

CHAPTER III  
GENERAL PERFORMANCE OF OUTPUT

3.1 INTRODUCTION

The objective of this chapter is to study the distributions of per acre outputs of farms of the area we surveyed. These distributions enables not only a study being made of the medians and quartiles or percentiles, but also an indicator being found in the variation in productivity among the least productive and the most productive farms for possible explanations in the later chapters. The distributions, in other words, will, in the first place give us an idea of the progress in productivity in the area. Secondly, they are being presented here so that we can focus our attention later on the variation in productivity of farms. Eventually, still later in the study, we might be on the look-out for insights for reorganising the rural economy for much higher average productivity on the basis of the setting and technology of the most productive farms. Finally on the basis of further evidence we shall have basis to restructure even the most productive farms and, therefore, all other farms towards achieving still higher level of efficiency of productivity.

It would be in order to write in this introduction about the crops, the crop seasons and the agricultural production year so that we have little difficulty to understand the distributions of per acre outputs of various crops raised in the area or their total or any innovated aggregate.

We must also mention that in the second year of collection of data we reduced the size of sample of farms with a view to improving further the quality of data. The number of farms surveyed in the first year is 58, while that in the 2nd year is only 20. Eventually, however, it came about that the quality remained the same.

The agricultural crop year of the district (April to March) coincides with the Bengali calendar year and the financial year of the various state governments and the central government of India. The crop year is divided into three seasons namely, pre-kharif, kharif and rabi. Pre-Kharif season roughly runs from March to May. Kharif - the rainy season, begins with the commencement of the monsoon in June, and ends with the traditional aman paddy harvesting in October and November. The rabi season (winter crop season) starts in November and it runs roughly upto February and March. In the district pre-monsoon oilseed (Til) is cultivated during the pre-kharif season. Kharif season (summer crop season) is wholly dominated by the paddy cultivation. In the local usage it is called the 'Aman season'. Two types of paddy are raised during the Kharif season - the Traditional Monsoon Paddy (Aman) and the Kharif-HYV Paddy. The crop year ends with the cultivation of rabi crops i.e., the winter crops. HYV-Winter Paddy (Boro) constitutes the main crop of the winter season. Apart from HYV-winter paddy (Boro), potato and mustard are also raised during the winter season.

In order to present the output performance of the farms, frequency distribution tables of output of various individual crops as well as of total output have been constructed. The most common diagrams, histogram and cumulative frequency polygon are used to present the frequency distribution of output. The graphical measure of median, quartiles and percentiles have been shown through cumulative frequency polygon. We have presented the data for two separate agricultural years, 1988-89 and 1989-90. In addition, we have tabulated the data for the above two years together. These graphs will be the basis for our understanding of the general output performance of different crops as well as of the paddy equivalent of all crops.

### 3.2 CONCEPT OF TOTAL PADDY OUTPUT

The method used in this study to calculate the total paddy output of farm is to sum all sorts of paddy outputs and the paddy equivalents of all non-paddy crops in kilograms. To find the paddy equivalent of a non-paddy crop we have divided the value in Rupees of the main output of a non-paddy crop by the value of one kilogram of HYV-Winter paddy (Boro).

The main advantage of this method of aggregation of paddy and non-paddy output into a general paddy output is that it may be good enough indicator for being used in inter-temporal comparison. Although we made the non-paddy crops equivalent to paddy crops by dividing the value of non-paddy crops by the value of one kilo of Winter HYV paddy, it would have made little difference if the divisor was the value of one kilo of traditional monsoon paddy. If this is so, then this indicator is a sufficiently good indicator

for inter-regional and international comparison.

### 3.3 PADDY OUTPUT PER ACRE

One can see from figures 1, 2 & 3 the distributions of paddy output per acre. Histograms and cumulative frequency curves of the distributions are drawn in these figures. The lowest actual paddy output per acre for the agricultural year 1988-89 is 2.0 metric tons per acre while the highest paddy output per acre for the same agricultural year is 4.8 metric tons per acre.

If these per acre figures are transformed into per hectare figures, we see that the lowest actual total paddy output per hectare is very nearly 5 metric tons and the highest is nearly 12 metric tons. For the second year the lowest actual total paddy output is nearly 7 metric tons and the highest more than 15 metric tons. These figures are undoubtedly the best in West Bengal.

The graphical averages of the first and the second year are respectively 8.9 and 9.5 metric tons per hectare. The point about these averages is that at least half of the farms have this much at least of paddy output.

### 3.4. MAIN OUTPUT PER ACRE

The distributions of main output of various crops, both in physical terms as well as in value terms, have been shown in figures 4 to 42. For each distribution, histogram and cumulative frequency curves have been drawn in these figures. First we consider the main output in physical terms.

### 3.6 CONCLUSION

A study of distributions of outputs per acre or per hectare leads us to conclude that the graphical average is rather high compared to ~~most~~ total areas of the State. This we state without citing the data for other areas of the State. Interestingly, even with the sort of the present setting of the farms, the most productive farm can stand a comparison with farms of some better developed nations.