CHAPTER - I

INTRODUCTION

1.1 Justification

Indian Agriculture has proved beyond doubt its potentiality for sustaining livelihoods of growing population of the country. Indian Agriculture is known for its multi functional activities by providing employment, livelihood, food, and nutrition and ecological securities. Agriculture and allied activities contribute 29.1 per cent to the gross domestic product of India compared to 2% in USA, France, Norway, Japan, 5% in Korea and 49% in Ethiopia. Indian agriculture employs 69% of total work force as compared to 2% in USA and UK, 2.6% in Germany, 81% in Tanzania and 93% in Nepal as major force usually needs poverty alleviation and empowerment of agrarian folk.

The success of Indian Agriculture received contribution from research, extension and farmers. The role of extension in transfer of usable technologies has been well recognized in the production system. With largest network of extension system, India has been able to sensitize farmers at grass root level to contribute food production and productivity.

All the states in India have developed extension system linking with research system. The rate of transfer of technology is
proportional to the level of production and productivity. So far our basic concern was more production of food grains, especially wheat and rice to match the demographic requirements. The present thrust is on ecological and economic assessment to food through poverty alleviations, higher profit to farmers, sustainability of resources, import substitution, quality and production for export.

To meet the above challenges our extension system is strengthen so far keeping link with client and research system. The present extension mechanism needs modification and orientation to meet the growing needs of the farmers. This is so because the technologies as well as farmers are changing at a faster rate.

Farm families contribute two-third of the population. Analysis of the causes of food insecurity in rural and urban areas reveals that under and malnutrition among children, women and men is due to lack of purchasing power to permit to balanced diets and clean drinking water. The National Commission on Farmers feels a three- pronged strategy needs to be introduced to ensure the economic well being and nutrition security of rural families. First families possessing assets like, land, livestock will have to be assisted to enhance the productivity of their resources endowments in an ecologically and economically sustainable
manner. The smaller holdings cannot fulfill the greater need for marketable surplus. Hence, the emphasis has to be placed on increasing the output per unit of land, water, nutrients through labour based technologies which are ecologically and economically sound. For this more extension efforts for transfer of ecologically sound technologies based on blending with traditional ecological produce with frontier technology are required.

Nearly one third of rural population and large proportion of women earn their livelihood through labour wage employment. They have no assets like, land, or livestock. A massive effort in the area of knowledge and skill empowerment for women and men constituting landless labour work force is essential if economic value is to be added to their time and labour.

Other rural groups are artisans working in secondary and tertiary economic sectors. Their skills will have to be mobilized to enhance the competitiveness of agriculture through value addition to primary products and diversification of livelihood opportunities. The strategy for the technology upgradation of rural profession should be based on principles of social inclusion.

The extension system and its impact has been point of concern at various levels. The livelihood and living pattern of farmers have been changing but the rate and dimension of change are not equal in the country. India being the country of
villages is faced with the problem of unequal change in different societies of the country.

Many scientists claim that technology generated at research stations are not in conformity with farming system of farmers of many places. The role of extension is to indicate the appropriateness of technology. The hypothesis of input output ratio of technology and living status needs close examination of the situations irrespective of state and territory. With an area of 32,87,263 sq km of landmass in India, the possibility of generating appropriate technology for all the regions is a very difficult task. The changing scenario of India with respect to population, population density, sex ratio, literacy growth of urbanization, structure of rural society put sufficient pressure on agriculture and extension to re-examine the issue of appropriateness of technology.

The newborn state, Chhattisgarh is of special mention in the context of Extension system and transfer of technology. With an area of 1.35 lakh sq km spread in 16 districts in three agro-climatic zones, it sustains a population of more than 2 crore who are mostly rural inhabitants and depend on farming for living. With 80% of its population engaged in Agriculture and 43% of the entire arable land under cultivation, the Chhattisgarh are known as the rice bowl of Central India. The principal crop is paddy and
other crops are pulses, course grain, wheat, maize, groundnut and oilseeds. The region is also suitable for growing mango, banana, guava, papaya, custard apple, pomegranate, tomato, brinjal, okra, cauliflower, potato and leafy vegetables.

The state has about 44% of the area under forests, and has one of the richest biodiversity areas in the country. The extension system of the state approaches to rural masses with Rural Agricultural Extension Officer (RAEO) working in the grass root level, the Subject Matter Specialist (SMS) at sub division and district levels.

The state continues to one of the rice producing states in the country. Rice is the major crop of the state covering more than 38 lakh ha area. The agricultural scenario of the state is not much encouraging in-terms of production and productivity compared to other states. Besides research there is also need for streamlining of extension system for smooth and speedy transfer of farm technologies. The strategy of extension system can be better planned provided the present status. Chhattisgarh with geographical area of 4.1% of the country supports about 2% of the nation's population. The percentage of urban population is 20.08% and population density reported to be 154 per sq km and literacy percentage is 65.2. The average yield of rice in the state is 13.7 q/ha and food grains are 11.6 q/ha.
Present century is known as information century. Development of a nation depends on the development of human resources. Development of human resources depends upon the access of the people to the useful and usable information. Presently majority of the people have no or little access to information. They are not able to make use of the same resulting in backwardness and poverty.

In spite of massive efforts for rural development, still half of the rural population in India is living below poverty line. These people are illiterate and are without adequate basic needs. As stated by Rao (2004), the only way we enhance our economic status and improve the quality of our people is through extensive application of science and technology on a self-reliant basis in all vital areas including manufacturing, services and agricultural sector.

Very little efforts have been made to diagnose the different needs of the people and standardized recommendations has been handed out that many of these people find them unusable. Moreover developmental workers have not been trained in these qualities to make perfect identification of needs. The development workers believe that the meaning and the value of information are fixed indiscreet messages that people should not raise questions but take message for granted. They present message independent
of social context. So far all educational programmes used information diffusion model to disseminate prefixed messages, import messages from outside and helps promote ideas and practices presumed to be new and valuable. People have not taken into confidence especially weaker section therefore these programmes remained as Government programmes and have not benefited much. A programme therefore is needed to be on self-help basis with required assistances from the government. A successful programme is that which is able to create awareness among people and unite them to solve the problems collectively.

As stated by Krishnamurty (2003) many educational programmes failed because they were imposed from top. The programmes were found unacceptable because they never addressed to the micro level problems, as have not been formulated taking preferences and behavioural aspects of the local people. Success of any programme depends on people’s participation. Forced learning will not promote conviction leading to action. The present system of approaches emphasizes knowledge system, but it will not be achieved unless we combine social context into it. There is need to have programme which would help people to stand on their own feet, that genuinely encourage responsibility, initiative, decision making and self-reliance. Participatory model demands a thorough knowledge of
participants, social system and situation. This requires detailed information on significant social groups and communities and their structural relations, economic, social and cultural activities and events constituting their normal life pattern.

Decentralized local planning by the communities is required. Intensive horizontal communication within and among the groups and communities initially focused on broad socio-economic discourse rather than narrow technical discourse essential. Efforts are to be made to diminish official rigidities, ideological dogmatism and informational fetishism. As the individual and groups become more informed and involved in development, their consciousness about their distinct roles and rights and stakes of changes sharpens. They become more active in resisting the centralization of ideas and values imposed from above and act against their interest. The people are encouraged to prepare a collective action plan they providing every body equal right to speak and to be hear.

The above dimensions of activities come under the preview of Extension in transfer of technology. We are in search of extension methods that would attend these objectives. Extension is a significant social innovation, an important force in agricultural change, which has been created and recreated, adapted and developed over the years. Jones and Garforth (1977)
mentioned that today extension encompasses a diverse range of socially sanctioned and legitimate activities which seek to enlarge and improve the abilities of farm people to adopt more appropriate and often new acceptable thought about extension.

Therefore extension seeks a definition in term of sustainability. A sustainable approaches to providing agricultural extension service. in developing countries minimal extension inputs, a system orientation, pluralism, and arrangements that take advantages of the best incentives for farmers and extension service providers all release the total knowledge, resources, common sense, and organizing ability of rural people (Feder, Willett and Zijp, 1999). Sustainable extension system provides authentic broad based and need based information about tested technologies, quality inputs, and dependable markets regularly considering the resources of the farmers and infrastructure available in the area to the villagers for holistic development irrespective of their socioeconomic condition through rural institution (Bahal, 2002). Considering the above definitions, we can very well realize that sustainable extension system needs human resource development. The short supply of extension workers, lack of adequate technical knowledge, loaded with more work with inadequate time and money the extension system has not able to deliver expected goods at the door step of the farmers.
Swanson (1984) mentioned that in most of the third world countries there was and still there sever shortage of trained manpower in extension. Large deficits in skilled labour power often inhibit all aspects of development. This is the reason for not developing institutional building process. The extension density in terms of number of farmers per extension workers varies considerably throughout the globe.

The sustainability of extension system has been discussed at many levels, shortage of human resources in extension, inadequate knowledge level, workload of extension workers and budget allocation taken together reveal that present system is not sustainable. So far as sustainability of extension is concerned, the ICAR and SAU do invest a significant amount of money for field activities like, demonstration, supplying of information, inputs and incentives as required. But after the input is taken out the same feeling towards adoption does not exist. A conceptual model of sustainable extension system comprise of problems covering supplies, services, market and unemployment. To meet these interventions like in all these aspects are required. This is what extension is required to do. It is not that farmers are not aware of their problems but there problems of such nature that they cannot solve individually. The constraints relating to socio economic and political aspects are to taken care of. The major
issues like group action, direct marketing, marketing credits, advice, processing and value addition, product planning, marketing information, alterative marketing, and linkage with research and developing agencies would enrich our system of approaching farm families.

Keeping the above-mentioned status of the state Chhattisgarh, an attempt is made to investigate into the impact of Agricultural Extension on the farmers in general and following specific objectives in particular.

1.2 OBJECTIVES

1. To find out extent of awareness of the sample about ongoing important agriculture programmes and their participation.

2. To ascertain the participation of the farmers in different specific extension programmes of the state irrespective of funding of sources.

3. To determine the attitude/opinion of the farmers towards different programmes have Agricultural Extension system and their different components.

4. To determine the transfer of technology and adoption behaviour of farmers in relation to some specific extension programmes.
5. To find out impact of extension system on the farmers in terms of change in socio-economic and personal status in the areas of study.

6. To enlist the constraints associated with agricultural extension system and make suggestion for improvement.

1.3 HYPOTHESIS

The following hypothesis was formulated for verification in this study:

1. The present agricultural extension system in Chhattisgarh plains is not working upto the mark, resulting in poor rate of adoption and diffusion of modern agricultural technologies specially agricultural technologies related to rice, oil seed, pulses, sugarcane, Integrated Pest Management (IPM) and farm machinery.

The study is basically planned to ascertain change in socio-economic status of the farmers due to operation of different extension programmes from time to time.