developed region of Himachal Pradesh. Indian J. Agric. Econ., 58 (4): 695-714.
- Usharani, Vyas, D.L. and Jodha, G.S., 1993, Gender differential in work participation in various operations of crop and livestock enterprises in semi-arid areas of Rajasthan. Indian J. Agric. Econ., 48 (3): 482-487.
- UNDP, 2006. Resource Guide: Mainstreaming Gender in Water Management. Version 2.1 November 2006. [www. genderand water.org/](http://www.genderandwater.org/)

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

