CHAPTER VIII
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CONCLUSION

There are many ways of classifying land by different scientists for different purposes. Any particular method suitable for one purpose may not be suitable for all other purposes. So methods may be modified according to necessity. The study area being a part of the backward regions of West Bengal, a method was sought to classify lands of Bishnupur area on the basis of their inherent qualities which will give an indication of the potentialities of that part of the country for its future land use planning purposes. Accordingly the different physical aspects of terrain and the chemical capacity of soil were taken into consideration for the classification purposes. The chemical capacities of soil was considered because plant life is directly dependant on the nutrient supply and availability from the soil body.

G. Aziz's method of land classification is mainly on the basis of chemical status of soil and he neglected the physical aspects which also have a great influence over the land/soil productivity. This difficulty was, however, overcome by the method of land classification as per R.E. Storie. But the Storie's empirical formulae has also some drawbacks - (the value of any one factor influences greatly the other factors) which have been eliminated by modifying his (Storie's) formula and ultimately a more accurate assessment of land productivity is derived. These aspects are dealt in detail in chapters I, III and V.

In addition to these, a Residual analysis is made (Chapter VI). Each of the two Residual Maps (Map Nos. 14 and 15) depicts two categories of lands - with higher production (areas with positive values)
and with lower production (areas with negative values) than the expected ones.

In a backward area like this, the best lands are to be set aside for the purposes of crop production only. And accordingly the very good and good quality lands as per Azzi, Storie and modified indices (Map Nos.11,12 and 13) are to be used for agricultural purposes (mainly paddy production). To ensure a steady and sustained optimum yield for a long period, however, stress is to be made on the management practices - which includes maintenance of fertility, supply of irrigation water, rational use of fertilisers, manures etc. The poor quality lands can also be used to some extent for the purposes of crop production if proper management practices are ensured. The very poor quality lands can however be reserved for the purposes of forestry or any other non-agricultural purposes.

There are innumerable problems in the area that warrant investigation but the most urgent ones are as follows:

1) Excess leaching and capillary action result in the formation of lateritic crust in major parts of the study area. As a consequence, the lateritic tracts of Patrasair, Bishnupur, Joypur and Sonamukhi police stations are left fallow (Plate Nos 3 and 7).

2) Erosional hazards are dominant especially in the West. Erosion in the form of gullies and surface run-off along the slopes are to be found in undulating terrains of Bishnupur, Patrasair, Sonamukhi and Joypur (Plate Nos. 4, 5 and 6).

3) Some areas (as in village Balsi Paschimpara) are being engulfed during rainy season by the rivers.
4) In general the soils are of light texture and have low water-holding capacity.

5) Though the soils of the area contain adequate amount of mineral nutrients, the organic matter content is very low. The percentage of organic matter content varies between 0.2 to 1.78.

6) The agricultural production here is solely dependant on monsoonal rainfall and the irrigation facilities are inadequate.

7) Cultivators are illiterate in general and have no knowledge of the rational use of chemical fertilizers. Consequently the indiscriminate use of fertilizers causes sterility of the soils as well as various other problems.

Considering all these aspects certain suggestions in relation to the improvement of land productivity to achieve a steady food grain yield at a profitable level are made.

1) A longterm programme for intense agri- and Silvi-culture as a part of rural development programme is to be under taken. Plantations of fast growing plants like Eucalyptus, Zizyphus etc. on the barren uncultivable lands, which are easily susceptible to erosional hazards, could be effectively used for the production of woody biomass by growing species tolerant and resistant to such deficient soils. Such a programme will also have an ameliorative effect on sub-standard soils. It will improve and stabilize the environment and enhance a complete new ecosystem leading to change in micro-meteorology. Though such programmes have already been under taken by the block offices (Plate No.8), the attempt is very much inadequate for the present need.

2) To ensure adequate supplies of plant nutrients (both natural and artificial), special emphasis is to be given for integrated
nutrient supply based on recycling of the vegetation and animal wastes. The Chemical fertilizers are also to be supplied to the farmers timely and after careful soil testing processes.

3) To ensure timely supply of irrigation water, a pre planned and well developed irrigation system is necessary. It has been observed by the author that in various cases the cannals are inundated during rains whereas in summer they become dry and are of no use. The unscientific alignment of the cannals causes inundation in one (Kumrul) and draught in another (Biur).

4) Education of farmers in relation to the dangers of indiscriminate use of fertilizers and pesticides is essential.

5) Adequate credit facilities are to be given to the poor farmers.

6) Proper infrastructure is to be developed to process the agricultural products.

7) Existing storage and transportation facilities are to be improved.