

# I

## INTRODUCTION

Indian Agriculture made rapid strides in post independence era. Adoption of high yielding varieties, uses of fertilizers and chemicals during a phase termed green revolution had increased food production from 58.0 mt. in 1950 to 200.0 mt. in 1998-99. In spite of increase in population self sufficiency also has been achieved.

However, the agriculture scenario as on today is at cross roads. The systems followed currently are inadequate to solve present problems and give a future direction to manage needs of farming community. Though India could achieve a sustainable food production over past decades a sustainable agriculture is yet to be achieved.

The most significant shortcomings of public agricultural extension in general have been :

1. Unresponsiveness to the variation in farmers needs
2. Lack of ownership by the intended beneficiaries
3. Failure to reach poor and women farmers.
4. Limitation in quality field and technical staff
5. High and unsustainable public care.

On the above issues, Agricultural specialists increasingly recognize, however, that if extension is to meet the diverse needs of modern farming, a fundamental change of approach is called for towards educating and enabling farmers to solve their own problems.

The existing research and extension system is largely top-down in nature. The scientists from research stations decide the research agenda which is often based upon their limited exposure to real problems faced by farmers. The involvement of extension personnel and farmers in the above process is limited and passive. The present feedback system is very weak. The technological recommendations emerging from research farms are too general usually covering the entire agro-climatic zone. It has been observed that each commodity is grown under a number of farmign situations. More than one farming situation of a commodity may be observed in a particular village. The production problem

often differ strikingly from situation to situation of a particular commodity. Hence, there is need to refine the generalized technological package of practices of each commodity as per the farming situation under which it is grown.

It has been observed that farmers tend to use excessive doses of fertilizers and also excessive doses of pesticides. These practices are mostly unsustainable. Although these problems have been well recognized long before, there had hardly been any impact in farmer's fields so far. The concepts of Integrated Nutrient Management and Integrated Pest Management, therefore, need special attention. Also a number of new enterprises have been identified by scientists for agro-climatic zones. These are being integrated by innovative farmers leading to significant innovations in their overall farming systems. Hence, there is a need to analyse successful innovations on this aspect so that these could be replicated in the concerned area at a faster rate.

It is well known fact that farmers not only have technological needs but other needs viz. Inputs, credit, market and facilitation etc. The public sector alone is not able to meet all these needs in an effective manner. Hence, there is a need to identify appropriate organization to meet these challenges in agricultural development.

At present there is hardly any functional linkage between farmers and marketing specialists. If suitable markets are located at a far off place, individual farmers cannot easily have an access to them. Hence, Organization of farmers in commodity oriented groups is a pre-requisite for achieving it. Proper linkage with markets shall not only improve the overall income but also serve as an incentive for adoption of high production technology and for overall diversification and intensification of existing farming systems.

With these background, The National Agricultural Technology Project was launched in the 1998-99 to address the above constraints, weaknesses not addressed before in 28 district of India. Based on success of NATP, 252 districts have been added for implementation of ATMA model in the country.

During last decade a number of management and participatory tools have been developed which are helpful in facilitating farmer's involvement in an effective manner. Using all these tools a participatory methodology has been worked out for preparing a SREP for ATMA, Saraikela district. The present document has emerged through application of such tools in a limited number of villages representing the 4 AESs by selected multi-disciplinary teams of the district.