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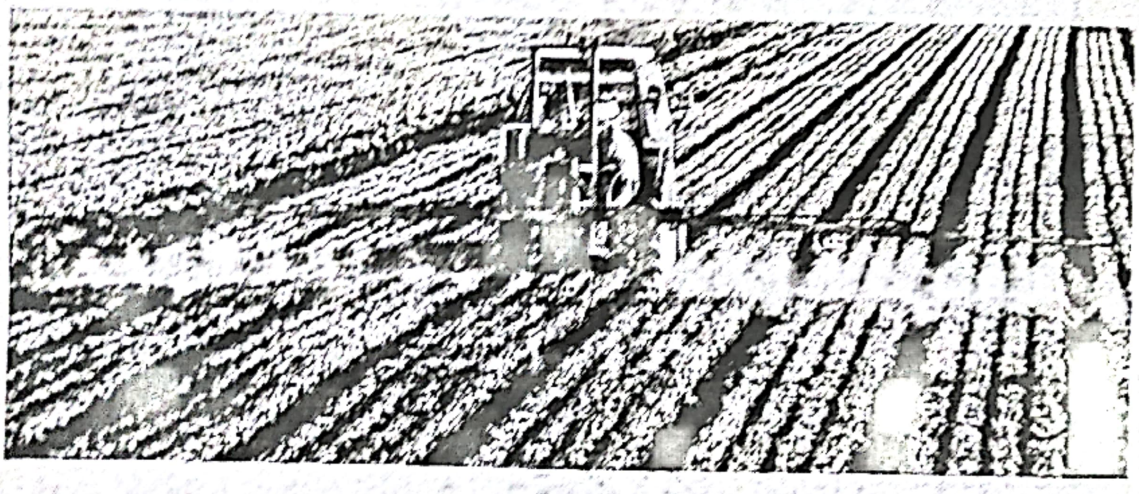

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SOCIO-ECONOMIC ATTRIBUTES OF RICE GROWERS IN COASTAL REGION (KONKAN) OF MAHARASHTRA

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Abstract

India has witnessed major changes in the productivity of cereal crops after the Green Revolution. The effect of the technological breakthrough has been significant in almost all the states. However, many agricultural scientists and farm experts have endorsed the view that the performance of agriculture is yet to reach its potential level. They reported a significant difference between realized and potential yield.
Keywords: Green Revolution, technology, potential level, agriculture.

Introduction

Natural components like weather, soil, topography, plant physiology etc. which govern the rice crop growth and its productivity. The decision regarding crop management like selection of the variety, crop calendar, scheduling fertilizer, pesticide sprays and other cultural practices, indicates human control over the rice agro ecosystem. Extension of research from lab-to-land through extension workers under the Government Agricultural Department and NGOs and adoption of the recommended strategy by cultivators are the main human components. Output of agro ecosystem is interplay among. all these factors. It is therefore necessary to know the strength and constraints in this process. The paper focuses on the human components of rice ecosystem of north konkan region of Maharashtra.

Methodology

Stratified sampling frame of rice-growing talukas was derived from the spatial analysis at three levels. At first distribution of 16 talukas in the study area was obtained on the basis of four rice typologies as:

1. yield growth being influenced by neither technology nor weather (T.W).
2. yield growth being influenced by both technology and weather (+T+W),
3. yield growth being influenced by only weather (T+W)
4. yield growth being influenced by only technology (T-W) and

These were obtained from the analysis of technology and weather impact on growth of rice yield in 16 talukas. Influence of soil characteristics on the productivity of rice farming is incorporated through integrating rice growing talukas according to existing soil regimes with typologies and the three rice-growing regions. Distribution of 16 talukas is given below.

Table: Distribution of talukas according to soil types and typologies.

Typologies/ Soil types	Kokan Coastal region			
	+T-W	+T-W	-T+W	-T-W
Laterite	2	11	1	6

Deep Black	-	-	-	-
Medium black	-	4	-	2
Shallow black	1	-	-	-
Red & yellow	-	-	-	-
Coastal alluvium	2	4	2	8
Total	5	19	3	16

Results and Discussion

There are large variations in input practices and output levels among the different regions. Exercises normally carried out using regional level data farm level are desirable for understanding the gaps between actual yield and potential yield. Various factors may be responsible for the observed differences in efficiencies.

Socio-economic analysis according to rice typology.

Yield growth being influenced by technology and weather (+T+W). A typology denoting positive impact of both technology and weather is represented by 12 talukas and five soils cape units. Information of 89 randomly selected paddy growers covered by most soils cape units under this rice-based agro ecosystem, which is distributed in three rice-growing regions, was collected.

It is evident from the study that male population has higher mean score of 3.8 over that of the female indicating the sex ratio in favour of males. On an average 3.92 persons out of a family size of 6.9 are in the age group of 18-60 years, which is the available work force for labour intensive rice agriculture. Population engaged in agricultural activities per family (4.5 persons) is more than 50% of the average family size, indicating agriculture as the main stay of their livelihood. It is important to note that under positive technology and weather impact the 3.49 persons per family are at least secondary level educated.

Conclusion

Various factors may be responsible for the observed differences in efficiency in rice agro ecosystem which was the focus of this paper. The results of this analysis can provide useful information to the manners in pursuit of agricultural development. An inventory regarding personal, economic and institutional attributes of 89 rice crows distributed in coastal konkan region and four rice typologies.

The highest efficiency of farming system was characterized by high proportion of working age group as well as educated population per family, effective interaction between extension officers and farmers resulting into their willingness to adopt hybrid rice and easy availability of training and credit facilities. Effective means of communication reported were progressive farmers and extension officers. The lowest efficiency in the rice-based agriculture is marked by an absence of compensation to the weather aberrations through application of fertilizers and/or irrigation and more expenses on labour. Both input and output though high in proportion yield low efficiency due to inferior managerial practices on personal as well as institutional basis.

The source of information about innovative technologies is internal which hardly gets implemented in the field. Constraints in adoption of hybrid rice were high

seed cost, non-availability of quality seeds in time, less fodder and susceptibility to pest and disease in addition to inadequate credit and training facilities, their highly positive attitude towards the hybrid rice notwithstanding. Average rice productivity of the Sampled farms was 32 q ha' with a wide variation according to typology and region. Under +T+W regime deep black and laterite soils were found more productive (36 q ha over the shallow, medium black and coastal alluvial soils. (26 q ha') while in the absence of both technology and weather influ ence (-T-W) rice yield varied from 27 q ha for deep black to 36 q/ha for red and yellow soils, the former are otherwise productive. The highest yield was reported for the coastal region for deep black soils in moderate rainfall regime and red and yellow soils in high rainfall region.

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