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A SPATIO – TEMPORAL ANALYSIS ON HUMAN RESOURCE MANAGEMENT IN AGRICULTURE – SOME EVIDENTIAL PROOFS

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ABSTRACT :

Human Resource Management in agriculture is a very complex phenomenon influenced more by social factors than by economic factors. The study of changing agrarian structure, agricultural labour and labour relations in India has developed into one of the most important themes of social sciences research. Several research studies have been carried out on this theme during the last three decades. It is thought appropriate to present a brief review of the research studies undertaken on some of the aspects of human resource management in agriculture. This paper broadly analyses the role of Human Resource Management in increasing agricultural productivity in the context of Agrarian Economy like us.

KEYWORDS : *HR – Temporal Analysis – Labour Productivity – Labour Relations – Agriculture.*

INTRODUCTION

Our country is bestowed with diverse Agro-climatic resources which have massive potential for rich harvest of agricultural produce. However, at the time of independence, we were facing acute shortage of cereals and other agricultural products due to legacy of bad agricultural policies of British Government. In the backdrop of the food crisis that gripped India in the 1960s, the Government of India initiated the 'Green Revolution' program. This was an attempt to become self-sufficient in production of food grains.

CONTRIBUTION OF HUMAN RESOURCES IN INDIAN AGRICULTURE

Traditional farming methods gave way to farming with high-yield seeds, fertilizers, and pesticides. The Green Revolution nearly quadrupled the production of rice and wheat, transforming India's fertile areas into 'granaries'. India has achieved a remarkable growth in agriculture, increasing food grain production from 83 million tonnes in 1960-61 to about 275.68 million tonnes in 2016-17. Now, our country is not only self sufficient in production of food grain to meet food requirement of the country but agriculture is also contributing towards foreign earning.

Success of our country to overcome the days of deficient agriculture production and import dependency to feed the teeming millions of the Country was a collective effort of Planners, Agricultural Scientists and Agricultural Extension Personnel. Apart from these, real architect of 'Green Revolution' were farmers of the county, who with their hard work, ingenuity and limited resources, were able to script a success story to bring a turnaround in agriculture production and ensured food security. Indian Farmers, whenever provided with adequate financial and

technical support, have helped the Country in enhancing food production and thereby, ensuring food security of the country. However, barring few States and regions, socio-economic condition of majority of farmers has not improved vis a vis other section of Indian Society. Against this backdrop, emphasis of current Government on doubling the income of farmers by 2022 assumes significance which will help to bring a turnaround in fortunes of our 'Anndata' (farmers). Various announcement and provision for agriculture sector in current Demand for Grants (2018-19) of theMinistry of Agriculture and FW (DAC & FW) shows determination of current regime to change the state of affairs for the welfare of farmers of the country.

BACKGROUND OF THE STUDY

The third enquiry in the series known as the first Rural Labour Enquiry (RLE) was conducted in 1963-65 followed by the second in 1974-75, the third in 1977-78, the fourth in 1983, the fifth in 1987-88, the sixth in 1993-94 and the seventh in 1999-2000. With a view to narrowing down the gap between the successive rounds of the Enquiry, the RLE was integrated with the General Employment & Unemployment Survey of the NSSO in 1977-78 and all subsequent enquiries are now being conducted quinquennially to provide continuous data in the form of time series.

REVIEW OF LITERATURE

Daniel and Alice Thorner conducted a study on agricultural labourers in India, in which the authors have referred to two types of labourers i.e., free and unfreelabourer. The authors have identified different types of free labour. In the first category the author has referred full time free workers, employed on yearly basis, received free food, clothes, accommodation, in addition to the annual cash wages.

Second category refers to the labourers employed for a single crop for which they may get share of the farm produce or cash wages and some other perquisites. In a few cases land will also be given on rent free basis. In the third category the author has made a mention of free labourers who work for less than a season and more than a single day. The fourth type of free employed labour may be appointed on daily basis for which wages are paid in kind or cash or both, in addition to one or more full meals or by snacks such as tea or parched grain. Lastly, the authors have made a mention of unfreelabour serving on a full time year-round basis. These labourers were paid at a higher rate of wage.

V.SreenivasaRao conducted a study on employment and net income of agricultural labourers in Madras State. The study reveals that, on an average, the agricultural labourer is found to have worked for a period of m months in a year. In case of adult females, they worked for a period of four months because of their busy involvementin household chores and mostly agricultural operations have absorbed them, while the non-agricultural work forms a very insignificant proportion of the total employment of the agricultural labourers.

Shah and Singh studied the impact of green revolution on rural employment in North-West Uttar Pradesh. The study has brought out the fact that, in general, the green revolution has a positive impact on rural employment. However, due to mechanization with specific reference to tractorization, openings for agricultural labourers have decreased.

Nirmal Kant Saha's paper deals with the impact of irrigation facilities on the employment generation. The intensity of cropping has increased with the assured irrigation facility as the cultivators are able to produce more than a crop in a year. As a result, employment potential in the irrigated villages is more as compared to the unirrigated villages.

Garg et.al has studied the employment effects of high yielding varieties (HYV). It was found that HYV of paddy, maize and wheat enhanced the employment opportunities by 19.47, 15.31 and 19.42 per cent respectively over the corresponding local varieties. This clearly brought out the fact that HYV technology has positive impact on employment aspect.

Singh et.al.examined the effect of farm mechanization on labour employment. For this purpose different categories of farms are selected to examine the impact of mechanization on differentoperations and the extent of seasonal variations. From the study, it is clear that the level of adoption of modern

technology generated more employment to agricultural labour. However, the level of mechanization has not resulted in reduction of labour use, as it is evident from the study.

K.Singh has made an attempt to examine the wage rates and employment in an IADP District between 2011-12 and 2014-15. Attempt was also made to study the impact of new agricultural technology on labour absorption. The study revealed that the hired labourrequirements per hectare has increased. However, in some of the IADP Districts, the effect of the increased employment on real wage earnings was neutralized by the decline in daily real wage rates.

STATEMENT OF THE PROBLEM

During the course of the Rural Labour Enquiries (RLE) data on various socio-economic aspects viz, Employment & Unemployment, Consumption Expenditure, Wages & Earnings and Indebtedness of rural and agricultural labourers are collected. The RLE is also aimed at throwing up data on household consumption expenditure of the rural/agricultural labourers for drawing weighting diagrams for updating the series of the Consumer Price Index Numbers for Agricultural/Rural Labourers. Under these enquiries, the data are collected and analysed for rural labour as a whole. However, in order to enable comparison with the previous enquiries as also to understand problems of this segment which constitutes bulk of the rural labour, the analysis is presented for agricultural labour separately. The usefulness of the data thrown up by the Rural Labour Enquiries has been acknowledged by various Committees and Commissions from time to time. The National Commission on Labour (1969) and the National Commission on Rural Labour (1991) have recommended that the periodic surveys undertaken by the Government to understand the rural situation should be continued and intensified. The second National Commission on Labour (1999) has recommended that the Rural Labour Enquiries should be conducted more frequently. Hence the present study elaborately deals on the ***Human Resource Management*in Indian Agriculture and its temporal analysis in the selected areas.**

SCOPE OF THE STUDY:

The present study is an immense importance in the sense of analyzing the role and contribution of Human Resources in increasing Indian Agriculture and other related issues in the study area. *There were many more macro level studies have been already carried out but no attempt has been made in the micro analysis and analyzing the significance of the contribution of HRM in our agriculture and tries to solve and answer the research gaps and unanswered research questions*. In this juncture this research is considered most relevant and having vast scope for further productive efficiency in the particular angle. The Enquiry relates to all rural labour households. However, provision has been made in the tabulation plan to get separate estimates for agricultural labour households.

The results of the latest Rural Labour Enquiry, the seventh in the series, for which the field work was undertaken by the NSSO during its 55th Round Survey (July, 1999 to June, 2000), are being published in the following five reports;

i) General Characteristics of Rural Labour Households;
ii) Indebtedness among Rural Labour Households;
iii) Wages and Earnings of Rural Labour Households;
iv) Employment and Unemployment of Rural Labour Households; and
v) Consumption Expenditure of Rural Labour Households.

OBJECTIVES:

The main objectives of the enquiry are:-

1) To study the role and contribution of human resources in Agricultural yield in the study area.
2) To deals the matters pertaining to the Spatio and Temporal analysis of Human Resources in India over the study years.

3) To project actual and real picture of the Human Resources and their utilization of labour force in increasing agricultural productivity through modern methods of production.
4) To analyse the problems and woes of agricultural labourers inn receiving their share of wages and livelihood problems encountred in this area.
5) To provide upto date serial data on demographic structure, extent of employment & unemployment, wages and earnings, household consumption expenditure, indebtedness, etc. for building up of reliable estimates of important socio-economic characteristics of rural labour in general and agricultural labour in particular.
6) To provide data relating to consumption expenditure for derivation of weighting diagram for updating the series of CPI numbers for agricultural and rural labourers.
7) To suggest certain policy recommendations for improving the productivity of agricultural labour force.

HYPOTHESES

Having the broad objectives in the mind the researcher formulated the following major hypotheses for undertaking the present work.

- There is a close and perfect positive relationship between technological diffusion in Indian agriculture and managing agricultural labourers.
- There is a high degree of concentration of the labour force on agriculture (Primary sector) than allied sectors in this area over the study years.
- There is a significant association between the improvement of modern methods of agriculture production and labour productivity.
- There is no significant relationship between managing Human resource practices and intra group agricultural labourers.

GEOGRAPHICAL COVERAGE

The survey covered the whole of the Indian Union,

SAMPLE DESIGN

A stratified multistage sampling design was adopted for selection of the sample units for the survey. The first stage units (FSU) were the census villages (panchayat wards for the selected area). The ultimate stage units (USU) were the households.

Stratification of the first stage units : From the list of villages of each State/Union Territory (U.T.), initially, two special strata were formed by considering villages (a) with very small population and (b) with very high population as stated below:-

Stratum 1: all FSUs with population between 1 to 100.
Stratum 2: FSUs with population more than 15,000

The above two strata were spread across a given State and were not confined to any particular administrative division within the State. Each of the above two strata was formed if at least 50 such FSUs were there in the respective frames. Otherwise, these villages were included in the general strata. While forming general strata, efforts were made to treat each district with population less than 2 million as a separate **stratum**. If limitation of sample size did not allow forming so many strata, smaller districts within a particular NSS region were merged to form a stratum. Each district with rural population of 2 million or more as per 1991 Census (1.8 million or more as per 1981 Census in case of Jammu & Kashmir) was as usual split into a number of strata.

Allocation of first stage units: At the all-India level, a total number of 10,384 FSUs (6208 villages and 4176 urban blocks) was selected for survey in the central sample in the 55th round. The actual State/UT level allocation of FSUs in the rural sector is given in Statement- I. State/UT level rural sample size was allocated among the rural strata in proportion of population. Sample size for the whole round for each

State/UT was allocated equally among the 4 sub-rounds. Stratum level allocation for both rural and urban areas of a sub-round were made in even numbers in order to facilitate selection of FSUs in the form of 2 independent sub-samples. Sub-sample numbers were 1 and 2 for sub-round 1; 3 & 4 for sub-round 2; 5 & 6 for sub-round 3; and 7 & 8 for sub-round 4. One salient feature of the 55th round was the rotation sampling scheme which was adopted for the first time in the NSS for the purpose of collection of employment-unemployment data from central sample only. Under this scheme, 1 sub-sample of the sampled first stage units (FSUs) of each sub-round was revisited in the subsequent sub-round. From each such FSU, sample households visited in the previous sub-round for collecting data on employment-unemployment were revisited in the subsequent sub-round for collecting employment-unemployment details.

Selection of FSUs: For each sub-round, sample first stage units from each stratum were selected in the form of 2 independent sub-samples by following circular systematic sampling with (a) probability proportional to population for all rural strata other than stratum 1, and (b) equal probability for rural stratum 1.

MAJOR FINDINGS OF THE STUDY

The vast majority of workers in India are in informal jobs. Although there has been a shift out of agriculture, construction has absorbed more workers than other sectors in recent years. What is more concerning is that, most of the new jobs being created in the formal sector are actually informal because the workers do not have access to employment benefits or social security. In addition, notable disparities in the labour force participation rates of men and women persist.

The share of agriculture in India's GDP has steadily declined since 1950, which used to be little over 52% and now stands close to 16–17%.

In comparison the % of other two sectors in GDP (Industry and Services) now stands close to 20+% and 55+% respectively.

In 1950, the GDP of India was around 40 Bn USD (2004-05 series, 2016 Exchange rate) which reached to roughly 900 Bn USD (2004-05 series, 2016 Exchange rate) in 2015.

So, Agricultural sectors increased from 20.5 Bn USD to 150+ Bn USD between 1950 and 2016.

India's economy has returned to high rates of growth, according to the latest figures.

In 2015-16 the GDP growth rate reached 7.6 per cent, up from 5.6 per cent in 2012-13. The challenge continues to be to ensure that economic growth translates into better labour market conditions.

Recent economic trends: Growth recovers and inflation stabilizes

Having begun to slow in 201 1, India's GDP growth rate touched a low of 5.6 per cent in 2012-13 (fiscal year). However, recent years have seen a strong recovery;

GDP growth reached 7.6 per cent in 2015-16, up from 6.6 per cent in 2013-14.2 The growth rate in per capita income has also increased, from 5.8 per cent in 2014-15 to 6.2 percent in 2015-16.

It also reveals that real gross value added (GVA) reveal that the return of these higher growth rates has been spurred by strong industrial growth.

In 2015-16, growth in agriculture and related activities was estimated at just 1.2 per cent, while growth in the industrial and services sectors reached 7.4 and 8.9 per cent respectively. In line with the aims of the Government of India's ***"Make in India"*** initiative, manufacturing has grown rapidly, at 9.3 per centin 2015-16.

CONCLUSION

About two-third of the total labour force in the country lives in rural areas. Wage paid employment is the main source of their livelihood. It has been the endeavour of the Government of India to alleviate the poverty, particularly in the rural areas, by formulating and implementing various target oriented anti-poverty rural development programmes. Sound data base is of utmost importance for formulating such action programmes. With this end in view, the first Agricultural Labour Enquiry (ALE) was conducted in 1950-51,

followed by the second in 1956-57. The scope of the subsequent enquiries was enlarged to cover all rural labour households instead of agricultural labour households alone covered in the first two enquiries.

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