PERCEPTION OF FARMERS ABOUT FUNCTIONING OF RAITHA SAMPARKA KENDRAS IN DHARWAD DISTRICT OF KARNATAKA

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INTRODUCTION

Agriculture is the most important sector of Indian economy. More than 65 per cent of population depends on agriculture. Agriculture in India has certain distinctive characteristics, which influence its pattern of development. These are diversities of physical conditions, farming systems, production requirements with in a small farm sector, cultivation of vast tract of land in rainfed conditions, high incidence of pests and diseases, as well as proneness to flood and drought.

The scientific research is advancing fast and new techniques are being added continuously. Without the spread of these agricultural innovations from research systems to client system, the problems of Indian farmers remain un-solved.

Whatever may be the distinctive features of agriculture, to feed ever growing population, we need about 270.40 mil.t. of food grains by 2020 AD which means that production has to be increased by about 19.98 mil.t. over the present level of the production of 250.42mil.t. (2001-2002- International Food Policy Research Institute) which can only be achieved through increased land productivity.

Agricultural research and extension are two important dimensions of agricultural development. An efficient extension system capable of timely dissemination of need based farm technology to farming communities is of paramount importance for achieving sustained growth in agriculture.

In order to obtain maximum yield per unit area, farmers need to adopt latest technologies in crop production. Many programmes were launched in India from time to time to improve agricultural production *viz.* Community Development Programme (CDP-1952) started to achieve all round development of village communities with emphasis on agricultural development. However, after its working for a few years, it was realized that the programme could not secure peoples' participation to any appreciable degree and by large, remained a government sponsored programme. Hence, the Panchayat Raj System was introduced with the underlying doctrine of democratic decentralization for development functions. However, agricultural production still continued to be low. The continued shortage of food for home consumption induced a shift in the programme to pay greater emphasis on agricultural production. As a result, Intensive Agricultural District Programme (IADP), Intensive Agricultural Area Programme (IAAP) and High Yielding Varieties Programme (HYVP) were successfully introduced in the country. It was later on realized that theses programmes alienated the rural poor from the main stream of national development. Thus, the programmes like Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers (MFLA) and Tribal Area Development Programme (TADP) were launched in the Fourth Plan period to take special care of the weaker sections of the society like small and marginal farmers, landless labourers and tribals.

It was also realized that the IADP launched in areas endowed with natural resources caused regional imbalance particularly between the irrigated and unirrigated regions in the country. In order to bridge the gap, area specific programme like Drought Prone Area Programme. (DADP) was initiated in 1970-71 during the fourth plan. It was an integrated area development programme in agricultural sector and aimed at optimum utilization of land, water and livestock resources, stabilization of income of weaker sections and minimization of impact of drought on agricultural production and income of rural people.

Karnataka's agriculture as in the rest of the country has been making impressive strides, since mid 60's. Out of total population, rurality contribute for about 76.00% and all of them are engaged in agriculture and allied activities. The contribution of agriculture and allied activities accounts to 49.00 % of the state income, which indicates the prominence of agriculture in the state.

Agriculture in Karnataka is in the process of modernization in its many phases. Since then, many important developments have taken place in this process. In this regard, T&V system was implemented in 1974 for high inflow of innovations from research establishment to farmer's field. The T&V system had brought extension workers and scientist closer and farmers had recognized this even though they failed to accept all the recommendations for one or the other reasons. But, some of them were not satisfied about this programme as Thurairaj (1983) reported dissatisfaction of farmers about the visit by an extension worker exclusively for agriculture. But there was also a feeling that their interests were not taken care in providing the necessary inputs in other related enterprises through T&V system.

It is expected that in the coming years farming community will gradually differentiate itself into two distinct categories one will be small segment of resource rich farmers moving towards commercialization aiming at domestic and export markets and another will be a large segment of small and marginal farmers, seeking low cost agriculture, which compels him to dependent on public extension services.

There were some lacuna in the existing strategies particularly in relating the large section of farmers in the present pattern of structure and functioning in Karnataka State Department of Agriculture. Either to the office of agriculture was located at taluka level with a radius of 25 to 50 Kms. distances, which was a major constraint for many farmers to visit the office regularly. During these visits, they use to get information on farm technologies but not important critical inputs such as seeds, fertilizers, insecticides, fungicides etc. Agricultural Assistants are grass root level workers at the village level who were less qualified to meet the growing demand of client system. Further, the approach of visiting villages by extension workers to provide information was not well received as it was not demand driven. In view of the afore said gaps the government of Karnataka started a new demand driven extension approach called Raitha Samparka Kendras (RSKs), under Raitha Mitra Yojane (Proposal for establishment of Raitha Samparka Kendras, 2000).

The Chief Minister of Karnataka in the budget speech of 2000 paved a way to start RSKs in 745 hoblies of the state by the government with the administrative control of Zilla panchayat. As a result, in the first phase Government of Karnataka started 201 RSKs during 2000. Remaining RSKs were started in the subsequent years.

The new strategy Raitha Samparka Kendras (RSKs) programme was conceptualized during 2000 to meet new challenges like,

1. To make improvements in yields with better use of resources
2. To begin the concept of whole farm development
3. To pay more attention to rainfed farming and better management of irrigation resources
4. To tie up with both private and public input agencies
5. To provide information on production options and better technologies
6. To provide facilities of primary testing of seeds, soil and other inputs

Raitha Mitra Yojane

It is the new demand driven agricultural extension system of the state and it has replaced earlier T&V system of agricultural extension of the Karnataka State Department of Agriculture. The training components were retained with some modifications that is the bimonthly workshop against monthly workshop for improving the manpower of extension personnel of KSDA by the university scientists.

Main Objectives of RSKs are:

1. To provide updated information on crop production practices, Crop production option and market trends.
2. To facilitate on site provision of agricultural inputs like seeds, bio-fertilizers, micro-nutrients etc.,
3. To facilitate on site provision of primary testing facilities like seed germination, soil test etc.
4. To provide a forum for on-farm demonstration about new technologies developed by both public and private sector agencies.
5. To provide demonstration of both public and private technologies and inputs.

One of the important characteristics of this RSKs is that the user charges will be collected at the rates approved by the government from various private companies involved in agricultural input production and also from the farmers for the services extended to them. Revenue thus generated will be utilized for further development of extension system, so that additional recurring expenditure on account of opening of RSKs could be reduced.

Since the present demand driven system of extension service successes ultimately depends on the perception of farmers about functioning of this system, it is necessary to conceptualize a study encompassing all these factors. Hence, this investigation was conceived with the primary objective of studying the perception of farmers about functioning of Raitha Samparka Kendras. More specifically, present investigation was designed with the following objectives:

Specific objectives of the study

1. To assess the perception of farmers about functioning and programmes of Raitha Samparka Kendras.
2. To study the factors influencing the perception of farmers regarding functioning of Raitha Samparka Kendras.
3. To identify the communication methods employed by the extension personnel for transfer of technology.
4. To elicit the suggestions of farmers and extension personnel to improve the functioning of Raitha Samparka Kendras.

Scope of the study

study of this new system of extension services has not been attempted so far in North Karnataka region. The findings of this investigation will provide a basis for planning of future strategies for the existing public extension system. This investigation will give an idea about what farmers understand about the RSKs and what is the perception of farmers about functioning of RSKs. This will facilitate to take appropriate decisions and actions by policy makers, professionals, administrators and technocrats in their attempt to improve the existing model.

The study will also reveal the perception of different categories of farmers and the factors influencing the perception of farmers regarding functioning of RSKs. The results will help to develop an effective extension strategy to reach all categories of farmers.

Limitations of the study

As this study formed a part of the master degree programme the time and other resources at the disposal of the student researcher were limited. These limitations determined the restricted selection of only one district as the locale of the study, and also the sample size and therefore, findings have to be viewed in the specific context of the conditions prevailing in the area and cannot, perhaps be generalized for a wider geographical area. However, careful and rigorous procedures have been adopted to carryout the research as objectively as possible.

Again, the study was based on the expressed responses of farmers which may not be free from their individual biases. Inspite of these, it is believed that the findings depicted and the conclusions drawn would stand the test of more rigorous field observations.

Presentation of the study

The thesis is divided into seen chapters. The first chapter deals with the introduction wherein the objectives, special feature and limitation of the study.

The second chapter ‘review of literature’ deals with the review of related studies in light of present investigation. The third chapter is devoted to the details of methodology used in the process of investigation, followed by presentation of results in the fourth chapter. The findings of the study have been discussed in the fifth chapter and the sixth chapter summarizes the study followed by references in the seventh chapter and appendices.

REVIEW OF LITRATURE

A comprehensive review of the literature is an eventual part of any investigation. Future is the manifestation of the past. So, past research studies would pave the way for the future researchers. It also provides a basis to theoretical framework in addition to helping researcher to get an insight in to methods and procedures. In view of the above fact, efforts were made to collect the research findings on the subject possessing similar characteristics. Since, there are no research studies on perception of farmers on the functioning of Raitha Samparka Kendras, the studies directly or indirectly related to the topic are reviewed and presented under the following sub-headings.

2.1 Perception of farmers about agricultural extension programmes.

2.2 Personal, psychological and socio-economical characteristics of the farmers.

2.3 Communication methods employed for transfer of technology.

2.4 Suggestions for improvement of Agricultural programmes.

2.1 Perception of farmers about agricultural extension programmes

Ratnakar and Reddy (1991) studied tribal farmer's perception about ITDA programme and observed that 75.00 per cent of beneficiaries and 40.00 per cent of non-beneficiaries of ITDA programme had moderate perception about ITDA programme, whereas 20.00 per cent and 60.00 per cent of beneficiaries and non-beneficiaries had low perception about ITDA programme, respectively.

Sinha *et al.* (1994) in their study on differential perception of concept of feedback by the field level extension personnel in training and visit system reported that 72.22 per cent of the agricultural officers correctly perceived the concept of feedback and 53.52 per cent of the village extension workers perceived it incorrectly.

Kubde and Wagdhare (1996) carried out a study on perception of extension personnel about functioning of training and visit system and revealed that majority (86.00%) of the extension personnel expressed as there was regularity in training, need based information given during training was adequate (95.35%) and use of audio visual aids during training were not sufficient (65.12%).

Goudar (1997) conducted a study on role perception of link workers under WYTEP and indicated that 55.00 per cent of the link workers had medium role perception, while 24.00 per cent and 21.00 per cent of link workers had low and high role perception, respectively.

Padmaiah and Ansari (1997) carried out a study on attributes influencing the perception about usefulness of watershed development programme and found that 56.00 per cent of the beneficiaries perceived the programme as useful and 22.00 per cent as highly useful followed by less useful (17.33%).

Hardikar (1998) in his study on usefulness of development programmes as perceived by women beneficiaries in Ratnagiri district of Maharashtra, indicated that 59.26 per cent of IRDP beneficiaries and 80.41 per cent of DWCRA beneficiaries perceived the developmental programmes as useful, while 22.22 per cent of IRDP and only 5.11 per cent of DWCRA beneficiaries perceived the development programmes as less useful. Development programmes were perceived to be more useful by 18.52 per cent and 14.43 per cent of IRDP and DWCRA beneficiaries, respectively.

Khare *et al.* (1998) reported that 52.44 per cent of the sarpanchs had medium role perception towards agricultural development followed by high (34.15%) and low (13.41%) role perception.

Deepak (2003) on perception of beneficiaries and non-beneficiaries towards WYTEP programme witnessed that 53.33 per cent of the beneficiaries belonged to high category of perception, whereas, 46.67 per cent of beneficiaries and 40.00 per cent of non-beneficiaries had medium perception and those non-beneficiaries who fell under low perception category accounted for 60.00 per cent.

Sahana (2003) indicated that half of the respondents (50.00 %) had medium level of knowledge about functioning of RSKs, while about the one fourth of farmers (26.67 %) had high knowledge and remaining 23.3 per cent had low level of knowledge about the functioning of RSKs.

Sharma (2006) reported in their study on Functioning of Kisan Seva Kendras (Ksks) In Udaipur District of Rajasthan indicated that Majority of the respondents (61.66%) had medium level of knowledge while 23.33 and 15.00 percent had high and low level of knowledge about functioning of KSK.

Kiran (2007) observed that majority of teachers (70.42%) perceived organizational climate as favourable as compared to researchers (39.58%) and extension workers (28.57%). Whereas, most favourable organizational climate perception was observed with 50.00 per cent of extension workers followed by 43.75 per cent of researchers and 13.26 per cent of teachers. Surprisingly less favourable perception was also noticed with more number of extension workers (21.42%) as compared to researchers (16.67%) and teachers (16.32%).

Chandra *et al.* (2009) in their study on appraisal of processes and procedures of NREGS in Mayurbhanj and Balasore districts of Orissa found that majority of the beneficiaries perceived as there was positive impact of NREGS on employment generation and in reducing migration.

Naidu *et al.* (2009) in his study on impact of NREGA on living conditions of rural poor found that 89.00 per cent of the beneficiaries expressed satisfaction with the NREGS that helped in better employment generation.

Navjyoti (2009) in her study on employment guarantee and women empowerment in rural India concluded that more than 50.00 per cent of the women beneficiaries felt as NREGA had brought significant change in their villages and in their own lives, this is because the employment is provided within their village and community assets were also generated.

Paumolee and Disha (2009) conducted a study on implementation of NREGS and revealed that 38.00 per cent of the beneficiaries expressed as the worksite facilities were provided regularly at the place of work and 60.00 per cent of the beneficiaries expressed as constructed assets were useful.

Deshmukh *et al.* (2010) carried out a study on perception of rural youth about Adarsh Gaon Yojana in Mulshi taluk of Pune and observed that most of the rural youth did not clearly perceive the importance of Kurhabandi, Charaibandhi and Nasabandhi principles of Adarsh Gaon Yojana. However, they had better perception about Nashabandhi and Shramadhan principles of Adarsh Gaon Yojana.

Narayanan and Sarvanan (2011) conducted a study on customers' perception towards general insurance products (livestock & crop insurance) with special reference to Erode rural, Tamilnadu. They tried to expose the awareness among farmers towards crop and livestock insurance practices. It was found from the study that 71.70 per cent of the respondents had not taken insurance for their cattle and crop. Only 35.30 per cent of the respondents had insured for both cattle and crop. About 52.50 per cent of the respondents were not aware about the cattle and crop insurance. Nearly 30.00 per cent of the respondents were not willing to go for the insurance.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that perception level of beneficiaries and non-beneficiaries is 89.62 and 73.95per cent, respectively. The average perception of respondents about Bhagyalakshmi scheme is 81.79 per cent.

Bagri and Kinjulck (2012) conduct study on perception of farmers towards Seed Village Programme in Madhya Pradesh and revealed that, majority of the respondents *i.e.,* 51.66 per cent had moderately favorable perception followed by 26.66 per cent with highly favorable perception, whereas, only 21.66 per cent had unfavorable perception regarding utility of seed village programme conducted in Rewa block.

The reviews on perception of farmers about agricultural extension programme highlighting that most of the farmers belongs to medium perception category followed by low and high age group.

2.2 Personal, psychological and socio-economical characteristics of the farmers

2.2.1 Age

Bheemappa (2001) while studying the knowledge and technological gap in adoption of paddy and cotton cultivation practices between migrant and non-migrant farmers of TBP command area reported that, 10 per cent of migrant and 24.17 per cent non-migrant farmers were young aged.

Majority (83.33% and 74.17%) of migrant and non-migrant farmers were middle aged respectively and 6.67 per cent migrant and 1.66 per cent non-migrant farmers belonged to old age category.

Nilkanthrao and Rajput (2003) in their study on adoption of university recommended rice production technology by rice growers conducted in Bhandara district of Maharashtra state concluded that majority of the respondents were middle aged.

Sunil Kumar (2004) from his study on farmer knowledge and adoption of production and post-harvest technology in tomato crops of Belgaum district of Karnataka state indicated that majority of the tomato growers (53.30%) belonged to middle aged group.

Amol (2006) conducted a study on indigenous technology about rice cultivation and bovine health management practices in Konkan region of Maharashtra reported that, majority of the respondents belonged middle aged group.

Nagadev and Venkataramaiah (2007) while studying the characteristics of integrated pest management (IPM) dry paddy farmers in Maharashtra state reported that majority (66.00%) of respondents were middle aged followed by old (19.33%) and young (14.67%) .

Suresh Kumar (2009) in his study on technological gap in adoption of the improved cultivation practices by the soybean growers reported that 62.00 per cent of respondents were found to be in middle age category, 30.00 per cent belonged to young age category and 8.00 per cent belonged to old age category.

Kikon (2010) in her study on adoption gap in groundnut production in northern transition zone of Karnataka reported that majority (83.33%) of the demonstrator farmers were middle aged, Whereas 10.00 and 6.67 per cent of them belonged to old age and young age, respectively.

Chitra *et al.* (2012) observed that, more than half of the beneficiaries (66.70 %) were middle aged coming under the age group of 36-50 years followed by young age (25 %) and old age group (8.30 %).

Jyothi (2012) conducted a study on perception of Bhgyalakshami sheme by rural women of Dharwad district and the study revealed that majority of beneficiaries (98.67 %) belonged to young age group and very less percent of them (1.33%) belonged to middle age. All the non-beneficiaries(100%) belonged to young age group.

Naveen Kumar (2012) in his study on entrepreneurial behaviour of pomegranate farmers in chitradurga districts of Karnataka reported that, 30.83 per cent of the respondents belonged to young age group. Whereas, 42.50 per cent of the respondents belonged to middle age group and only 26.67 per cent of respondents belonged to old age group. The mean age of the respondents was found to be 47.5 years.

Raghuprasad *et. al.* (2012) concluded from the study Raitha samparka Kendra and their role in agro-information delivery that majority of the farmers belonged to old age category (> 60 years) followed by middle and young age category.

The reviews on age highlighting that most of the farmers fall under the category of middle age group followed by young and old age group.

2.2.2 Education

Kanavi (2000) in his study on the knowledge and adoption behavior of sugarcane growers in Belgaum district of Karnataka found that, 30.00 per cent of the respondents were illiterates followed by high school (22.00%), middle school (15.33%), primary school (11.33%), post graduates (9.33%) and 6.00 per cent in case of graduates.

Govindagowda and Anand (2001) in their study on profile of groundnut growers observed that majority (52.00%) of big farmers and 48.00 per cent of small farmers had medium level of education.

Sunil Kumar (2004) carried out a study on farmers knowledge and adoption of production and post-harvest technology in tomato crop of Belgaum district in Karnataka revealed that, in respect of formal education obtained, 14.16 per cent were illiterate, 15.75 per cent of the respondents had received education up to middle age school whereas, 22,50 per cent of them received education up to high school while, the other 10.80 and 10.00 per cent of the respondents received education up to PUC and graduation level, respectively.

Amol (2006) conducted a study on indigenous technical knowledge about rice cultivation and bovine health management practices in Konkan region of Maharashtra indicated that, majority of the farmers (66.20%) were educated upto or below middle school. Whereas, 21.13 per cent of the respondents were illiterate, followed by primary (40.85%), middle school (23.35%) and only (2.82, 8.45%) of the respondents had studied high school and pre- university level education.

Swami (2006) in his study on technological gap and constraints of bidi tobacco cultivation in Belgaum district reported that 55.33 per cent of the respondents were having secondary school education, 26.00 per cent were having primary school education followed by 8.00 per cent having college education. Whereas, the percentage of illiterate farmers observed was only10.67 per cent.

Chandrashekar (2007) from his analysis of onion production and marketing behavior of the farmers in Gadag district of Karnataka revealed that, 43.33 per cent of the respondents had high school level of education, followed by 26.67 per cent upto middle, 13.33 per cent upto primary, 7.50 per cent illiterate, 1.67 per cent of the respondents can read and write category and 0.83 per cent fall in post graduate category.

Madhu (2010) conducted a study on technological gap in turmeric production practices in Belgaum district reported that, 38.60 per cent were illiterates, 28.60 per cent of respondents had primary education followed by 10.70 per cent having middle school education.

Chitra *et al.* (2012) reported that, more than one-third of the beneficiaries of (35.00 %) had received education up to higher secondary level followed by high school and middle school level education.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that there is no significant difference in education of beneficiaries(33.33%) and non beneficiaries (34.67%).

Naveen Kumar (2012) in a study on entrepreneurial behaviour of pomegranate farmers in chitradurga districts of Karnataka reported that 25.00 per cent of the respondents were primary education and of the remaining, 30.83 per cent of the respondents of middle school, 40.83 per cent of the respondents had completed high school education, whereas, only 3.37 per cent of respondents had studied up to graduation and above.

Raghuprasad *et al.* (2012) concluded from the study Raitha samparka Kendra and their role in agro-information delivery that majority (39.00 %) of the farmers were illiterate.

The reviews on education level reveal that most of the farmers fall under the illiterates category followed by medium and high education group.

2.2.3 Occupation

Mishra and Singh (1998) found that majority of the panchayat samiti member's main occupation was agriculture (60.70%), while 25.00 per cent were labourers and an equal percentage (7.10%) of the members belonged to service and business families.

Kalakannavar (1999) indicated that half (50.00%) of the gram panchayat women members had their primary occupation as agriculture and agricultural labourers accounted for 35.00 per cent, whereas 12.00 per cent and 3.00 per cent of the respondent's occupation was service and business, respectively.

Madhavi (2002) reported that 90.00 per cent of the gram panchayat members belonged to farming occupation and an equal per cent (5.00%) of respondents were labourers and government servants.

Mankar (2003) observed that 55.24 per cent, 20.63 per cent, 18.10 per cent, 4.13 per cent and 1.90 per cent of the member's main occupation was farming, business, service, individual profession and labour category, respectively.

Prakash (2004) reported that farming was the major occupation (86.67%) of the respondents followed by business (10.00%) and other occupations (3.33%).

Bheemappa (2006) revealed that major occupation of the gram panchayat members was farming (91.66%) followed by business (6.68%) and dairy (1.66%).

Belli (2008) indicated that major occupation of the presidents was farming (64.52%), followed by business (18.28%), while, 17.20 per cent of the respondents were wage earners.

Dak and Purohit (2008) witnessed that agriculture and allied activities were the major occupation (78.79%) of the members followed by others category (10.61%), trade/business occupation (6.06%) and labour/wage earner category (4.55%).

Chitra *et al.* (2012) reported that, more than one-third of the beneficiaries (36.80 %) were employed in agriculture and allied activities. This is because the job requires less training and was traditionally followed by the members. This was followed by self- employment (33.30 %) and daily labour (20.00 %).

The above studies indicated that majority of farmers were engaged in agriculture and it was their main occupation. This was followed by other subsidiary activities.

2.2.4 Annual income

Hanumanaikar (1995) carried out a study on knowledge and adoption of marketing behaviour of sunflower growers in Dharwad district indicated that, 73 per cent of the respondents in Dharwad district had income above Rs 11,500 per annum.

Yaligar (1997) conducted an analytical study on soybean cultivation by farmers of Belgaum district reported that, majority of the respondents (78.47%) were belonged to medium level of annual income group and 7.64 and 13.89 per cent of the respondents had low and high level of income, respectively.

Vijayakumar (2001) conducted a study on entrepreneurship behaviour of floriculture farmers in Ranga reddy district of Andhra Pradesh reported that, 45.84 per cent of respondents were under medium income group followed by 27.50 per cent and 26.66 per cent of the respondents falling in low and medium income groups, respectively.

Sunil Kumar (2004) in his study on farmers knowledge and adoption of production and post harvest technology in tomato crop of Belgaum district in Karnataka reported that, majority of the respondents belonged to medium income category (48.33%) followed by 32.50 per cent and 19.16 per cent coming under low and high income category, respectively.

Raghavendra (2005) conducted a study on knowledge and adoption of recommended cultivation practices of cauliflowers in Belgaum district observed that, majority of the respondents (45.10%) had annual income between Rs 75,000-1,00,000. Whereas, 31.60 per cent of respondents had an annual income above Rs 1,00,000. Rest of them i.e. 23.30 per cent had an income between Rs 20,000 – 75,000 per annum, and only 10.00 per cent of them had income below Rs 20,000 per annum.

Amol (2006) carried out a study on indigenous technical knowledge about rice cultivation and bovine health management practices in Konkan region of Maharashtra and found that, majority of the farmers (85.92%) were in medium income category, followed by (4.23%) had low income, whereas 9.86 per cent of the respondents fall in high annual income category.

Chandrashekar (2007) from his analysis of onion production and marketing behaviour of the farmers in Gadag district of Karnataka revealed that, half of the respondents (50.00%) had annual income ranging from Rs 25,000 to Rs 50,000 followed by 24.17 per cent of them had upto Rs 25,000, 16.67 per cent had in between Rs 50,000 to Rs 75,000. While 5.83 per cent had Rs 75,000 to Rs 1,00,000 and 3.33 per cent of the respondents had income above Rs 1,00,000 per annum from all the sources.

Suresh Kumar (2009) in his study on technological gap in adoption of the improved cultivation practices by soybean growers reported that, 54.00 per cent had high level of annual income, meanwhile 28.7 and 15.33 per cent of the respondents fall in medium and semi-medium categories, respectively.

Chitra *et al.* (2012) reported that, Kudumbashree' programme has been conceived as a mechanism to uplift the downtrodden women especially for those who are below poverty line. The present study revealed that over three-fourth of the beneficiaries belonged to below poverty line category, *i.e.,* less than Rs. 24,000 per annum.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that majority of the beneficiaries (56 and 38.67%) and non beneficiaries (54.67 and 32%) belonged to low and semi medium income group.

Naveen Kumar (2012) in his study on entrepreneurial behaviour of pomegranate farmers in chitradurga districts of Karnataka reported that ,the results with respect to annual family income shows that nearly three fourth of the respondents (74.17%) were in medium income category followed by low and high income categories with 13.33 and 12.50 per cent, respectively.

The above reviews reveal the fact that most of the respondents belonged to medium income group followed by high and low income groups.

2.2.5 Land holding

Hanumanaikar (1995) in a study on knowledge and adoption of marketing behavior of sunflower growers in Dharwad district reported that, 70 per cent of respondents were big farmers. Whereas, 17.50 and 12.50 per cent were medium and small farmers, respectively.

Nagaraj (1996) conducted a study on knowledge and adoption pattern of improved cultivation practices of groundnut in Tumkur district and indicated that 48.00 per cent of the participant farmers were found in medium land holding category followed by 30.67 per cent in small land holding category while only 8.00 per cent of the participants were big farmers.

Maraddi (1999) carried out a study on the cotton production technologies- constraints analysis categorized the cotton growers as small farmers (35.00%), medium farmers (28.00%) and large farmers (37.00%).

Kanavi (2000) conducted a study on the knowledge and adoption behaviour of sugarcane growers in Belgaum district of Karnataka categorized sugarcane growers into large farmers (61.33%), medium farmers (30.66%), semi medium farmers (6.55%) and small farmers (1.33%). None of the farmers belonged to the category of marginal farmers.

Nagaraj (2002) in his study on knowledge of improved cultivation practices of sugarcane and their extent of adoption by farmers in Bhadra command area in Davanagere district, Karnataka and found that, majority of the respondents belonged to medium land holding (48.75%) followed by semi medium land holding category (30.00%).

Sahana (2003) reported that 47.50 per cent of the respondents were big farmers, followed by medium farmers (25.83%) , but a less percentage of farmers (14.17%) and 12.50%) also belonged to small and marginal farmers category

Shashidhara (2003) in his study on socio-economic profile of drip irrigation farmers in Shimoga and Davanagere district of Karnataka state revealed that, comparatively more number of farmers (46.67%) belonged to semi medium category, followed by medium (32.22%) and small land holding categories (18.89%).

Raghavendra (2004) in his study on knowledge and adoption level of post harvest technologies by red gram cultivators in Gulbarga district of Karnataka reported that, majority of respondents belonged to medium land holding (48.75%), followed by semi-medium land holding category (30.00%).

Sidram (2008) conducted a study analysis of organic farming practices in pigeon pea in Gulbarga district of Karnataka state and observed that big land holders category occupied the highest percentage (60.83%), while 23.33 and 15.83 per cent of the respondents were in medium and small land holders category.

Suresh Kumar (2009) carried out a study on technological gap in adoption of the improved cultivation practices by soybean growers found that, majority of the farmers (45.33%) belonged to medium land holding category, 22.67 per cent of them belonged to semi-medium land holding category, whereas, 16.67 per cent of them were small farmers, 10.66 per cent were marginal farmers and 4.67 per cent belonged to big land holding capacity.

Kikon (2010) in her study on adoption gap in groundnut production in northern transition zone of Karnataka reported that, majority (70.00%) of the demonstrator farmers and considerable percentage (41.67%) of the fellow farmers were marginal followed by small farmers constituting 20.00 and 25.00 per cent of the demonstrator farmers and fellow farmers respectively.

Chitra *et al.* (2012) noticed that, about 97.00 per cent beneficiaries belonged to the marginal land holding category *i.e.* less than 2.5 acres. Very few(0.50%)of them belonged to small land holding category.

Naveen Kumar (2012) in a study on entrepreneurial behaviour of pomegranate farmers in chitradurga districts of Karnataka reported that, majority of the pomegranate growers (52.50%) were big farmers whereas, 20.83 per cent were having marginal land holdings and 26.67 per cent of them were small farmers. The mean land holding is 10.82 acres.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that small, marginal,nd semi medium farm holding categories were higher in non-beneficiaries (72%) compared to beneficiaries (62.67%).

The above reviews reveal the fact that most of the respondents were big farmers followed by medium and small.

2.2.6 Massmedia exposure

Kanavi (2000) conducted a study on knowledge and adoption behaviour of sugarcane growers in Belgaum district of Karnataka and reported that 82.00 per cent of respondents possessed radio, whereas television was owned by 72.66 per cent followed by 16.66 per cent and 2.00 per cent subscribing to newspapers and agricultural magazines, respectively. As far as radio was concerned, 19.33 and 6.00 per cent listened to agricultural programmes regularly and occasionally, respectively. In case of television, 13.33 per cent viewed regularly the agricultural programmes followed by news (38.66%) and general programmes (15.33%).

Ramana *et al.* (2000) in their study on motivation factors and constraints of hybrid sunflower seed growers revealed that 48.00 per cent of the hybrid sunflower growers had medium level of mass media exposure while 12.00 and 10.00 per cent of respondents had low and high level of mass media exposure, respectively.

Dhamodaran and Vasant kumar (2001) in their study on relationship between selected characteristics of registered sugarcane growers and their extent of adoption of improved sugarcane cultivation practices reported that 53.33 per cent of the respondents had medium level of mass media exposures, followed by 40.00 per cent of the respondents with high level of mass media exposure.

Vedamurty (2002) conducted a study on the management of areca gardens and marketing pattern preferred by arecanut farmers of Shimoga district in Karnataka reported that more number of arecanut growers (48.00%) belonged to medium mass media participation category. While, 37.00 per cent of them had high mass media participation and 27.33 per cent fall in low mass media participation category.

Shasidhara (2003) in his study on drip irrigation farmers in Shimoga and Davanagere districts of Karnataka and reported that, 41.11 per cent of the respondents belonged to medium level of mass media participation, followed by low (35.56%) and high level (23.33%) mass media participation.

Sunil Kumar (2004) in his study on farmers knowledge and adoption of production and post harvest technology in tomato crop of Belgaum district in Karnataka reported that, 59.17 per cent of respondents were occasionally listening agricultural programmes in radio, Whereas, 30.00 per cent of them viewed agricultural programmes in television occasionally. While, 70.83 and 85.00 per cent of the respondents never read the newspapers and farm magazines, respectively.

Govinda Gowda and Narayana Gowda (2006) in their study on profile of Thompson seedless and Banglore blue grape growers indicated that, majority of Thompson seedless growers (55.00%) belonged to medium mass media category, followed by 33.00 and 12.00 per cent of the respondents who belonged to high and low mass media categories, respectively.

Gotyal (2007) carried out a study on backward and forward linkages of grape production in Karnataka observed that, more than half of the grape growers (51.00%) had low mass media participation, 39.00 per cent had high and only 10.00 per cent had medium level of mass media participation.

Hinge (2009) conducted a study entitled diffusion and adoption of wine grape production in Maharashtra and noticed that, majority of the respondents (83.75%) subscribed newspaper, 30.62 per cent subscribed farm magazines, 96.25 per cent possessed radio and 98.75 per cent possessed television.

Chitra *et al.* (2012) reported that, three-fourth of the beneficiaries (75.00 %) received high level of mass media exposure followed by 16.70 per cent received medium level of exposure.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that average mass media participation among the respondents were 60.44 per cent.

Raghuprasad *et. al.,* (2012) concluded from the study Raitha samparka Kendra and their role in agro-information delivery that majority (39.00%) of the farmers belonged low category of mass media usage.

The above reviews reveal the fact that most of the respondents belonged to medium mass media participation level followed by low and high mass media participation.

2.2.7 Organisational participation

Saikrishna (1998) conducted a study in Raichur district on Andhra migrant farmers and reported that, six per cent of the respondents were members of milk cooperative society, only 1.33 per cent of the farmers were office bearers. Only 3.33 per cent of the farmers were the members of village panchayat and no one was its office bearers and two per cent of migrant farmers were members of youth club and co-operative bank.

Hiremath (2000) in his study on participation of rural youth in farm and non farm activities in Dharwad taluk revealed that 98.33 and 51.50 per cent of the youth were not the members of co-operative society and youth club, respectively. Only 14.60 and 16.70 per cent attended the meetings of youth club and co-operative society, respectively.

Vijay Kumar (2000) conducted a study on sugarcane growers in Belgaum district of Karnataka and found that, 29.00 per cent of the respondents were members of co-operative society and 2.00 per cent were office bearers. Whereas, 8.00 percent of the farmers were members of youth club and 5.33 per cent of the respondents were members of gram panchayat.

Shanthamani (2007) reported in her study on critical analysis of MYRADA (NGO) programme in Gulbarga district that, majority of the respondents had high organizational participation (50.60%), followed by low (38.70%) and medium (10.70%) organizational participation respectively.

Doddamani (2008) in his study on knowledge and adoption of land reclamation practices by farmers of malaprabha command area reported that, 15.56, 8.15 and 6.67 per cent of the respondents were members of youth club, raitha sangha and village co-operative society respectively and 1.48 and 0.74 per cent of them were office bearers of the youth club and village co-operative society respectively. Only 9.63 and 27.41 per cent of the respondents participated in the activities regularly and occasionally in youth club.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that majority of the beneficiaries (58.00%) participated in self help group activities compared to non- beneficiaries (40.00%).

Reviews reveal the fact that most of the respondents belonged to low level of organizational participation category followed by medium and high.

2.2.8 Social participation

Patil (1990) while studying technological gap and constraints in the adoption of improved rice cultivation practices in konkan region of Maharashtra state noticed that majority (79.00%) of the paddy growers were found in medium social participation category, and 14.00 per cent of farmers in low social participation followed by high social participation (2.50%) whereas only 4.50 per cent of farmers had not participated in social activities

Sawant and Nirban (1992) in a study on acceptance of gall-midge resistant varieties of rice revealed that majority of paddy growers in Sindhurdurg district of Maharashtra had expressed the problems like lack of knowledge about the availability of recommended varieties (63.5%), followed by untimely supply of seeds, high cost of seeds and non suitability of recommended varieties for not adopting the recommended high yielding paddy varieties.

Saikrishna (1998) conducted a study in raichur district on Andhra migrant farmers and reported that 6.00 per cent of respondents were members of milk co-operative society, only 1.33 per cent of farmers were office bearers. Only 3.33 per cent of farmers were the members of village panchayat and no one was its office bearer, two per cent of migrant farmers were members of youth club and co-operative bank.

Vijay Kumar (2000) conducted a study on sugarcane growers in Belgaum district of Karnataka and found that 29.00 per cent of the respondents were members of co-operative society and 2.00 per cent were office bearers. Whereas, 8.00 per cent of the farmers were members of youth club and 5.33 per cent of the respondents were members of gram panchayat.

Manjunatha (2002) studied that around 43.40 per cent of the beneficiaries and 33.30 per cent of the non-beneficiaries had high social participation and almost equal per cent (28.30% and 26.70%) of the beneficiaries and non-beneficiaries had medium social participation. While 28.30 and 40.00 per cent of them had low social participation.

Shantasheela (2002) observed that 26.00, 20.55 and 17.81 per cent of the respondents were members of cooperative milk societies; self-help groups, TANVA and cooperative bank, respectively and only 1.37 per cent of them were members in Nehru Yuva Kendra.

Chandracharan (2003) in a study on Sujala watershed project beneficiary farmers in Dharwad district, reported that, only 4.00 and 2.66 per cent of the farmers were members and office bearers, respectively of gram panchayats whereas 30.00 per cent and 43.33 per cent of the respondent farmers attended the meetings regularly and occasionally, respectively.

Thiranjangowda (2005) revealed that the social participation of cut flower growers had medium (67.18%) level social participation regarding gram panchayat. While 67.18 and 15.62 per cent respondents were members and office bearers in co-operative society. The above Reviews reveal the fact that most of the respondents belonged to low level of social participation category followed by medium and high.

2.2.9 Extension contact

Belligeri (1996) conducted a study on knowledge, adoption and perception of usefulness of agroforestry practices by the farmers of Hanagal taluk of Dharwad and revealed that majority of the respondents were aware of Agriculture Assistants (85.00%), followed by Agricultural Assistant Officer (64.00%), Subject Matter Specialists (41.00%), Assistant Director of Agriculture (18.00%), Forest Motivator (26.60%) and Range Forest Officers (14.00%).

Vijayakumar (1997) conducted a study on knowledge and adoption of improved cultivation practices among rose growers indicated that, majority of rose growers (54.00%) had very low extension contact followed by medium (41.00%) and high extension contact (5.00%).

Angadi (1999) carried out a study on knowledge, adoption and marketing pattern of pomegranate growers in Bagalkot district found that, majority of the respondents (65.62%) had contact with agricultural officers, whenever there was a problem. Whereas only 13.12 per cent had contact with scientists, when there was a problem.

Kapse *et al.* (2000) in their study on technological gap in summer groundnut cultivation found that majority (64.17%) of respondents had medium level of extension contact.

Ramana *et al.* (2000) conducted a study on Motivation factors and constraints of hybrid sunflower seed growers and revealed that 70.00 per cent of the respondents had medium level extension agency contact and 30.00% of the respondents had high level extension agency contact.

Dhamodaran and Vasanthakumar (2001) in their study on adoption of improved sugarcane practices revealed that, majority of the respondents (52.50%) had low level of extension agency contact, followed by 47.50 per cent of the respondents had medium level of extension agency contact.

Palaniswammy and Sriram (2001) in their study on scale to measure extension participation of farmers found that, majority of respondents (84.35%) had medium level of extension agency contact, followed by 5.45 and 10.20 per cent of the respondents with low and high level of extension agency contact, respectively.

Sunil Kumar (2004) conducted a study on farmers knowledge and adoption of production and post harvest technology in tomato crop of Belgaum district revealed that, 40.83 per cent of the respondents belonged to medium extension contact category followed by 30.00 and 29.16 per cent belonging to high and low categories of extension contact, in Belgaum district of Karnataka state, respectively.

Swami (2006) in his study on technological gap and constraints of bidi tobacco cultivation in Belgaum district of Karnataka revealed that 30.67 per cent of respondents contacted Agricultural Assistants regularly while Assistant Agricultural Officer (50.00%) and Private Company Staff (40.67%) were occasionally contacted by the farmers.

Shanthamani (2007) conducted a study on critical analysis of MYRADA programme in Gulbarga district and reported that 44.00 per cent of the beneficiaries belonged to high level of extension contact followed by low (33.33%) and medium level (22.77%) respectively.

Chetan (2011) conducted a study on knowledge and adoption of cardamom cultivation practices by the farmers of Chikmagalur district reported that as high as 48.66 per cent of the cardamom growers had medium level of extension contact, followed by 22.66 and 18.66 per cent of respondents had low and high level of extension contact respectively.

2.2.10 Extension participation

Bheemappa (2001) found that 80.00 per cent of migrant and 83.33 per cent of non-migrant farmers had participated in group meetings. Similarly 9.17 per cent, 31.67 per cent, 5.83 per cent and 5 per cent of migrant farmers had participated in farmers' trainings, farmers' discussion meetings, demonstrations / trails and field days / krishimela, respectively as against 11.67 per cent, 13.33 per cent, 4.17 per cent and 2.50 per cent of non-migrant farmers, respectively.

Shashidhara (2003) conducted a study on drip irrigation farmers of Bijapur district and revealed that, 45.83 per cent of the respondents participated in group meetings followed by exhibition (41.66%) and 18.33 per cent of the respondents participated in krishimela.

Chandra (2005) revealed that majority (42.50%) of the respondents belonged to low extension participation category followed by medium (29.16%) and high (28.33%) extension participation categories, respectively.

Thiranjanagowda (2005) observed that 73.43 per cent of the cut flower growers had extension participation regarding demonstration occasionally while 26.43 per cent participated regularly.

Chitra *et al.* (2012) reported that, a significant percentage of the beneficiaries (43.3 %) had medium level of extension participation followed by low level (31.71 %) and high level (25.00%) of participation.

Naveen Kumar (2012) in his study on entrepreneurial behaviour of pomegranate farmers in chitradurga districts of Karnataka reported that, 44.17 per cent of the respondents belonged to high extension participation category. Whereas, 32.50 per cent and 23.33 per cent had medium and low extension participation categories, respectively.

Raghuprasad *et al.* (2012) concluded from the study Raitha samparka Kendra and their role in agro-information delivery that majority (51.00%) of the farmers belonged to medium category of extension participation.

It could be inferred from above studies that majority of farmers were having medium level of medium extension participation followed by high and low extension participation categories.

2.2.11 Cosmopoliteness

Mahatma phule krishi vidyapeeth (1975) found that 41.00 per cent of the gram panchayat members were more cosmopolite and 36.00 per cent were less cosmopolite.

Pushpakumari (1993) in her study on extent of participation of women members in mandal panchayat activities revealed that 82.00 per cent of the women members were not cosmopolite and the remaining 18.00 per cent were cosmopolite.

Gajre (1997) observed that 53.12 per cent of the gram panchayat members had low level of cosmopoliteness, while 46.88 per cent belonged to high cosmopoliteness category.

Jadhav (2002) witnessed that 71.79 per cent of the sarapanchs had medium level of cosmopoliteness.

Doddahanumaiah (2005) in his study on statutory roles of the elected women leaders of gram panchayats revealed that 38.00 per cent of the women leaders belonged to medium cosmopoliteness category followed by high (37.00%) and low (25.00%) cosmopoliteness categories.

Belli (2008) in his study entitled leadership behaviour of presidents of panchayat raj institutions for horticulture development in Bijapur district of Karnataka reported that majority of the presidents were cosmopolites.

Shinde *et al.* (2009) carried out a study on role of gram panchayat members in village development and found that majority of the members belonged to low cosmopoliteness category.

The above reviews revealed that most of the farmers fall under the low category in their cosmopoliteness.

2.2.12 Scientific orientation

Sakharkar (1995) observed that majority (65.00%) of the soybean growers of Nagpur district belonged to medium category of scientific orientation, 17.50 per cent each of the farmers belonged to low and high scientific orientation categories.

Saravanakumar (1996) found that majority (70.00%) of the mango growers of Dharmapuri district were in the medium scientific orientation category followed by low (15.83%) and high (14.17%) categories.

Chandran (1997) in her study reported that 31.67 per cent of the respondents belonged to the low scientific orientation category, while 30.00 per cent and 38.33 per cent of them were found to have medium and high scientific orientation, respectively.

Karpagam (2000) reported that majority of the respondents (75.00%) were in medium category followed by low category (13.33%) and high category (11.67%) with respect to scientific orientation.

Palaniswamy and Sriram (2001) observed in their study on modernization characteristics of sugarcane growers that, 70.75 per cent of respondents belonged to medium level of scientific orientation category, whereas 17.01 and 12.24 per cent of respondents belonged to high and low level of scientific orientation category, respectively.

Gour (2002) found that slightly more than two fifth (41.86%) of the dairy farmers had medium level of scientific orientation, followed by 37.21 per cent with high and 20.93 per cent with low level of scientific orientation.

Chauhan and Patel (2003) revealed that more than half of the respondents (51.25%) had medium scientific orientation followed by low (25.00%) and high (23.75%) levels of scientific orientation.

Jhamtani *et. al.,* (2003) found that majority of rural youth (84.88%) had high scientific orientation and only 15.11 per cent of them had medium scientific orientation, while low scientific orientation was not found in rural youth.

Patel (2005) revealed that more than half of the respondents had medium level of scientific orientation.

The above reviews revealed that most of the farmers fall under the medium group/category in their scientific orientation.

2.2.13 Innovative proneness

Kumar (1998) conducted a study on banana growers in Bangalore district in Karnataka and pointed out that 40.00 per cent of the banana growers had less innovative proneness followed by 37.00 per cent of them had medium and 23.00 per cent of them had high innovative proneness.

Babanna (2001) conducted a study on arecanut growers in Shimoga district in Karnataka and focussed that 34.10 per cent farmers were of medium innovative proneness category followed by 33.33 per cent of them having high and 32.66 per cent of them possessed low innovative proneness.

Natikar (2001) conducted a study on atttidues and use of farm journal by the subscriber farmers and their profile in North Karnataka revealed that 73.75 per cent of the subscriber farmer belonged to medium innovativeness category followed by low (15.63%) and high (10.62%) innovativeness categories.

Shashidhara (2003) in his study on socio-economic profile of drip irrigation farmers in Shimoga and Davangere district of Karnataka found out that, majority of the farmers belonged to medium innovativeness category (47.50%) followed by low (31.66%) and high (20.83%) innovativeness categories, respectively.

Suresh (2004) conducted a study on entrepreneurial behaviour of milk producers in Chittoor district of Andhra Pradesh and indicated that the milk producers in the district had medium, high and low innovativeness in the order of 55.00, 24.58 and 20.42 per cent, respectively.

Govinda Gowda and Narayana Gowda (2006) in their study on profile of Thompson Seedless and Bangalore Blue grape growers in Bijapur and Bangalore Rural districts of Karnataka inferred that considerable percentage of Thompson Seedless grape growers (46.00%) belonged to medium innovative proneness category. While a little more than 50.00 per cent of Bangalore Blue grape growers (52.00%) belonged to high innovative proneness category.

Thippeswamy (2007) inferred that majority of coconut growers (68.75%) were found in medium innovative proneness category followed by 18.12 per cent and 13.12 per cent of the respondents found in high and low innovative proneness categories, respectively.

Patil (2008) in his study on organic vegetable growers in Belgaum district indicated that more than half of the organic vegetable growers had high innovative proneness (53.57%) followed by medium (32.14%) innovative proneness and only 10.29 per cent of the respondents belonged to low innovative proneness category.

Naveen Kumar (2012) in his study on entrepreneurial behaviour of pomegranate farmers in chitradurga district of Karnataka reported that less than half of the respondents (45.83%) had medium innovativeness. However, 28.33 per cent of the respondents fall under high innovativeness category and 25.83 per cent of the respondents were in low innovativeness category.

The above reviews revealed that most of the farmers fall under the medium group/category in their innovativeproneness.

2.2.14 Frequency & purpose of visit to RSKs

Sharma (2006) in his study on Functioning of Kisan Seva Kendras (KSKs) In Udaipur District of Rajasthan indicated that 58.33 per cent of the respondents visited the KSK once in a week followed by 29.16 per cent and 12.50 per cent once in a fortnight and once in a month, respectively.

Raghuprasad *et. al.,* (2012) concluded that farmers visits to RSK for buying seeds (93.00%) and fertilizers (56.00%, which includes bio-fertilizers as well) are the prime reasons for the farmers to visit RSKs. Pesticides (53 %) and implements (30.00%) are also bought by the farmers from the RSKs. While only 22.00 per cent of the farmers sought farm literature, about 35.00 per cent of the farmers used RSKs to obtain various nontechnical informations and the technical information seeking behaviour was little among the farmers (16.00 %).

2.3 Communication methods employed for transfer of technology

Natikar (1983) from the study conducted in Dharwad district of Karnatka, reported that extension personnel of Karnataka disseminated the agricultural information by using several methods. Including distributing leaflets, farm and home visits, group meetings, farmers training, method demonstrations, personal letters and official calls in the order of priority. Field days, circular letters, telephone calls and exhibitions were the least used communication methods by extension personnel.

Arvind kumar (1985) in his study on communication pattern of farm information by extension personnel in Agriculture Extension Project revealed that farm and home visits, office calls, group meetings, leaflets, leader training meetings and demonstrations were the important teaching methods used in the study conducted at Belgaum districts.

Balvinder Kaur et. al.,(1992) found that government departments, voluntary organizations for adult education, health and sanitation and family planning, successfully used puppet shoe in Haryana.

Adhiguru (1995) in his study on etension methods for dissemination of agricultural technology revealed that print media was used to the extent of 14.23 per cent, electronic media 3.75 per cent and other extension techniques such as field trips, campaigns, demonstrations, training and exhibitions to the extent of 82.02 percent.

Byra Reddy and Singh (1997) found that majority of village level workers of Kolar and Banglore district of Karnataka used farm and home visits (99.00%), group meetings (95.00 %), result demonstrations(75.00 %), method demonstrations (63.00 %) and farmers training camps (60.00 %) and only few of them using channels like exhibitions, tours, campaigns, film shows, field days to disseminate information.

Vasu (1998) reported that about half (43.00 %) AAOs of Karnataka were high users of visual aids followed by low (29.00 %) and medium (28.00 %). More than 70.00 per cent of the respondents used maps, graphs, charts, specimens, posters and photographs in their extension work. The least used one was flash cards.

Sahana (2003) reported that majority of the extension personnel were used Farm and Home visit (92.75%), Telephone calls (71.02%), General meetings (73.91%) , Group discussion meetings (94.2%), Method demonstrations (91.3%), Result demonstrations (63.77%), Field days (81.16%), Exhibitions (53.62%) and Training programmes (86.96%), Campaigns (43.48%), Writing for newspapers (13.04%), Writingg for farm magazines (8.70%), Radio talks (34.78%) and information given through Television programmes (20.29%) for delivering the information.

Jahagirdar (2007) concluded from his study on communication behavior of extension personnel working in government and private sectors. A comparative study reveals that majority (69.00%) of governament extension personnel belonged to medium communication behavior category whereas, 17.00 % of respondents belonged to low and only 14% belonged to high communication behavior category

Raghuprasad *et. al.,* (2012) concluded that the information delivery from the RSKs at the field level has been noticeably insignificant. Only about 20 percent of the officials of RSKs made field visits and conducted training programs (21%). Nearly 35 per cent of them had updated visual and about 16 percent had published farm literatures on some topics in agriculture. Due to inadequate usage of information delivery sources, the RSKs are unable to provide technical information to the farmers, effectively.

2.4 Suggestions for improvement of Agricultural programmes.

Sandagi *et al.,* (1990) concluded that farmers of Orissa who were affected by droughtmsuggested in favour of afforestation, irrigation, subsidies on inputs and employment programmes to combat the drought.

Desai (1996) revealed that KVK trained farmers had suggested that the training should be arranged at the time of pre-seasonal period. Sequential training be repeated twice or thrice during one agricultural year to make the training effective.

Sahana (2003) reported that increase the number of staff in RSK, appoint lady extension worker and conduct more number of extension activities like group discussion, meetings, demonstrations etc. were the suggestions given by farmers for effective functioning of RSKs.

Chandawat *et al.* (2004) reported in their study on farmers opinion about KVK training to incorporate some topics related to diseases of cattles and their control, safe grain storage, horticultural aspects with respect to vegetables and low cost technology for making trainings effective.

Sharma (2006) reported in their study on Functioning of Kisan Seva Kendras (Ksks) In Udaipur District of Rajasthan indicated that suggestion given by respondents was to increase the working days of KSK (84.16%).

Ankaiahkumar and Eswarappa (2011) conducted a study on implementation of agricultural technology management agency programme of chittoor district of Andhra Pradesh and reported that, Creation separate chairman position to ATMA programme (81.66%) fecilitates to divert chairman (District Collector) concentration from hectic administrative schedule, to get equal importance and results between their own departmental targets and ATMA targets from the stakeholders.

Jyothi (2012) conducted a study on perception of Bhgyalakshami scheme by rural women of Dharwad district and revealed that major suggestions made by beneficiaries for the effective implementation of the scheme should be ‘scholarship amount should be given in kind’and timely issue of bonds.

Raghuprasad *et. al.,* (2012) concluded that Majority of the RSK officials (87.00%) have indicated that lack of supportive staff has been an important hurdle in delivering technical information effectively, because many of them (95.00%) feel that technical people are more burdened with administrative work than actual advisory and field level agriculture related work. Majority are also of the view (70.00%) that limited training to the RSK staff about the recent updates in the filed of agriculture has also reduced their competence. Poor conveyance and mobility facilities in the remote areas also hampening the performance of many RSK staff (48.00%).

METHODOLOGY

The study was conducted during the year 2011-12 in Dharwad district of Karnataka state. The research methods and procedures followed are detailed under the following headings.

3.1 Research design

3.2 Locale of the study

3.2.1 Selection of RSKs

3.2.2 Selection of the respondents

3.3 Variables of the study and their measurement

3.4 Data collection

3.5 Statistical analysis

3.1 Research design

The present investigation deals with the phenomenon, which has already occurred. The variables studied are either already occurred or could not be manipulated. In view of the prevailing situation, the Ex-Post-Facto Research Design was adopted. The design can be used, to deduce theories, identify the behavioral phenomenon and explore conditions under which phenomenon occurs.

3.2 Locale of the study

The study was conducted in Dharwad district of Karnataka. Dharwad district is situated in the north western part of Karnataka surrounded by six districts. The district consists of five taluks. Dharwad district is situated between 15°36' and 15°06' north latitude and between 74°57' and 74°54' east longitude. The district comes under northern dry zone as well as northern transitional zone. Geographical area of Dharwad districtic 4,260 square kms. The population of Dharwad district is 16,04,253 comprising 8, 23,204 males and 7, 81,049 females. The literacy rate of male is 80.8 per cent and that of female is 61.9 per cent. The total literacy rate of the district is 71.6 per cent. The important crops grown in the area are cotton, jowar, maize, chilli, groundnut, sunflower, safflower, wheat and onion. The district was purposefully selected for the study as it is the nearest to the Agriculture University head quarters. All the five taluks of Dharwad districts namely Dharwad, Hubli, Kalagatagi, Kundgol, and Navalagunda have been selected as locale of the study.

3.2.1 Selection of RSKs

A comprehensive list of all the RSKs of Dharwad district was obtained from Karnataka state department of Agriculture. Dharwad district comprises of 5 taluks, having 14 Hoblis (sub- blocks) and 14 RSKs. For the study purpose 5 taluks comprising 2 RSKs were selected using simple random sampling technique. Thus, taluk wise RSKs selected are as follows.

Taluks	RSK
Dharwad	Dharwad
	Garag
Hubli	Hubli
	Chabbi
Kalaghatgi	Kalaghatgi
	Dummawd
Kundgol	Kundgol
	Saunshi
Navalgund	Navalgund
	Morab

3.2.2 Selection of the respondents

For this study 5 taluks comprising 2 RSKs in each of taluka and 12 farmers comprising 4 small & marginal, 4 medium, 4 big farmers in each hobli were selected using simple random sampling technique, thus the total sample size with respect to farmers is 120 and the total sample size with respect to extension personnel is 46.

3.3 Variables of the study and their measurement:

The procedure followed to quantify the variables are detailed below

3.3.1 Dependent variable

Perception is an activity through which an individual becomes aware of functioning and programmes of RSK. Different individual may perceive the same situation differently due to differences in their experiences and cognitive styles. The expectations, needs and ways of thinking influence upon the individual's interpretation about the things he/she wants to perceive. The perceptions are organized and the individuals tend to structure their sensory experiences in ways which make sense to them.

Measurement of dependent variable

The dependent variable 'perception' of farmers about functioning and programmes of Raitha Samparka Kendras was measured by using scale developed for the study (Appendix 1).

Schedule consists of statements related to various functioning aspects of RSK like general aspects, technical information and extension activities, services provided to farmers, records maintained in RSK. To measure the perception of farmers about programmes implemented by RSKs, a schedule was developed which consists of statements related to programmes of RSKs, *viz.*, Suvarna bhoomi yojane, National Food Security Mission (NFSM) and Integrated Scheme for Oilseed Pulses Oil Palm and Maize (ISOPOM) were chosen. For this purpose, all the possible perception statements were developed by referring literature available and consulting officials of the department KSDA and scientists of university. Finally, 21 statements for perception of farmers on functioning of RSK and 34 statements for perception of farmers about programmes. The responses were sought on three point continuum scale viz, more useful, useful and less useful and the scores given were 'two', 'one' and 'zero', respectively. The individual score was obtained by summing up the scores for all the statements. The total possible score range was worked out. The maximum score of an individual could get was 42 for perception on functioning. With respect to perception about programmes, the maximum score was 68 and the minimum score possible was zero. Based on the total score, the respondents were classified into three categories namely 'more effective', 'effective' and 'less effective' with respect to perception of farmers on functioning. Regarding perception of farmers about programmes, the respondents were classified into three categories like 'less useful', 'useful' and 'more useful'. Based on Mean and Standard deviation computed, respondents were categorized.

Perception farmers on the functioning of RSK

Category	Score
Less effective	(<Mean-0.425SD)
Effective	(Mean±0.425SD)
More effective	(>Mean + 0.425SD)

Perception farmers about the programmes of RSK

Category	Score
Less useful	(<Mean-0.425SD)
Useful	(Mean±0.425SD)
More useful	(>Mean + 0.425SD)

3.3.2 Independent variables:

3.3.2.1 Age

It referred to the chronological age of the respondent at the time of investigation. The age of the respondents was recorded as mentioned by them in completed years.

Table 1. Variables and their measurements

Variables	Measurements
Dependent vriable	
Perception	Procedure developed for the study
Independent variable	
Age	Procedure followed by Suresh Kumar (2009)
Education	Procedure followed by Kikon (2010)
Occupation	Procedure followed by Sahana (2003)
Annual income	Classification as suggested by Department of rural development, Government of India (2011)
Land holding	Classification as suggested by The bureau of Economics and Statistics, Government of Karnataka, 1992-93
Massmedia exposure	Procedure followed by Sharma (2006)
Organisational participation	Procedure followed by Sharma (2006)
Social prticipation	Procedure followed by Sahana (2003)
Extension contct	Procedure followed by Sahana (2003)
Extension participation	Procedure followed by Sahana (2003)
Cosmopoliteness	Procedure followed by Sharma (2006)
Scientific orientation	Procedure followed by Sharma (2006)
Innovative proneness	Procedure followed by Moulik (1965)
Frequency & purpose of visit to RSKs	Procedure developed for the study
Communication methods	Procedure followed by Sahana (2003) with slight modification

The respondents were categorized in to three age groups based on the procedure followed by Suresh Kumar (2009).

Category	Age (in years)
Young	Up to 30 years
Middle	31 to 50 years
Old	Above 51 years

3.3.2.2 Education

It is operationalised as the number of years of formal education, the person/ respondent has undergone. The respondents were grouped into different categories and the scoring pattern of categories based on procedure followed by Kikon (2010)

Category	Education	Score
Illiterate	Cannot read and write	0
Primary school	1-4th standard	1
Middle school	5-7th standard	2
High school	8-10th standard	3
Pre-university	11th and 12th standard	4
College	Above 12th standard	5

3.3.2.3 Occupation

It refers to the main and subsidiary occupations of the respondents. The respondents were asked to mention their main and subsidiary occupation. The frequency and percentages are applied for quantification. Procedure followed by Sahana (2003) was adopted. (Appendix 1)

3.3.2.4 Annual income

It was operationalised as total income earned by the respondents from both agriculture and other sources during the previous year of the investigation. The department of rural development, Government of India, 2011 has prescribed norms for the categorization of annual income and that was made use in the present investigation. The farmers were classified into three categories as follows and the results were expressed in frequency and percentages.

Categories	Annual income (Rs)
Low income	Up to 60,000
Medium income	60,000 to 1.2 lakh
High income	Above 1.2 lakh

3.3.2.5 Land holding

It refers to the total land area cultivated by the respondent's family. The information on the total holdings of the respondent's family was obtained. Since, the land holdings of the respondents were different kinds namely irrigated, dry land and garden land. Land holding was converted into standard dry land acres. According to Karnataka Land Reform Act , one acre of irrigated or garden land was equated to 2.5 acres of dry land. The same conversion was done in the present study. The bureau of Economics and Statistics, Government of Karnataka, 1992-93 has prescribed norms for the categorization of land holding and that was made use in the present investigation. According to this, the respondents were classified into three groups as follows and the results were expressed in frequency and percentages.

Category	Land holding (acres)
Marginal & Small farmer	< 5.00
Medium farmer	5.01 to 10.00
Big-farmer	Above 10.00

3.3.2.6 Mass media exposure

It refers to the exposure of the respondents to different mass media and the extent of participation in the related media.

A detailed information about the mass media exposure of the respondents were obtained with respect to

a. Subscription of Newspapers, Farm magazines and their reading habit
b. Possession of Radio, T.V and their listening and viewing habit of respondents.

To arrive at total score of an individual farmer for mass media exposure the scoring pattern followed was as follows. Procedure followed by Sharma (2006) was used.

1. Subscription to Newspapers and Farm magazines	
Categories	Score
a) Subscriber	1
b) Non subscriber	0
2. Ownership of Radio/T.V	
a) Owning	1
b) Not owning	0
3. Reading habit of Newspapers and Farm magazines, Listening habit of Radio and viewing habit of T.V. for obtaining information	
Regular	2
Occasional	1
Never	0

Based on the total scores of mass media participation, the respondents were classified into three categories such as 'low' , 'medium' and 'high'. The possible score range was worked out. The maximum score of an individual could get was 12 and the minimum score possible was zero. And categories were made by considering mean and standard deviation as measure of check.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.2.3.7 Organizational participation

It was conceptualized as the degree of involvement/ participation of an individual in various organizations. Viz, gram panchayat, taluk panchayat, zilla panchayat, milk producers' co-operatives, taluk agril. produce marketing committee, farmers'co-operative society.

Score two was assigned to a respondent who attend the activities regularly while, a score of one was given to a respondent who attend the activities occasionally and no score was given to no participation in the activities.

Accordingly, composite score was arrived at by summing up the scores obtained by each respondent, on each of these parameters. Procedure followed by Sharma (2006) was used.

Membership	Score
Office bearer	2
Member	1
Not a member	0

Nature of participation

Categorization	Score
Regular	2
Occasional	1
Never	0

Based on the total scores of organizational participation, the respondents were classified into three categories such as 'low', 'medium' and 'high'. The possible score range was worked out. The maximum score of an individual could get was 12 and the minimum score possible was zero. And categories were made by considering mean and standard deviation as measure of check.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.2.3.8 Social participation

It is a degree of involvement of the respondents from mere membership to occupying positions in organization and active participation in the activities of local formal organizations like youth club, self help group, mahila mandal, bajan mandal. Score two was assigned to a respondent who attend the activities regularly while, a score of one was given to a respondent who attend the activities occasionally and no score was given to no participation in the activities. Accordingly, composite score was arrived at by summing up the scores obtained by each respondent, on each of these parameters. Procedure followed by Sahana (2003) was used.
This was quantified as follows :

Membership	Score
Office bearer	2
Member	1
Not a member	0

Nature of participation

Categorization	Score
Regular	2
Occasional	1
Never	0

Based on the total scores of social participation, the respondents were classified into three categories such as 'low', 'medium' and 'high'. The possible score range was worked out.

The maximum score of an individual could get was 10 and the minimum score possible was zero and categories were made by considering mean and standard deviation as measure of check.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.3.2.9 Extension contact

In the present study, it refers to the contact made by the respondent with different extension agents *viz.*, Agriculture officer, Assistant Agriculture officer, UAS scientist, Subject matter specialist, Extension personnel of private input agencies.

Further, the respondents were asked to indicate frequency of contact with the above extension agents and the scoring pattern followed is as follows.

Categorization	Score
Regular	2
Occasional	1
Never	0

Based on the total scores of extension contact, the respondents were classified into three categories such as 'low' , 'medium' and 'high'. The possible score range was worked out. The maximum score of an individual could get was 20 and the minimum score possible was zero. Categories were made by considering mean and standard deviation as measure of check.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.3.2.10 Frequency and purpose of visit to RSK

It refers to the frequency of contact and purpose of visit of respondents to RSK to acquire information about their respective subject. The data was quantified by assigning the scores as follows.

Frequency of visit	
Categorization	Score
Regular	2
Occasional	1
Never	0
Purpose of visit	
Agricultural purpose	1
Non – agricultural purpose	0

3.3.2.11 Extension participation

It refers to the extent of participation of the farmers in different extension activities. In order to assess the extent of participation of the respondents in extension activities, respondents were asked to indicate their participation as, Regular, Occasional and never. The score given were 2, 1 and 0, respectively. Procedure followed by Sahana (2003) was used.

Sl. No.	Extension Activities	Extent of participation		
		Regular	Occasional	Never
1	Krishimela	2	1	0
2	Demonstration	2	1	0
3	Trainings	2	1	0
4	Field days	2	1	0
5	Field visit	2	1	0
6	Study/Educational tour	2	1	0
7	Campaign	2	1	0
8	Exhibition	2	1	0
9	Discussion meetings	2	1	0
11	Any other	2	1	0

Based on the total scores of extension partcipation, the respondents were classified into three categories such as 'low', 'medium' and 'high'. The possible score range was worked out. The maximum score of an individual could get was 22 and the minimum score possible was zero and categories were made by considering mean and standard deviation as measure of check.

Categories	Score
Low	(<Mean-0.425SD)
Medium	(Mean±0.425SD)
High	(>Mean + 0.425SD)

3.3.2.12 Cosmopoliteness

It is the degree to which an individual is oriented outside his immediate social system. The cosmopolite farmer is likely to be a unique individual in that he is motivated to look beyond his environment when most others are content to maintain a localistic frame of reference. Procedure followed by Sharma (2006) was used.

	Statement	Score
1	Visit to nearest city	
	a. Often	2
	b. Sometimes	1
	c. Seldom	0
2	Purpose of visit	
	a. In connection with enterprise	4
	b. Relating to agriculture	3
	c. Personal – Domestic	2
	d. Other purpose	1
3	Membership in organization outside the village	
	a. Yes	1
	b. No	0

Based on the total scores of cosmopoliteness, the respondents were classified into three categories such as 'low', 'medium' and 'high'. The possible score range was worked out. The maximum score of an individual could get was 7 and the minimum score possible was zero and categories were made by considering mean and standard deviation as measure of check.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.3.2.13 Scientific orientation

This refers to the degree to which a respondent is oriented to the use of scientific methods in decision making.

The scale developed by Supe (1976) was used. The scale consisted of six statements with two response categories as agree and disagree. For each statement a score of 2 was assigned to 'Agree', score of 1 to 'undecided' and a score of 0 for 'disagree' response. The summation of score obtained by respondent for all the six statements indicated his level of scientific orientation. The total score ranged from 0 to 12. Based on the score obtained, the respondents were categories into three categories viz., high, medium and low based on mean and standard deviation as check. Procedure followed by Sharma (2006) was used.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.3.2.14 Innovativeproneness

It is defined as the socio-psychological orientation of an individual to get linked or closely associated with change, adopting innovative ideas and practices.

Moulik (1965) self rating innovative proneness scale was used to measure the innovative proneness of farmer. The scale consisted of three sets of statements, each set contained three statements with weightages 3, 2 and 1 indicating high, medium and low degree of innovative proneness. Respondents were asked to give response as "most like" or "least like". Score of three was given to "most like" response and 1 for the "least like" response. The total score ranged from 18 to 54. Further, the respondents were categorized into three categories, *viz*., high, medium and low based on mean and standard deviation as measures of check.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

3.3.2.15 Communication methods

Communication pattern is operationalised as the various extension methods and number of times used by the extension personnel of RSK, for the purpose of transfer of Agricultural technologies. Quantification was done by using the procedure developed for the study.

The statements included related to usage of different extension methods like individual, group and mass contact methods. The respondents were asked to give response such as 'Yes' or 'No'. If 'yes', further respondents were asked to indicate the frequency of usage.

The results were expressed in frequency and percentages. With slight modification procedure followed by Sahana (2003) was used.

Sl.no	Communication methods employed	Used	Not used	Frequency of usage
1	Individual contact methods			
2	Group contact methods			
3	Mass contact methods			

3.3.2.16 Suggestions of farmers and extension personnel to improve the functioning of RSKs.

The suggestions of farmers and extension personnel to improve the functioning of RSKs were elicited through open ended questions. Based on the responses obtained from farmers and extension personnel, frequency and percentages were calculated for each of the suggestions given by them.

3.4 Data collection

Keeping in view the objectives and variables of the study, a structured interview schedule was prepared by reviewing the previous research studies and in consultant with experts, extension professionals of UAS Dharwad and KSDA. After construction of schedule and prior to its administration to the respondents, schedule was pre-tested by administering it to farmers in non-sample area. On the basis of pre-tested results, necessary modifications and changes were made in the schedule. The data were collected from 120 farmer respondents and 46 extension personnel of RSKs during February –March 2013 using interview schedule developed for the study.

3.5 Statistical Tools and Tests Used

Percentages

Frequency and percentages were calculated for making simple comparison whenever needed.

Mean and Standard deviation

This was used to classify the respondents into three categories as follows.

Category	Score
Low	Less than (Mean – 0.425SD)
Medium	In between (Mean ± 0.425SD)
High	More than (Mean + 0.425SD)

Pearson's Correlation Coefficient (r)

Pearson's Correlation Coefficient (r) was computed in order to know the nature of relationship between the dependent and independent variables. The values of the correlation coefficients were then tested for statistical significance.

$$r = \frac{\Sigma XY - \frac{\Sigma X \Sigma Y}{n}}{\sqrt{\left\{\Sigma x^2 - \frac{(\Sigma x)^2}{n}\right\}\left\{\Sigma Y^2 - \frac{(\Sigma Y)^2}{n}\right\}}}$$

Where

r = Correlation coefficient between X and Y

ΣX= Sum of scores of variable X

ΣY= Sum of scores of variable Y

ΣXY= Sum of products of X and Y variable

ΣX^2= Sum of squares of X variable

ΣY^2= Sum of squares of Y variable

n = Size of the sample

RESULTS

The results of the present investigation, in line with the objectives are presented under the following major headings.

4.1 Perception of farmers about functioning aspects of RSKs

4.2 Over all Perception of farmers about functioning of RSKs.

4.3 Perception of farmers about programmes of RSKs.

4.4 Factors influencing the perception of farmers regarding functioning of RSKs.

4.5 Association between independent variables with perception of farmers on the functioning of RSKs

4.6 Communication methods employed by the extension personnel for transfer of technology.

4.7 Suggestions of farmers and extension personnel to improve the functioning of RSKs.

4.1 Perception of farmers about functioning aspects of RSKs

4.1.1 General aspects of RSK

The general aspects of RSK includes objectives of RSK, jurisdiction of RSK , working days of RSK, head of RSK. The results presented in Table 2 indicated that majority of the respondents (73.33 %) felt more useful towards general aspects of RSK, where as 25.00 per cent of the respondents felt useful and remaining 1.66 per cent of the respondents felt less useful towards general aspects of RSK.

4.1.1 Technical information and extension activities organized by RSK

The Technical information and extension activities provided by RSK includes provides information on the selection of major crops, information for the new methods of crop production, information on marketing of agricultural produce, organizing preseasonal meetings, organizing method demonstrations and result demonstrations. The results presented in Table 2 indicated that majority of the respondents (73.30%) felt that technical information and extension activities provided by RSK was more useful, while 25.00 per cent of the respondents felt useful and remaining 1.66 per cent of the respondents felt less useful about technical information and extension activities of RSK.

4.1.3 Services provided to farmers

The Services provided to farmers includes seed germination and seed vigour tests, soil test facility, fertilizer recommendation based on soil testing, publicity for agricultural programmes. The results presented in Table 2 indicated that majority of the respondents (75.00%) felt more useful about services provided to farmers from RSK, while 24.16 per cent of the respondents felt useful and remaining 0.83 per cent of the respondents felt less useful about services provided to farmers from RSK .

4.1.4 Records maintained in RSKs

It was observed that 95.00 per cent of the respondents felt the records maintained and different teaching aids used in RSK were more systematic and only 5.00 per cent of the respondents were less systematic about the records maintained and different teaching aids used in RSK (Table 2).

4.2 Over all Perception of farmers about functioning of RSKs

The results presented in Table 3 indicated that majority of the respondents (71.60%) felt more effective towards functioning of RSKs, while 20.80 per cent of the respondents felt effective and remaining 7.50 per cent of the respondents felt less effective about the functioning of RSKs.

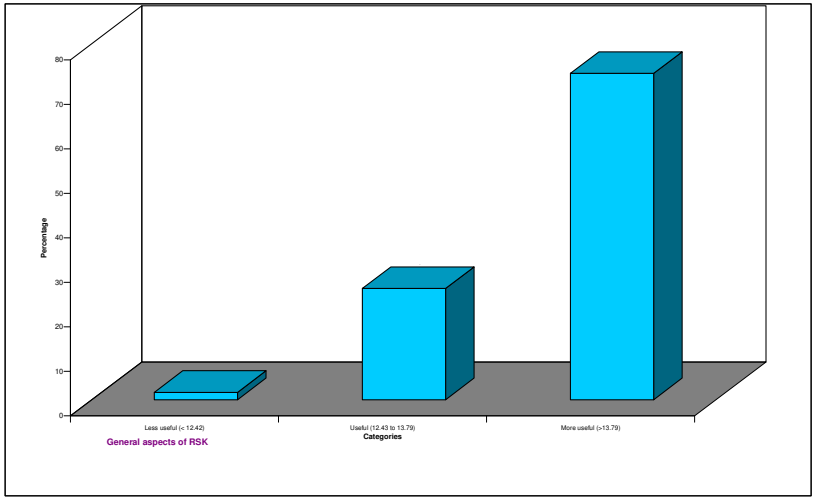
4.3 Perception of farmers about programmes of RSKs

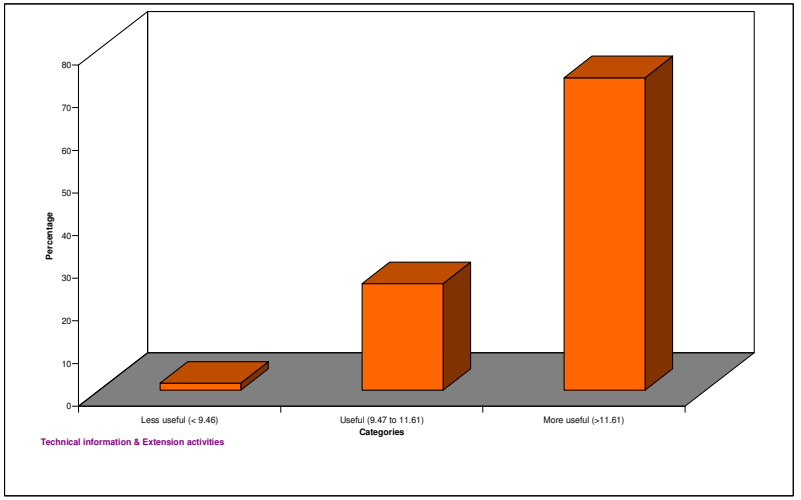
The results presented Table 4 indicated that majority of the respondents (75.0 %) who were the beneficiaries of Suvarna bhoomi yojana programme felt that this programme was more useful, followed by 17.50 per cent of the respondents felt useful and remaining 7.5 per cent of the respondents felt less useful. Similarly about NFSM programme majority of the respondents (67.50%) felt more useful, followed by useful (28.75 %) and less useful (3.75 %).

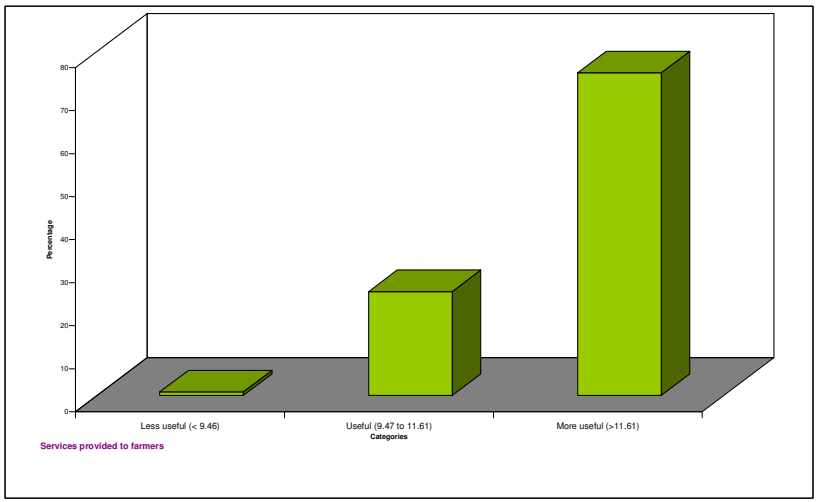
Table 2. Perception of farmers about functioning aspects of RSKs

(N=120)

Sl. No.	Categories	Frequency	Percentage
1	**General aspects of RSK**		
	Less useful (< 12.42)	2	1.66
	Useful (12.43 to 13.79)	30	25.00
	More useful (>13.79)	88	73.30
	Mean = 13.11 , SD = 1.6		
2	**Technical information & Extension activities**		
	Less useful (< 9.46)	2	1.66
	Useful (9.47 to 11.61)	30	25.00
	More useful (>11.61)	88	73.30
	Mean = 10.54 , SD = 2.52		
3	**Services provided to farmers**		
	Less useful (< 9.77)	1	0.83
	Useful (9.78 to 10.84)	29	24.16
	More useful (> 10.84)	90	75.00
	Mean = 10.31 , SD = 1.35		
4	**Records maintained in RSKs**		
	Less systematic (< 3.71)	6	5.00
	Systematic (3.72 to 4.08)	0	0.00
	More systematic (> 4.08)	114	95.00
	Mean = 3.9 , SD = 0.43		







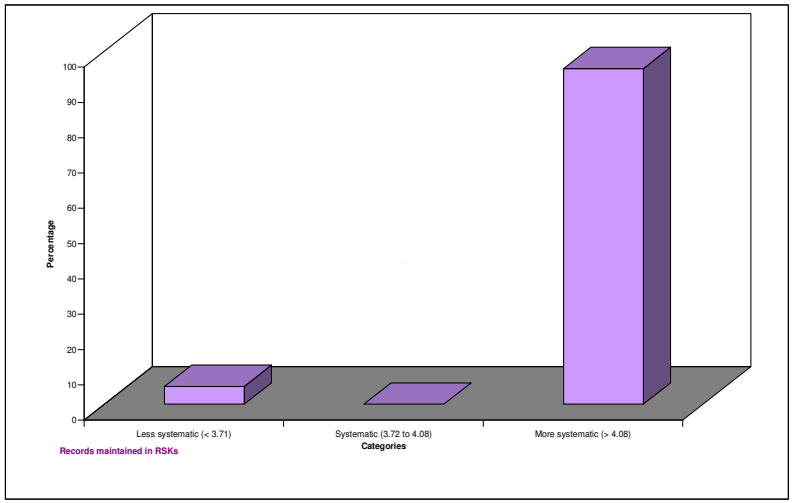


Fig. 1d: Perception of farmers about functioning aspects of RSKs

Table 3. Over all Perception of farmers about functioning of RSKs

(N=120)

Categories	Score	F	%
Less effective (< 35.52)	(<Mean-0.425SD)	9	7.50
Effective (35.52 to 40.21)	(Mean±0.425SD)	25	20.83
More effective (> 40.21)	(>Mean + 0.425SD)	86	71.60
Mean	5.51		
Standard deviation	37.87		

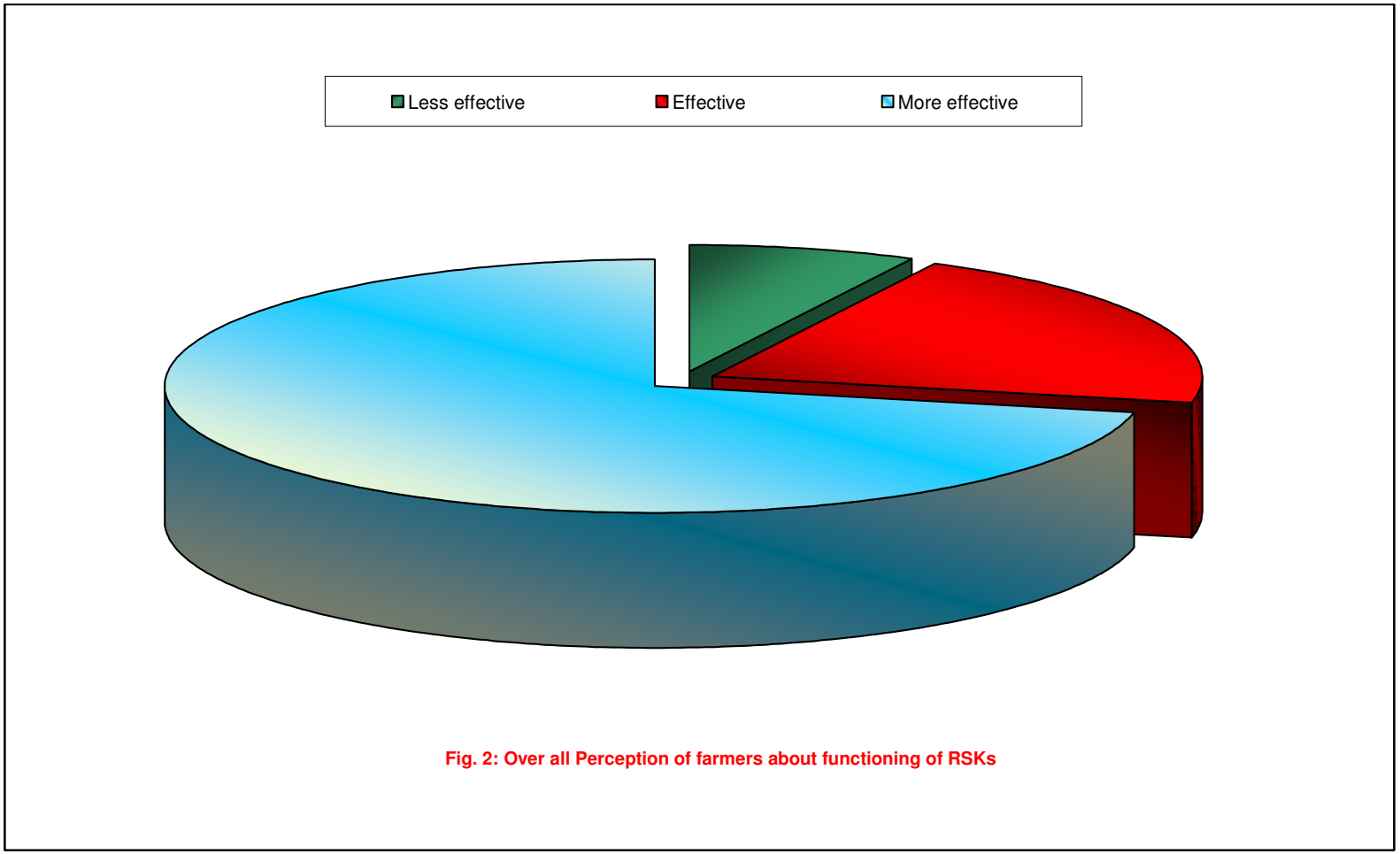


Fig. 2: Over all Perception of farmers about functioning of RSKs

Fig. 2: Over all Perception of farmers about functioning of RSKs

Table 4. Over all Perception of farmers about different programmes of RSKs

(N = 120)

Sl. no	Programme	N	Frequency	Percentage
1	**Suvarna Bhoomi Yojane**	**40**		
	Less useful (< 16.77)		3	7.50
	Useful (16.77-20.32)		7	17.50
	More useful (> 20.32)		30	75.00
	Mean = 18.55 , SD = 4.8			
2	**NFSM**	**80***		
	Less useful (< 17.7)		3	3.75
	Useful (17.7-21.6)		23	28.75
	More useful (> 21.6)		54	67.50
	Mean = 19.7 , SD = 4.87			
3	**ISOPOM**	**80***		
	Less useful (< 13.75)		1	1.25
	Useful (13.75-17.24)		26	32.50
	More useful (>17.24)		53	66.25
	Mean = 15.5 , SD = 4.1			

***** Respondents are common for NFSM and ISOPOM

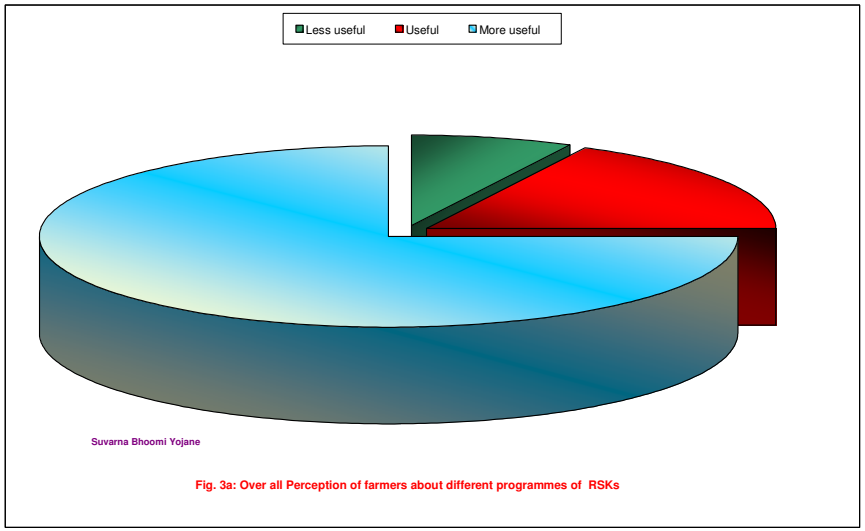


Fig. 3a: Over all Perception of farmers about different programmes of RSKs

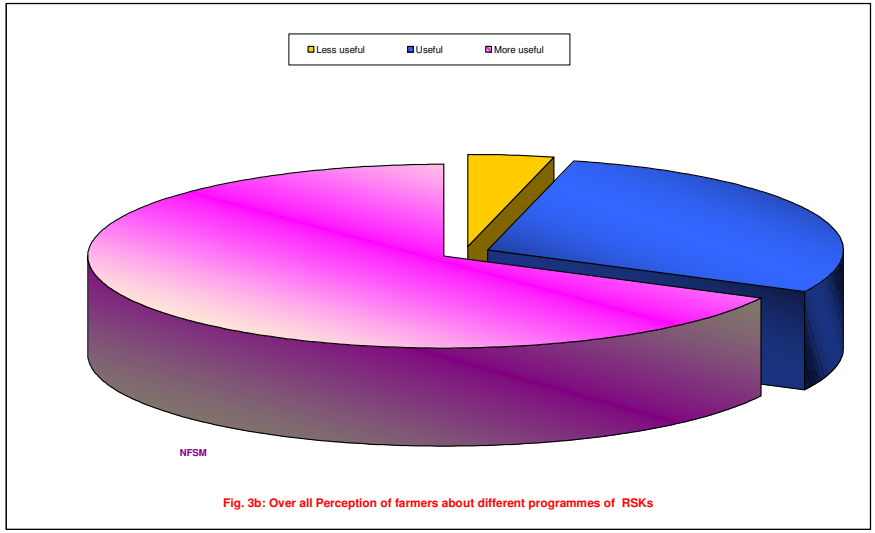


Fig. 3b: Over all Perception of farmers about different programmes of RSKs

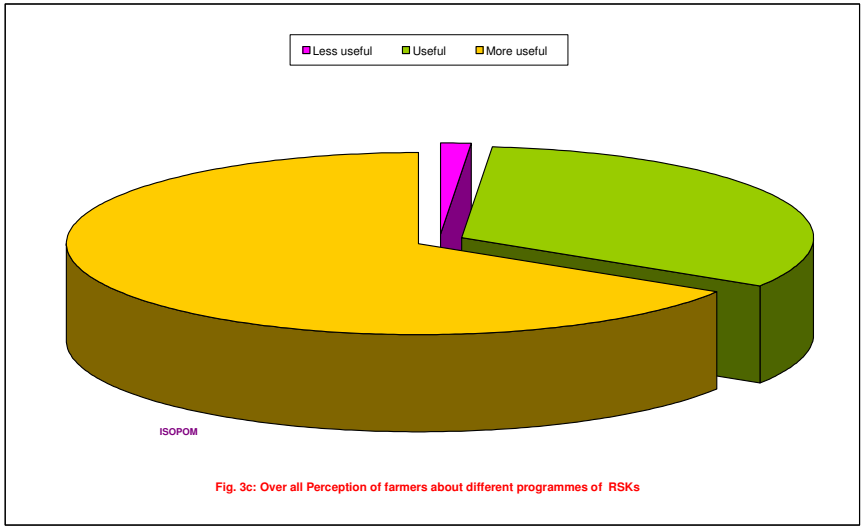


Fig. 3c: Over all Perception of farmers about different programmes of RSKs

Fig. 3c: Over all Perception of farmers about different programmes of RSKs

About the ISOPOM programme majority of the respondents (66.25 %) felt more useful, followed by useful (32.5%) and less useful (1.25%).

4.4 Factors influencing the perception of farmers regarding functioning of RSKs

4.4.1 Age

The result presented in Table 5 indicated that more than half of the respondents (55.83%) were under middle age category followed by old age (32.5%) and young age (11.60 %) category.

4.4.2 Education

It is observed from Table 5 that 21.66 per cent of the respondents had studied upto primary level, followed by 14.16 per cent and 20.83 per cent of them with middle school level and high school level education, respectively. Whereas, 18.33 per cent of them had PUC level education and 11.66 per cent of them had college level education. Illiterates comprised of 13.33 per cent of the farmers.

4.4.3 Land holding

It is observed from Table 5 that equal percentage (33.33%) of the respondents belonged to small, medium and big land holding category.

4.4.4 Occupation

It is observed that all the respondents have their major occupation as agriculture, whereas 2.50 per cent of the respondents have dairy as their subsidiary occupation and another 1.66 per cent of respondents have petty shops as their subsidiary occupation. (Table 5).

4.4.5 Annual income

It could be observed that 37.50 per cent of the respondents belonged to high income category, whereas, 32.50 and 30.00 per cent of the respondents belonged to medium and low income category respectively. (Table 5).

4.4.6 Mass media exposure

Table 6 depicted the information regarding mass media used by the respondents. Television were possessed by a very high majority (87.50 %) of the respondents of which 60.00 per cent of the respondents viewed agricultural programmes occasionally. whereas, 27.50 per cent of the respondents viewed regularly, and 12.50 per cent of the respondents never viewed.

Radio sets were possessed by 20.00 per cent of the respondents, of which only 15.83 per cent of respondents were listening agricultural programmes occasionally followed by regular (4.16 %). Majority (80.00%) of the respondents never listened to agricultural programmes.

Results further reported the use of print media by the respondents. Half (50.00%) of the respondents were subscribers of news paper, with respect to reading habit of the respondents 52.50 per cent of respondents were regular readers of agricultural news, followed by never (29.16 %) only 18.33 per cent of the respondents used to read agricultural news occasionally. None of the respondents were subscribers of farm magazines but only 4.16 per cent of respondents occasionally used to read farm magazines.

The results depicted in Table 6.1 revealed that, 44.16 per cent of the farmers belonged to medium mass media exposure category followed by low (28.33%) and high (27.50%) categories, respectively.

4.4.7. Organizational participation

The results of the Table 7 indicated that only 1.66 per cent of the respondents were members of co-operative societies and Taluk Agricultural Produce Marketing Committee respectively. respondents (0.83 %) were office bearers in Gram Panchayath, Taluk Panchayath and Taluk Agricultural Produce Marketing Committee respectively. Regarding their participation in these organizations, cent per cent of the respondents had participated meeting and activities of gram panchayat (11.66 %), Taluk Panchayath (2.50%), Taluk Agricultural Produce Marketing Committee (11.66%) and Farmers cooperative society (8.33%) regularly. While, 60.83 per cent, 15.00 per cent, 2.50 per cent, 55.83 per cent, and 74.16 per cent of respondents occasionally attended meeting and activities of Gram panchayat, Taluk panchayath, Zilla panchayath, Taluk Agricultural Produce Marketing Committee and Farmers cooperative society, respectively.

Table 5. Factors influencing the perception of farmers

(N=120)

Sl. No	Characteristics	Frequency	Percentage
1	**Age**		
	Young (up to 30 years)	14	11.67
	Middle (31 to 50 years)	67	55.83
	Old (above 51 years)	39	32.50
2	**Education**		
	Illiterate	16	13.33
	Primary school	26	21.66
	Middle school	17	14.16
	High school	25	20.83
	Pre-university	22	18.33
	College	14	11.66
3	**Land holding**		
	Marginal and Small farmers (< 5 acres)	40	33.33
	Medium farmers (5.01 to 10 acres)	40	33.33
	Big farmers (> 10 acres)	40	33.33
4	**Occupation**		
	Major – Agriculture	120	100
	Subsidiary – Dairy	3	2.50
	Petty shops	2	1.60
3	**Annual income**		
	Low income (< 60,000)	36	30.00
	Medium income (60,000 to 1.2 lakh)	39	32.50
	High income (> 1.2 lakh)	45	37.50
4	**Extension participation**		
	Low (< 3.668)	34	28.33
	Medium (3.66 to 6.93)	36	30.00
	High (>6.93)	50	41.66
	Mean = 5.3, SD = 3.84		
5	**Cosmopoliteness**		
	Low (< 2.18)	39	32.50
	Medium (2.18 to 3.41)	51	42.50
	High (> 3.41)	30	25.00
	Mean = 2.8, SD = 1.45		
6	**Scientific Orientation**		
	Low (<14.97)	24	20.00
	Medium (14.98 to 16.79)	61	50.83
	High (>16.79)	35	29.16
	Mean = 15.88, SD = 2.14		
7	**Innovativeproneness**		
	Low (<18.88)	24	20.00
	Medium (18.88 to 20.81)	64	53.33
	High (> 20.81)	32	26.66
	Mean = 19.85, SD = 2.27		

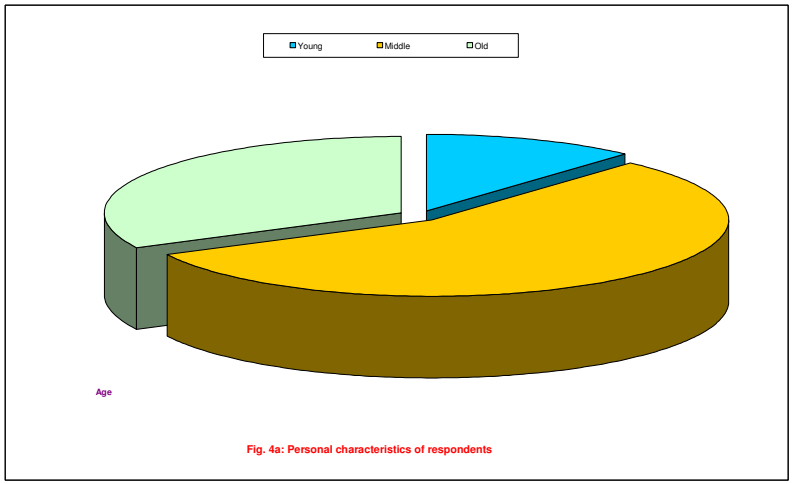


Fig. 4a: Personal characteristics of respondents

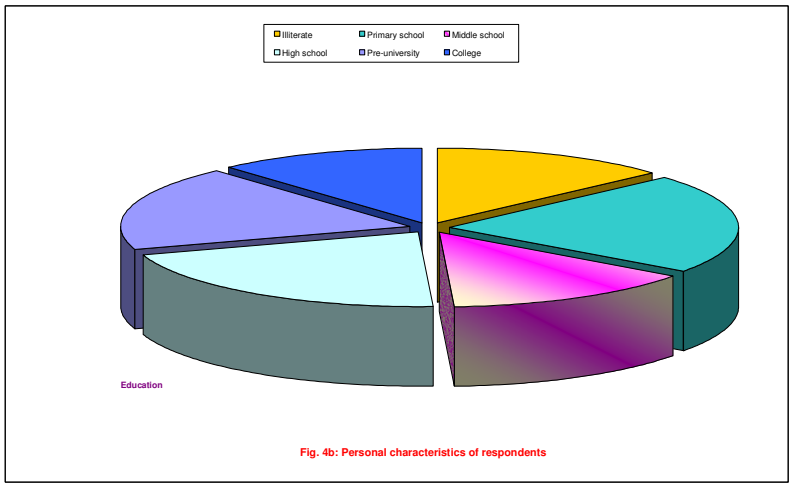


Fig. 4b: Personal characteristics of respondents

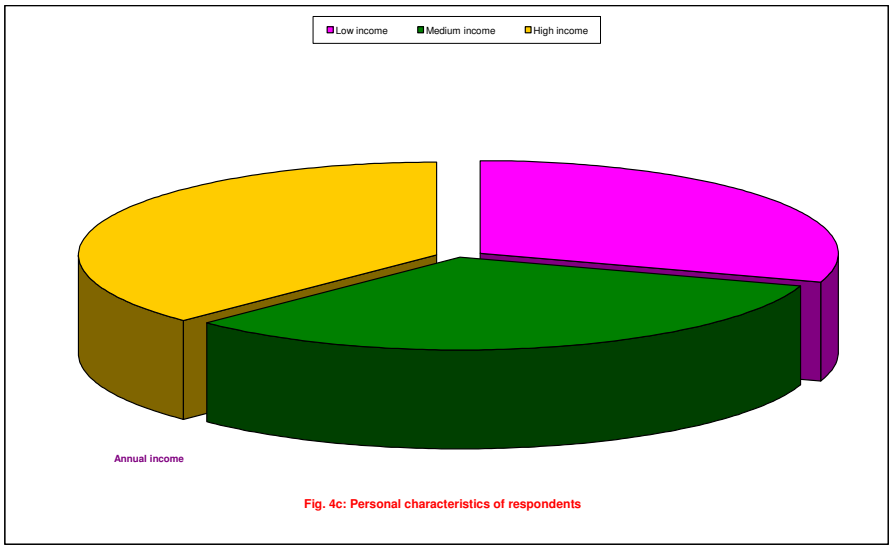


Fig. 4c: Personal characteristics of respondents

Fig. 4c: Personal characteristics of respondents

Table 6. Mass Media Exposure

(N=120)

Sl.	Medium	Subscriber/owner		Listening/Viewing/Reading behavior					
		Yes		Regular		Occasional		Never	
		f	%	f	%	F	%	f	%
1	Radio	24	20.00	5	4.16	19	15.83	96	80.00
2	Television	105	87.50	33	27.50	72	60.00	15	12.50
3	Newspaper	60	50.00	63	52.50	22	18.33	35	29.16
4	Farm Magazines	0	0.00	0.00	0.00	5	4.16	115	95.83

f – Frequency % - Percentage

Table 6.1. Distribution of farmers according to mass media exposure

(N=120)

Category	Frequency	Percentage
Low (< 1.89)	34	28.30
Medium (1.89 to 3.425)	53	44.16
High (> 3.425)	33	27.50
Mean	2.66	
SD	1.8	

Table 7. Organizational participation

(N=120)

Sl. No.	Organization	Member		Office bearer		Participation					
						Regular		Occasional		Never	
		f	%	f	%	f	%	f	%	F	%
1	Gram panchayat	0	0.00	1	0.83	14	11.66	73	60.83	33	27.55
2	Taluk Panchayat	0	0.00	1	0.83	3	2.5	18	15.00	99	82.55
3	Zilla Panchayat	0	0.00	0.00	0.00	0	0.00	3	2.50	117	97.55
4	Taluk Agril. Produce Marketing Committee	2	1.60	1	0.83	14	11.66	67	55.83	39	32.55
5	Farmers'co-operative society	2	1.60	0.00	0.00	10	8.33	89	74.16	21	17.55

f – Frequency % - Percentage

Table 7.1. Distribution of farmers according to Organizational participation

(N=120)

Category	Frequency	Percentage
Low (< 1.89)	33	27.50
Medium (1.89 to 3.62)	66	55.00
High (> 3.62)	21	17.50
Mean	2.76	
SD	2.04	

The percentage of the respondents who 'never' participated in the meeting and activities of Gram Panchayat, Taluk panchayath, Zilla parishad, Taluk Agricultural Produce Marketing Committee and Farmers cooperative society were 27.50 per cent,82.50 per cent,97.50 per cent, 32.50 per cent,17.50 per cent respectively.

The results depicted in Table 7.1 revealed that, 55.00 per cent of the farmers belonged to medium organizational participation category followed by low (27.55%) and high (17.55%) categories respectively.

4.4.8 Social participation

The results of the Table 8 indicated that only 1.66 per cent of the respondents were members of bhjan mandal and youth club respectively. Respondents (0.83 %) office bearers in youth club, self help group and bhajan mandal respectively.

From the Table 8.1, it is observed that majority (61.66 %) of the respondents belonged to low level of social participation followed by 30.00 and 8.33 per cent of respondents who belonged to medium and high levels of social participation, respectively.

4.4.9 Extension contact

The data in Table 9 indicated that 69.16 per cent of the respondents contacted Assistant Agriculture Officer regularly followed by 20.00 per cent of them contacted occasionally and 10.83 per cent of the respondents never contacted.

The data in Table 9 indicated that 69.16 per cent of the respondents contacted Agriculture officer regularly followed by 19.16 per cent of them contacted occasionally and 11.66 per cent of the respondents never contacted.

The data in Table 9 indicated that 1.66 per cent of the respondents contacted ADA regularly and 98.33 per cent of the respondents never contacted.

The data in Table 9 indicated that 4.16 per cent of the respondents contacted UAS Scientist regularly followed by 0.83 per cent of them contacted occasionally and 95 per cent of the respondents never contacted.

The data in Table 9 indicated that 55.00 per cent of the respondents contacted Extension Personnel of Private Input Agency regularly followed by 1.66 per cent of them contacted occasionally and 43.33 per cent of the respondents never contacted.

The data in Table 9 indicated that 43.33 per cent of the respondents depends on other farmers, neighbors regularly for agricultural related queries followed by 6.67 per cent of them contacted occasionally and 50 per cent of the respondents never contacted.

The results depicted in Table 9.1 revealed that, 50 per cent of the farmers belonged to high extension contact category followed by low (43.33%) and medium (6.66%) categories, respectively

4.4.10 Frequency and purpose of visit to RSK

It could be observed that 60.83 per cent of the respondents used to visit RSK regularly during cropping season to get information related to agriculture. Whereas, 31.66 per cent of the respondents used visit RSK occasionally during cropping season to get information related to agriculture and remaining 7.50 per cent of the respondents never used visit RSK during cropping season.

The Table 10 indicated that 13.33 per cent of the respondents used visits regularly during off season to get information related to agriculture whereas, 69.13 per cent of the respondents used visit occasionally during off season to get information related to agriculture and remaining 17.50 per cent of the respondents never used visit during cropping season (Table 10).

4.4.11 Extension participation

From the Table 5, it is observed that 41.66 per cent of the respondents comes under high extension participation category followed by 30.00 and 28.30 per cent of respondents belonged to medium and low level category of extension participation, respectively.

Table 8. Social participation

(N=120)

Sl. No.	Organization	Member		Office bearer		Participation					
						Regular		Occasional		Never	
		f	%	f	%	f	%	f	%	f	%
1	Youth club	2	1.60	1	0.83	5	4.16	35	29.16	80	66.66
2	Self help group	0	0	1	0.83	3	2.5	30	25.00	87	72.5
3	Mahila mandal	0	0	0	0	0	0.00	3	2.50	117	97.5
4	Bhajan mandal	2	1.60	1	0.83	5	4.16	15	12.50	100	83.30
5	Any other	0	0.00	0	0.00	0	0.00	0	0.00	120	100.00

Table 8.1. Distribution of farmers according to Organizational participation

(N=120)

Category	Frequency	Percentage
Low (< 2.18)	74	61.70
Medium (2.18 to 3.41)	36	30.00
High (> 3.41)	10	8.30
Mean	2.8	
SD	1.45	

Table 9. Extension contact

(N=120)

SL. NO	Source	Frequency of contact						Purpose	
		Regular		Occasional		Never		Agril.	Non-Agril.
		f	%	f	%	f	%	%	%
1	AAO	83	69.16	24	20.00	13	10.83	100	0
2	AO	83	69.16	23	19.16	14	11.66	100	0
3	ADA	2	1.60	0	0.00	118	98.33	100	0
4	UAS scientist	12	10.00	1	0.83	107	89.16	100	0
5	Subject matter specialist	5	4.10	1	0.83	114	95	100	0
6	Extension personnel of private input agencies	66	55.00	2	1.66	52	43.33	100	0
7	Any other	52	43.33	8	6.66	60	50	100	0

f – Frequency % - Percentage

Table 9.1. Distribution of farmers according to Extension contact

(N=120)

Category	Frequency	Percentage
Low (< 4.03)	52	43.33
Medium (4.03 to 6.9)	8	6.66
High (> 6.9)	60	50.00
Mean	5.5	
SD	3.45	

Table 10. Frequency and purpose of visit to RSK

(N=120)

Particulars	Frequency of contact						Purpose of contact	
	Regular		Occasional		Never		Agril.	Non-Agril
	f	%	f	%	f	%	%	%
Visits/week during cropping season	73	60.83	38	31.66	9	7.50	100	0
Visits/week during off-season	16	13.33	83	69.16	21	17.50	100	0

f – Frequency % - Percentage

4.1.12 Cosmopoliteness

From the Table 5, it is observed that majority (42.50 %) of the respondents had medium level of cosmopoliteness followed by 32.50 and 25.00 per cent of respondents who had low and high levels of cosmopoliteness, respectively.

4.4.13 Scientific orientation

It was found from Table 5 that half of the respondents (50.83%) belonged to medium scientific orientation category. While, 29.16 per cent and 20.00 per cent of the respondents belonged to high and low scientific orientation category, respectively.

4.4.14 Innovative proneness

It was evident from Table 1 that about half of the respondents (53.33%) were distributed in medium innovative proneness category while, 26.67 per cent and 20.00 per cent of the respondents had high and low innovative proneness categories.

4.5 Association of personal characteristics with perception of farmers about the functioning of RSKs

It could be observed from Table 11 that annual income, land holding, massmedia exposure, organizational participation, extension contact, frequency and purpose of visit, extension participation, cosmopoliteness, scientific orientation, innovative proneness were found to have positive and significant relationship with the perception of farmers about functioning of RSKs.

4.6 Communication methods employed by the extension personnel for transfer of technology

The data in Table 12 provides the information on the different communication channels used by the extension personnel working in RSKs to transfer the agricultural technologies

4.6.1. Individual contact methods

Individual contact methods comprises of farm and home visits and telephone calls. The data in Table 12 indicated that among the various methods employed, cent per cent of the respondents employed farm and home visit and telephone calls to transfer of technology with respect to frequency of usage, 69.57 per cent of the extension personnel made 11 to 20 visits in a month, followed by 30.43 per cent of the extension personnel made 1 to 10 visits in a month. With regard to telephone calls majority (67.39 %) of extension personnel made 1 to 50 calls per month, followed by 32.66 per cent of them made 51 to 100 calls per month for delivering the information.

4.6.2 Group contact methods

Group contact methods include general meetings, group discussion meetings, result demonstrations and method demonstrations. The data in Table 12 indicated that among the group contact methods employed, cent per cent of the respondents employed general meetings, group discussion meetings, result demonstrations, method demonstrations to transfer of technology. About 89.13 per cent of extension personnel conducted one to five general meetings, followed by 10.86 per cent conducted 6 to 10 general meetings in a month.

With respect to group discussion meetings majority of extension personnel (89.13%) were conducting one to ten group discussion meetings, followed by 10.86 per cent of them conducted 11 to 20 meetings in a month, respectively.

With respect to method demonstrations nearly half (47.82 %) of the extension personnel had conducted one to two method demonstrations in a season, around 30.44 per cent of the extension personnel had conducted three to four method demonstrations and 21.73 per cent of the extension personnel had conducted more than four method demonstrations in a season.

Majority (78.26%) of the extension personnel had conducted one to two result demonstrations in a season, around 10.86 per cent of the extension personnel had conducted three to four and more than four method demonstrations in a season.

4.6.3 Mass contact methods

Mass contact methods comprises of campaigns, field days, exhibition, training programmes, writing articles in news paper and farm magazines.

Table 11. Association of personal characteristics with perception of farmers about the functioning of RSKs

(N=120)

Variables	Correlation coefficient r
Age	0.068 NS
Education	0.179 NS
Annual income	0.213*
Land holding	0.199*
Mass media exposure	0.200*
Organization participation	0.486**
Extension contact	0.491**
Frequency and purpose of visit	0.675**
Extension participation	0.680**
Cosmopoliteness	0.329**
Scientific orientation	0.682**
Innovativeproneness	0.564**

* Significant at the 0.05 level.

** Significant at the 0.01 level.

NS-Non significant

Table 12. Communication methods employed by the extension personnel for Transfer of technology

(N=46)

Sl.No	Communication Methods Employed					
I	**Individual Contact Methods**	**Used**		**Frequency range**	**f**	**%**
		F	**%**			
1	Farm And Home Visit	46	100	1 to 10 11 to 20 > 20	14 32 0	30.43 69.57 0
2	Telephone Calls	46	100	1 to 50 51 to 100 >100	31 15 0	67.39 32.6 0
II	**Group Contact Methods**					
1	General Meetings	46	100	1 to 5 6 to 10 >10	41 5 0	89.13 10.86 0
2	Group Disscussion Meetings	46	100	1 to 10 11 to 20 >20	41 5 0	89.13 10.86 0
3	Result Demonstration	46	100	1 to 2 3 to 4 >4	36 5 5	78.26 10.86 10.86
4	Method Demonstration	46	100	1 to 2 3 to 4 >4	22 14 10	47.82 30.43 21.73

Table 12. conti….

III	Mass Contact Methods	Used		Frequency range	Frequency	Percentage
		Frequency	Percentage			
1	Campaign	26	56.52	1 to 2 3 to 4 >4	23 3 0	50.00 6.5 0
2	Field Days	46	100	1 to 2 3 to 4 >4	18 10 18	39.13 21.73 39.13
3	Exhibition	46	100	1 to2 3 to 4 >4	41 5 0	89.13 10.86 0
4	Training Programmes	46	100	1 to2 3 to 4 >4	31 10 5	67.39 21.73 10.86
5	News Paper	14	30.43	1 to2 3 to 4 >4	9 0 5	19.56 0 10.86
6	Farm Magazines	10	21.73	1 to2 3 to 4 >4	0 5 5	0 10.86 10.86
7	Radio Talks	15	32.6	1 to2 3 to 4 >4	15 0 0	32.6 0 0
8	Television Programmes	10	21.73	1 to2 3 to 4 >4	10 0 0	21.73 0 0
IV	**Information Communication Technologies (ICTs)**					
1	CD ROM/ Multimedia	0	0	-	-	-
2	Internet	0	0	-	-	-

Radio talks and giving information through television. The data in Table 12 indicated that among the mass contact methods employed, cent per cent of the respondents employed field days, exhibitions to transfer of technology that, 56.52 per cent of the extension personnel had conducted the campaigns and remaining 39.13 per cent of the extension personnel had not conducted the campaigns. The data in the Table 10 reveals that half of the extension personnel (50.00%) had conducted one to two campaigns in a season, 6.52 per cent of the extension personnel were able to conduct three to four campaigns in a season.

Majority of the (39.13 %) extension personnel organized one to two and more than four field days in a season, remaining 21.73 per cent of the extension personnel conducted two to four field days in a season.

A glance at Table 12 revealed that majority (89.13 %) of the extension personnel had conducted one to two exhibitions, followed by two to four exhibition conducted by 10.86 per cent of extension personnel. Majority of the extension personnel (67.39%) had conducted one to two training programmes, considerable number (21.73%) had conducted three to four training programmes and some of them (10.86%) had conducted more than four training programs.

The Table 12 revealed that majority of the extension personnel (69.56%) were not writing any articles for news papers however, some of them (30.43%) were writing articles for news papers. The Table 10 revealed that about 19.56 per cent of extension personnel writes one to two articles for news papers in a year and 10.86 per cent of extension personnel writes more than four articles for news papers in a year.

The Table 12 revealed that most of the extension personnel (78.26%) were not writing any articles for farm magazines however, some of them (21.73%) were writing articles for farm magazines. The Table 10 revealed that about 10.86 per cent of extension personnel writes three to four and more than four articles for farm magazines in a year.

Table showed that considerable percentage (32.6%) of the extension personnel were able to deliver radio talks on one or the other topics related to the field of agriculture. While a majority of the RSK officials (67.39%) were not able to deliver any of the radio talks related to the field of agriculture. Table 10 indicated considerable per centage (32.6 %) of them delivered one to two talks in radio in a year.

Table 12 revealed that considerable percentage (21.73%) of the extension personnel were participated in television programmes for providing information related to the field of agriculture. While a majority of the RSK officials (78.26%) were not participated in television programmes for providing information related to the field of agriculture. The data in Table showed that 21.73 per cent of extension personnel had given one to two television programme to give information to farmers in a year.

4.6.4 Information Communication Technologies (ICTs)

Information Communication Technologies includes CD ROM/multimedia, internet. The Table 12 revealed that none of the extension personnel used ICT tools for transfer of technologies.

4.7 Suggestions of farmers to improve the functioning of RSKs

The Table 13 showed that the suggestions offered by farmers for the improvement of functioning of RSKs. Majority of the farmers suggested that RSKs should provide more market information (85.00%) , followed by subsidies for agricultural inputs should be increased (66.60%), extension personnel visits to farm should be increased(62.50%),required quantity and timely supply of inputs (58.33%), services provided to farmers for free of cost (30.00 %), more number of group discussion meetings, demonstrations (25.00%) and fair distribution of inputs (16.50%).

4.8 Suggestions of extension personnel working in RSK to improve the functioning of RSKs

The Table 14 indicated that the suggestion offered by extension personnel for the improvement of functioning of RSKs. It can be observed that, increase the number of qualified staff working in RSK and need for own building of RSK with all the facilities was the main suggestions offered by 93.47 per cent of extension personnel, followed by godown facility (91.33%), computer facility and Provision of security for the godowns (89.13%), Number of villages in a hobli under operational jurisdiction of RSK should be equal (86.95%), Sufficient quantity of inputs should be available at RSK (76.08%).

Table 13. Suggestions of farmers to improve the functioning of RSKs

(N=120)

Sl. No.	Suggestions	F	%
1	RSKs should provide more market information	102	85.00
2	Subsidies for agricultural inputs should be increased	80	66.66
3	Extension personnel visits to farm should be increased	75	62.50
4	Required quantity and timely supply of inputs	70	58.33
5	Services provided to farmers for free of cost	36	30.00
6	More number of group discussion meetings, demonstrations	30	25.00
7	Fair distribution of inputs	20	16.66

Table 14. Suggestions of extension personnel working in RSK to improve the functioning of RSKs

(N=46)

Sl. No.	Suggestions	F	%
1	Increase the number of qualified staff working in RSK	43	93.47
2	Need for own building of RSK with all the facilities	43	93.47
3	Godown facility	42	91.30
4	Provision of security for the godowns	41	89.13
5	Computer facility	41	89.13
6	Number of villages in a hobli under operational jurisdiction of RSK should be equal	40	86.95
7	Sufficient quantity of inputs should be available at RSK	35	76.08

DISCUSSION

The results of the study are discussed and interpreted in the same sequential order as it was followed for presentation of results in the previous chapter. The sequence of the discussion is as under.

5.1 Perception of farmers about functioning aspects of RSKs

5.2 Over all Perception of farmers about functioning of RSKs.

5.3 Perception of farmers about programmes of RSKs.

5.4 Factors influencing the perception of farmers regarding functioning of RSKs.

5.5 Association between independent variables with perception of farmers on the functioning of RSKs

5.6 Communication methods employed by the extension personnel for transfer of technology.

5.7 Suggestions of farmers to improve the functioning of RSKs.

5.8 Suggestions of extension personnel to improve the functioning of RSKs.

5.1 Perception of farmers about functioning aspects of RSKs

5.1.1. General aspects of RSK

The general aspects of RSKs includes objectives of RSK, jurisdiction of RSK , working days of RSK, head of RSK. The results presented in Table 2 indicated that majority of the respondents (73.33 %) were felt more useful towards general aspects of RSK, where as 25.00 per cent of the respondents were felt useful and remaining 1.66 per cent of the respondents were felt less useful towards general aspects of RSK.

One significant feature of RSK is that they are located at every hobli (sub-block) and this makes the farmers to be regular touch with the RSK. These aspects had greatly contributed for high satisfaction of farmers regarding general aspects of RSK.

5.1.2 Technical information and extension activities organised by RSK

The Technical information and extension activities provided by RSK includes provides information on the selection of major crops, information for the new methods of crop production, information on marketing of agricultural produce, organizing preseasonal meetings, organizing method demonstrations and result demonstrations. The results presented in Table 2 indicated that majority of the respondents (73.33%) felt that technical information and extension activities provided by RSK is more useful, while 25.00 per cent of the respondents felt useful and remaining 1.66 per cent of the respondents felt less useful about technical information and extension activities of RSK .

The possible reasons could be, majority of the farmers used to visit regular to RSK and regular contact with RSK staff for getting latest agricultural information and technologies moreover the farmers had medium to high scientific orientation and innovativeproneness (results of the Table 5) and more number of farmers participated in extension activities. They were more interest to try new technologies and adopt package of practice to get more yield and income. These factors must have contributed for the above findings.

5.1.3 Services provided to farmers

The Services provided to farmers includes seed germination and seed vigour tests, soil test facility, fertilizer recommendation based on soil testing, publicity for agricultural programmes. The results presented in Table 2 indicated that majority of the respondents (75.00%) were felt more useful about services provided to farmers from RSK, while 24.16 per cent of the respondents were felt useful and remaining 0.83 per cent of the respondents were felt less useful about services provided to farmers from RSK

These services are provided at very nominal cost to help the farmers (Seed sample testing- 5.00 Rs per sample, Soil sample testing – 3.00 Rs per sample) to get higher yield. That's why majority of the farmers were availing all the facilities. Majority of the farmers were using RSKs facilities and they gets the inputs from RSK and also they purchase the materials from private agencies through RSKs. These aspects had greatly contributed for high level of satisfaction regarding services provided to farmers from RSK.

5.1.4. Records maintained in RSKs

It is observed that 95.00 per cent of the respondents were felt the records maintained and different teaching aids used in RSK were more systematic and only 5 .00 per cent of the respondents were less systematic about the records maintained and different teaching aids used in RSK (Table 2).

It is mandatory for every farmer to sign the attendance register as well as the demonstration register. While teaching aids were displayed in RSK. So as to attract farmers and give information in more convenient and easily understandable format to the farmers.

5.2 Over all Perception of farmers about functioning of RSKs.

The results presented in Table 3 indicated that majority of the respondents (71.66 %) were felt more effective towards functioning of RSKs, while 20.80 per cent of the respondents were felt effective and remaining 7.50 per cent of the respondents had less effective towards the functioning of RSKs..

The concept of RSK was started in Karnataka during 2000. One of the significant feature of RSK is that they are located at every hobli (sub-block) and this makes the farmers to be regular touch with the RSK and RSKs have taken up good publicity works to make the farmers to aware of the functioning aspects of RSKs. This could be the probable reasons for the above said results. These findings are in line with the results of Deepak (2003), Kiran (2007).

5.3 Perception of farmers about programmes of RSKs

The results presented Table 4 indicated that majority of the respondents (75.00 %) who were the beneficiaries of Suvarna Bhoomi Yojana Programme felt that the programme is more useful, followed by useful (17.50%) and less useful (7.50%). Most of all small and marginal farmers were the beneficiaries of Suvarna bhoomi yojana and they got benefits from this programme. Beneficiaries used to get more financial assistance (Rs 10000) for the cultivation of high value crops this aspect naturally attracted the farmers. This might be contributing factor for the above said findings. It is a newly implemented programme compared to NFSM and ISOPOM and also RSKs have taken up wide publicity works through print and electronic media and also through posters, wall paintings, campaigns etc., These aspects had greatly contributed for the above findings.

Similarly about NFSM programme, majority of the respondents (67.50%) were felt more useful, followed by useful (28.75 %) and less useful (3.75 %). About the ISOPOM programme majority of the respondents (66.25%) were felt more useful, followed by useful (32.50%) and less useful (1.25%). Most of the medium and big farmers were the beneficiaries of these programmes. The beneficiaries of NFSM used to get an incentive of 1000 Rs/quintal for the certified seed production and also helped to increase the income level of the farmers. With regard to ISOPOM programme had helped more number of farmers in increasing the production and productivity of rice, wheat and pulses. This might be the contributing factor for the above said findings.The findings are in line with the results of Deepak (2003) and Kiran (2007).

5.4 Factors influencing the perception of farmers regarding functioning of RSKs

5.4.1 Age

The result presented in Table 5 indicated that majority of the respondents (55.83%) were under middle age category usually farmers of middle age were enthusiastic and have more work efficiency than the older and younger ones. Further, individuals of 31 to 50 years of age group have more family responsibility than the younger ones.

The findings are in line with the results of Kikon (2010) and Naveen Kumar (2012).

5.4.2 Education

It is observed that 21.66 per cent of the respondents had studied upto primary level, followed by 14.16 per cent and 20.83 per cent of them with middle school level and high school level education respectively while 18.33 per cent of them had PUC level education and 11.66 per cent of them had college level education. Illiterates comprised of 13.33 per cent of the farmers and the respondents were found in all education levels (Table 5)

Comparatively more number of farmers were have primary school education, the reason could be attributed to the availability of free basic education and the educational infrastructure in the study area.

This situation might have arisen due to the poor education of parents to send their children to school and another reason could be the distance of good schools from the villages and financial conditions also might have prevented the parents from providing higher education to their children.

The findings are in line with the results of Amol (2006).

5.4.3. Land holding

It is witnessed from Table 5 that equal number of respondents (33.33%) belonged to small, medium, big land holding category respectively.

Equal number of farmers belongs to all the categories (small, medium and big) were selected for the study purpose.

5.4.4. Occupation

It is observed that all the respondents have their major occupation as agriculture, whereas 2.50 per cent of the respondents have dairy as their subsidiary occupation and another 1.66 per cent of respondents have petty shops as their subsidiary occupation, The respondents who visits RSK were farmers only (Table 5)

The findings are in line with the results of Chitra and Lalitha (2012).

5.4.5. Annual income

It could be observed that 37.50 per cent of the respondents belonged to high income category whereas, 32.50 and 30.00 per cent of the respondents belonged to medium and low income category respectively. The possible reason might be large land holdings and practice of income generating methods in farming and growing commercial crops. The existence of families with more number of earning members in different occupations might have also contributed for this kind of result. The findings are in line with the results of Suresh Kumar (2009).

5.4.6 Mass media exposure

Table 6 depicted the information regarding mass media used by the respondents. television were possessed by a very high majority (87.50 %) of the respondents of which 60.00 per cent of the respondents viewed agricultural programmes occasionally. Radio sets were possessed by 20.00 per cent of the respondents, of which 15.83 per cent of respondents used to listen agricultural programmes occasionally. In present days, radio and television have become more of necessary things rather than luxury things. At the same time radio and television are considered as essential source of information. The radio listening behaviour and television viewing behaviour when analyzed, it was noted that these were used mainly for purposes other than agriculture.

Table 6 further reported the use of print media by the respondents, where in 50.00 per cent of the respondents were subscribers of news paper, whereas 52.50 per cent of respondents reads agricultural news regularly The possible reason for this might be that the monotony in giving agricultural news and their lack of practicability and none of the respondents were subscribers of farm magazines and very few farmers were used to read farm magazines occasionally. The possible reason for this might be lack of time and interest, lack of practical applicability and monotonous agricultural information.

None of the respondents were using internet, the possible reason could be lack of computer literacy and lack of awareness and accessibility to the internet.

The results depicted in Table 6.1 revealed that, 44.16 per cent of the farmers belonged to medium mass media exposure category followed by low (28.33%) and high (27.50%) categories, respectively. The possible reasons are low level of awareness about farm magazines and power cut during the broadcast of agricultural programmes. The above finding got support from the studies of Hanumanaikar (1995), Patil (1995) and Sakharkar (1995) who reported that mass media was considered as credible source for information by majority of the respondents.

5.4.7. Organizational participation

The results of Table 7 indicated that 1.66 per cent of the respondents were members of co-operative societies and Taluk Agricultural Produce Marketing Committee and 0.83 per cent of the respondents were office bearers in Gram Panchayath, Taluk Panchayath and Taluk Agricultural Produce Marketing Committee respectively.

The results depicted in Table 7.1 revealed that, 55.00 per cent of the farmers belonged to medium organizational participation category followed by low (27.50%) and high (17.50%) categories respectively.

In general, the above trend was due to the fact that the co-operative societies provide fertilizers, pesticides and credit facilities to its members and office bearers. Further, the government encourages panchayaths the farmers themselves to unite and work for the right cause of the community.

5.4.8 Social participation

The results of the Table 8 indicated that only 1.66 per cent of the respondents were members of bhjan mandal and youth club respectively. respondents (0.83 %) were office bearers in youth club, self help group and bhajan mandal respectively.

From the Table 8.1, it is observed that majority (61.66 %) of the respondents belongs to low level of social participation followed by 30.00 and 8.33 per cent of respondents who belongs to medium and high levels of social participation, respectively. The families exposed to different social organizations could able to felt the importance of an organization like RSKs, which is meant for development of the farming community through agricultural development. In addition the personal attributes like the age, education and cosmopoliteness might have contributed for their medium social participation.

The findings are in line with the results of Thiranjanagowda (2005).

5.4.9. Extension contact

The data in Table 9 indicated that 69.16 per cent of the respondents contacted Agriculture officer and Assistant agriculture officer regularly, because Agriculture officer is a head of RSK and he meets farmers on their farm once in a fortnight as it is obligatory to him and in case of AAO he is a grass root level worker so he meets thefarmers frequently, while higher officers like Assistant Director of Agriculture (ADA) and Deputy Director of Agriculture (DDA) they are positioned at district head quarters. So they are being contacted by the farmers whenever problem occurred. The results depicted in Table 7.1 revealed that, 50 per cent of the farmers belonged to high extension contact category followed by low (43.33%) and medium (6.66%) categories respectively.

The data in Table 9 indicated that 55.00 per cent of the respondents contacted Extension Personnel of Private Input Agency regularly because these personnel available all the days including holidays and they stays in same village.

5.4.10. Frequency and purpose of visit to RSK

It could be observed that 60.83 per cent of the respondents used to visit RSK regularly during cropping season to get information related to agriculture and to purchase the chemicals, fertilizers, other crop production materials and suggestions which are important for crop production (Table 10)

Only few respondents (13.33%) visit the RSKs during off season to get information related to agriculture, during off season only beneficiaries of different programmes provided through RSKs are visits to RSKs.

5.4.11 Extension participation

From the Table 5, it is observed that majority (41.66 %) of the respondents comes under high level of Extension participation followed by 30 and 28.3 per cent of respondents who belonged medium and low levels of extension participation, respectively.

It could be observed from the findings that 58.33 per cent of the respondents comes under medium and low level of extension participation which may be due to lack of awareness about extension activities conducted in the area and attending other works which is more important than attending the extension activities.

The findings are in line with the results of Naveen Kumar (2012).

5.4.12 Cosmopoliteness

From the Table 5, it is observed that majority (42.50 %) of the respondents had medium level of cosmopoliteness followed by 32.50 and 25.00 per cent of respondents who had low and high levels of cosmopoliteness, respectively.

Cosmopoliteness is the degree to which a farmer is oriented outside his community to seek information. Majority were under medium level due to the fact that the cities/towns are nearer to the villages of the respondents and availability of good transportation.

The findings are in line with the results of Anitha (2004).

5.4.13 Scientific orientation

It was found from Table 5 that majority of the respondents (50.83%) belonged to medium scientific orientation category. While, 29.16 per cent and 20.00 per cent of the respondents had high and low scientific orientation, respectively.

It refers to the extent of use of scientific methods in each of his action. It is the foresight, logical thinking and rationality which helps the individual to understand the object. It might be due to the reason that, all respondents were well known about the benefits of new methods and technology.

The findings is in line with findings of Chandran (1997) and Sakharkar (1995).

5.4.14 Innovative proneness

It was evident from Table 5 that about half of the respondents (53.33%) were distributed in medium innovative proneness category while, 26.67 per cent and 20.00 per cent of the respondents had high and low innovative proneness categories.

This could be attributed to the medium level of education of the respondents which helped them to acquire new technology at their fields. Further, because of dry land farming, they might be interested to adopt new ideas to increase their income level.

The findings are in line with the results of Naveen Kumar (2012).

5.5 Association of personal characteristics with perception of farmers about the functioning of RSKs

It could be observed from Table 11 that, annual income, land holding, mass media participation, organizational participation, extension contact, frequency and purpose of visit to RSK, extension participation, cosmopoliteness, scientific orientation, innovative proneness were positively and significantly associated with perception of farmers regarding functioning of RSK.

5.5.1 Annual income and perception

The relationship between annual income and perception of respondents was found to be significant at 0.05 per cent level of probability. The possible reason might be that, the farmers having higher income can afford to take the risk of accepting the recommended practices irrespective of cost factor. So, as the income level of the respondents increased, the perception level also increased.

5.5.2. Land holding and perception

There is a significant relationship between land holding and perception. This might be due to the fact that sufficient resources available with the farmers might have motivated them to acquire the information about new technologies which are disseminated from the RSKs. The high land holding may enable the farmers to gain sufficient information on organizations like RSKs, which are working for the cause of agricultural development.

5.5.3. Mass media participation and perception

Mass media participation had highly significant and positive relationship with perception of the respondents. Exposure to different mass media sources like newspaper, radio and television might have helped the respondents to gain recent information. The advent of mass media provided enormous opportunities for farmers to expose to new technology and motivated them to take further interest to learn about them. Hence, those farmers who had higher exposure to mass media had exhibited higher perception.

5.5.4. Organizational participation and perception

Organizational participation had significant and positive relationship with perception of the respondents. When the farmers participated in the activities of village organizations like panchyaths and co-operatives etc., they might have come across the other organizations committed for agricultural development like RSKs. In addition, the various organization will also have close linkage with RSKs since they aim at providing information as well as ensuring supply of agricultural inputs.

5.5.5 Extension contact and perception

The study indicated that extension contact had significant relationship with perception of respondents. Repeated interaction of farmers with extension personnel of the organization act as a strong motivating factor. Regular contact of farmers with extension personnel helps them to gather more information to increase the production.

5.5.6 Frequency and purpose of visit to RSK and perception

The study indicated that frequency and purpose of visit to RSK to the respondents had significant relationship with perception of respondents. It might be due to nearer the RSKs, respondents will make frequent visits and all the respondents had discussed with the officials on various aspects of farming. In addition, the frequent visit and discussion will help the farmers to gain sufficient information on the functioning of RSKs.

5.5.7 Extension participation and perception

The study indicated that extension participation had significant relationship with perception of respondents. Participation of farmers in the extension activities may help them to understand the mandate of the organization conducting such activities. As a result it may widen the perception of the farmers about functioning of RSKs.

5.5.8 Cosmopoliteness and perception

The study indicated that cosmopoliteness of the respondents had significant relationship with perception of respondents. The frequent visit of the respondents to nearby towns help them to get the information about innovations and daily happenings. This might have helped the respondents to have information about RSKs.

5.5.9 Scientific orientation and perception

Scientific orientation was found to be positively and significantly related with the perception of respondents. This might be due to the fact that respondents with higher scientific orientation would try to gather more information which could be applied at the field level and also technical information helps in increasing production.

5.5.10 Innovative proneness and perception

Innovative proneness was found to be highly significant with perception of respondents. The interest and desire of the respondent to seek changes in existing farming systems specially in dryland areas predisposes them to seek more information and adopt new technologies. Because of the increased information seeking behaviour, the perception of farmers was highly significant association with innovative proneness.

5.6 Communication methods employed by the extension personnel for transfer of technology

Communication methods includes Individual contact methods, Group contact methods, Mass contact methods and Information communication technologies employed by extension personnel of RSK for transfer of technology.

5.6.1 Individual contact methods

Individual contact methods comprises of farm and home visits and telephone calls. The data in Table 12 indicated that majority of the extension personnel (69.57 %) made 11 to 20 farm and home visits in a month, followed by 30.43 per cent of the extension personnel made 1 to 10 visits in a month. This might be due to the fact that farm and home visit is an essential aspect of extension work. Extension personnel provide a means of inter personal communication in an environment where maters can be discussed keeping in view the individual needs, resources and limitation and 30.43 per cent of extension personnel made one to ten visits in a month it may be due to the difficulty of the extension personnel to meet all the farmers in different distance in a given period. This finding is in line with the findings of Natikar (1986).

From Table 12 it is observed that a majority (67.39 %) of extension personnel made 1 to 50 calls per month, 32.6 per cent of them made 51 to 100 calls per month for delivering the information. This might be due to the fact that as this is one of the easy method used to convey the messages to longer distance in a short period of time which will save the time of the extension personnel.

5.6.2 Group contact methods

Group contact methods include general meetings, group discussion meetings, result demonstrations and method demonstrations. Cent per cent of the extension personnel employed group contact methods, it is revealed that from Table 10 about 89.13 per cent of extension personnel conducted one to five general meetings, followed by 10.86 per cent conducted 6 to 10 general meetings in a month. This is one of the oldest most important method of extension teaching to create general awareness among people and general meetings may conducive to impart functional activities of RSKs and to gain rapport with the farming community.

From Table 12 we can conclude that majority of extension personnel (89.13%) were conducting one to ten group discussion meetings, followed by 10.86 per cent of them conducted 11 to 20 meetings in a month. This might be due to the fact that this helps the extension worker especially to present and discuss a particular idea or practice to group of people. Most of them covering the topics which are suitable to the farmers of that are depending upon their needs and the crops grown.

Results presented in Table 12 revealed that nearly half (47.82 %) of the extension personnel had conducted one to two method demonstrations in a season, around 30.44 per cent of the extension personnel had conducted three to four method demonstrations and 21.73 per cent of the extension personnel had conducted more than four method demonstrations in a season. The method demonstration is effective in imparting skill involved in practicing technology. The agricultural operations involve series of practices, which requires skill on the part of the farmers. However, it is also mandate of RSK to conduct two to three method demonstrations in a year. However, 30.44 per cent conducted method demonstration more than the target set.

Results presented in Table 12 revealed that majority (78.26 %) of the extension personnel had conducted one to two result demonstrations in a season, around 10.86 per cent of the extension personnel had conducted three to four and more than four method demonstrations in a season. The result demonstration requires full season. The resources required for laying the result demonstration is also very high. However, the benefit obtained by the result demonstration in conceiving the farmers about the applicability of the technology is very high. Hence the extension personnel might have conducted one to two result demonstrations in a season. This is the target set by the department. So majority he achieved the target set for conducting result demonstration.

5.6.3 Mass contact methods

Mass contact methods comprises of campaigns, field days, exhibition, training programmes, writing articles in news paper and farm magazines, radio talks and giving information through television. Among the mass contact methods only field days and exhibition were employed by cent per cent of extension personnel for transfer of technology.

From the Table 12 it is observed that majority of the extension personnel (56.52%) conducted the campaigns and remaining 39.13 per cent of the extension personnel had not conducted the campaigns.

The data in the Table 12 revealed that half of the extension personnel (50.00%) had conducted one to two campaign in a season, 6.52 per cent of the extension personnel were able to conduct three to four campaigns in a season. The campaign is an intensive extension method, which requires special skill on the part of the extension personnel. It also requires the entire community support and all the resources necessary for the campaign. It is also true that this cannot be conducted frequently because of the earlier factor discussed . similar results has been obtained by Sahana (2003).

The Table 12 showed that majority of the (39.13 %) extension personnel organized one to two and more than four field days in a season, remaining 21.73 per cent of the extension personnel conducted two to four field days in a season. This might be due to lack of facility given to RSKs to conduct field days, farmers were not that much enthusiastic in field days and hence poor participation of farmers was noticed. The findings is in line with the findings of Natikar (1983), Sahana (2003).

A glance at Table 12 reveals that majority (89.13 %) of the extension personnel had conducted one to two exhibitions, followed by two to four exhibition conducted by 10.86 per cent of extension personnel. Conducting an exhibition needs meticulous planning, involving the technologies to be dispersed, and appropriativeness to the region, the cost involved and the co-operation of the different organizations. It is also the fact that cannot be held frequently being of its cost and time.

However, the mandate of RSKs insists in conducting up to two exhibitions in a year this might be the reason for the above observed reason. Similar results has been obtained by Natikar(1983), Sahana(2003).

From the Table 12 we can conclude that majority of the extension personnel (67.39%) had conducted one to two training programmes, considerable number (21.73%) had conducted three to four training programmes and some of them (10.86%) had conducted more than four training programs. Normally pre seasonal training programmes will be held regularly to update the knowledge of the farmers. Hence this might have made the to conduct one to two training programme every year. Similar results have been obtained by Natikar(1983), Sahana(2003).

The Table 12 revealed that majority of the extension personnel (69.56%) were not writing any articles for news papers however, only 30.43 per cent were writing articles for news papers.

The Table 12 revealed that about 19.56 per cent of extension personnel wrote one to two articles for news papers in a year and 10.86 per cent of extension personnel writes more than four articles for news papers in a year. This might be due to their poor knowledge on the subject, lack of skill. Further, lack of training in making use of print media for dissemination.

Similar results have been obtained by Sahana(2003).

The Table 12 revealed that most of the extension personnel (78.26%) were not writing any articles for farm magazines however, some of them (21.73%) were writing articles for farm agazines.

The results of the Table 12 revealed that about 10.86 per cent of extension personnel writes three to four and more than four articles for farm magazines in a year. Majority of the farm magazines carry a new research findings generated and the extension personnel involved in disseminating the informations may not be competent enough to write scientific articles. Further the department is also not providing special training programmes on the art of writing. Similar results have been obtained by Sahana(2003).

Table 12 revealed that 32.6 per cent of the extension personnel were able to deliver radio talks on one or the other topics related to the field of agriculture. While a majority of the RSK officials (67.39%) were not able to deliver any of the radio talks related to the field of agriculture.

Table 12 further indicated considerable percentage (32.6 %) of them delivered one to two talks in radio in a year. Generally it is accepted practically that the subject matter specialists will be invited for delivering radio talks rather than extension personnel. Hence, the majority of extension personnel failed to deliver radio talks. RSK officials are not trained for for giving radio talks. This might be the reason for above findings

Table 12 revealed that considerable percentage (21.73%) of the extension personnel were participated in television programmes for providing information related to the field of agriculture. While a majority of the RSK officials (78.26%) were not participated in television programmes for providing information related to the field of agriculture.

The data in Table 12 revealed that 21.73 per cent of extension personnel had given one to two television programme to give information to farmers in a year. This might be due to the fact that usually higher officials attend TV showed and RSK officials were all grassroot level workers and they are only the field functionaries and lack of writing and presenting skills might be the reason for above findings.

5.6.4 Information Communication Technologies (ICTs)

Information Communication Technologies includes CD ROM/multimedia, internet. The Table 12 revealed that none of the extension personnel used ICT tools for transfer of technologies. The possible reasons could be lack of computer facility, computer illiteracy and poor infrastructure facilities for RSKs. This might be the possible reasons for above findings.

5.7 Suggestions of farmers to improve the functioning of RSKs

The Table 13 showed that the suggestions offered by farmers for the improvement of functioning of RSKs. Majority of the farmers suggested that RSKs should provide more market information (85%) , followed by subsidies for agricultural inputs should be increased (66.6%), extension personnel visits to farm should be increased(62.5%),required quantity and timely supply of inputs (58.33%), services provided to farmers for free of cost (30.00 %), more number of group discussion meetings, demonstrations (25%) and fair distribution of inputs (16.5%).

'Provide more market information' was also an important suggestion made by farmers. It brings the heard truth that farmers are not getting up-to-date market information. Possession of knowledge of market rates on day-to-day basis is a must, makes a reasonable profit. This necessitates for providing necessary infrastructure facilities and equipments to impart latest market rates to farmers. 'Subsidies for agricultural inputs should be increased' was also another suggestion made by farmers, the RSKs are ensuring the timely supply of inputs. Further, the subsidies provided by RSKs vary for different categories like SC/ST and other backward classes, but in general, farmers are facing lot of problems with the resources and high cost of inputs in market. Hence they might have suggested for increasing subsidies.

5.8 Suggestions of extension personnel to improve the functioning of RSKs

The Table 14 indicated that the suggestion offered by extension personnel for the improvement of functioning of RSKs. It can be observed that, increase the number of qualified staff working in RSK and need for own building of RSK with all the facilities was the main suggestions offered by 93.47 per cent of extension personnel, followed by godown facility (91.3%), computer facility and Provision of security for the godowns (89.13%), Number of villages in a hobli under operational jurisdiction of RSK should be equal (86.95%), Sufficient quantity of inputs should be available at RSK (76.08%).. Majority of the extension personnel gave suggestion for the increasing the staff of RSKs. The extension personnel working in RSKs need to cover entire hobli varies in geographical area, but acute shortage in staff in KSDA, less number of personnel were posted to each RSK and it is very difficult to cater to the needs of all sections of farming communities.

SUMMARY AND POLICY IMPLICATIONS

Agricultural extension is an important force in bringing agricultural change and development. Structural and functional change in agricultural extension service is unavoidable to meet the needs and challenges of 21st century. In the era of globalization and liberalization, it has made us to search the effective alternative approaches for public extension.

To address the needs and challenges of farmers in this globalization and liberalization era, there is a need for change over from commercial agriculture to sustainable agriculture. Specifically, competitiveness at the global level needs multiplying technological information inflow. In this climate, extension experts have suggested that, extension should be 'demand driven' and it should reduce the financial burden on government in the budget required for alternate extension that has come to vogue as Raitha Samparka Kendra's to meet the needs and challenges of future generation.

The Raitha Samparka Kendra's have been operating since last 13 years in all hoblis of Karnataka. Hence it is the high and right time to find out the perception of farmers towards Raitha Samparka Kendra's, so that the planners and executors can strengthen the programme effectively. Keeping this fact in view the present study entitled "A Study on perception of farmers about functioning of Raitha Samparka Kendras in Dharwad district of Karnataka." has been undertaken with the following specific objectives.

1. To assess the perception of farmers about functioning and programmes of RSKs.
2. To study the factors influencing the perception of farmers regarding functioning of RSKs.
3. To identify the communication methods employed by the extension personnel for transfer of technology.
4. To elicit the suggestions of farmers and extension personels to improve the functioning of RSKs.

Methodology

Ex-post-facto research design was used for conducting the study in Dharwad district of Karnataka. For this study 5 taluks comprising 2 RSKs in each of taluka will be selected as sample. Those are Dharwad, Garag, Hubli, Chabbi, Kalghatgi, Dummawad, Kundgol, Saunshi, Navalgund and Morab RSKs are selected randomly.

From each RSK, 12 farmers were selected in that four small, four medium and four big farmers were further classified among the 12 farmers from each RSK. Thus, the total number of farmer respondents were 120. The extension personnel of any cadre working in the ten selected RSKs were included to get the information related to communication pattern used by the extension personnel for transfer of technology.

The data were collected from farmers and extension personnel by personal interview with the help of structured interview schedule. Data were analyzed by using statistical methods viz, frequency, percentage, mean, standard deviation and correlation.

Major findings of the study

1. Majority of the respondents (71.66%) felt more effective while 20.80 and 7.50 per cent felt effective and less effective about the functioning of RSK.
2. It was observed that majority of the farmers (73.33%) felt general aspects of RSK were more useful.
3. It was observed that majority of the farmers (73.33%) felt that technical information & extension activities of RSKs are more useful.
4. It was observed that majority of the farmers (75.00%) felt services provided to farmers from RSK is more useful.
5. It was observed that majority of the farmers (95.00%) were records are more systematically maintained in RSK.
6. The study revealed that majority of the respondents (75.00 %) felt that Suvarna bhoomi yojane programme is more useful.
7. The study revealed that majority of the respondents (67.5 %) felt that NFSM programme is more useful.

8. The study revealed that majority of the respondents (66.25 %) felt that ISOPOM programme is more useful.
9. The study revealed that majority of the respondents (55.83%) were under middle age category followed by 32.5 per cent and 11.67 per cent of respondents who belonged to old age and young age categories, respectively.
10. Regarding education level, 21.66 per cent of the respondents had studied upto primary level and 20.83 per cent had studied upto high school level.
11. Thirty seven point five per cent of the respondents belonged to high annual income category.
12. All the respondents have their major occupation as agriculture, whereas 2.50 percent of the respondents have subsidiary occupation as dairy.
13. Regarding mass media participation majority of the respondents (87.50%) possessed television and radio sets (20.00%). In case of print media, 50.00 per cent respondents were subscribers of news papers.
14. Regarding organizational participation, 11.66 percent of the respondents were regularly attended the activities of TAPMC and 74.16 percent of the respondents were occasionally attended the activities of farmers co-operative societies.
15. Regarding social participation, (61.66%) of the respondents comes under low level followed by 30 and 8.3 per cent of respondents comes under medium and high levels of social participation, respectively.
16. Majority of the respondents 69.16 per cent of the respondents contacted Agriculture officer and Assistant Agriculture officer regularly.
17. Majority of the respondents (60.83%) visited RSK regularly during cropping season.
18. About 41.66 per cent of the respondents belonged to high level of extension participation whereas, 42.5 per cent,50.83 and 53.33 per cent of respondents belonged to medium cosmopoliteness, scientific orientation and innovative proneness categories, respectively.
19. Annual income, land holding, mass media exposure, organizational and social participation, extension contact, frequency of visit, extension participation, cosmopoliteness, scientific orientation, innovative proneness were found positive and significantly related with perception of farmers towards functioning of RSKs.
20. Majority suggestions given by farmers was RSKs should provide more market information (85.00%), subsidies for agricultural inputs should be increased (66.66%) and extension personnel visits to farm should be increased(62.50%).
21. Around 69.57 per cent of extension personnel made 11 to 20 farm and home visits in a month.
22. Extension personnel (67.39 %) made one to fifty calls per month for delivering the information.
23. About 89.13 percent of extension personnel conducted one to five general meetings.
24. Majority of extension personnel (89.13%) were conducting one to ten group discussion meetings in a month.
25. Around (47.82 %) of the extension personnel had conducted one to two method demonstrations in a season.
26. Around (78.26 %) of the extension personnel had conducted one to two result demonstrations in a season.
27. About 56.52 percent of the extension personnel had conducted the campaigns in which majority of the extension personnel (50.00%) had conducted one to two campaigns in a season.
28. Majority of the extension personnel (39.13 %) organized one to two and more than four field days in a season.
29. Around 89.13 per cent of the extension personnel had conducted one to two exhibitions in a season.
30. Majority of the extension personnel (67.39%) had conducted one to two training programs.

31. Least of the extension personnel (30.43%) were writing articles for news papers in which 19.56 per cent of extension personnel writes one to two articles for news papers in a year.
32. Some of the extension personnel (21.73%) were writing articles for farm magazines in which 10.86 percent of extension personnel writes three to four and more than four articles in a year.
33. Considerable percentage (32.6%) of the extension personnel were able to deliver radio talks on one or the other topics related to the field of agriculture. Whereas 32.6 percent of them delivered one to two talks in radio in a year.
34. Around 21.73 percent of the extension personnel were participated in television programmes, in which 21.73 percent of extension personnel had given one to two television programme to give information to farmers in a year.
35. Majority of the extension personnel (93.47%) suggest that the number of qualified staff working in RSKs should be increased and well equipped own building of RSK.

Implications

1. On the basis of the results obtained from the study and observations taken during investigation, the following implications have been derived for effective functioning of RSK.
2. Participation of farmers in the extension activities conducted by RSK viz., meetings, result demonstrations, method demonstrations is less. There is need to increase the farmers participation to derive maximum benefit from extension programmes by making activities and programmes more need based. This points, may be taken top priority by policy makers, administrators and RSK staff to motivate the farmers.
3. All though, RSKs officials were using most of the extension methods for transfer of technology, use of mass contact methods viz., radio, television, writing for news paper and farm magazines was found to be very less. There is need to equip the extension personnel with communication skills, specifically writing skills through regular trainings which can be taken care by Karnataka State Department of Agriculture (KSDA).
4. The characteristics of respondents like annual income, land holding, mass media exposure, organization participation, extension contact, frequency and purpose of visit to RSK, extension participation, cosmopoliteness, scientific orientation and innovativeproneness were significantly correlated with the perception level of the respondents towards functioning of RSK. So, there is need to more concentrate on these characteristics for motivating the farmers to improve their perception level for effectiveness of functioning of RSK.
5. Use of ICT tools by extension personnel almost nil. There is a strong need for RSKs to mould and adopt to emerging extension methods such as ICT enabled approaches to cater the needs of farmers and sustaining agriculture development in future. This may be accomplished through regular training to extension personnel by KSDA on application of ICT in transfer of technology.
6. In the era of market led extension, all the RSKs are need to equip with up to date market intelligence information to educate the farmers. This should be considered to top prime, since majority of the farmers indicated more market information as suggestion. RSKs are being used by the farmers more as a government retail outlet to buy agricultural inputs such as seeds and fertilizers. Further, the policies should focus on weaning away RSKs as selling points and develop them as information hub backed with adequate technical expertise.

Suggestions for further research

1. The present study was conducted with limited sample size. In order to derive wider generalization, a study could be conducted with large sample size.
2. The studies revealing impact on the adoption of technologies disseminated by RSKs.
3. The studies revealing impact of RSK on agricultural development programmes.

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Appendix I: Interview schedule

Perception of farmers about functioning of Raitha Samparka Kendras in Dharwad district of Karnataka

Date of survey conducted: Respondent .No:

PART - A

General information

1. Name of the village :
2. Name of Gram panchayath :
3. Name of the Taluk :
4. Place of RSK :
5. Number of villages covered by RSK :
6. Number of farmers visited to RSK :

PART - B

Personal characteristics of the farmer

1. Name of the farmer :

2. Age :

3. Sex : Male/Female

4. Education : Illiterate/ Primary school/ Middle school / High school/ PUC/ College

5. Occupation :

5.1 Major occupation:

Agriculture/Animal husbandry/Agricultural laborer/ Any other (specify)

5.2 Subsidiary occupation :

Diary/Poultry/Sheep and goat raring/Business/Sericulture/Agricultural laborer/Any other (specify)

7. Annual income (Rs) : Major occupation :_____

Subsidiary occupation: a. _____

b. _____

c. _____

8. Land holding (acres): Dry: _____ ,Irrigated : _____ , Total : _____

9. Mass media exposure:

Sl. No.	Medium	Subscriber/Owner		Listening/Viewing/Reading behavior		
		Yes	No	Regular	Occasional	Never
1	Radio					
2	Television					
3	Newspaper					
4	Farm Magazines					
5	Internet					
6	Any other					

8. Organizational participation :

Sl. No.	Organization	Member	Office bearer	Extent of participation		
				Regular	Occasional	Never
1	Gram panchayat					
2	Taluk Panchayat					
3	Zilla Panchayat					
4	Milk producers' co-operatives					
5	Taluk Agril. Produce Marketing Committee					
6	Farmers'co-operative society &					

8. Social participation :

Sl. No.	Organization	Member	Office bearer	Extent of participation		
				Regular	Occasional	Never
1	Youth club					
2	Self help group					
3	Mahila mandal					
4	Bhajan mandal					
5	Any other					

9. Extension contact :

Sl. No	Source	Frequency of contact			Purpose of contact	
		Regular	Occasional	Never	Agril.	Non-Agril
1	AAO					
2	AO					
3	ADA					
4	AHO					
5	ADH					
6	BDO					
7	UAS scientist					
8	Subject matter specialist					
9	Extension personnel of private input agencies					
10	Any other					

10. Frequency and purpose of visit to RSK:

Particulars	Frequency of contact			Purpose of contact	
	Regular	Occasional	Never	Agril.	Non-Agril
Visits/week during cropping season					
Visits/week during off-season					

11. Extension participation :

SL. NO.	Extension Activities	Details	Extent of participation		
			Regular	Occasional	Never
1	Krishimela				
2	Demonstration				
3	Trainings				
4	Field days				
5	Field visit				
6	Study/educational tour				
7	Campaign				
8	Exhibition				
9	Discussion meetings				
11	Any other				

12. Cosmopoliteness :

a. Distance to the nearest town (Taluk/hobli HQ) from the settlement/village:_____ Kms

b.

SL. NO	Statement	Response
1	How often you visit the nearest city/town?	a) Often (twice in a week) b) Sometimes (once in a week) c) Seldom (once in a month)
2	What is the purpose of such visits	a) In connection with the enterprise b) Relating to agriculture-input procurement -output sale c) Personal- domestic e) Other purpose
3	Whether you are member of any organization outside the village? Member/Office bearer	Yes/No.

13. Scientific orientation :

Sl. No.	Statements	Agree	Undeicided	Disagree
1	A farmer who is willing to take great risk than average farmer usually does better financially.			
2	It is better for a farmer not to try new farming methods unless most others have used them with success			
3	New methods of farming gives better results to the farmer than traditional farming			
4	The way our fore-fathers practiced agriculture is still the best way even today			
5	Though it takes time for a farmer to learn modern farming it is worth the efforts			
6	In order to have our lands productive and ecofriendly, the present system of farming needs to be modified.			
7	Even a farmer with lot of experience in traditional farming should use new methods of farming			
8	A good farmer experiments with new ideas in agriculture			
9	Traditional methods in farming have to be changed in order to raise the level of a farmer			

14. Innovative proneness :

Sl. No	Statements	Response	
		Most likely	Least likely
1	I try to keep myself up to date with information on new farm practices, but that does not mean that I try out all the new methods on my farm.		
2	Feel restless till I try out a new farm practice, I have heard about		
3	They talk of many farm practices these days, but who knows if they are better than the old ones		
4	From time to time I heard of several new farm practices and I have tried out most of them in the last few years		
5	I usually wait to see, what results my neighbours obtain before I try out the new farm practice		
6	Somehow I believe that a traditional way of farming is the best		
7	I am cautious about trying a new practice		
8	After all our forefathers were wise in their farming practices and I don't see any reason for changing these old methods		

PART – C

Perception of farmers about functioning and programmes of Raitha Samparka Kendras (RSKs)

Sl. No	Statements	Agree	Undecided	Disagree
A	**General aspects of RSK**			
1	The objectives of RSK are very much relevant to agriculture development providing updated information on crop production options, practices markets etc., and providing primary seed and soil testing facilities			
2	RSK is under administration control of Karnataka State Department of Agriculture(KSDA)			
3	The jurisdiction of RSK limited to hobli level catering to the needs of all the farmers of hobli			
4	Working hours of RSK (except sunday) helpful in getting required agril. Information			
5	Agriculture officer who is the head of RSK is always available for the guidance			
B	**Technical information and extension activities**			
1	Information on selling of major crops really helps farmer in increasing income			
2	Farmers used to get new methods of crop production from RSK			
3	Information provided by RSK on marketing of produces is useful to farmers			
4	Meetings organized by RSK helps in increasing the knowledge level of farmers			
5	RSK organizes the method demonstrations on new technologies for the benefit of farmers			
6	RSK arranges the Result demonstrations to show the value/worth of new technology to farmers			
C.	**Services provided to farmers**			
1	Seed germination and seed vigor test done by RSK for increasing the production			
2	Soil test facility provided by RSK help to maintain better soil health			
3	Fertilizer recommendation based on soil testing will increase the yield level of major crops			
4	Publicity given by RSK for agricultural programmes is helping farmers to get benefits			
5	Internet facility provided by RSK helped in getting market information i.Mention the agril. Websites you browsed at RSK:_____ _____			
6	Agricultural inputs like seeds, fertilizers, pesticides			

	etc., provided by RSK is useful in crop production			
E.	**Records maintained in RSKs**			
1	Information is displayed in the RSK through different teaching aids like Posters, charts, etc., maintained satisfactorially			
2	Records on various activities & beneficiaries were maintained by RSK			

PART – D

Perception of farmers about programmes of RSKs

Name of the Programme				
i. Suvarna bhoomi yojana				
Sl. No	**Statements**	**Agree**	**Undecided**	**Disagree**
a.	Good co-ordination among the agencies involved is useful in implementation of the programme			
b.	There was a proper training for the farmers under this programme is useful to farmers			
c.	Staff made every effort to motivate the farmers to adopt technology			
d.	There was a bias in selection of beneficiary			
e.	Whether Extension activities like meetings/ demonstrations were helped in creating awareness about latest technologies			
f.	Whether Extension activities like meetings/ demonstrations were helped in adoption of latest technologies			
g.	This programme was supported cultivation of high value crops			
h.	Farmer's should have less than 5 acres of dry land farm to get the benefits of this programme			
i.	Whether Financial assistance of Rs 10000 was provided to you for development of agriculture and for purchasing farm implements			
j.	Field days were organized under this programme			
k.	The programme has helped in improving the income level			
l.	Whether the programme has helped in increasing the productivity of the crops			
ii. National Food Security Mission				
a.	Good co-ordination among the agencies involved is useful in implementation of the programme			
b	There was a proper training for the farmers under this programme is useful to farmers			

c	Staff made every effort to motivate the farmers to adopt technology			
d	There was a bias in selection of beneficiary			
e	Whether Extension activities like meetings/ demonstrations were helped in creating awareness about latest technologies			
f	Whether Extension activities like meetings/ demonstrations were helped in adoption of latest technologies			
g	Wether programme has increased the production of crops (Rice, Wheat and Pulses)			
h	Incentive amount of Rs 1000 is provided for production of certified seeds / quintal			
i	The following services are given under subsidy(√) i. Rhizobium _____ Rs ii. Sprinkler irrigation components_____ Rs iii. Rotovator_____ RS iv. Plant protection chemicals and implements_____ Rs v. Threshing machine_____ Rs vi. Gypsum and other micro nutrients _____Rs vii. Pump sets_____ Rs viii. Irrigation pipes_____ Rs ix. Other farm implements _____ Rs			
j	This programme generated employment opportunities in rural areas			
k	The programme has helped to improve the income level			
l	The programme has helped in improving the income level			

iii. ISOPOM

a.	Good co-ordination among the agencies involved is useful in implementation of the programme			
b.	There was a proper training for the farmers under this programme is useful to farmers			
c.	Staff made every effort to motivate the farmers to adopt technology			
d.	There was a bias in selection of beneficiary			
e.	Whether Extension activities like meetings/ demonstrations were helped in creating awareness about latest technologies			

f.	Whether Extension activities like meetings/ demonstrations were helped in adoption of latest technologies			
g.	Whether demonstrations of Ground nut, Soyabean, Sorghum were organized in your field/village			
h.	The following services are given under subsidy(√) i. Plant protection chemicals and implements_____ Rs ii. Other farm implements _____ Rs iii. Micro nutrients _____ Rs iv. Bio fertilizers _____ Rs			
I	The programme has helped in improving the income level			
J	Whether the programme has helped in increasing the productivity of the crops			

Suggestions of farmers to improve the functioning of RSKs.

I. General aspects of RSK

1.
2.
3.
4.
5

II. Technical information

1.
2.
3.
4.
5.

III. Services & facilities provided to farmers

1.
2.
3.
4.
5.

PART – E

Communication methods employed by the extension personnel for transfer of technology.

I. General information

1. Name of the official :
2. Designation :
3. Name of the RSK :
4. Taluk :
5. Age :
6. Educational qualification :

II. **Communication methods employed by the extension personnel**

Please check with (√) mark against the extension method used by you to disseminate information and also provide the required information under each of the sub items.

1. Have you made any Farm and home visit? Yes/No
   If yes, Number of visit in a month _____
2. Did you receive or made any telephone calls? Yes/No
   If yes, No. of calls received during the month_____
   No. of calls made in a month_____
3. Did you conduct general meeting? Yes/No
   If yes, No. of general meetings in a month_____
   Subject matter covered_____
4. Did you conduct group discussion meetings? Yes/No
   If yes, No. of group discussion meeting in the month/year_____
   Name the topic on which you have conducted the group discussion meeting

a.
b.
c.

5. Have you taken up any Method Demonstration? Yes/No
   If yes, No. of demonstrations conducted in a month_____
   Name the demonstrations conducted & extent of coverage

a.
b.
c.

6. Have you taken up any result demonstration? Yes/No
   If yes, No. of demonstrations conducted in a month_____
   Name the demonstrations conducted &extent of coverage

a.
b.
c.

7. Have you taken up any campaign? Yes/No
   If yes, No. of campaigns arranged in a month_____
   On which area campaign was conducted

a.
b.
c.

8. Have you conducted any field days? Yes/No
   If yes, No. of field days conducted in a month_____
9. Have you conducted any exhibition? Yes/No
   If yes, No. of exhibition conducted in a month_____
10. Have you conducted any training programmes? Yes/No
    If yes, No. of trainings conducted in a month_____
11. Are you writing for newspaper about agriculture? Yes/No
    If yes, How many articles written for newspaper in the previous year_____
    Name any three topics

a.
b.
c.

12. Are you writing for farm magazines? Yes/No
If yes, How many articles written for farm magazines in the previous year_____
Name any three topics

a.
b.
c.

13. Are you giving radio talks on the aspect of agriculture? Yes/No
If yes, How many talks have been given to radio in the previous year_____
Name any three topics

a.
b.
c.

14. Are you providing information through television? Yes/No
If yes, How many times you have given information through television_____
Name any three topics

a.
b.

15. Have you used any ICT tools for transfer of technology? Yes/No
If yes, mention the ICT tools : a. _____

b. _____

c._____

Suggestions of extension personels to improve the functioning of RSKs.

I. General aspects of RSK

1.
2.
3.
4.
5

II. Technical information

1.
2.
3.
4.
5.

III. Services & facilities provided to farmers

1.
2.
3.
4.
5.

Appendix II: Abbreviations

AAO	Assistant Agriculture Officer
AO	Agriculture Officer
KSDA	Karnataka State Department of Agriculture
ISOPOM	Integrated Scheme for oilseed, pulses, oil palm and maize
NFSM	National Food Security Mission
RSK	Raitha Samparka Kendra

PERCEPTION OF FARMERS ABOUT FUNCTIONING OF RAITHA SAMPARKA KENDRAS IN DHARWAD DISTRICT OF KARNATAKA

AVINASH T. S. **2013** **Dr. K.A. JAHAGIRDAR**
Major advisor

ABSTRACT

A Study on “Perception of farmers about functioning of Raitha Samparka Kendras in Dharwad district of Karnataka” was undertaken during 2012-13 with a sample of 120 farmers. The data was collected by personal interview method using structured schedule to assess the perception of farmers regarding functioning and programmes of Raitha Samparka Kendras (RSK), socio-personal characteristics of farmers seeking information, communication methods employed by extension personnel working in RSKs. The data was analysed using statistical tools viz., frequency, percentage and correlation.

Majority of the respondents (71.60%) felt that the functioning of RSKs was ‘more effective, while 20.80 per cent of the respondents felt ‘effective’ and remaining 7.50 per cent of the respondents felt ‘less effective’. It was observed that majority of the farmers felt the functioning aspects of RSK like general aspects, technical information and extension activities organized by RSK and services provided to farmers were more useful. It was observed that majority of the farmers felt the programmes of RSK were more useful.

Whereas, majority of the respondents belonged to middle age (55.83%),high income category (37.50%), educated up to primary school level (21.66%). Majority of the farmers belonged to medium level category with respect to mass media exposure (44.16%), organizational participation (55.00%), cosmopoliteness (42.50%), scientific orientation (50.83%) and innovativeproneness (53.33%). With respect to communication methods cent percent of the extension personnel employed individual, group and mass contact methods for transfer of technology.

Annual income, land holding, mass media exposure, organizational participation, extension contact, frequency and purpose of visit, extension participation, cosmopoliteness, scientific orientation and innovative proneness were found to have positive and significant relationship with the perception of farmers on the functioning of RSKs.