

CHAPTER I

INTRODUCTION

1.1 GENESIS

This study is one of the offshoots of Professor P.C. Sarker's research project on measurement of disguised unemployment in West Bengal Agriculture. One of the local level rural economies studied under this project happened to be one of the most productive belts in lower West Bengal. This local economy is the rural economy of Pandua (block) of the Hugly district. This dissertation is based on the data collected from Pandua. The rural economy of the Pandua block as well as that of the whole of Hugly district have witnessed in the last twenty years a good spread of new breed paddy.

Naturally, therefore, the question arises how local level development planning can base itself on the foundation of the maximum possible propagation of the new breed paddy in this type of rural economy. The theme "Output and Employment Prospects of New Breed Paddy in the Rural Economy of Hugly" is synonymous with the answer to this question. One merit of the HYV paddy is the reduction of gestation period of paddy harvest. The raising of the new breed paddy in ninety days in place of 120 to 150 days enables the land being used for another crop for the remaining days. The high input response including the response of the new breed seed is certainly its other great advantage.

The fact, however, is that even with these years of experience with HYV paddy, the new breed is not being adopted for rice output in all seasons. It is of first importance to study the sources of this indifference of the farmers to adopt universally the HYV paddy for their rice outputs. With the introduction of HYV paddy it is possible to raise paddy in the same plot of land thrice a year and still have another vegetable crop making sufficient allowance for land preparation for these different crops.

The question is not merely of the supply of inputs and marketing of outputs. Consumers' choice also may interfere in a big way so that planners and policy implement^oers will be in need of a blueprint of plans in the light of people's preferences. A common complaint of farmers of the district is that a good segment of consumers bid higher price for good quality of traditional rice, rather than for HYV rice which is not as tasty. One way out is to suggest to agronomists to devise new breeds of paddy maintaining the full taste and quality of good varieties of traditional paddy and at the same time assuring a radically higher quantity of output. But till our agricultural scientists succeed to realise our dream, it is necessary to work for such planning of the farm economy as would maximise the output and income of the rural economy retaining simultaneously an optimum amount of traditional paddy. The planning of investment in the two varieties of paddy and the fixation of their relative prices would certainly be a delicate exercise.

One other reason for incomplete adoption of HYV paddy is, as some farmers complain, the difficulty of drying very large quantity of paddy in July and August when the pre-Kharif paddy crop would be harvested. The problem would be acute if all cultivable lands of the area are used in the pre-kharif season to the raising of HYV paddy. This difficulty can certainly be overcome by drying devices if the necessary supply of electricity can be guaranteed in the local level economies. Thus the problem is not as difficult as it now appears to our farmers.

1.2 OBJECT OF THE STUDY

The main object of this study, therefore, is to assess the extent to which the cultivable lands in the district can be used to raise HYV paddy and the extent to which this production provokes the production of other commodities and the generation of additional employment. Having measured these, the study will seek further bases to plan the crop production in the rural economy of the district. This requires some sort of direct or indirect estimates of requirements of inputs, the prospects of production of these crop inputs within the rural economy itself, the requirements of infrastructural facilities including irrigation, flood control and generation of electricity.

The study of the estimate of the additional output of other ^{Commodities} ~~crops~~ supported by the increased adoption of HYV paddy brings us to our second object of this study. We shall have a glimpse of the kinds of agro-industries the additional supply of the base crops

may usher in. Within this object also falls the formulation of rival schemes of introducing certain useful crops like sugarcane by rotation. In special areas of the district, may be in all areas, half of the cultivable areas may be given to sugarcane by rotation. If Half A is given to sugarcane and Half B is given to paddy in year No. 1, in year No. 2 Half A is given to paddy and Half B to sugarcane. Processing enterprises of sugar, khandsari, molasses, cold drinks and condiments can be set up in the rural economy itself. Similarly, outputs of oilseeds, onions and certain other vegetables may be used to set up new processing units for Vanaspati and edible oils. What exactly these processing rural industries might be will depend what combination of these industries will be chosen by the operating and consuming population at the grassroots on the basis, certainly, of the natural endowments of agro-climatic characteristics.

We might, certainly, be in a position to estimate, in one way or the other, diverse requirements for different levels of projected increase of output and employment. Side by side, we might be interested to look for schemes of incentives required to phase the task of realising the constancy of the rural population in the area.

The village economies of Hugli have been in areas studied by official teams and private research investigators of West Bengal. Most of these studies related to farm business and management and in just a few cases also to the adoption of HYV paddy. Although this study includes an investigation into the productive activities

of the farms, we are interested in evaluating the prospects of the levels of both output and employment consequent upon the maximum possible adoption of HVV paddy by farmers. An examination of such prospects will take us to restructuring the organisation of the local level rural economy to optimise the organisational impact on output and employment.

No one either at the official level or at the individual or institutional level has so far undertaken this kind of enterprise. The contribution of this study to the existing state of knowledge is, therefore, two fold. In the first place, it will put into the view of academicians, policy makers and all sorts of development agents (including certainly planners and implementors of plans) the prospect of using the basic local resources like land and labour[^] Hugly rural economy by fixing the means, instruments and laws required to effect the projected growth. Secondly, the study will make some contribution however modest to the devising of the techniques of planning of grassroot rural area economies or local level rural economies.

Aside from the contribution in respect of planning of the rural economy of Hugly, the quality of data obtained is much higher than those which have been collected so far in the district. Not only are the data of high quality but also the study fills the data gaps of the rural economy of Hugly in many respects. What is more, similar studies now being undertaken of the grass-root rural area economies of West Bengal under the supervision of the same supervisor will facilitate deeper studies of responses of various factors

and infrastructural facilities in the rural productive processes in the state as well as the national economy.

1.3 METHODOLOGY

It is hardly possible for a single investigator to carry out intensive field work in different areas of the whole district of Hugly covering one or two agricultural years. A design, therefore, has been made to divide the district into a number of agro-climatic zones on the basis of homogeneity withⁱⁿ each zone. The factors bearing on the difference among these zones are river systems watering the areas, topography and the texture of soil. The four different rainfall recording centres do not exhibit much of differences in respect of rainfall among these zones. The zones are four in number, the same as in the case of the major research project of Prof. P.C. Sarker. They are (1) North-East Hugly (dominated by the Ghia-Kunti basin and clay loam type of soil), (2) South East Hugly between Damodar and Hugly (dominated by sandy loam), (3) Damodar-Darakeswar Basin (dominated by loam and clay loam) and (4) Higher terrain of the West.

A cluster of villages in the first agro-climatic zone is surveyed at first to get the data as a basis for two-stage two phase sample survey of the population of the first survey. One distinguishing characteristic of data collected both in the first year as well as in the second year is that they are collected in phases in different points of time of a season and in different seasons. This character of the collection of data enhances the

quality of the data on the use of inputs and outputs of activities.

A framework of planning will be made on the basis of these data for a segment. Although we have selected a cluster of households from the most productive agro-climatic zone, the other three zones are only slightly different. They offer the scope of cultivation of same types of commodities. They have more or less the same amount of rainfall. Although the river basins are different, some river basins or natural drains are common in each zone. Even soil contents do not differ greatly. So we shall make little error if we analyse the prospects of the rural economy of the whole of Hugly on the basis of the findings of our study of a most productive belt of the district.

Apart from the reasonable quantitative methods we use, a fusion has been made of a number of ideas such as those of Lewis (Economic Development with Unlimited Supplies of Labour, Manchester School), Nurkse (Problems of Capital Formation in Under-developed Countries), Rostow (Process of Economic Growth, New York, 1952 and Take-off into Self-sustained Growth, Economic Journal, 1956), Renis and Feil's (A Theory of Economic Development, American Economic Review, 1961), Schultz (Transforming traditional Agriculture, New Haven, 1964), Hyami & Ruttan (Agricultural Development : An International Perspective, Baltimore & London, 1971), Buchanan (Liberty, Market & State : New Political Economy of the 60's, London 1986) and Sarkar, P.C. (Restructuring Rural Development Planning, Unpublished Monograph) has been made.

13.4 AN OVERVIEW

We conclude this chapter by stating what we do in the remaining chapters of this dissertation. The second chapter includes a discussion of the basic resources of the rural economy of Hugly. The most important of these resources are land and labour. In the third chapter we present distributions of per acre outputs. We obtain the median output and the highest and the lowest amount of outputs. We find here that there has been a rather large increase in output in the local processes of production. The fourth chapter deals with the quality of output returns. We obtain here material support to say that the returns made by our informants have not been tarnished by the psychology of informants. We describe in the fifth chapter the inputs now being used by farmers of the area. We note that there are differences in the kinds of inputs being used by most productive farms and unproductive farms. The sixth chapter discusses by a simple examination of tabulated data the increase in output occasioned by use of particular inputs. The same work is done through functional analysis in Chapter VIII. In between the two last-named chapters we have Chapter VII to consider further the efficiency of farms. The ninth chapter discusses the intensity of use of land and reveals that there is a great amount of land reserve which is a great means of restructuring the productive activities and, therefore, of expansion of output and employment. The tenth chapter elaborates the measurement of use and unuse of one of our most important resources, namely, labour. The eleventh chapter contains our list of recommendations for sound planning of the rural economy of Hugly.