

Role of Information in Agricultural Development of Odisha

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1. Introduction

Odisha is primarily an agriculture-dependent state, with 5.70 % of its population of total population of 36804660 engaged in farming (Census 2001). The agrarian nature of the state with both the agriculture and animal husbandry sectors together contributing to 20.19% to the Net State Domestic Product (as per quick estimates of 2009-10) at current prices and providing employment to 70% of the total work force (as per 2001 census) directly and indirectly (OAS, 2009-10). In spite of this large labour force, there is a food deficit in the state. The state has been continuing to purchase food grains and vegetables from the neighbouring states of Andhra Pradesh, West Bengal, Jharkhanda and Karnatak. The successes of these states with large production of food crops have been linked to the proper agricultural system, technological innovations and right uses of agricultural information which have greatly helped in boosting agricultural production. Those states have recognised the potency of technological innovations in bringing increased agricultural production. Hence the establishment of several agricultural research institutions is believed that technological innovations are the outcome of research. The main objective of these research institutions is to ensure an increase in agricultural

production. A prominent factor identified as being responsible for this unacceptable situation is the unavailability of timely and appropriate information to users of agricultural information, *i.e.*, researchers, agricultural scientists, policy makers, planners, extension personnel, and farmers.

With the emergence of information system and services, worldwide uses of Internet and application of information and communication technologies the focus has been changed to effective dissemination of information to a larger audience in different sectors of the economy. The agricultural authorities have emphasized the flow of information from the lab to land so that the farmers as the end users may get the direct benefit. The ultimate motto of the research and education is to improve the agricultural system in producing more the good and services. All the resources and services are directed towards the improvement of crop production to meet the growing need of the population. Hence, attention has been focused on the provision of agricultural information to all the agricultural information user population. The provision of agricultural information to extension officers and farmers by agricultural libraries is neglected, and this also hinders increased agricultural production in the country. Some studies have, however, revealed that extension officers and farmers need

information just as much as research scientists and policy makers. The present paper aims to discuss areas of information needs of various stakeholders in agricultural sector in a developing state in Odisha.

2. Information Problems in Agricultural Sector

Agricultural sector has variety of information user community. According to Kaniki, (1995) and Adimorah (1995) agricultural information user populations are basically researchers, extension workers, farmers, educators, students, agribusiness personnel, bankers, industrialists, policy makers and agricultural librarians/documentalists. All those uses have different types of information needs. The researchers primarily need information to make them aware of new information that will increase yields, produce resistant seedlings to the latest information on the new frontiers of knowledge. The educators also share the information needs of researchers. In addition, they require information that will improve their teaching. The academicians and students are also interested in the agricultural information required for education purpose. Scientists need current information in their concerned subjects to keep them abreast of the latest development in agriculture so as to improve the quality of their research work. In addition, they need information that is factual, current and any information that will improve learning.

The extension workers scope of needing information is confined to serving the farming community and making them empower with latest information on improving the farm productivity. However, information on variety of needs such as of resistant seedlings, control of major pests, credit sources etc. as well, as providing information on farmers' problems to the

researchers. The agribusiness personnel are interested in product information that will increase farmers' output, current information on various agricultural products that will improve agricultural productivity. The industrialists require information on export commodities, up-to-date world markets rates and prices of commodities. The bankers on the other hand, are interested in lending rates as it affects agriculture, current world markets and prices of commodities, feasibility studies on various aspects of agricultural production and loans and credits (Aina, 2008).

The farmers need information to know the procedure of increasing output, the use of fertilizers, useful pesticides, high yielding seeds, testing needs of soils, access to credit facilities, marketing of their products, etc. Policy makers require information on global trends in agriculture and competitive prices of commodities, legislation that will improve agricultural production etc. With such a wide spectrum of the various information needs of agricultural stakeholders, it is very clear that information professionals need to develop a strategy of information provision so as to satisfy the information needs of those information users in agriculture.

3. Information Requirement of Extension Professionals

Extension officers engaged in agricultural sector are treated as successful intermediaries between the agricultural knowledge and the farmers. Those extension officers occupy a strategic position in the agricultural production cycle due to the fact they are directly related to the field and meeting farmers to solve their problems. They liaise between the farmers and research scientists on the one hand, and between farmers and policy makers on the other hand. A constant supply of timely and appropriate information to this group of agricultural information

users will enhance the quality of information they provide to farmers, researchers, and policy makers. Providing information only to research scientists without making it available to agricultural extension officers will negate desirable integration. In Odisha, the ratio of agricultural extension officers to farmers is far too small. Therefore, an adequate supply of information will lighten the burden of extension officers. Since those professionals are primarily be empowered with the information base in agricultural sector so that they will certainly be enable to disseminate the required information to the farmers. There is a greater need for providing training and awareness programme for those extension officers about the agricultural information system and services so that they will improve their knowledge base and work in furtherance of the information dissemination. In order to accomplish the task it is essential on the part of the government to identify the information needs of those extension workers. The librarians are those professionals engaged in such work to take up a study to identify the information needs of the extension officers of the state working in the agricultural department. After identifying the real information needs of the extension workers, the library professionals will determine the strategy of information dissemination process that will greatly empower those persons so that they can give necessary advice to the farming community who can derive benefits.

4. Need for Libraries

Libraries play vital role in dissemination of right information to the right agricultural users of the state. As a normal practice libraries used to collect different types of documents and provide information services to different types of users to suit their information needs. There is no specific agricultural library in the state owned by the Government to meet the information needs of the

agricultural stakeholders. The only library of Agricultural University is unable to meet the information needs of the agricultural academic community due to very paucity of funds, as its budget is very inadequate. There are five agricultural research institutes under ICAR which have special libraries meant for those internal users. The state has not a special library devoted to agriculture at par with other special libraries. In this scenario, the state of agriculture library in the state is nonentity. Till today nothing has been written nor devised to provide any information to the farming community in the state. It is, however, felt that a study is required to be conducted to determine the information needs of the farmers and accordingly the system approach to farming information system may be developed in the state. Moreover, there is a greater need for establishing a special library in the state which will be totally devoted to providing information services to different stakeholders of agriculture. Its role will be to collect needful agricultural information resources, customize to meet individual as well as farming community information needs. There should be adequate fund provision of the library so that required documents both print and electronic formats be procured to develop a good resource base for the users. The library should provide information services primarily in documentary form to different district agricultural offices so as to empower/make them aware those officers about the information available on their subject of interest who in turn can be able to provide the needed information to the farmers. In addition to this, institutions outside the agricultural stream like study centres of traditional universities, local colleges, public libraries, village libraries etc., hold agricultural information that may be considered useful in similar situations. They can be strengthened without much financial commitments to serve such requirements of the farmers and public. Again such institutions hold

agricultural information, which is rare, like the traditional knowledge. All these resources outside agricultural stream appear to be very much important for agricultural development of the state (Nair, 2006).

5. Role of the Librarians

There is no doubt that the information professionals constitute a significant sub-group in the agricultural sector. Their main duty is to provide up-to-date, current, appropriate and timely information to all the other stakeholders in the agricultural sector, with the aim of increasing agricultural productivity. While libraries, information centres and documentation centres have played a leading role in supplying information to these stakeholders in the past, it is becoming apparent, that these centres are no longer in a position to provide all the necessary information as efficiently as one would expect. The changing needs of agricultural information specialists are tied closely to the changing needs of the stakeholders they are supposed to serve. As mentioned above there are various types of agricultural information users who used to significantly contribute towards development of agriculture in a state. These sub-groups have different types of information needs. Given the complex information needs of the agricultural information user populations, it is becoming apparent that the skills of the new information professionals must change in order to meet these changing needs. For example, the services which hitherto had been restricted to researchers and educators must be broadened to take care of the other stakeholders.

It is also clear from the various information needs of the agricultural information users population that libraries and information centres may not possess in their collections all the information required by their stakeholders. Yet the trend in the training of the information professionals

is to be able to supply information needed from its collections and the collections of other libraries. For the new information professional to function effectively in the provision of information to agricultural stakeholders, the curriculum for the training of information professionals will have to be greatly radicalized. There are rapid changes in the agricultural sector in under-developed areas. For example, the role of agriculture, as the main foreign exchange earner is declining; farmers are abandoning the rural farms for the urban cities, there is a low funding of agricultural institutions which were hitherto exporters of food items have become net importers. Thus, there is a need for the information professionals to re-assess their functions in the agricultural sector, in order to be more relevant in the new directions of agricultural growth. Solutions that will greatly enhance the contribution of the information professionals in reversing the current negative changes must be proffered. Therefore, the role of the information specialists is expected to be pro-active.

6. Communicating Strategy for Information Empowerment

Farmers are normally placed in remote rural areas who do not know the use and value of information. The information professionals must be very visible to farmers and extension workers in rural areas. Thus, the new information professional in disseminating information must work in tandem with local public libraries that are nearest to farmers, extension workers and the various community organizations. Agricultural information can be transferred to large number of farmers through mass media simultaneously and at a lower cost per farmer than other extension methods (group or individual). However, the availability of these sources limits the farmers' access, and hence their usefulness. In addition, the mass media has weaker feedback potential than other conventional extension methods and

the capacity of these sources at the stage of adoption of agricultural innovations is limited (Demiryurek 2006). Posters and leaflets issued by the respective ministries of agriculture on how to combat pests, apply fertilisers, obtain loans and credits and selling of their products at competitive prices must be made available to farmers. The use of audio-visual gadgets-radio, video, television, overhead projections etc need to be used during farmers' meetings for the purpose of disseminating information on the latest findings in agriculture. Although radio and television programmes are broadcast over certain channels, these do not make direct benefit to the farming community. The extension professionals should carry publicity materials and distribute success stories in agriculture so that it may make great impact upon farmers with needed information.

7. Conclusion

Agriculture is a prime sector for development in an agrarian economy. The rural livelihood in the state primarily depends upon the agricultural development. Among other instruments of development of agriculture the provision of right information to the agricultural stakeholders has yet to be designed. Access to right information and its proper utilisation for the farming community is the order of the day which need to be practised in the state. One of the roles of government is to make the provision of information to increase efficiency and improve the performance of the agricultural economy. There is a greater need of assessing the information needs of the agricultural stakeholders in the state so as to know their information requirements. Extension professionals working in agricultural sector should develop better liaisoning and empowering the farmers with latest technology and farming practices. The information system and services in the agricultural sector in the state is not up to mark. Libraries in agricultural institutes

are to be developed with adequate print and e-resources and provide services tailoring to the needs of the farming community. A regional agricultural information system may be developed so as to disseminate the required information to the farming community, extension officers, and researchers in agriculture as well as scientists engaged in agriculture in Odisha.

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