

A Review Paper on Information Seeking Behaviour of Farmers regarding Crop Production

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Abstract: Agriculture plays a critical role in the entire life of a global economy. Agriculture is the backbone of the economic system of an any country. Agriculture farmers maintain their source of income by get rid of crops, marketing these items in local area/market. Information seeking behaviour of farmers are reflect on proper planning for policies making imperishable agriculture and development of farmers. This study aims to review information seeking behaviour regarding crop production on various aspect and need of the farmers, sources using of farmers and problem faced by the farmers for seeking information. In the paper information insistence - Information need, source, challenges facing are explained with the help of literature. Information seeking behaviour of farmers are described on the basis of literature in Indian perspective.

Keywords: information, crop production, agriculture

1. Introduction

The present era is the age of scientific development in which new information and knowledge comes out every day and it is essential to transmit this knowledge and information to those ultimate users who requires it in shortest period of time. For this purpose there is a need of effective information. So that they can utilize and communication for the development. Indian Agriculture faces challenges due to Biotic and Abiotic stresses (impact of disease, insect and pest infestations, soil salinity, heat, cold, drought, flood etc.), Climate Change, Changes in food habits and nutritional requirements, Population pressure, Pressure of global trade and competitiveness, and Technological development. Strategic intervention of Information and Communications Technologies (ICTs) in Agricultural Input, Production and Output systems, integrate and facilitate trade, technology and food security, through effective Value - chain and Supply - chain Models. This is a priority engagement.

Information regarding Seed treatment, sowing procedure water management, plant protection, compost, fertilizer. Chemicals etc. is considered as one of the key inputs for successful sustainable agriculture and intensive farming. For qualitative improvements in farming including improve crop production technology effective & efficient research and developmental programme is the need of the hour. Farmers need information on agricultural resources, inputs, marketing and practices in planning and managing their agricultural production activities to increase productivity, profitability and to sustain their livelihood.

It is overseen to get a clearly know about the specific area of researcher interest. it assists the researcher to have an insight into the tested method, plan of action, about similar studies conducted anywhere. This study avoids the equivalent research work and diameter the understanding of the research. there are lot of research studies related to the present research has been oversee in different types around the world. An attempt has been made in this paper to present a survey of the available literature to put the research problem under study into appropriate context of scientific perspective. It is quite obvious that research that has been

done on the information needs and information - seeking behaviour of indigenous people in developing countries in many ways and in many directions.

2. Objectives

In our paper Scanning of literature review categorized as Library survey, Information need, Information Demand, information sources, problem faces during seeking information. in this paper review category in three parts 1. Information need 2. Sources using by the farmers 3. Problem faced by the farmers.

Information need

Kumar and Swain (2017) conducted study on “Information seeking behaviour and use of information sources by farmers of Haryana state India”. The study found that farmers need on agriculture seed variety and seed availability (74.29%), Krishi Sewa Kendra (70.86%), crop production (70.86%), fertilizer availability (64.58%) and water management (34.28%).

Chandrakant, Ghosh and Sigandhup (2017) this study organize on “Agriculture information need and their fulfillment as perceived by the farmers in changing agriculture scenario in Maharashtra in India” and that study revealed soil, weather, market price of seed, income generating activity are the prime needed aspect related to agriculture inputs.

Jalaja and Kala (2015) reported in their study on “Agriculture information need of tribal farmers in Attappady tribal block Palakkad district Kerala state India”. This study revealed that respondents need of seed availability (96.18%), crop production (90.7%), insecticide availability (80.91%), government schemes (62.59%), loan facility (54.96%), marketing information on agriculture (25.95%) and transport facility (18.32%).

Mohammad aslam Ansari and sheweta sunetha (2014) conducted a study on agriculture information needs of farm women in North India. The study adopted a description

Volume 12 Issue 10, October 2023

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research design with sample of 120 farm women selected from eight randomly selected village of uttrakhand of North India. The finding indicated that farm women expressed the need for information regarding diseases control/management, weed control/management, high yielding variety crops, fertilizer requirement, use of improved farm implement and information related to marketing. An appropriate information communication strategy can be developed on the basis of their information seeking and information sharing behaviour. Study revealed that weed, pest control 1st, seed treatment rate was ranked second followed by fertilizer requirement and application, land area and allocation forth rank, decision about crops to be grown.

Kabir et al. (2014) concluded on “Information seeking behaviour of the farmers to ensure sustainable agriculture in Bangladesh”. It was found that moreover respondents have need of further information about different aspect of crop protection related (77.08%), market related information (74.16%), climate related information (74.16%), credit source related (67.5%) and crop production (57.91%).

Babu et al. (2011) this study organize on “Farmers information need and search behaviour in Tamil Nadu, India”. the study revealed that farmers important need were related to pest and disease management, pesticides and fertilizer application, seed variety and seed treatment.

Meitei and Devi (2009) reported in their study on “Farmers information needs in rural: An assessment in Manipur”. This study revealed that respondents need of variety of seed, pesticides (21.92%), credit facility, source and condition (16.54%), adoption of new technology (12.31%) and post - harvest technology (15.47%).

3. Use of Source

Kumar and Swain (2017) conducted a study on “Information seeking behaviour and use of information sources by farmers of Haryana”. Agriculture farmers mostly used landline phone (80%), internet (70%), kisan mela (60%), newspaper and magazine (50%) and mobile (40%).

Danappa vaggi et al. (2017) observed that agriculture information need of farmers in Hyderabad Karnataka region. The sample size of the study was 884 farmers result revealed that respondents were required information regarding farming activity an it was focus that they were depended on formal and informal agencies required information 38.9% consulted shop for agri information of Krishi mela 28.7% of respondents consult elders and 28.5% consult Raith samparka Kendra.

Maratha and Badodia (2016) conducted study on “Information sources and utilization behaviour of vegetable grower at Swai Madhopur district in Rajasthan India”. This study revealed most utilized sources of information by the farmers from radio and television (22.50%), information utilized from libraries (15.83%). It was also noted that 40 percent of the farmers information utilized from friends while most (47.50%) of vegetable growers.

Jalaj and Kala (2015) reported in their study on “Agriculture information need of tribal farmers in Attappady tribal block Palakkad district Kerala state India”. This study assess agriculture farmers mostly using information source revealed other farmers (90.07%), community leader (67.93%), television (24.42%), government offices (24.42%), newspaper (13.74%), extension offices (24.42%) and magazine (13.74%).

Rastogi and Hasan (2014) conducted a study on “Communication behaviour of agriculture inputs users on Udham singh Nagar District of Uttrakhand India”. The study reported that majority of the respondents are using sources personal cosmopolite channel, private company (83%), agriculture and university of staff (64%) and personal localite family member (46%), neighbours /friends (52%) and mass media exposer mobile (78%), television (38%), newspaper (29%) and indigenouse sources (62%), service supplier (39%) and folk media (14%).

Benard et al. (2014) this study indicated that majority of the rice farmers rely on their family or parents, personal experience, neighbors and agriculture extension officers for obtaining the information while other important sources used by farmers are radio (75.00%), books (67.50%), village leaders (65.00%), and brochures (62.50%). Others got information through Farmer groups (52.50%) and cell phones (41.20%). Very few got agricultural related information through leaflets, television and newspapers.

Pandey et al. (2014) reported that among the localite information sources, village panchayaths emerged as frequently used source followed by friends and relatives, fish feed sellers, neighbours, progressive farmers, fertilizer dealers, pesticide dealers, cooperatives and farmer’s club. Among cosmopolite sources, meeting and discussions ranked first followed by farm - and - home visit, office calls, demonstrations, Kisanmela, trainings and KVK’s. In mass media sources, television was found as mostly used followed by newspaper, radio, booklets and leaflets/folders.

Verma et al. (2014) study reported on “The extent of utilization of different information sources by the groundnut cultivation India”. In study revealed that most utilized source for information was neighbours, salesman, dealers and friends and most utilize mass media source of information were newspaper and television.

Saha and Devi (2014) reported that more than 36.25 per cent of the respondents were having high level of contact and discussion with neighbours, friends and opinion leaders in relation to fish production practices. Only 18.75 per cent of the respondents had regular contact with extension personnel such as FA, FO, SMS, other extension official. About 56.25 per cent of the respondents had occasional contact and 25 per cent respondents reported no contact with the extension personnel.

Odini (2014) organized a study on access to and use of agriculture information by small scale women farmers in Vihiga country of Kenya and reported that majority (62%) the women neighbours and relative, followed by listening and talking (58%), discussion with informants (53%),

listening to radio (51%), watching television (20%), mobile phone (15%) consulting through extension officer (4%) browsing internet (2%) and E - mails (0.6%).

Mohammad aslam Ansari and sheweta sunetha (2014) conducted a study on agriculture information needs of farm women in North India in this study accesses seeking behaviour of farm women 13%radio, 97% had watched television, friends /relatives 88.33% elderly person 82.5%and all of them 100% has access to a mobile phone.

Verma et al. (2012) conducted a study among the livestock owners of two district namely Bareilly and Lakhmipur district in Uttarparadesh to assess the information seeking and sharing behaviour of farmers majority of the respondents (46.7%) were contacting frequently to neighbours followed by 23.3% percent to progressive respondents as localite sources for livestock related information. In case of cosmopolite channel majority of the respondents 13.3% were contacting frequently to followed by 12.5%. Finding of information sharing revealed that 30 percent farmers were always share livestock related information with family members followed by 12.7 percent with neighbours.

Suresh et al. (2012) reported "Farmer's information needs and search behaviours - Case study in Tamil Nadu that farmers in the study area regularly use newspapers, and television is a key source of information. The newer technologies, such as the Internet and mobile phones, were underutilized to access information. Despite high mobile phone ownership, access to information via mobile phone was low.

Yadav et al. (2011) conducted study on "Utilization pattern of different sources and channels of agriculture information used by the fenugreek growers Jaipur Rajasthan India". From the above finding it can be revealed that the agriculture information sources television (84.86%), radio (78.33), agriculture supervisor (77.50%), sales man and dealers (76.25%), mobile and telephone (76.11%) newspaper (74.58%), training (46.94%) and youth club (44.72%) were perceived the utilized information by farmers.

Kapoor (2011) conducted a study on role of mass media in promotion of environmental awareness along with skill development among the rural people of shringverpur, Allahabad district India found that television and radio were the most preferred in information tools in the shringverpur village of Soron tehsil and utilize by 39.5% and 26% of the respondents respectively whereas 10% preferred meeting with the scientist and 17% people showed their interest in practical demonstration campaign by scientist and experts.

Roy et. al (2010) reported on "communication sources and utilization pattern of rural farm youth in Karnal district of Haryana India". Revealed that more than half of the respondents were found to view television regularly (38%) and 44 percent of the rural listened to all India radio programmes regularly and farm demonstration, extension materials and farm journals were rarely consulted by rural youth.

Jadhav (2010) conducted a study to assess the information management behaviour of tribal farmers of Adilabad district in Andhrapardesh and reported that agriculture officer/Assistant director of agriculture were contracted most regularly (46.66%) as personal cosmopolite channel of information family members and progressive farmers (59.16%) as personal localite channel of information listening farm broadcast (26.66%) as impersonal channel of information by the respondent for acquisition of agriculture related information.

Painkra et al. (2010) revealed that Information sources of tribal rice growers of Bastar district of Chhattisgarh the neighbors (28.33 %) were the most important sources for rice growers under personal localities category followed by those receiving information from input dealers (21.67%) and friends (19.17%), (18.33%) tribal leader category and (12.50%) progressive farmers. Under personal cosmopolite sources rural agricultural extension officers ranked first i. e.35.00 per cent information sources by the rice growing tribal farmers, followed by co - operative officers which account for 22.50 per cent information sources and NGOs accounts for 10 per cent.

Gundwardang (2005) this study conducted on "communication behaviour of farmers on improved form practices on Udaipur district of Rajasthan India". Study find out that majority of the farmers used were information sources friends (60%), neighbours (63.80%), village leader (59.67%), and agriculture supervisor (56.48%) were the most utilized information sources and kisan mandal meeting (45.34%), radio newspaper (35.89%) and television (30.56%) were the utilized information channels for different farm practices.

Singh (2002) conducted study on "information seeking behaviour of farmers in Piprali panchayat samiti of district of Sikar Rajasthan India". Reported that channels which were most utilized by the farmers were group discussion, television, radio, and newspaper respectively. He further reported that majority of farmers used neighbours (83%), private agencies (25%) and friends (50%) as source of information.

Manohari (2002) conducted a study on utilization of information sources by the tribal farmers in Rampachodavaran agency area and revealed that the respondents used most often friends/neighbours (84%) other farmers (84%) and local leaders (83.33%) tribal farmers leader (71.33%), family members (18.6%) and religious leader (9.33%) as the sources of information in personal localite category. This study also revealed that the sources of information under personal cosmopolite agriculture officer and mass media category newspaper, radio television were used by the respondents.

4. Problem Faced

Choudhary (2017) conducted study on "information utilization behaviour of tomato growers in Jaipur district of Rajasthan India". Study revealed constraints faced by the respondents were high charges of mass media (84.44%), time unsuitability of mass media for agriculture information

(79.44%), irregular electricity supply (76.94%), lack of trustworthy information (76.66%), poor communication ability of extension personnel (75%), poor literacy of respondents (70.83%) and lack of knowledge about use of mass media (65.55%).

Sangita Yadav (2017) Conducted on Information Needs and Information Seeking Behaviour of Female workers in Lakhipur Tea Garden to know the barriers in seeking information it is clear that illiteracy is the major barrier to the access of information by respondents with 42.02%, which is followed by language barrier that is 31.88% of respondents and lack of time is also the barrier of seeking information with 23.18% where No Library Resource is the barrier among 14.49% of the female workers.

Maratha and Badodia (2016) organized a study on "Information sources and utilization behaviour of vegetable grower at Swai Madhopur District in Rajasthan India". This study revealed that respondents of the vegetable grower suffered from financial difficulty (60.83%), inadequacy of facility (45%) and language barrier (50%).

Kumar et al. (2016) conducted study on "Problem faced by the farmers in adoption of mitigation and adaptation of climate change practices in agriculture in Manas block and Malhargarh block of Neemuch district of Madhyapardesh". This study revealed many constraints faced by farmer's lack of information on appropriate adaptation option (66.60%), shortage of cultivable land and unpredictable weather (64.33%), high cost of technology (62.33%), poor access to market (41.15%) and poor finance (35.66%).

Jala and kala (2015) studied on tribal farmers agriculture information needs and accessibility in attapaddy tribal block, Palakkad district of Kerala and identified major problem faced by the tribal farmers while seeking information like low level of income (73.26%), poverty (73.26%) inability to access formal channel of information (71.25%), lack of personal knowledge and special knowledge (71.25%), language barriers (71.25%) cultural beliefs (67.93%) high rate of illiteracy (54.19%) and ignore of information sources (54.19%) whereas inadequate to contact extension official (24.42%) negative attitude of government official (24.42%), odd timing of agriculture programmed on radio and television (24.42%) and unavailability of information centres (13.74%).

Das (2015) reported study on "problem of rural farmers: a case study based on the Lawphulabori village under the Nagon district Assam India". This study find out many problem faced by farmers for seeking information poverty (60%), illiteracy (65.56%), lack of mechanization (45.67%), lack of capital formation (39.86%), poor agriculture marketing (35%) and lack of knowledge.

Syiem and Raj (2015) reported study on "An access and usages of information communication technology for agriculture and rural development by the tribal farmers of Meghalaya State of North East India". This study revealed more challenges faced by farmers for using ICT's lack of confidence in operating ICT's (64.77%), illiteracy (50.14%), lack of awareness (58.43%), poor finance (41.77%), low

network connectivity (58.43%), negative attitude towards ICTs (46.07%) and high cost of repairing ICTs (38.19%).

Shuwa et al. (2015) in a study on impact of mass media on farmers agriculture production, case study of agriculture development programmes found that inadequate fund (73%), inadequate mobility (69%), lack of farmers participation (46%) inadequate of good access road (43%) and inadequate auxiliary services (35%) were the weakness reported by the respondents.

Jalaja and Kala (2015) reported in their study on "Agriculture information need of tribal farmers in Attappady tribal block Palakkad district Kerala state India". Problem faced by farmers poverty (73.26%), language barrier (71.25%), lack of personal interest (71.25%), cultural belief (67.93%), illiteracy (54.19%) and negative attitudes of government officials (24.42%) for seeking information.

Benard, et al. (2014) in a study on assessment of the information needs of farmers in Tazania and reported that the constraints faced by the respondents in accessing agriculture information were the lack of information agents (93.75%), inadequate funds (95%) lack of awareness of information sources (93.75%) information not easily accessible (81.25%), lack of time (81.25%). Furthermore 70% mention language barrier, 56.25% poor knowledge sharing behaviour 35% mentioned information not current to old and 25% mentioned lack of relevant material in office and libraries as one of challenge constraining farmers in accessing information.

Odini (2014) conducted a study on access to and use of agriculture information by small scale women farmers while using and accessing information. These includes: illiteracy and poverty (62%) ignorance of information sources (62%) language barrier in accessing information (61%), lack of time to access information (60%) and inadequate information (55%), inability and inaccessibility to get information (53%) negative attitude of information provider (53%) cultural belief (53%), no sufficient information (51%), people cancel information (49%) outdated information (47%) distance of information sources (47%) shy to access information (45%) and nonparticipation in meeting (45%) and perceived as per their order to seriousness.

Prameela and Ravichandran (2001) reported study on "Socio cultural barrier faced by farm women in the utilization of communication channel" in India. In their study found that lack of interest (68.66%), domestic responsibility (61.33%), cultural norms (53.33%), lack of skill in operating television and radio (18.66%), lack of knowledge (8.66%) were the barriers for less than one third of the respondents.

5. Conclusion

Agriculture plays a vital role in the economy, and sustainability in the agricultural sector must address the issues of poverty alleviation, food security, and stable income generation for a rapidly growing population. It can be concluded that majority of the respondents were in the

medium level of information need category. Study found that farmers were have need mostly in organic composting, government schemes and market related aspect of crop production out of selected 11 aspect. Study also revealed that mobile, farming helping app and television were used as most important information sources regarding the crop production. Farmers were facing mainly poor contact of extension worker, language related, lack of right time broadcast news, lack of knowledge of mass media and lack of trust on news. Study further found that there was not significant association between selected demographic variable (age, education, farm size, farming experience) and information need of the farmers regarding crop production. Government should improve access to public extension services, by increasing the number of extension officers, and providing adequate training programmes to update their skills in the farming activities.

6. Recommendation

Government should improve access to public extension services, by increasing the number of extension officers, and providing adequate training programmes to update their skills in the farming activities.

The government should also provide adequate resources to the extension officers such as information materials, and agricultural inputs in order to fulfill farmer's needs.

The rural information services (that is, agricultural extension officers, researchers, educators, libraries, and other agricultural actors) need to conduct regular studies on information needs in order to fulfill the communities' needs and improve farming activities in the rural areas.

Needs assessments should also be used to map communities' knowledge and information sources in order to enable local farmers to locate agricultural experts in their communities.

Rural information services (that is, agricultural extension officers, researchers, educators, libraries, and other agricultural actors), government departments and village authorities should work together to create awareness of the available information sources, and promote a culture of learning and sharing to enable the communities to seek advice when they have a problem and share their knowledge.

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