AGRICULTURE AND AGRARIAN CONDITIONS IN THE
WEST BANK (PALESTINE)

A B S T R A C T

The study entitled "Agriculture and Agrarian Conditions in the West Bank (Palestine)" aims at analysing the variations in agricultural productivity at inter and intra areal level. At intra-regional level the inequalities in productivity exist in Palestine and the productivity regions of the highest level can be taken as a model for agricultural development for the lowest level of productivity regions. At inter-regional level the variations in productivity is so high that the performance of the highest level of productivity regions of Palestine's West Bank is also far behind in terms of productivity. Therefore, it is considered that the
selection of a model from the inter-regional level will be more appropriate to be followed for the development of agriculture for the West Bank as a whole. It is estimated that if agricultural development in Palestine is taken at Par. The foodgrain production in Palestine will increase tremendously what the existing level is of production in this forgotten region.

The present study deals with agricultural development especially the variations in foodgrains productions and productivity in different regions of Palestine. It is an agrographic investigations which carried out in a comparative methodological framework. It deals with the various characteristics of agriculture in Palestine. Palestine occupies a significant positions in terms of area and production, though it is not a self-sufficient area in terms of foodgrains production and still met its requirement by the important foodgrain but now moving towards self-sufficiency.

The present West Bank lies on the West Bank of Jordan river in West Asia. With Syria and Lebanon to the
North, Jordan to the East and Israel to the South and West. Palestine covers an area of 2,077,000 kms. of which about 78 per cent is arable. The remainder consist of bare mountains, deserts and pastures, suitable only for nomads of the total cultivable area 7.8 million hectare about 79 per cent is actually under cultivation. For many years, agriculture has been a major sector of the West Bank's economy. In spite of existence of a traditionally strong trading sector and relatively successful attempts have been made in industrialization. The agricultural sector employed very meager labour force which mostly based on Arabs labourers. The contribution of agriculture in the region's economy is 30 per cent.

West Bank agriculture is having a most complex environmental framework and is divided into two agro-climatological regions (1) West Coastal strip consisting of numerous valleys, plains and hills which occupy 25 per cent of the total geographical area. Fertility is much higher resulting an intensive agriculture. (II) Secondly, the vast semi desert, oasis
and river Jordan plain towards East where extensive cultivation is very common which is largely prone to frequent occurrences of droughts and erratic rainfall.

In the present study, an attempt has been made to analyse the factors such as environmental, technological and institutional and their impact upon the variations in foodgrains production in West Bank. The Bank has been divided into seven chapters.

The first chapter deals with the problems and limitation of the present study work. As the agricultural development of these countries is governed by the factors such as environmental, technological and institutional. A detail aims and objectives have been given along with the methodology as well as data limitations.

In the second chapter entitled "Agriculture System and Policies in Palestine" an attempt has been made to analyse the agriculture system which had been prevailing before 1948 and a drastic change which took
place when zionist expansion movement took place with remarkable changes in the agricultural production through Kibbutzim and Mosharim - collective and cooperative way of farming. The region is being discussed in terms of its system and policies and hence some observation can be deduced. Firstly, in the whole Palestine including West Bank, about 90 per cent area devoted to cereal crops, it is because of the higher yield. Cereals are contributing more than 91 per cent of the total foodgrains production. The rate of fluctuation in West Bank of Palestine is very high during the period of 1978-79. The marked difference in productivity is due to the intensive use of agricultural technology and control over the environmental factors.

The chapter entitled "Level of Agricultural Development" deals with the measurement of agricultural productivity. There are three types of productivity i.e. the productivity of land, labour and capital. Some of the geographers have attempted to measure these
productivity. It is not possible to find out the regionwise variations of agricultural productivity in Palestine even though Yang's crop yield formula have been applied and after calculating the productivity by this formula. The productivity years of high, medium and low production regions is tried to be demarcated. It is observed from this formula that the variation in productivity is caused due to the wide variations in the environmental conditions especially the amount of rainfall. The main cause of this high productivity in the West Bank and the Northern Palestine is the control over the environmental factors. It is evident from the analysis that the productivity level and its variations is mainly caused by the varying input levels supported by only one major crucial factor i.e. water, water is being used scientifically in occupied and unoccupied areas to use the various other such as fertilizers and high yielding variety seeds etc. The following table shows the variations in agricultural productivity.
**PER HECTARE PRODUCTIVITY - 1983**

<table>
<thead>
<tr>
<th>Crop</th>
<th>Productivity (Kg./hectare)</th>
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<tbody>
<tr>
<td>Foodgrain</td>
<td>1652</td>
</tr>
<tr>
<td>Cereals</td>
<td>1742</td>
</tr>
<tr>
<td>Pulses</td>
<td>1286</td>
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The chapter entitled "Sources of Variations" deals with the per cent share of each crop to the total gross cultivated area and productivity level of each has been analysed. It has been seen that in Palestine Wheat and Barley have occupied about 50 and 40 per cent of the total gross cultivated area and remaining crops constitutes insignificant share. Wheat and Barley are grown in all parts of Palestine and it is observed that there is a high variations in production of the Cereals and Pulses and the domination of cereal is quite evident. The areas of the levels of development as well as level of growth have been demarcated which shows a
low, medium and high productivity trend. The following table shows the input used in 1993 which are playing a vital role in the agriculture of the said under study region.

**INOUT USED IN WEST BANK - 1983**

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<tbody>
<tr>
<td>1.</td>
<td>Irrigation</td>
<td>63,000 hectares</td>
</tr>
<tr>
<td>2.</td>
<td>Rainfall</td>
<td>250 m.m</td>
</tr>
<tr>
<td>3.</td>
<td>Nos. of Tractors</td>
<td>26000 175/per thousand Hectare</td>
</tr>
<tr>
<td>4.</td>
<td>Nos. of Threshers</td>
<td>712 4.8/per thousand Hect.</td>
</tr>
</tbody>
</table>

Due to the high inputs used in the West Bank area resulting no high fluctuations in productivity and whatever fluctuations are observed it is due to the availability of water.

Although the work has been carried out within the environmental, technological and institutional framework, therefore the influence of all these variables can be studied as follows.
The land form of West Bank of Palestine, soil and climate have played a vital role in affecting the land use pattern. Relief and structure of the land have exercised a direct influence on the land use pattern and spatial diversity in crop yield. In West Bank with vast areal differences in topography, climate, soil and irrigation facilities and the agricultural attributes have also shown a marked diversity all over the region. The areas having assured rainfall and developed water supply differ from the areas where rainfall is more or less scanty and irrigation facilities are available to a limited extent i.e. Western Coastal region and Northern mountainous region and the Jordan, Yarmuk river bank areas which are the higher productivity region of Palestine.

The diversity of rainfall governs the agricultural set up of the West Bank. The major factor which influences the agricultural production in Palestine is rainfall. It has been observed that the rainfall variation has directly affected the variation in
agricultural productivity and hence in the whole Palestine the variation in productivity is very high but no variation in the West Bank as it is dependent on irrigation almost.

However, due to the unavailability of various types of comparable data on environment, technology and institutional factors, it could not be possible to analyse the present work in a more authentic and reliable manner. However, the following results are obtained to conclude the research study.

(I) In West Bank only 38 per cent cultivated area is irrigation and as a result most of the area is devoted only to single crop in a year.

(II) The environmental constraints are more in Southern and coastal areas of Palestine because the cultivation in Palestine is limited to the availability of water while in West Bank dry farming is a common features and 90 per cent of the cultivated area is dependent on rainfall.
(III) An extensive culturable area is available in Palestine but due to the scarcity of water in the West Bank specifically, cultivation is limited only in the areas of more than 5 inches of rainfall.

(IV) The variations in yield level in different areas of Palestine including West Bank are dependent on the availability of the irrigation water as well as the investment in other segments of inputs such as fertilizers, pesticides, HYV, Threshers, tractors as they are all dependent on water.

(V) In Palestine, foodgrains yield increase or decrease is largely responsible for the decrease or increase in production. The increase or decrease in area is recorded insignificant in the increase or decrease in production. In a number of years it was observed in West Bank that the area to a large extent has been increasing and production also increased because
the cultivation was not limited to the better and more productive areas only. As a result the yield increase was very high and was held responsible for the increase in production.

(VI) Growth in production in most of the crops is recorded because of the increase in yield. The increase in yield is possible in Palestine to a very high level. If the input level is increased. The introduction of short duration maturing crops can increase the production to the level of food self-sufficiency.

Besides these, there are other suggestions particularly for Palestine, that through the establishment of the cooperative farming society, per hectare yield may successfully be increased. In this system the right of individual ownership are recognised and respected but small owners possessing uneconomic holding are pooling their land for the purpose to joint cultivation viz., the individual ownership and
collective farming. After adopting this system which provide facilities to use modern scientific agricultural equipments and other inputs increased the production. The most important innovation need to be undertaken in the institutional sectors. Modern agricultural institution which can provide adequate training facilities have already been set up. Land reform successfully carried out so as to ensure greater involvement of the masses in agricultural sector, i.e. land must go to the tillers. The fendal wastage has been removed. The landless agricultural labourers should get surplus land and adequate facilities so as to motivate the toiling class for producing more food.

Lastly, it is thus evident that the instability in foodgrains availability is much higher in Palestine. The agricultural development of West Bank of Palestine can be brought to the level to any West Asian Country if input level is made available at par which will help in solving the scarcity, shortage and fluctuation problems of foodgrains of the West Bank region.