

# **Assessment of Extension service by Agricultural Input agents**

**Jugamaya Gogoi**

**(14PEX001)**

*Thesis submitted to*

**Avinashilingam Institute for Home Science and Higher Education  
for Women, Coimbatore-641043**

**In partial fulfillment of requirements for the  
Degree of Master of Science in Extension and Communication**

**April 2016**

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*S. Kalaman*  
27.04.2016  
Signature of the  
Head of the Department

*Kristina Jeeva*  
27.4.2016  
Signature of the  
Supervisor

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## I. INTRODUCTION

*“I am all for industry,I am all for steel plants and their and that but it do say agriculture is far more important than any industry.”*

**Pt. Jawaharlal Nehru**

Agricultural sector contributes significantly to sustainable economic development of the country. The sustainable agriculture development of any country depends upon the judicious mix of their available natural resources. Therefore if agriculture goes wrong, it will be really bad for the economy as the falling of agricultural growth not only affects employment but GDP too (thus increasing poverty). The larger objective for the improvement of agriculture sector can be realized through rapid growth of agriculture which depends upon increasing the area of cultivation, cropping intensity, and productivity. But for a country like India, increasing productivity is more important than the rest of the two. This is simply because of increasing urbanization, industrialization and the limited land size of the country. (Ashok et al, 2012)

Agriculture, as the backbone of Indian economy, plays the most crucial role in the socioeconomic sphere of the country. Indian agriculture is a diverse and extensive sector involving a large number of actors. It has been one of the remarkable success stories of the post independence era through the association of Green Revolution technologies. The Green Revolution contributed to the Indian economy by providing food self-sufficiency and improved rural welfare. The role of National Agricultural Research System (the NARS) was imperative in the context of Green Revolution( Anweshha borthakur,et al,2012).

Over the years, because of its valuable contribution to agricultural development, extension services became a public sector responsibility. Past investments in extension have yielded high economic rates of return and are seen as one reason for good global performance in food production (Alex et al., 2002).

Agriculture usually refers to human activities, although it is also observed in certain species of ant, termite and ambrosia beetle. To practice agriculture means to use

natural resources to "produce commodities which maintain life, including food, fiber, forest products, horticultural crops, and their related services."(Muelle et al,2005, State of Maine,2013)

Agriculture plays a vital role in the Indian economy. Over 70 per cent of the rural households depend on agriculture. Agriculture is an important sector of Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population. Indian agriculture has registered impressive growth over last few decades. (Kekane,2013)

In developing countries the hastened growth in agricultural production depends on exploitation of the existing production potential as well as continuous raising of the potential through technological changes, which requires sustained and rapid growth in the use of agricultural inputs such as seeds, fertilizers, pesticide, farm implements, farm machinery etc (Desai, 1985).

Agricultural extension in India is in transition. After several years of neglect, public sector extension has been witnessing renewed interest and policy attention during the last few years. It is under pressure to reform its purpose as well as the way it is managed and is also being encouraged to work closely with extension providers from the private and voluntary sector. While the need for strengthening extension services and expanding its mandate is fairly recognized, the on-going reform process is yet to make a significant impact on improving extension's contribution to agricultural development. Development of agriculture continues to remain critical for India's economic growth and poverty reduction. Indian agriculture faces several challenges and agricultural extension services can and should contribute to addressing these challenges. However, to do this effectively, extension needs to address some of the challenges it faces currently and should reinvent its role and mission. (Sulaiman,2012)

Extension has also served as a link between farmers to transfer the "best practices" of one farmer to another, and as a channel to introduce – and sometimes enforce – agricultural policies. (Umali and Schwartz, 1994)

Extension services in India have traditionally been funded and delivered by government. Organized attempts in this direction started after the country became independent in 1947. Pre-Independence efforts had been largely local attempts, driven mainly by the humanitarian essays of a few individuals and organizations. Independent India acknowledged the relevance of extension quite early, a decade earlier than organized attempts to strengthen agricultural research were initiated in the country (Singh,2009).

Indian agriculture sector has an impressive long term record of taking the country out of serious food shortages despite rapid population increase, given its heavy reliance on the work of its pluralistic extension system (Suman,2014).

Agricultural extension services can potentially be provided by three main sources: the public sector, the private non-profit sector, and the private for-profit sector. The public sector includes ministries and departments of agriculture and agricultural research centers. The private non-profit sector includes local and international non-governmental organizations (NGOs), foundations, and community boards and associations, bilateral and multilateral aid projects, and other non-commercial associations. The private for-profit sector consists of commercial production and marketing firms (such as input manufacturers and distributors), commercial farmers or farmer group-operated enterprises where farmers are users and providers of agricultural information, agro-marketing and processing firms, trade association, and private consulting and media companies ([www.syngentafoundation.org.com](http://www.syngentafoundation.org.com)).

Extension has been put to serve production oriented programmes, area development initiatives, target group based service schemes, and largely as a technology delivery mechanism. In the process, simple purpose for which it is designed, namely “helping people to help themselves” by relating technologies to the needs and opportunities of the farmers have not been emphasized much.( Singh et al.,2009).

India is not alone in this predicament. Delivering meaningful extension is not easy. Farmers living in widely dispersed communities can be difficult to reach. Farmers’ information needs vary across locations, making extension challenging. Supply side

rationing may be a problem in the sense that there are likely to be too few extension agents relative to the number of farmers. On the demand side, self-selection on the part of larger, more commercial farmers may bias outcomes. Extension service budgets may be inadequate. Issues of motivation, competence, performance, and accountability of extension institutions and their agents may affect results (Anderson, 2007).

Agro-input dealers are sellers of agricultural inputs that include seeds, fertilizer, crop protection chemicals, farm equipment and machines, veterinary products and animal feeds. Agro-input dealers play a major role in ensuring that farmers access some of the important agricultural inputs required to improve agricultural productivity in their respective farms (Poullisse, 2007).

Most of the developing countries including India are experiencing paradigm shift from subsistence agriculture to commercialized agri-business under liberalization, globalization, and privatization era. Therefore, to make extension services more responsive to farmers there is need for choosing between best alternative and suitable ways under Liberalization, Privatization, and Globalization. Privatization of Agricultural Extension Services has become essential in our country to increase the competitiveness among service providers and in turn to give justice to our farmers. Nevertheless, at the same time, it requires great caution about problems and constraints emerging due to privatization. The extension service provided by small-scale Agri-business agencies has to be streamlined and monitored by proper legislation. (Ram Jiyawan et al(2009)

In the context of the present diversified as well as specialized farming community the agricultural sector has emerged as knowledge intensive society. To improve and sustain farm productivity farmers require information on new technologies, best practices, inputs and postharvest information related to marketing and prices. The traditional information broker between the farmer and some of this information has been the public-sector agricultural extension agent. But over the past few decades public sector extension has received much criticism due to limited reach and relevance and high cost of operation (Feder et al 2001, Anderson and Feder 2004)

Agricultural marketing is a dominant topic in the Indian marketing literature. The main focus is on marketing of agricultural produce and that of agricultural inputs like fertilizers, pesticides, seeds and farm machineries (Jha, 1998)

Their services to the farmers are in turn related to their retailing performance. So, it is necessary to identify the factors associated with the retailing performance of the input retailers for suitable intervention so that they can render better services to agricultural development. Although the role of input retailers are well studied, the correlations of retailing performance has been less addressed empirically (Jana, 2005).

The National Commission for Farmers noted that today the farmer depends for technical advice on the input dealer who sells seeds, pesticides and fertilizers. In many suicide hot spot areas the input dealer is also the money lender, the scientist, agricultural expert, counselor and buyer, all rolled into one (Anon 2006).

There are an estimated 282000 agri-input dealers in our country. They are pillars of their communities and have every interest to offer quality services. Farmers frequently receive advice from the input dealers of their respective locality (Ferroni and Zhou 2012).

The input supplier model is part of a paradigm shift to private sector extension approaches that was accelerated by the significant reduction in public spending due to structural adjustment. It forms part of the food enterprise approach to agriculture that seeks to utilize agriculture as the basis for economic growth by initiating a productivity revolution in smallholder farming (World Bank 2007).

## **FOCUS OF THE RESEARCH:**

The research has focused on various fields such as socio economic status of input agents, stress management, marketing system, Investment, training details, knowledge on computer, benefit received, knowledge on government scheme and policy, awards received, without any such topic involved the study wouldn't have been completed.

## **NEED FOR THE STUDY:**

Agricultural Input Dealers are very plays a very important role in India because our country is an agricultural nation. Need to build capacity of potential agro-input dealers to provide quality services to farmers by improving their knowledge on agro inputs and business management. Cooperatives should be trained on contracting and collective marketing as well as demand pooling of agro inputs. Strengthening capacities of existing and new private agro-dealers will enable them provide quality inputs and advice on their appropriate use, and thereby become agents that can transfer agricultural technologies. Nobody has done research on agricultural input dealers. Hence the study has been undertaken to know the situation of agricultural input agents.

## **OBJECTIVES:**

The present study was undertaken with the following objectives .The objectives are : to

1. Know the profile of agricultural input agents.
2. Assess the services rendered by the agricultural input agents and
3. Identify the challenges and constraint experienced by agricultural input agents.

## **SCOPE OF THE STUDY:**

In a fast developing country like India, the forces of commercialization, modernization and industrialization are actively operating and transforming the traditional modes of production into modern capitalistic agricultural input agents. This study will help to streamline strategies for the development of input agents. So it would be useful for planners, policy makers, extension specialists, administrators, sociologists, and welfare economists. The identification of different constraints at extension service through this study would help in finding remedial measures and overall development of Agricultural input agents in the country.

## **LIMITATION OF THE STUDY:**

This study limits to the geographically of two districts in the Tamil Nadu state. These districts namely seen are: Coimbatore and Erode.

- The input agents were busy with their work, it was difficult for the researcher to meet the respondents and collect information.
- Time duration to conduct the research was inadequate .
- Language was one of the barrier in collection of data because of researcher from another state.
- Lack of support, and motivation from the agricultural input agents.

## II. REVIEW OF LITERATURE

The literature pertaining to the study entitled “Assessment of Extension Service by Agricultural Input Agents” is reviewed under the following heading:

- A. Concept and Importance of extension service and agricultural input agents.
- B. Policies and Programme for extension service and agricultural input agents.
- C. Related Research Studies.

### **A. Concept and meaning of extension service and agricultural input agents:**

The evolution of agricultural extension system in India has a long history. It's contribution to productivity enhancement during the green revolution era has been well documented. During this period, the public extension system played the key role in conducting field demonstrations of high-yielding varieties and improving the input delivery that ensured timely availability of quality seeds, fertilizers, and agricultural chemicals at affordable prices. Along with extension services, the price policy and procurement support through public agencies provided additional encouragement to the farmers for adoption of high yielding varieties in the 1960s and 1970s. By the end of 1970s, the green revolution type of extension system had largely achieved its major goal of increasing the area under high-yielding varieties (Ameur, 1994).

Extension services may be loosely defined as including all activities involved in the exchange of information relevant to agricultural and livestock production, processing and marketing. the word "extension" has been criticized as inherently emphasizing the "top-down" dissemination of information while ignoring other types of information flow between farmers, extension and research – particularly activities that involve farmers as equal partners in the process. (Lisa a schwartz, july 1994).

According to Burton, (1997) the first agricultural extension service of a modern kind came into existence as the result of a crisis and the initiative of the occupant of a high office of authority.

India is in process of transforming its agricultural extension and technology transfer systems to become more demand-driven and responsive to farmers' needs. There is need to develop skill and knowledge on scientific agriculture. Its wide extension system could be visualized through these facts India has second largest extension system in the world in terms of professional and technical staff. More than 90,000 technical personnel constitute its extension system (Brewer, 2000).

Rajasree expressed that (2005) agricultural extension a system where people are motivated through a proper approach to help them by applying science in their daily lives in farming, home making, and community living plays a pivotal role in the community development. It is a two-way channel that brings scientific information to village people and takes their problems to scientific institutes for solution. In India, as in many other developing countries, the task of extension goes beyond an educational role, dealing with the human resource development of its clients.

NASEP (2007) stated that the extension services play a key role in sharing agricultural knowledge, technologies, information and also linking the farmer to other sectors of the economy the extension service is one of the critical change agents required for the transformation of subsistence farming to modern and commercial agriculture.

According to Programme Commission (2008) extension in India has a mixed record. the literature rightly recognize its role in promoting productivity ,sustainable resource use and agricultural development (Singh).But public provision has overall fallen short of expectations, links between research extension and farmers are seen to be inadequate and un coordinated effort a bowed.

Anandajaya et al. (2008) stated that historically, agricultural service delivery in developing countries started with production-oriented limited extension services for export crops. The attention was diverted in the fifties to food production and improved farming techniques.

Dragic(2009) viewed that extension service in agriculture is indispensable and it offers more than just expert assistance in improvement of production and processing, it also enables flow of information and transfer of knowledge and scientific findings to practice. These activities are performed according to rules which regulate establishing of organization, functioning, goals, and fields of operation, ways to execute extension activities by the extension agent, their obligations, and rights.

Singh et al, (2009) opined that extension services in India have traditionally been funded and delivered by government. Organized attempts in this direction started after the country became independent in 1947. Pre-independence efforts had been largely local attempts, driven mainly by the humanitarian essays of a few individuals and organizations. These were area-specific and had limited impact. Independent India acknowledged the relevance of extension quite early, a decade earlier than organized attempts to strengthen agricultural research were initiated in the country.

The extension services can play a crucial role in providing information on sustainable agricultural education. Thus, the role of extension is very important to support sustainable agriculture which is moving from production to a wider set of sustainability (Salem, 1994). Proper management of information sets a foundation for the delivery of efficient and effective extension services by providing accurate information to those who need it, when they need it. Therefore, identifying extension organizational characteristics of supporting agriculture is one of the major approaches needs to be carefully thought and accurately implemented for the extension system development. Also, measuring attitudes of farmers towards the extension services they receive is crucial in providing sustainable agricultural extension services. Another important issue includes increase in farmer participation in sustainable agricultural development programs and agricultural extension services, decentralizing from activities and facilitating to apply local groups are the most important approaches for agricultural extension in future (Allahyari, 2009). Financial, social, human and organizational sustainability should be achieved over time and policies that provide affordable access to information need to be carefully identified and examined (Hosseini et al., 2009).

Sygenta (2010) stated that agricultural extension is believed to be an indispensable pillar both for rural community progress and as part of a strategy of agricultural development for improving the sustainability of farming systems, promoting agricultural diversification, and integrating farmers into dynamic markets. agricultural extension system play multipurpose role with the provision of need-based and demand-based knowledge with agronomic techniques in a systematic means so as to improve production, income, rural populations' welfare and to mitigate their problems. Furthermore, the agriculture services assist and establish the capacity building of smallholder farmers through target-oriented training and building working human relation with farmers the first agricultural extension service is a modern kind came into existence as the result of a crisis and the initiative of the occupant of a light office of authority.

Performance of extension agents is expected to increase if they have program development competencies and to keep extension agents competent and to further improve their performance, these competencies must be considered and upgraded and continuous assessment of extension agents' competencies and performance is recommended (Tiraieyari et al., 2010).

Shekara et al., (2011) opinioned that in India, there is need for revitalization of extension system in the country to address these issues, providing value added extension services to the farmer through additional qualified main power and adequate infrastructure.

Arokoyo and Jirli(2005,2011) explained that agricultural extension services provide critical access to knowledge, information and technology that farmers require to improve productivity, thus increasing incomes and improving livelihoods. It is therefore crucial that farmers are provided with accurate knowledge and information in a timely manner.

The effectiveness of extension services is also highly dependent on the ability of extension workers who are competent as the whole extension process is dependent on them to transfer information from extension organizations to the clients. (Ali, Ebraheem,2012)

According to Suman (2014) agricultural extension in India has grown over last six decades. It is supported and funded by the national government through its ministry of agriculture (moa) and other allied ministries. The share of agriculture in Gross Domestic Product (GDP) has declined from over half at the time of independence to less than one fifth. Indian agriculture sector has an impressive long term record of taking the country out of serious food shortages despite rapid population increase, given its heavy reliance on the work of its pluralistic extension system.

According to Venkates (2014) the institutional change in input and service delivery is vital for the development of smallholder agriculture. During the past one decade or so, the government has taken a series of policy reforms for better availability of inputs by improving factor markets.

Anirba indicated (2015) agriculture extension service in India is concerned mainly with transfer of technology based on advisory services to the farmers. Education and services are two parallel are necessary for structural and functional stability .If one become weak system will collapse.

Stresses that agricultural inputs are at the heart of rural marketing and rural development. They support farm production which is the source of income for a very large part of rural population and create market for other consumable and durable products in rural areas.( Sukhpal singh,2004).

Sanchez and Jama(2002) narrated that limited access to necessary agro-inputs has been the main cause of low agricultural productivity and the overall poor economic growth and development in most parts of sub-saharan Africa.

In more advanced markets agro-dealers may serve as an important source of information that is useful from both a commercial and policy perspective (Allgood 2011).

Impact of different input and service delivery systems on farmers' welfare. This may be assessed focusing on efficiency (increase or decrease in costs, prices associated with search of inputs and services, production costs, output prices; timeliness, quality and adequacy of inputs and services); and equity in terms of participation of small-scale producers and gender parity. (Agricultural Economics Research Association of India ,2012)

Isherwood (2004) stated that the agro-input dealers, however, still lack business support and hence still encounter various business constraints relating to high transportation costs, low effective demand, lack of appropriate market information, lack of storage facilities and limited skills and knowledge.

According to Anirban Mukherjee(2015),Private extension service can be successful even in resource poor areas provided appropriate technologies along with integrated extension service including marketing facilities are available. But the private agencies, when they have their own marketable agricultural inputs are desperate enough to convince the farmers so that they use only those products. The situation fools the farmers and compels them to be irrational in the choice of products such as fertilizers and chemicals as well as their use in non-judicious manner, so much so that it raises health hazards and environmental issues.

The Indian government has launched an ambitious initiative to encourage private extension with the ministry of agriculture and the national bank (NABARD). Graduates are being trained to become agripreneurs' and on completion of their courses they receive a loan to establish an 'agriclinic' or 'agribusiness centre'. Farmers are expected to pay a fee for their services and the agri-preneurs are expected to identify the demand for a broad range of services from soil testing to advice on organic production and food processing. So far 112 businesses have been set up in 10 states and it is intended that the new services will provide specialist advice that may be beyond the scope of the service presently offered to farmers through public extension (Shekara and charyulu, 2002).

Private extension services are provided through farmers' unions and organizations, NGOs and through input supply and marketing companies. Many extension organizations have a narrow view of extension and they see it as a process of supplying information to farmers on demand, and of introducing technical changes in agriculture, which they consider to be desirable, rather than one of promoting farmers' development and independence (Van Den Ban and Hawkins, 1998). But the role of extension is much wider as extension needs to teach farmers management and decision making skills, help rural people develop leadership and organizational skills enabling them to organize better, operate and or participate in co-operative credit societies and other support organizations, as well as to participate more fully in the development of their local communities (Swanson and Clarr, 1984). Over the last few decades, there has been an increasing realization of the importance of tasks such as community mobilization, conflict management, problem solving, education and human development and the need for extension staff to acquire social science skills to perform these tasks (Van Beek, 1997; Farrington *et al*, 1998; Sulaiman and van den ban, 2000). Apart from advice and information on production technologies, farmers need a wide range of services, with improved access to markets, research, credit, infrastructure and business development services, and extension has to engage with these emerging demands (Sulaiman and Hall, 2002; Katz, 2002).

Privatization of agricultural extension system should not be seen as an alternative to public extension system. It can get a greater success in the areas of hi-tech and commercial aspects. The infrastructure and the extension already available should be strategically deployed to improve the efficiency of the public extension system. Private extension systems should play a complementary role so that all farmers get required support at right time in the right form. Due attention needs to be given to the challenges that have been mentioned for reaping the results of privatization of agricultural extension. Privatization should not be recommended for all the extension services and practices (kaur, 2014).

The public extension system generally perceived as an agency for technology transfer, training, increasing income of the farm family through timely supply and

services which in turn increases the nation's food grain production and also it act as a two way channel through which it brings farmers problems', needs to the research system (feedback) for finding solution and developing appropriate technology for the farming community. (Saravanan,2010)

Public extension has a long and distinguished history in India going back to the pre-independence and the pre-green revolution eras. Extension went through distinctive stages over time, evolving with national priorities (Singh and Swanson, 2006).

According to Poulisse, (2007) Agro-input dealers are sellers of agricultural inputs that include seeds, fertilizer, crop protection chemicals, farm equipment and machines, veterinary products and animal feeds. Agro-input dealers play a major role in ensuring that farmers access some of the important agricultural inputs required to improve agricultural productivity in their respective farms

Their services to the farmers are in turn related to their retailing performance. So, it is necessary to identify the factors associated with the retailing performance of the input retailers for suitable intervention so that they can render better services to agricultural development. Although the role of input retailers are well studied, the correlations of retailing performance has been less addressed empirically (Jana, 2005).

The farm input dealers generally faced some major business constraint including high transport cost due to poor infrastructure, lack of marketing information, lack of storage facilities and limited business skill and knowledge(Jones et al,2008).

The poor domestic infrastructure and limited access to agricultural credit(including seasonal credit) also undermine the effect and equitable participation in agricultural inputs trades(Sanchez,2005).

The structure of farm inputs and services market are imperfect competition monopolistic in nature in the country. Marketing channels includes a set of activities which are necessary to transfer the ownership of goods from the production place to

consumption and these consists of all the agencies and all the marketing process. The problem of poor communications, inadequate transport systems and lack of competition among traders generally result in high costs and delivery problems for farm input such as seeds, fertilizer and agro chemicals, and support services such as animal health care and extension advice. In the past these service were providing through the ministry of agriculture but quality and standard of the study of the service providing has always been open of criticism and subject to policy constraint.(Kimana,2009).

The Indian agriculture is at the crossroads today. Its strength to alleviate poverty and hunger is well-recognized, yet, the agricultural growth rate in the past 20 years has been visibly less impressive, and the productivity in the agricultural sector continues to below compare to the international standards. While investments in research and extension have increased in recent years, their impact on smallholder farmers' livelihoods remains debatable. Even when these investments may address relevant problems of the farmers, the benefits of improved technologies will not fully accrue to the farmers. The yield gap between research stations and farmers' field remains high. For translating research results into tangible gains at farm-level, well-functioning agricultural extension and advisory services are required. (Babu et al,2013).

Agro-input dealers play a significant role of bringing the inputs close to the farmers (Chianu, 2008). The agro-input dealers play a vital role in guaranteeing that farmers have access to some of the essential agricultural inputs that contribute to boosting the agricultural productivity (Ayieko, 2006).

Most of the agro-input dealers however still lack business support and hence still encounter various business constraints relating to high transportation cost, low effective demand, lack of appropriate market information, lack of storage facilities and limited skills and knowledge (Isherwood, 2004). The high transportation costs can be attributed to the long distances covered to source the inputs (Chianu et al, 2008).

According to Chandra-shekara(2005) the most simple is when private input supply companies provide technical information to farmers when they purchase their product.

As a part of private sector extension, input dealer and traders have been trained to provide business advice through its agropreneurial programme.

Agricultural extension service providers can meet this challenge. Capacities are limited in terms of human resources, effectiveness of organizations, funding and, most importantly, leadership and direction.( Berthe,2015).

According to the world bank, there are more than 1 million agricultural extension workers in developing countries, and public agencies have spent over \$10 billion dollars on public extension programs in the past five decades (Feder (2005)). The traditional extension model, “training, and visit” extension has been promoted by the world bank throughout the developing world and is generally characterized by government-employed extension agents visiting farmers individually or in groups to demonstrate agricultural best practices (Anderson And Birner (2007)).

There are an estimated 282000 agri-input dealers in our country. They are pillars of their communities and have every interest to offer quality services. Farmers frequently receive advice from the input dealers of their respective locality (Ferroni and Zhou 2012)

## **B.Programme and policies for extension service and input agents:**

In Asia, the agricultural input sector, including seeds, fertilizers, pesticides, feed and tools sold at retail shops, has been adversely affected by many factors. These include problems of under-supply, insufficient government support, poor infrastructure and distribution systems, limited credit access, bad repayment records, and lack of subsidies. In many cases the result has been an imbalanced use of fertilizers, improper handling and incorrect use of most inputs.(Food and Agriculture Organization of the United Nation,1998)

### **DAESI:**

Agri-input dealers in the country are a prime source of farm information to the farming community, besides the supply of inputs and credit. However, majority of these dealers do not have formal agricultural education. in order to build their technical competency in agriculture and to facilitate them to serve the farmers better and to act as

para – extension professionals, national institute of agricultural extension management (manage) has launched a self-financed “one-year Diploma In Agricultural Extension Services For Input Dealers (DAESI) program” during the year 2003 with a course fee of Rs. 20, 000/- to the input dealers. Due to positive impact of the program, ministry of agriculture & farmers’ welfare, government of India has decided to implement this program for input dealers in all the states of the country.(National Institute of agricultural extension management,2005)

### **MANAGE:**

Manage has started a diploma course for private input providers. The diploma covers four modules: agronomy, extension and communication methods, individual and business development, and laws related to seeds, fertilizers, agro chemicals and consumer protection. A list of trained input dealers by district is available on the manage website. the diploma course on agricultural extension for input dealers is imparted through distance education mode with the goal to qualify private, local agricultural input dealer to provide advice on local crop production and protection technologies (MANAGE, 2012; Ferroni et al. (2011)).

### **KVK:**

Krishi Vigyan Kendras (farm science centre) are the institutionalized link between research and extension. They operate at district level and are funded by the ICAR, universities, NGOs and the state line department of agriculture. Their mandate includes promotion of locally adapted technologies through on-farm trials, demonstrations, and training. in 2015, 641 KVKs are operational throughout the country, and the number is expected to increase to 751 (Aesa: 2015)

Support private sector involvement in agricultural extension. Both the DASP and NATP initiatives emphasized the importance of private-sector involvement in the area of technology development and technology dissemination. Recent government programmes also work towards more private sector participation. However, yet most of these government initiatives focus on public sector only. (Sulaiman: 2015)

In India, there are about 2.82 lakh practicing agri-input dealers, who are the prime source of farm information to the farming community. The first contact point for majority of farmers is the agri-input dealer. While purchasing different inputs required for farming operations, the farmer naturally tries to find out from the input dealer about the usage of inputs, both in terms of quality and quantity. The national institute of agriculture extension management (MANAGE) had designed a one-year diploma course titled ‘diploma in agricultural extension services for input dealers (DAESI)’, which imparts relevant and location-specific agricultural education to equip these input dealers with sufficient knowledge to transform them into Para-extension professionals so as to enable them to address the day-to-day problems being faced by the farmers at field level (Ministry Of Agriculture,2014).

#### **ATMA:**

Extension reforms was a major intervention in overhauling the extension system for making it farmer driven and farmer accountable through process and institutional reforms mechanism in the form of Agricultural Technology Management Agency (ATMA) at district level. It operationalises the extension reforms with focus on reforming public sector extension, decentralized decision making, farming systems approach, bottom-up planning, group approach in extension, promoting private sector, augmenting media & information technology, mainstreaming gender and capacity building of various stakeholders. Commitment to promote public-private partnership in agricultural extension management is demonstrated by reserving minimum 10 percent of the funds. Similarly, considering the need for gender concerns to be mainstreamed in agricultural extension, minimum 30% of resources on programs and activities are earmarked for women farmers. atma promotes an active participation of farmers / farmer groups, Ngos, Krishi Vigyan kendras, panchayati raj institutions and other stakeholders operating at district level and below. In addition to support to state extension programmes for extension reforms, the department of agriculture & cooperation (dac) has initiated number of schemes to revitalize the agricultural extension system in the 5 country, duly incorporating the elements needed for reforms. these schemes are mass media support to agricultural extension — utilizing infrastructure of Doordarshan and All India Radio; Kisan Call Centres — for providing

agricultural information through toll free telephone lines; establishment of agri-clinics and agri-business centers by providing self-employment opportunities for professionally qualified agricultural graduates facilitating delivery of value added extension services and finally extension support to central institutions.(Working Group On Agricultural Extension Constituted,2007)

Private Para extension service providers should be integrated into the extension system including agripreneurs under ACABC scheme (currently about 11000, 2000 added every year which takes the total to about 21000 by the end of 12th plan) and input dealers possessing diploma in agricultural extension services (DAESI) - about 12000 trained per year and 60000 by the end of 12th plan. (Government of India Planning Commission, Twelfth Five Year Plan (2012-17))

The farmers buy such inputs in their locality more often from private traders like input retailers than government agencies (Mitra, 1999).

### **C. Related Research Studies:**

Aderibigbe S. Olomola, (2014) was conducted “Determinants Of Agro-Dealers’ Participation In The Loan Market In Nigeria” the study employed primary data collected between february and june, 2013 through well structured questionnaires from a cross-section of agro-dealers in all the six geo-political zones of the country. The six states covered are Sokoto (north-west), Bauchi (north-east), Benue (north-central), Ogun (south-west), Ebonyi (south-east) and cross river (south-south). Lists of agro-dealers were obtained from the relevant agro-dealer registration units of the ministry of agriculture and natural resources and the Agricultural Development Project (ADP) in each of the states. A random sample of 50 agro-dealers was selected to give a total of 300 agro-dealers included in the study. The data were collected by trained enumerators. The questionnaire was designed to elicit information on key areas of agro-dealership such as business activities, operational costs and main constraints, sale of agro-inputs, sources of finance, demand for loan as well as the socio-economic characteristics of the agro-dealers. The selected agro-dealer enterprises were traced to a total of 100 towns across the states included in the study. This study sought to examine the constraints and opportunities for agro-dealership financing in Nigeria, analyze the business operations

of agro-dealers and ascertain the factors influencing their participation in the loan market especially their borrowing decisions and determinants of loan demand. This is with a view to proffering policy measures for improved agro-dealership financing for effective input distribution under the agricultural transformation agenda in the country.

Dinesh et al (2013) was conducted the study on “Assessing The Training Needs Of Agricultural Extension Workers About Organic Farming In The North-Western Himalayas” agricultural extension organizations worldwide face challenges of professional competence among their employees. Planning, training and management of human resources within extension organizations are essential to increase the capabilities and overall effectiveness of extension personnel. The study interviewed 144 extension worker randomly selected across the study area. This paper examines the training needs of agricultural extension workers in the state of Himachal Pradesh, India, regarding organic farming. Random sampling was used to select 65 extension personnel of the Himachal Pradesh State Department of Agriculture (HPSDA) from within ten districts of the state. The data are self reported scores collected with a structured instrument in which ten aspects of organic farming were addressed. the results revealed that the majority of extension workers reported medium to high training needs in seven specific areas: biodynamic farming, home farming, bio-rational pest management techniques, biological methods of pest control, bio-fertilizer technology, record keeping/certification standards, and grading/packing and marketing of organic produce. The majority of extension workers reported low or no training needs in the areas of composting/vermin composting, green manuring/green leaf manuring, and crop rotations. There was no significant relationship between age, educational qualifications, or service experience with identified training needs. To achieve the potential for the uptake and successful implementation of organic farming amongst himachal pradesh farmers, the training of HPSDA agricultural extension workers could concentrate on improving their knowledge in the seven identified areas of organic farming skills.

Mirani and Memon(2009) was conducted a study on ”Farmers’ Assessment Of The Farm Advisory Services Of Public And Private Agricultural Extension In Hyderabad District, Sindh” the research work was carried out in Hyderabad district of

Sindh. It was designed to assess the performance of farm advisory services of agricultural extension and pesticide/fertilizer companies. The most important finding of the study was the fact that farmers were not receiving new agricultural information from agricultural extension as most of the farmers were not visited. This entails the fact that farmers are not alone responsible for non-adoption of improved practices. Pesticide/fertilizer agents were viewed as effective in transferring messages, however, they were limited to their product sales since they have the task to achieve targets rather farmers' development. Agricultural suppliers/ dealers of the pesticide/fertilizer product sales were the most influential persons of the area as indicated by the farmers. Agricultural supplier/dealer makes all the decisions of the farmers regarding the use of pesticide/fertilize and/or seeds and other related inputs/products available in the market. Farm visits and result and method demonstration methods of technology transfer were perceived as effective methods of technology transfer. Farmers were able to increase the yields of their farm produce. According to the researcher the picture says that there is yield gap between the potential yield obtained by research scientists and yield obtained by the farmers. Farmers were of the opinion that both public and private extension should increase their timely visits. Farmers also suggest that they should be encouraged to attend seminars and workshops.

Gunawardana and Sharma(2007)carried out a study ” Personal Characteristics of Farmers Affecting the Information Seeking Behavior on Improved Agricultural Practices in Udaipur District Rajasthan, India” farmers use may information service and channels for seeking agricultural information on improved farm practices. They may come across large number of information sources and channels but pursue only few of them .the specific objectives of the study war to investigate the preferential agricultural information sources and channels of farmers for information seeking. The study was carried out in purposively selected Panchayat Samities ,Bhinder And Dhariyawad of Udaipur District In Rajasthan .from selected two panchyat samities ,three villagers from each panchayat samiti were chosen on the basis of maximum area under cultivation of their important crops is wheat, maize and gram . A sample of 120 respondents was drawn randomly and data were collected by personal contact using a specially designed questionnaire. Agriculture supervisor and input dealers were the

most preferred respondent radio, news paper, and television were the most utilized impersonal cosmopolite channels. It is suggested to establish a well equipped agriculture information center in the preises of Kisan Sewa Kandra to provide necessary information to tribal non tribal farmers in the area and to arrange media. From group to discuss the content of radio/television agricultural programmes which would enable effective transfer of new technologies. The results of the study will be used to planners, researchers and extension workers as it will enable them to use right method, at right time in proper way which will lead to more adoption of improved agricultural practices by the ultimate users i.e. various categories of farmers. Personal characteristics like type of the family, size of the family and age are not associated with the information seeking behavior of farmers on improved farm practices. But personal characteristics like level of education, level of extension contacts and size of land holding are associated with the information seeking behavior of farmers on improved farm practices.

Parthasarathi Senapati(2008) carried out study on “A Study Of Agricultural Inputs Marketing In India” conducted a study on ”a study of agricultural inputs marketing in India” the general objective of the study is to evaluate the marketing agricultural inputs in country and to reveal the current structure of agricultural inputs marketing system and distribution. Further, the study also focuses on the difficulties and challenges faced by farmers, input dealer in the farm inputs and service sector. The study employed primary data collected through structured questionnaires from 200 agro-dealers. Agriculture has been the backbone of the India' economic system. It is the main source of economic livelihood for the majority of population of our country .The focus of the current agricultural policy of the country is to increase agricultural productivity. This will help in alleviating poverty in the country and sustaining employment in the sector. Agricultural inputs and related services are the basic requirements for agricultural sector. Raising the productivity of the crops, vegetables, and livestock depends on the quality farm inputs and services. Agribusiness is expected to be booming sector in the next decades. This study is relies on the information and data collected from most of farmers and agri-input dealers are experiencing difficulties in accessing and supplying the agricultural inputs. The constraint faced by farmers in

accessing the farm inputs are mainly due poor distribution system in country. The timely availability of farm inputs and service is very much required if we want higher agricultural growth and welfare of farming community. The study tries to explore the existing marketing distribution network of farm inputs in the country. The paper also highlighted the recent changes that are happening in the agri-input marketing. It also intends to suggest strategies and recommendations that can help in developing an efficient inputs and service farming community.

Ashutosh et al, (2010) of their research study “Factors Influencing Retailing Performance Of Farm Inputs In South 24 Parganas district Of West Bengal” undertaken to study the socio-economic and personal traits of the input retailers and to find out the relationship between these traits with their retailing performance and there by assessing the contribution of such traits to their retailing performance. A survey of 118 farm input retailers selected from six blocks of south 24 Parganas district of west Bengal. . The outcome of the result revealed that ‘utilization of information source’, ‘agricultural training received’, ‘knowledge about general agriculture except plant protection’, ‘knowledge about plant protection’, ‘retailing ability/skill’, ‘communication skill’, ‘services provided for agricultural development’, ‘sale promotional activity’, ‘number of farmers dealt with’ and ‘investment in purchasing agricultural inputs’ had positive and significant relation with the retailing performance of the input retailer. The selected socio-economic and personal traits showed multi co linearity among themselves for which principal component analysis was computed. Five principal components were extracted from thirteen independent variables. Five principal components were extracted from thirteen independent variables. The coefficient of multiple determinations (R<sup>2</sup>) indicated that these components could predict 67.8 per cent of the total variance. The f values were found to be significant indicating the effectiveness of these variables in contributing retailing performance of the farm input retailer, when they function jointly.

Shoji et al, (2014) conducted a study “Present Status of Agri-clinics and Agribusiness Centers Scheme In India: An Analysis” stated that agriclincs and agribusiness centers scheme is a subsidy based credit linked scheme for setting up agri venture by agricultural graduates launched by government of India towards strengthen

technology transfer, public extension system and employment generation in rural areas. The study focused on the origin, objective, and progress of agri clinics and agribusiness centers scheme. In India after completion of more than one decade time from its inception. It is an attempt to assess the performance of agri-clinics and agribusiness centers scheme on the basis of states wise progress, training institutes wise progress and project wise progress. The present study is based on the secondary data collected from various journals, research articles, and websites. In the analysis of data, it was found that southern states (Maharashtra, Tamil Nadu, Andhra Pradesh And Karnataka) have good and encouraging progress of ACABCS scheme comparison then north eastern states which have poor performance in the establishment of agri-ventures and other aspects. The government needs to special focus on the north eastern states of the country to meet the objectives of the agri-clinics and agribusiness centers scheme.

Ogunlade et al,(2012)undertaken a research” Capacity Of Agro-Input Dealers In Advisory Service Delivery To Maize Farmers In Kwara State, Nigeria” agro-input dealers in advisory service delivery to maize crop farmers in Kwara State, Nigeria. Specifically, it examined the personal characteristics of the agro-input dealers, determined the extension related activities of the dealers, and investigated the technical capacity of input dealers in maize production. This study was carried out in Kwara state, because of its prominence in the production of maize in Nigeria. A total of 50 agro-inputs dealers were sampled from Ilorin, Omu-Aran and Offa through snow ball technique. The dependent variable for the study was technical capacity of input dealers in maize production. They seldom advise farmers on use of equipments. There is a weak linkage with extension agents, research institute and credit institutions. They had high technical capacity in maize production. The regression model showed that level of education, membership, and level of business operation contributed 75% to agro-input dealers’ technical capacity. It was concluded that agro-input dealers perform extension activities. The study recommended that education and size of agro-input business be considered for effective programme development on advisory delivery by agro-input dealers.

Mande And Darade(2011) conducted a study” Training Needs Of Farm Input Dealers For Transfer Of Agricultural Technology” the study was conducted to assess the training needs of farm input dealers for transfer of agricultural technology in Latur, Ahmedpur, Udgir, Nilanga And AUSA Tahsil Of Latur District in Marathwada Region of Maharashtra state. From each tahsil 24 farm input dealers were selected randomly for the study to comprise the total sample of 120 respondents. The data was collected with the help of well constructed and pre-tested interview schedule. Training need of the farm input dealers were measured by computing training need score. The training areas regarding input categories were divided in to three sub-areas with the help of experts from respective field, each input category had nine areas. These areas were rated by the respondents on three point rating scale as ‘most needed’ ‘needed’ and ‘not needed’. Rating given to the areas by respondents was quantified by score as most needed, needed and not needed. Maximum possible score for the training areas regarding each of the input categories was 27 and maximum possible score for total three categories were 81. The study revealed that majority of the farm input dealers (72.50 per cent) had needed training followed by 14.17 per cent had not needed training and 14.17 per cent had most needed training.

Venkatesh and Nithyashree ( 2014),undertaken a study ” Institutional Changes In Delivery Of Agricultural Inputs And Services To Farm Households In India” according to the researcher the major institutional changes in agricultural input markets and use of inputs across the farming community of the country in the previous decade. More specifically, it discusses the three aspects of inputs: trend in major agricultural inputs use, their accessibility to small farmers, and institutional changes in the delivery of input and services. The study has sourced the data from various government reports mainly from NSSO, input survey and CACP. A significant growth in input use has been recorded in the previous decade and a noticeable change has been observed in the shares of public and private sectors in the factor markets. Accessibility to institutional credit has been limited for marginal and small farmers; however, chemical fertilizer and pesticide use has been found highest among these farmers vis-a-vis other category of farmers. About 40 per cent of the farmers have access to information on modern technology from any source and progressive farmers have emerged as the major source.

Easing procedural norms in accessing institutional credit is essential for inclusion of marginal and small farmers in the formal credit system. In addition, extension system should be rejuvenated with recent developments of information and communication technologies for better dissemination of farm information, particularly among the remotely located farm households.

Usha Tuteja and Subhash Chandra carried out a study on 2012 “Impact Of Emerging Marketing Channels In Agricultural Marketing Benefits To Producer Seller And Marketing Costs And Margins Of Agricultural Commodities In Haryana” agriculture contributes around 15 per cent to Gross Domestic Product (GDP) of India but its performance is vital for inclusive growth since it provides livelihood security to more than 50 per cent of work force. Traditionally, India’s agriculture development has been based on protected policy environment, which included controls on market, pricing, trade, storage, transport, and quantitative restrictions on foreign trade. Objectives of the study: to determine the share of the farmer in the consumer’s rupee in an emerging marketing channel vis-a-vis traditional marketing channel; to compute the degree of marketing efficiency and incidence of post harvest losses in emerging marketing channel vis-à-vis traditional marketing channel to analyses the market practices and services of agencies involved in the emerging marketing channel and observe if they are superior to that of traditional channels; to indicate the constraints faced by farmers and different market functionaries in the emerging marketing channel as compared to the traditional marketing channel. The methodology adopted for the selection of study area, sampling design, data collection and analytical framework used in the light of specific objectives of the study is discussed in this section. The study was conducted in the state of Haryana. It is based on published and un-published sources of secondary and primary data. Finding of the study is that: India has an Agricultural Produce Marketing Regulation Act (APMRA) in which every regulated market has a market committee where farmers, traders, commission agents, local bodies and the state government are represented. Prices are fixed through an open auction in a transparent manner in front of an official of the auction committee. The main criticism of regulated markets is that they do not reduce long chain of intermediaries between farmer and

consumer, which adds to the cost of agricultural commodities to consumers on the one hand, and decreases returns for farmers on the other.

Agricultural commodities are produced in specific parts of the country depending upon topography and climatic conditions, while the demand for the same spreads across India. Hence, there is a need to move agricultural produce from specific supply centers to various consumption centers in the country in fastest possible way at the minimum cost in order to ensure supply of quality produce to consumers at affordable price. Under the present system, marketable surplus of one area moves out to consumption centers through a network of middlemen and traders and institutional agencies. Thus, there exists national level market though there is no national level regulation for the same. This has prevented development of an efficient and cost effective national market. In order to control price inflation at retail and effective control and regulation of the supply chain of sensitive commodities across the state boundary is essential. Marketing cost constitutes a major chunk of consumer's price, which needs to be reduced.

Etyang et al(2014) conducted the study on “Exploring Relevance of Agro Input Dealers in Disseminating and Communicating of Soil Fertility Management Knowledge: The Case of Siaya and Trans Nzoia Counties, Kenya” The study assessed the role played by agro-input dealers in disseminating and communicating integrated soil fertility management (ISFM) practices and information to smallholder farmers in Siaya and Trans Nzoia counties in Kenya, and looked at agro-input dealers' awareness of ISFM practices and communication channels used to access agricultural information. Objectives of the study was to assess the role agro-input dealers play in disseminating and communicating the Integrated Soil Fertility Management (ISFM) practices and agricultural information in Siaya and Trans Nzoia Counties in Kenya. The study involved agro-input dealers as the main respondents. The agro input dealers were drawn from the prior participants in the Kenya agro dealers Strengthening Program (KASP) projects. The sampling frame consisted of 200 agro-input dealers who had participated in the KASP project: 140 agro-input dealers in Trans Nzoia and 144 agro-input dealers in Siaya County. The respondents of the study were drawn from the 288 agro-input dealers through simple random sampling. A total of 144 agro-input dealers were

selected. The finding of the study the level of education of the agro-input dealer plays a vital role in the agro input dealer's awareness of the ISFM technologies. Thee period of engagement in agro-input business has an influence on the agro-input dealer's awareness of the ISFM technologies. The communicative channels of communication are more effective in accessing and sharing ISFM technologies compared to disseminative channels of communication.

### **III. METHODOLOGY**

The methodology for the study entitled “Assessment of Extension Service by Agricultural Input Agents” is presented under the following:

- A. Selection of the area
- B. Selection of the sample
- C. Selection of the methods and tools
- D. Collection of data and
- E. Analysis and interpretation of the data

#### **A. Selection of the area**

The present study is basically designed to analyse and study the Assessment of Extension Service by agricultural input. The investigator selected two districts in Tamil Nadu, namely Districts are Coimbatore and Erode, in Coimbatore district Coimbatore and Erode district, sathayamangalam block was choose for the research.(Figure I)

#### **B. Selection of the sample**

A sample is a subset of population units. Sampling is simply the process of learning about the population on the basis of a sample drawn from it (Gupta, 2000).

Sampling enables us to draw a sample which can be used for making statistical inference about population parameters (Hooda,2000).

A random sample is one where each items in the universe has an equal chance of known opportunity of being selected. According to Harper, a random sample is a sample selected in such a way that every item in the population has an equal chance of being included (Pillaiet al., 2012).

The total sample comprising of 40 agricultural input agents.The details of the sample selected for study is presented in the table I.



LOCATION OF THE STUDY

FIGURE I

**TABLE I**  
**SELECTION OF SAMPLE**

<b>S. No.</b>	<b>Name of the District</b>	<b>Number</b>
<b>1</b>	<b>Coimbatore</b>	<b>20</b>
<b>2</b>	<b>Erode</b>	<b>20</b>

### **C. Selection of method and tool**

Survey is a method to take a general and comprehensive view of or appraisal of situation and area of study. Interview is the methods of collecting data which involves presentation of oral-verbal stimuli and reply in terms of oral-verbal response (Kothari, 2011).

A questionnaire is a device for securing answers to questions by using a form which the respondents fill by him. It is a systematic compilation of questions that are submitted to a sampling of population from which information is desired (Gupta,2005).

Data refers to information or fact. It not only refers to numerical figures but also includes descriptive facts. The methods of data collection were done through primary data.

A questionnaire is a sheet of paper containing questions relating to contain specific aspect, regarding which the researcher collects the data. Because of their flexibility the questionnaire methods is by far the most common instrument to collect primary data. The questionnaire is given to the respondent to be filled up (Annexure-I).

#### **Obtaining ethical clearance:**

The application form explaining the design and the protocols used in the research study was subjected to the Institutional Human Ethics Committee of Avinashilingam Institute for Home Science and Higher Education fir Women University, Coimbatore. The ethical clearance was obtained; the approval number is AUW/IHEC/EXT-15-16/XMT-13 (Annexure-II).

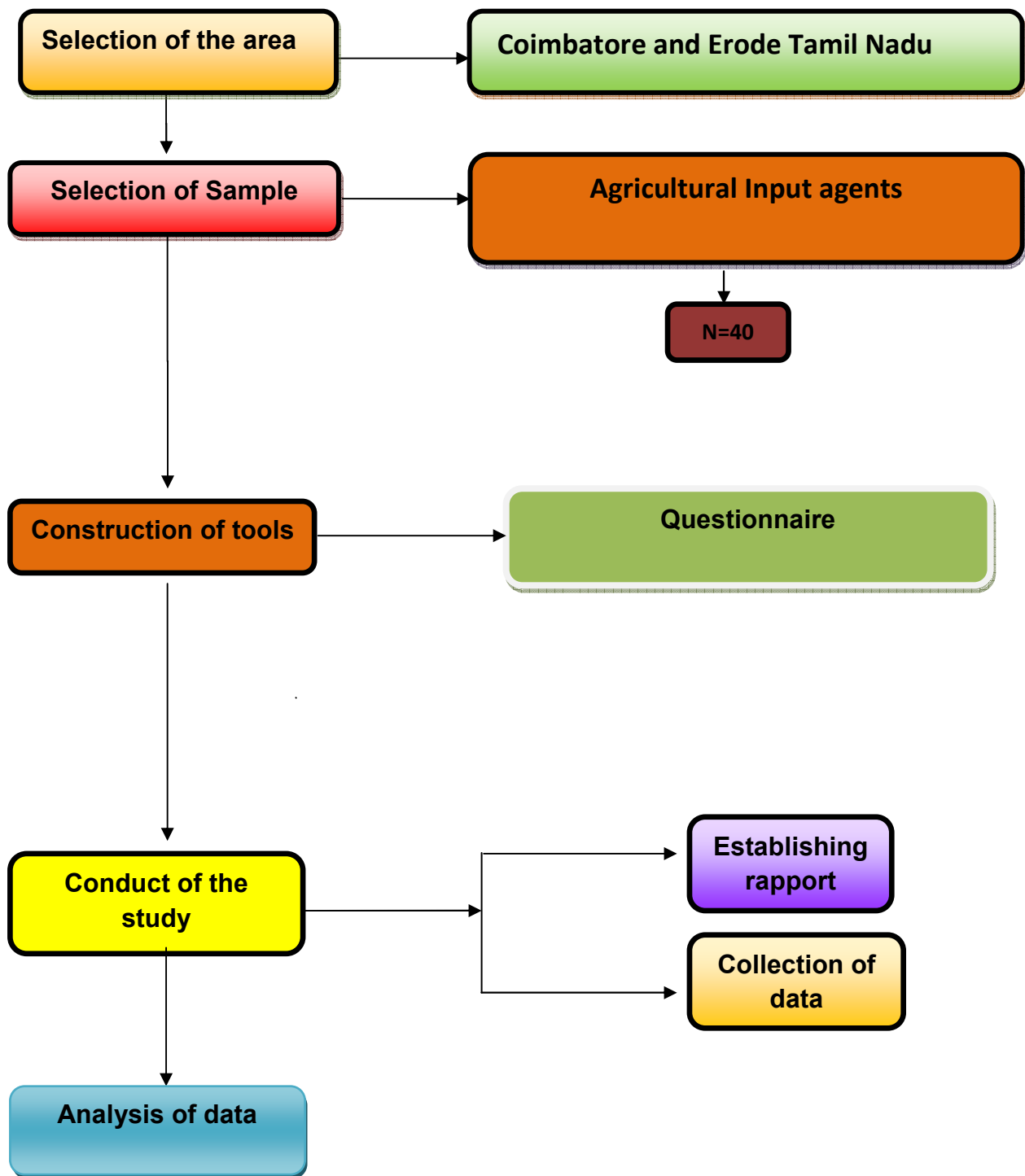


Figure II

METHODOLOGY AT A GLANCE



**DATA COLLECTION WITH AGRICULTURAL INPUT AGENTS  
PLATE I**

### **Tools used for Data collection:**

The Researcher used questionnaire schedule to collect the data which contained socio-economic characteristic of agricultural input agents, detail information about agricultural input agents, establishment of input dealer, types of service rendered, input purchase details, information about investment, marketing system, stress experienced, information about support service, Training details, knowledge on computer, benefit receive, knowledge on government scheme and policies, suggestion for improvement, details about awards.

The bird's eye view of the methodology was presented in Figure-II

### **D. Collection of data:**

Primary data is one which is collected by the investigator himself for the purpose of a specific inquires or study. Such data is original in character and is generated by individuals or research institution. (Bhattacharyya, 2009)

The primary data is the information collected the design for the first time; there are several methods in which the data is complied. In this project it was obtained by mean of questionnaires was prepared and distributed to the input agents

The questionnaire was given in by the investigator to the agricultural input agents. The agricultural input agents were oriented on the questionnaire to fill up the answers. After filling questionnaires, it was collected and consolidated.

Primary data was collected from the agricultural input agents by distributing Questionnaires and the data was collected from them. Rapport building was established between KVK, Agricultural input agents and Joint Director of Agriculture Coimbatore. The meeting was organized for agricultural input agents on 28.03.2016 and explained the need of the study, distribute the questionnaire and collected required information. In Erode district at sathayamangalam block investigator visit three village namely Bvanisager, Kenjanur, Kothamangalam collected the data. In Sathayamangalam block, Erode district data was collected by the researcher for the periods of 1 week 19.02.2016 to 26.02.2016 along with her friends.((Plate-1)

## **E. Analysis and Interpretation of data:**

The data after collection has to be processed and analyzed in accordance with the outline laid down for the purpose at the time of development of research plan. The term analysis refer to the computation of certain measures along with searching for patterns of relationship that exist among data groups (Kothari, 2011).

The collected data was consolidated, analyzed, tabulated, interpreted and presented in the chapters IV.

## IV RESULT AND DISCUSSION

The result pertaining to the study entitled “Assessment of Extension Service by Agricultural Input Agents” is discussed under following heads:

### A. SOCIO-ECONOMIC CHARACTERISTIC OF AGRICULTURAL INPUT AGENTS

### B. SERVICE AND MANAGEMENT DETAIL OF AGRICULTURAL INPUT AGENTS

### A. SOCIO-ECONOMIC CHARACTERISTIC OF AGRICULTURAL INPUT AGENTS

The table II expresses the socio –economic characteristic of agricultural input agents.

**TABLE II**  
**SOCIO ECONOMIC CHARACTERISTIC OF AGRICULTURAL INPUT AGENTS**

Characteristic		Frequency	Percentage(N=40)
Age(year)	Below 30	7	18
	30-39	10	25
	40-49	11	27
	50-59	6	15
	Above 60	6	15
Sex	Male	40	100
Educational qualification	High School	10	3
	Higher secondary	9	22
	Graduate	17	42
	Post graduate	3	8
	Diploma	1	3

<b>Marital status</b>	<b>Married</b>	<b>37</b>	<b>92</b>
	<b>Unmarried</b>	<b>3</b>	<b>8</b>
<b>Types of family</b>	<b>Nuclear</b>	<b>22</b>	<b>55</b>
	<b>Joint</b>	<b>18</b>	<b>45</b>
<b>Family size</b>	<b>Up to 2 [Small]</b>	<b>10</b>	<b>25</b>
	<b>3 to 4[Medium]</b>	<b>14</b>	<b>35</b>
	<b>Above 4[large]</b>	<b>16</b>	<b>40</b>
<b>Area</b>	<b>Rural</b>	<b>21</b>	<b>52</b>
	<b>Urban</b>	<b>5</b>	<b>13</b>
	<b>Municipality</b>	<b>3</b>	<b>7</b>
	<b>Corporation</b>	<b>11</b>	<b>27</b>
<b>Occupation(earlier)</b>	<b>Private employee</b>	<b>22</b>	<b>55</b>
	<b>Small shop holder</b>	<b>13</b>	<b>32</b>
	<b>Businessman</b>	<b>5</b>	<b>13</b>
<b>Income</b>			
<b>Monthly(RS)</b>	<b>Less than 20,000</b>	<b>18</b>	<b>45</b>
	<b>20,001 to 30,000</b>	<b>19</b>	<b>47</b>
	<b>30,001 to 40,000</b>	<b>3</b>	<b>8</b>
<b>Annual(RS)</b>	<b>Less than 2,000,00</b>	<b>20</b>	<b>50</b>
	<b>2,000,01 to 3,000,00</b>	<b>12</b>	<b>30</b>
	<b>3,000,01 to 4,000,00</b>	<b>6</b>	<b>15</b>
	<b>Above 4,000,00</b>	<b>2</b>	<b>5</b>
<b>Land holding</b>			
<b>Types of land</b>	<b>Dry land</b>	<b>13</b>	<b>33</b>
	<b>Wet land</b>	<b>27</b>	<b>67</b>
<b>Types of farmers</b>	<b>Small farmers</b>	<b>23</b>	<b>57</b>
	<b>Medium farmers</b>	<b>16</b>	<b>40</b>
	<b>Large farmers</b>	<b>1</b>	<b>3</b>

Figures in the parentheses indicates percent

The table shows that highest Proportion of study subject were in the age group of 40-49(twenty seven), followed by 30-39 years(twenty five percent ) and meagre under 50-59years and above 60 years(fifteen percent)

Cent percent agricultural input agents was male.

Education status of highest proportion of individual was graduate(Forty two percent),followed by higher secondary(twenty two percent) and post graduate(eight percent).

Regarding marital status of agricultural input agents, ninety two percent were married. Only eight percent were unmarried.

**Types of the family:** Fifty five percent of agricultural input agents belongs to nuclear family, followed by (fifty five percent) joint family .

**Family size:** Forty percent of agricultural input agents were under the category of large family.

Fifty two percent of agricultural input agents belonging to rural area.

Fifty five percent were private employees and thirty two percent small shop holders.

Forty seven percent of agricultural input agents earning Rs 20,000 to 30,001(per month) and rest of eighteen percent had income less than Rs 20,000.

Fifty percent of the input agents earning less than Rs 2,000,00 and five percent earning above Rs 4,000,00(annual income).

Sixty seven percent had wet land, followed by thirty three percent had dry land.

Fifty seven percent under of agricultural input agents the category of small farmers, followed by (forty percent) medium farmer.

## a.BANKING INFORMATION

The Table III indicates the banking details about agricultural input agents

**TABLE III**  
**BANKING INFORMATION**

<b>Banking information</b>		<b>Frequency</b>	<b>Percentage(N=40)</b>
<b>Account holder in any bank</b>	<b>Yes</b>	<b>40</b>	<b>100</b>
<b>Name of the bank</b>	<b>Indian bank</b>	<b>8</b>	<b>20</b>
	<b>State Bank of India</b>	<b>16</b>	<b>40</b>
	<b>HDFC</b>	<b>2</b>	<b>5</b>
	<b>Others</b>	<b>4</b>	<b>35</b>
<b>Account types</b>	<b>Deposit</b>	<b>8</b>	<b>20</b>
	<b>Saving</b>	<b>32</b>	<b>80</b>
<b>Purpose of having account</b>	<b>Business transaction</b>	<b>17</b>	<b>43</b>
	<b>Income tax purpose</b>	<b>2</b>	<b>5</b>
	<b>saving money</b>	<b>17</b>	<b>42</b>
	<b>Getting loan</b>	<b>3</b>	<b>8</b>
	<b>Deposit purpose</b>	<b>1</b>	<b>3</b>

\*Multiple responses

Figures in the parentheses indicates percent

Cent percent of agricultural input agents had bank account, forty percent of them having account in state bank.Eighty percent had saving account and forty three percent had account for business transaction.

## **B.SERVICE AND MANAGEMENT DETAILS OF AGRICULTURAL INPUT AGENTS**

The service and management details of agricultural input agents are discussed under the following heading:

- a. Establishment of input dealership.
- b. Economic motivation.
- c. Types of product and service rendered.
- d. Input purchase details.
- e. Information about investment.
- f. Marketing system
- g. Problem experienced
- h. Stress experienced
- i. Attitude of input agents
- j. Self confident and self reliance
- k. Information about support service
- l. Information on training
- m. Knowledge on computer
- n. Benefit gained
- o. Knowledge on government schemes and policy
- p. Improvement Suggestion
- q. Awards received

### **a. ESTABLISHMENT OF INPUT DEALERS**

The table IV indicates that details about establishment of input shop.

**TABLE IV**

#### **ESTABLISHMENT OF INPUT DEALERSHIP**

<b>Year of establishment</b>	<b>Frequency</b>	<b>Percentage(N=40)</b>
1960-1970	2	5
1971-1980	9	23
1981-1990	8	20
1991-2000	11	27
2001-2010	5	13
2011-2016	5	12

Figures in the parentheses indicates percent

Twenty seven percent of agricultural input agents were established shop in the year of 1991 to 2000, whereas only five percent established during the years 1960 to 1970. This shows that the system was started functioning from 1960-1970 onwards but peak period was 1991-2000.

## b. ECONOMIC MOTIVATION

The Table V explains about that economic motivation of the agricultural input agents.

**TABLE V**  
**ECONOMIC MOTIVATION**

* Statement	Strongly agree	Agree	Neutral
An Entrepreneur must work hard towards large production and economic profit	30	8	10
A most successful Entrepreneur is one who makes the most profit.	38	8	7
An Entrepreneur should try new business ideas which may earn him more money	5	25	5
An Entrepreneur should produce products that have demand in the market	0	0	8
It is difficult for an Input agent's child to make a good start unless he is provided with an economic assistance	3	25	10
An Entrepreneur must earn his living but the most important thing in life cannot be defined in economic terms.	50	18	2

\*Multiple responses

Figures in the parentheses indicates percent

The study reveals that sixty two percent of agricultural input agents agree that entrepreneur should try new business ideas which may earn him more money, followed by agree that Entrepreneur should produce products that have demand in the market. Fifty percent of the agricultural input agents strongly agree that entrepreneur must earn his living but the most important thing in life cannot be defined in economic terms.

### C. TYPES OF PRODUCT AND SERVICE RENDERED

The types of product service rendered by the agricultural input agents is presented in the table VI.

**TABLE VI**

#### **TYPES OF PRODUCT AND SERVICE RENDERED**

<b>Types of product and service rendered</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Types of product</b>	<b>Seed</b>	<b>7</b>	<b>18</b>
	<b>Fertilizer</b>	<b>24</b>	<b>60</b>
	<b>Multipurpose</b>	<b>9</b>	<b>22</b>
<b>Reason to be a input agent</b>	<b>Earning money</b>	<b>20</b>	<b>50</b>
	<b>Solve family problem</b>	<b>11</b>	<b>27</b>
	<b>Others</b>	<b>9</b>	<b>23</b>
<b>Source van</b>	<b>Family</b>	<b>35</b>	<b>87</b>
	<b>Friends</b>	<b>1</b>	<b>3</b>
	<b>Neighbour</b>	<b>3</b>	<b>7</b>
	<b>Educational institution</b>	<b>1</b>	<b>3</b>
<b>Problem faced when getting license</b>	<b>Financial problem</b>	<b>11</b>	<b>57</b>
	<b>Lack of communication</b>	<b>6</b>	<b>15</b>
	<b>Others</b>	<b>23</b>	<b>17</b>
<b>Types of ownership</b>	<b>Own</b>	<b>33</b>	<b>83</b>
	<b>Rented</b>	<b>7</b>	<b>17</b>
<b>Labour working in dealers</b>	<b>1</b>	<b>9</b>	<b>23</b>
	<b>2</b>	<b>14</b>	<b>35</b>
	<b>Above 3</b>	<b>17</b>	<b>42</b>
<b>Working hours</b>	<b>4-6 hours</b>	<b>6</b>	<b>15</b>
	<b>7 hours</b>	<b>34</b>	<b>85</b>

Figures in the parentheses indicates percent

Sixty percent of agricultural input agents were selling fertilizer. Fifty percent of them were doing business for earning money. Whereas eighty seven percent stated that source of motivation was a family. Fifty seven percent of them stated that financial is the main constraint while getting license. Eighty three percent of agricultural input agents running on their own. Whereas forty two percent of them appointed three labours in the shop and eighty five percent of agents working 7 hours per day.

#### **d.DETAILS ABOUT INPUT PURCHASE**

The input purchase details of the agricultural input agents is given in the table VII.

**TABLE VII**

#### **INPUT PURCHASE DETAILS**

<b>Purchase details</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Getting product</b>	<b>Local area</b>	<b>34</b>	<b>85</b>
	<b>Near village</b>	<b>6</b>	<b>15</b>
<b>Purchase place</b>	<b>State</b>	<b>10</b>	<b>25</b>
	<b>District</b>	<b>26</b>	<b>65</b>
	<b>Block</b>	<b>4</b>	<b>10</b>
<b>frequency of purchase</b>	<b>Monthly once</b>	<b>10</b>	<b>25</b>
	<b>Monthly twice</b>	<b>13</b>	<b>32</b>
	<b>Weekly</b>	<b>9</b>	<b>20</b>
	<b>Weekly twice</b>	<b>8</b>	<b>18</b>
<b>Managing demand period</b>	<b>Direct visit to customer</b>	<b>17</b>	<b>43</b>
	<b>Area visit</b>	<b>16</b>	<b>40</b>
	<b>Wholesale market</b>	<b>7</b>	<b>17</b>

Figures in the parentheses indicates percent

The data indicate that eighty five percent of agricultural input agents getting product in local area, whereas sixty five distributing product to another district, thirty two percent them purchasing of the product monthly twice, followed by twenty five

percent of them monthly once. Forty three percent of them managing demands period's by direct visiting.

### e. INFORMATION ABOUT INVESTMENT

Table VIII indicates the information about annual investment.

**TABLE VIII**  
**INFORMATION ABOUT INVESTMENT**

	Particulars	Frequency	Percentage (N=40)
<b>Amount (Rs)</b>	<b>Less than 50,000</b>	<b>11</b>	<b>28</b>
	<b>50,001 to 60,000</b>	<b>10</b>	<b>25</b>
	<b>60,001 to 70,000</b>	<b>4</b>	<b>10</b>
	<b>Above 70,001</b>	<b>15</b>	<b>37</b>
<b>Source of mobilization funds</b>	<b>Bank</b>	<b>32</b>	<b>80</b>
	<b>Family</b>	<b>7</b>	<b>18</b>
	<b>Friend</b>	<b>1</b>	<b>2</b>
<b>Types of tax paid</b>	<b>Income tax</b>	<b>26</b>	<b>65</b>
	<b>Sale Tax</b>	<b>14</b>	<b>35</b>
<b>Investment source(per month)</b>	<b>Initial advance</b>	<b>9</b>	<b>23</b>
	<b>Monthly income</b>	<b>9</b>	<b>22</b>
	<b>Maintenance</b>	<b>8</b>	<b>20</b>
	<b>Product</b>	<b>6</b>	<b>15</b>
	<b>Electricity bill</b>	<b>8</b>	<b>20</b>

**\*Multiple responses**

Figures in the parentheses indicates percent

The table shows that thirty seven percent of agricultural input agents annual investment above Rs 70,000. Eighty percent of agricultural input agents stated that source of mobilization of funds was from bank, sixty five percent of them used to paid income tax and twenty three percent investing money (per month)for initial advance.

## **f.INFORMATION ABOUT MARKETING SYSTEM**

The Table IX depicts the marketing system of the agricultural input agents.

**TABLE IX**  
**MARKETING SYSTEM**

<b>Marketing details</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Marketing types</b>	<b>Wholesale</b>	<b>25</b>	<b>62</b>
	<b>Retail</b>	<b>15</b>	<b>38</b>
<b>Types of owner ship</b>	<b>Sole</b>	<b>35</b>	<b>87</b>
	<b>Partnership</b>	<b>5</b>	<b>13</b>
<b>Marketing strategy used</b>	<b>E-mail</b>	<b>3</b>	<b>7</b>
	<b>Advertisement</b>	<b>3</b>	<b>8</b>
	<b>Distribution of notice</b>	<b>2</b>	<b>5</b>
	<b>Customers</b>	<b>32</b>	<b>80</b>

**\*Multiple responses**

Figures in the parentheses indicates percent

Sixty two percent of agricultural input agents doing wholesale marketing, followed by retail marketing(thirty eight percent). Eighty seven percent of the agricultural input agents had sole type's ownership , whereas eighty percent of them using customers as a marketing strategy .

## **g. PROBLEM EXPERIENCED**

The table X explain the problem experienced by agricultural input agents.

**TABLE X**  
**PROBLEM EXPERIENCED**

<b>Problem faced</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Problem faced</b>	<b>Yes</b>	<b>40</b>	<b>100</b>
<b>Types of problem</b>	<b>Occupational problem</b>	<b>6</b>	<b>15</b>
	<b>Financial problem</b>	<b>18</b>	<b>45</b>
	<b>Lack of Customers problem</b>	<b>5</b>	<b>12</b>
	<b>Less sales</b>	<b>4</b>	<b>10</b>
	<b>Lack to Transport facility</b>	<b>5</b>	<b>13</b>
	<b>Lack of communication</b>	<b>2</b>	<b>5</b>
<b>Managing time while no customers</b>	<b>Watching TV</b>	<b>15</b>	<b>37</b>
	<b>Studied news paper</b>	<b>20</b>	<b>50</b>
	<b>Talking with friends</b>	<b>5</b>	<b>13</b>

Figures in the parentheses indicates percent

Cent percent of agricultural input agents experienced problem. Forty five percent of them faced financial problem whereas five percent due to lack of communication. Fifty percent managing their time by reading news paper, whereas thirteen percent of them interacting with friends.

## **h.DETAIL ABOUT STRESS EXPERIENCED**

The stress experienced by agricultural input agents is given in the table XI

**TABLE XI  
STRESS EXPERIENCED**

<b>Stress experienced</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Stress experience</b>	<b>Yes</b>	<b>30</b>	<b>75</b>
	<b>No</b>	<b>10</b>	<b>25</b>
<b>Types of stress</b>	<b>Occupational stress</b>	<b>19</b>	<b>47</b>
	<b>Family stress</b>	<b>10</b>	<b>25</b>
	<b>Financial stress</b>	<b>6</b>	<b>15</b>
	<b>Customers stress</b>	<b>5</b>	<b>13</b>
<b>Managing stress from work</b>	<b>Doing Yoga and meditation</b>	<b>6</b>	<b>15</b>
	<b>Watching TV and movies</b>	<b>17</b>	<b>43</b>
	<b>Listening Music</b>	<b>13</b>	<b>32</b>
	<b>Others</b>	<b>4</b>	<b>40</b>

\*Multiple responses

Figures in the parentheses indicates percent

Seventy five percent were facing stress. Forty percent of them facing occupational stress, whereas thirteen percent agricultural input agents facing stress because of customers. Forty three percent agricultural input agents managing their stress through doing yoga and meditation and thirty three percent by watching TV.

## **i.ATTITUDE OF AGRICULTURAL INPUT AGENTS**

The Table XII explain about attitude of the agricultural input agents.

**TABLE XII**

### **ATTITUDE OF INPUT AGENTS**

<b>Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>
<b>I have capacity to control my input dealers</b>	<b>63</b>	<b>15</b>	<b>-</b>
<b>I use to talk with my customers</b>	<b>25</b>	<b>30</b>	<b>-</b>
<b>I have ability to give good response for the customers</b>	<b>50</b>	<b>20</b>	<b>-</b>
<b>I have good manners</b>	<b>25</b>	<b>30</b>	<b>-</b>
<b>My workers listen to my advice</b>	<b>50</b>	<b>15</b>	<b>5</b>
<b>Workers like me very much</b>	<b>5</b>	<b>20</b>	<b>10</b>
<b>Sometimes I feel bad</b>	<b>75</b>	<b>5</b>	<b>5</b>
<b>Sometimes I feel bored</b>	<b>50</b>	<b>15</b>	<b>5</b>
<b>I am a good decision maker</b>	<b>30</b>	<b>18</b>	<b>10</b>
<b>I feel I have to develop my input dealers</b>	<b>38</b>	<b>20</b>	<b>5</b>
<b>I am not satisfied with my works</b>	<b>13</b>	<b>5</b>	<b>30</b>
<b>I am satisfied with my work</b>	<b>8</b>	<b>22</b>	<b>9</b>

\*Multiple responses

Figures in the parentheses indicates percent

The table indicates that seventy five percent of agricultural input agents agree that they used to talk with customers, followed by agree that they have good manner and strongly agree that they feel bad sometime's. Twelve percent input agents agree that they are not satisfied with their works. Twelve percent input agents neutral that they feel they have to develop their input dealers.

## j. INFORMATION ABOUT SELF CONFIDENCE AND SELF RELIANCE

Self confidence and self reliance of the agricultural input agents is presented in table XIII

**TABLE XIII**  
**SELF CONFIDENCE AND SELF RELIANCE**

Statements	Strongly agree	Agree	Strongly Dis Agree	Dis agree	Neutral
I feel no obstacle can stop me from achieving final goals	5	20	-	-	15
I am generally confident in whatever I do	11	25	-	-	4
I am bothered by the feeling that I cannot compete with others	10	20	-	-	0
I am interested to do things at my own initiative	25	5	-	-	-
I usually work out things by myself rather than getting someone's help	3	22	5	-	10
I get discouraged easily	2	12	8	10	8
Life is a struggle for me most of the time	14	6	-	-	20
I see myself worrying about something or others	-	5	-	15	0
The future prosperity of my family depends upon my income alone	20	20	-	-	-
The future prosperity of my family depends upon my income help rendered by my wife	15	5	-	-	10
The future prosperity depends to certain extent on the help rendered by my children also	20	20	-	-	-

\*Multiple responses

Figures in the parentheses indicates percent

The data shows that sixty three percent of agricultural input agents strongly agree that they interested to do things on their own initiative and Sixty two percent agree that they are generally confident with whatever they are doing. Only five percent input agents strongly agree that discouraged easily.

### **k.INFORMATION ABOUT SUPPORT SERVICE**

The Information about support service received by agricultural input agents shown in the table XIV.

**TABLE XIV**  
**INFORMATION ABOUT SUPPORT SERVICE**

<b>Support service</b>		<b>Frequency</b>	<b>Percentage(N=40)</b>
<b>Support from</b>	<b>Government</b>	<b>32</b>	<b>80</b>
	<b>NGOs</b>	<b>2</b>	<b>5</b>
	<b>Research centres</b>	<b>2</b>	<b>5</b>
	<b>Education Institution</b>	<b>4</b>	<b>10</b>
<b>Types of support</b>	<b>Loan</b>	<b>3</b>	<b>58</b>
	<b>Subsidy</b>	<b>4</b>	<b>10</b>
	<b>Training programme</b>	<b>11</b>	<b>27</b>
	<b>Awareness programme</b>	<b>2</b>	<b>5</b>

\*Multiple responses

Figures in the parentheses indicates percent

The data indicates that eighty percent of agricultural input agents getting support from Government, whereas ten percent of them getting support from educational institution.. Fifty eight percent getting loan from government. Only half of them getting loan as a support service.

## I. INFORMATION ON TRAINING

The Training attended by agricultural input agents is depicted in the table XV.

**TABLE XV**  
**INFORMATION ON TRAINING**

<b>Training information</b>		<b>Frequency</b>	<b>Percentage(N=40)</b>
<b>Training attained</b>	<b>Yes</b>	<b>3</b>	<b>8</b>
	<b>No</b>	<b>37</b>	<b>92</b>
<b>Types of training</b>	<b>Fertilizer related training</b>	<b>1</b>	<b>3</b>
	<b>Periodical way's training</b>	<b>1</b>	<b>2</b>
	<b>Seed related training</b>	<b>1</b>	<b>3</b>

Figures in the parentheses indicates percent

Eight percent agricultural input agents stated that they attained training, whereas a majority (ninety two percent) of them not attained any training programme. Only three percent agricultural input agents attained training about fertilizer related, periodical training and seeds related training.

### **m. KNOWLEDGE ON COMPUTER SKILL**

The Table XVI explain the knowledge on computer skill of the agricultural input agents.

**TABLE XVI  
KNOWLEDGE ON COMPUTER**

<b>Computer knowledge and skill</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Operatin computer</b>	<b>Yes</b>	<b>31</b>	<b>72</b>
	<b>No</b>	<b>9</b>	<b>23</b>
<b>Training attained</b>	<b>Tally</b>	<b>23</b>	<b>58</b>
	<b>DCA</b>	<b>11</b>	<b>27</b>
	<b>PGDCA</b>	<b>6</b>	<b>15</b>
<b>Using computer browsing</b>	<b>Yes</b>	<b>28</b>	<b>70</b>
	<b>No</b>	<b>12</b>	<b>30</b>
<b>Purpose of utilisation</b>	<b>Online banking</b>	<b>12</b>	<b>30</b>
	<b>Online shopping</b>	<b>4</b>	<b>10</b>
	<b>Marketing</b>	<b>4</b>	<b>10</b>
	<b>Preparation of bill</b>	<b>1</b>	<b>3</b>
	<b>Using apps</b>	<b>7</b>	<b>17</b>
<b>Knowledge about ICT</b>	<b>Yes</b>	<b>36</b>	<b>90</b>
	<b>No</b>	<b>4</b>	<b>10</b>
<b>ICT used</b>	<b>Mobile</b>	<b>38</b>	<b>95</b>
	<b>Radio</b>	<b>2</b>	<b>5</b>

\*Multiple responses

Figures in the parentheses indicates percent

The table indicates that seventy two percent of agricultural input agents able to operate computer, whereas twenty percent don't know how to operate computer. Fifty percent attained tally training. Seventy two percent stated that they were using computer for browsing and the purpose of using computer for online banking (thirty

percent).Ninety percent stated that they had knowledge about ICT,whereas ninety five percent using mobile as a ICT.

## **n. BENEFIT GAINED**

The Table XVII explain about the benefits gained by the agricultural input agents.

**TABLE XVII**  
**BENEFIT GAINED**

<b>Benefits</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Getting benefit through work</b>	<b>Yes</b>	<b>39</b>	<b>97</b>
	<b>No</b>	<b>1</b>	<b>3</b>
<b>Types of benefit</b>	<b>Financial</b>	<b>32</b>	<b>80</b>
	<b>Development of personal relationship</b>	<b>6</b>	<b>15</b>
	<b>Investment and innovation</b>	<b>1</b>	<b>3</b>

\* Multiple responses

Figures in the parentheses indicates percent

The table shows that ninety seven percent of agricultural input agents benefited through their works, because of input agents eighty percent had financial benefited followed by development of personal relationship(fifteen percent).

## **o.KNOWLEDGE ON GOVERNMENT SCHEMES AND POLICY**

The knowledge on Government schemes and policy of the agricultural input agents is given in table XVIII.

**TABLE XVIII**  
**KNOWLEDGE ON GOVERNMENT SCHEMES AND POLICY**

<b>Details</b>		<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Knowledge on government scheme and policy</b>	<b>Yes</b>	<b>5</b>	<b>13</b>
	<b>No</b>	<b>35</b>	<b>87</b>
<b>Name of the schemes and policy</b>	<b>All agriculture and input related schemes</b>	<b>3</b>	<b>8</b>
	<b>Licenses and agri scheme</b>	<b>2</b>	<b>5</b>
<b>Getting opportunity from government</b>	<b>Yes</b>	<b>5</b>	<b>13</b>
<b>Types of opportunity</b>	<b>Financial</b>	<b>3</b>	<b>8</b>
	<b>Training</b>		<b>5</b>

Figures in the parentheses indicates percent

Eighty seven percent stated that they were not aware of government schemes and polices, a meager percent (eight) stated the name of the schemes and policies. Five percent of agricultural input agents had attended training programme organised by government.

## **p. SUGGESTION FOR IMPROVEMENT**

Suggestion for improvement stated by the agricultural input agents is presented the table XIX

**TABLE XIX**  
**SUGGESTION FOR IMPROVEMENT**

<b>Suggestion</b>	<b>Frequency</b>	<b>Percentage (N=40)</b>
<b>Government should provide loans</b>	<b>20</b>	<b>50</b>
<b>Government should provide free tablet</b>	<b>5</b>	<b>13</b>
<b>Government should conduct more training programme</b>	<b>8</b>	<b>20</b>
<b>Government should provide marketing complex with less rent</b>	<b>5</b>	<b>12</b>
<b>Government should provide subsidy for all input agents</b>	<b>2</b>	<b>5</b>

Figures in the parentheses indicates percent

Fifty percent of agricultural input agents stated that government should provide loans to improve their business and followed by government should provide subsidy for all agricultural input (five percent).

## q. AWARDS RECEIVED BY THE AGRICULTURAL INPUT AGENTS

The Table-XX depicts the details about the awards received by the agricultural input agents.

**TABLE XX**  
**AWARDS RECEIVED**

Particular		Frequency	Percentage (N=40)
Received awards	Yes	6	15
	No	34	85
Name of the award	Award by Central Govt(Govt of India)Industrial performance award in 2001-2012	1	3
	Sakthi fertilizers corporation 15 <sup>th</sup> Anniversary Excellence award(2013)	1	2
	Baired Crop Science(2005)	2	5
	Rich phytocare private limited	1	3
	Past 10 years No 1 Agro chemicals Distribution in Tamil Nadu(Seeds and chemicals)	1	2

Figures in the parentheses indicates percent

It is clear from the table that only fifteen percent of agricultural input agents was received award. Five percent input agents stated the name of the awards is Baired crop science awards (2005).

## V. SUMMARY AND CONCLUSION

Extension service in agriculture is indispensable and it offers more than just expert assistance in improvement of production and processing it also enables flow of information and transfer of knowledge and scientific finding of practice.

Agro-input dealers play a key role in agriculture and thus their absence affects farmers' access to quality seeds, fertilizers and crop protection products, which invariably affects productivity.







The study entitled "Assessment of Extension service by Agricultural input agents" was undertaken with main objectives are, to: Know the profile of agricultural input agents, Assess the service rendered by the agricultural input agents and identify the challenges and constraint experience by agricultural input agents. Forty agricultural input agents were selected from Coimbatore and Erode district of Tamil Nadu.

Questionnaire was used as a tool to elicit information on socio economic characteristic of agricultural input agents and details information about agricultural input agents.

### **Findings are given below:**

- 🚩 Highest Proportion of study subject was in the age group of 40-49 (twenty seven). Cent percent agricultural input agents was male. Education status of highest proportion of individual was graduate (Forty two percent), Fifty five percent of agricultural input agents belongs to nuclear family, forty percent of agricultural input agents have large family. Fifty two percent of agricultural input agents belongs to rural area. Whereas earlier occupation fifty five percent were private employees. Seven percent of agricultural input agents earning Rs 20,000 to 30,001 as monthly, annual income, fifty percent of the input agents earning less than Rs 2,000,00 as annual. Sixty seven percent had wet land, Fifty seven percent under the category of small farmers.

- Cent percent of agricultural input agents had bank account, forty percent of them having account in state bank .Eighty percent had saving account and forty three percent having account for business transaction
- Twenty seven percent of agricultural input agent were establish shop in the year of 1991 to 2000.
- Sixty two percent agricultural input agents agree that entrepreneur should try new business ideas which may earn him more money.
- Sixty percent of agricultural input agents were selling fertilizer. Fifty percent of them were doing business for earning money. Whereas eighty seven percent stated that source of motivation was a family .Fifty seven percent of them stated that financial is the main constraint while getting license. Eighty three percent of agricultural input agents running on their own. Whereas forty two percent of them appointed three labours in the shop and eighty five percent of agents working 7 hours per day.
- Eighty five percent agricultural input agents getting product in local area, whereas sixty five distributing product to another district, thirty two percent of them purchase of the product monthly twice.Forty three percent of them managing demands period's direct visit to their customers.
- Thirty seven percent agricultural input agents annual investment above Rs 70,000. Eighty percent of agricultural input agents stated that source of mobilization of funds was from bank, sixty five percent of them used to paid income tax and twenty three percent investing money (per month)for initial advance.
- Sixty two percent agricultural input agents doing wholesale marketing, followed by retail marketing(thirty eight percent). Eighty seven percent of the agricultural input agents had sole type's owner ship , whereas eighty percent of them usingcustomers as a marketing strategy .

-  Cent percent of agricultural input agents faced experienced. Forty five percent of them faced financial problem whereas five percent due to lack of communication. Fifty percent managing their time by reading news paper, whereas thirteen percent of them interacting with friends.
-  Seventy five percent were facing stress. Forty percent of them facing occupational stress, whereas thirteen percent agricultural input agents facing stress because of no customers. Forty three percent agricultural input agents managing their stress through doing yoga and meditation and thirty three percent by watching TV.
-  Seventy five percent of agricultural input agents agree that they used to talk with customers. Twelve percent input agents agree that they are not satisfied with their works. Twelve percent input agents neutral that they feel they have to develop their input dealers.
-  Sixty three percent of agricultural input agents strongly agree that they interested to do thing on their initiative and Sixty two percent agree that they are generally confident with whatever they are doing. Only five percent input agents strongly agree that discouraged easily.
-  Eighty percent of agricultural input agents getting support from Government, whereas ten percent of them getting support from educational institution. Fifty eight percent getting loan from government. Only half of getting loan as a support service.
-  Eight percent agricultural input agents stated that they attained training regarding to input agents, whereas majority (ninety two percent) of them not attained any training programme. Only three percent agricultural input agents attained training related to fertilizer, periodical training and seeds related training.

- ✚ Seventy two percent agricultural input agents able to operate computer, whereas twenty percent don't know how to operate computer. Fifty percent attained tally training. Seventy two percent stated that they were using computer for browsing and the purpose of using computer for online banking(thirty percent).Ninety percent stated that they had knowledge about ICT, whereas ninety five percent using mobile as a ICT.
- ✚ Ninety seven percent of agricultural input agents getting benefit through their works.
- ✚ Eighty seven percent stated that they were not aware of government schemes and polices; a meager percent (eight) stated the name of the schemes and policies. Five percent of agricultural input agents had attended training programme organised by government.
- ✚ Fifty percent of agricultural input agents stated that government should provide loans for them to improve their business and followed by government should provide subsidy for all input (five percent).
- ✚ Only fifteen percent agricultural input agents was received awards . Five percent input agents stated the name of the awards Baired crop science awards (2005).

## CONCLUSION

India is a developing country. Agricultural sector contributes significantly to sustainable economic development of the country. Extension services may be loosely defined as including all activities involved in the exchange of information relevant to agricultural and livestock production, processing and marketing. The word "extension" has been criticized as inherently emphasizing the "top-down" dissemination of information while ignoring other types of information flow between farmers, extension and research particularly activities that involve farmers as equal partners in the process. Agro-input dealers are sellers of agricultural inputs that include seeds, fertilizer, crop protection chemicals, farm equipment and machines, veterinary products and animal feeds. Agro-input dealers play a major role in ensuring that farmers access some of the important agricultural inputs required to improve agricultural productivity in their respective farms. They purchase their product from another district. All of the agricultural input agents were educated but they have to improve their communication skill in order to increase their productivity. Input agents have knowledge about their input dealers. But lack of training programme and information about government scheme and policy is a negative point of the agricultural input agents. The agricultural input agents spend most of the time for working in shop even though they find time to relax themselves from stress by doing yoga and meditation and by listening music. Most of them gained benefit as input agents. Agricultural input agents are giving better extension service to people because they themselves belong to rural area. Only few of the agricultural input agents gained awards regarding to their work. They have to do struggle for improve their work activity as well as skill development, for that government, NGOs, Educational institution should help agricultural input agents.

## **RECOMMENDATION:**

- Agricultural institution should provide trainings on personality development of agricultural input agents along with computer skills.
- Government should launch schemes and policy for improving the status of agricultural input agents.
- NGOs can also forward helping hands towards agricultural input agents in order to aware them about developed agricultural technology.

## BIBLIOGRAPHY

A. K. Singh, Jitendra Chauhan, Lakhan Singh and R. Roy Burman(2009),” Future Extension Education Perspective in India , Indian Res. J. Ext. Edu. 9 (3), Pp-9

A.M.A.P.G. Gunawardana and V.P. Sharma(2007),” Personal Characteristics of Farmers Affecting the Information Seeking Behavior on Improved Agricultural Practices in Udaipur District Rajasthan, India”, Maharana Pratap University of Agriculture and Technology Udaipur, Rajasthan, India, Tropical Agricultural Research Vol. 19,Pp: 359 – 366.

Aderibigbe S. Olomola(2014) “Determinants of Agro-Dealers’ Participation in the Loan Market in Nigeria”, Volume 17 Issue.

Agbamu, J.U. (2000). “Agricultural research–extension linkage systems: an international perspective: Agricultural Research & Extension Network (AGREN)”. Network paper No.10. ODI London.

AGRO-RETAILER TRAINING PROGRAMME ASIA AND THE PACIFIC REGION: BHUTAN, INDIA, NEPAL, THE PHILIPPINES, SRI LANKA AND THAILAND(1998), Terminal Statement prepared by the participating governments of the Food and Agriculture Organization of the United Nations, AG/TCP/RAS/4554 TECHNICAL COOPERATION PROGRAMME

Agricultural Economics Research Association (India), 2012” Agricultural Inputs and Services Delivery System for Accelerating Growth and Improving Farm Income “, Venue of Conference Division of Agricultural Economics Indian Agricultural Research Institute, New Delhi, Organizers Indian Agricultural Research Institute, New Delhi National Centre for Agricultural Economics and Policy Research, New Delhi Indian Agricultural Statistics Research Institute, New Delhi Agricultural Economics Research Association, NASC Complex, New Delhi .

- Alex, G., Zijp, W. and Byerlee, D. (2002). “ Rural extension and advisory services : New directions. Rural Strategy Background Paper”, No. 9. *Washington, D.C. AKIS Thematic Team, World Bank.*
- Ali AL-Sharafat, Mohammad Altarawneh and Ebraheem Altahat(2012) “Effectiveness of Agricultural Extension”. *Activities*,Pp-195, *American Journal of Agricultural and Biological Sciences* 7 (2): Pp-194-200.
- Allahyari, M.S., (2009). Agricultural sustainability: Implications for extension systems. *Afr. J. Agric. Res.*, 4: Pp-781-786.
- Allgood J (2011). “Agro-dealer development: developing and emerging markets. Paper presented in AIARD Annual Conference”. (accessed from [http://www.aiard.org/meetings/2011annual/presentations/allgood\\_presentation.ppt](http://www.aiard.org/meetings/2011annual/presentations/allgood_presentation.ppt) on Jan 2014)
- Ameur, C. (1994). ‘Agricultural extension: A step beyond the next step.’ World Bank Technical Paper, No. 247, World Bank, Washington, DC, USA.
- Anandajayasekeram P., R. Puskur, Workneh Sindu, and D. Hoekstra. (2008). “Conceptsand practices in agricultural extension in developing countries: A source book.” IFPRI (International Food Policy Research Institute), Washington, DC, USA, and ILRI (International Livestock Research Institute), Nairobi, Kenya. Pp-275.
- Anderson, J.R., (2007). “Agricultural Advisory Services, Background paper for the World Development Report 2008”, Agriculture and Rural Development Department, World Bank, Washington, D.C.
- Anwasha borthakur; Pardeep singh(2012)”AGRICULTURAL RESEARCH IN INDIA: AN EXPLORATORY STUDY”, *International Journal of Social Science & Interdisciplinary Research* Vol.1 Issue 9, ISSN 2277 3630.
- Aniban Mukherjee,Anirudha Mity(2015),Public-privat partnership for convergence of extension services in India *Agriculture*,Pp-1557(General Article)

- Anonymous 2006. Some aspects of operational land holdings in India 2002-2003. National Sample Survey Organization, Ministry of Statistics and Programme Implementation, New Delhi, India.
- Arokoyo, T. (2005). "ICTs application in Agricultural Extension service delivery. In: Adedoyin, S.F (ed) Agricultural Extension in Nigeria". Ilorin: Agricultural Extension Society of Nigeria
- Ashok Sengupta, Devika Sonwani, 2012, "Sustainable Development in India with Reference to Agricultural Sector" International Journal of Emerging Research in Management & Technology ISSN: 2278-9359.
- Ashutosh Das<sup>1</sup>, Debabrata Basu<sup>2</sup> and Rupak Goswami (2010) "Factors Influencing Retailing Performance of Farm Inputs in South 24 Parganas District of West Bengal" Indian
- Ayieko, M.W. and Tschirley, D.L. (2006). "Enhancing Access and Utilization of Quality Seed for improved Food Security in Kenya", Working Paper No 27/2006, Nairobi, Kenya: Tegemeo Institute of Agricultural Policy and Development.
- B.Rajasree, 2005 "Privatise agricultural extension services", The Hindu News Paper 2005, May 3.
- Babu, S.C., Glendenning, C.J., Asenso-Okyere, K. and Govindarajan, S.K. (2012) "Farmers' Information Needs and Search Behaviours A Case Study in Tamil Nadu, India", IFPRI Discussion Paper 01165, International Food Policy Research Institute, Washington, DC, USA.
- Brewer F. (2000). "History of Indian Extension". <http://web3.canr.msu.edu/vanburen/India/histupd.htm>.
- Burton E. Swanson, Robert P. Bentz, Andrew J. Sofranko (1998) "Improving agricultural extension". A reference manual, Pp:1-5
- Chandra-shekhara, 2005 "Experiences in agripreneurship development-India experience, MANAGE, Hydrabad, India", Pp-35

- Chantrell, Glynnis, ed. (2002). "The Oxford Dictionary of Word Histories. Oxford University Press". Pp. 14. ISBN 0-19-863121-9.
- Chapman, R. and Tripp, R. (2003) "Changing incentives for agricultural extension – A review of private sector extension in practice, AGREN ".Network Paper No.132
- Chianu, J.N., Mairura, F., Ekise, I., and Chianu, J.N. (2008). "Farm Input Marketing in Western Christoplos, I. (2010). Mobilizing the potential of rural and agricultural extension. Rome: FAO".
- Claire J. Glendenning Suresh Babu Kwadwo Asenso-Okyere,(2010)," Review of Agricultural Extension in India Are Farmers' Information Needs Being Met"?
- Desai, G. M. (1985). "Policies for rapid growth in use of modern agriculture inputs: The case of fertilizers". Retrieved on 1.4.08 from <http://ideas.repec.org/p/iim/iimawp/569.html>
- Desai,B,Dsouza,E.,Mellor,J.W,Sharma,V.P and Tomboli,p(2011)"Agricultural policy strategy instrument and implementation :Review and the road ahead.Economic and political weekly" XLVI 5,Pp-:42-50.
- Dragic Z, Sreten J, Zoran R (2009). "The Role of Knowledge, Innovation and Human Capital in Multifunctional Agriculture and Territorial Rural Development", Belgrade, Republic of Serbia.pp:2
- EEA, 2006. "Evaluation of the Ethiopian Agricultural Extension With Particular Emphasis on the Participatory Demonstration and Training Extension System (PADETS)". Ethiopian Economic Association/Ethiopian Economic Policy research Institute, Addis Ababa, Ethiopia.
- Fawley-King, T. and Pennotti, C. (2010) "The ADAPT Project in Zambia: Successes and Lessons in Building a Scalable Network of Rural Agro-dealers to Serve Smallholders", USA: CARE.Pp-4
- Ferroni M and Zhou Y 2012. Achievements and challenges in agricultural extension in India. Global Journal of Emerging Market Economies 4(3): 319-346.

- Galvan(2006),”Written literature Review :A guide for student of the behavioural science(3rded)”,Pyrzczak publishing ,Glendale,CA.
- Girabi, F. and Mwakaje, A.E.G. (2013) “Impact of microfinance on smallholder farm productivity in Tanzania: The case of Iramba district”. *Asian Economic and Financial Review*, 3(2): 227-242.
- Glendenning,C.J ,Babu ,S.C and Asenss Okyere,K(2010)”Review of the Agriculture at Extension in India “,IFPRI disscussion paper 01048,International Food policy Research Institution , Washington DC.
- Government of India (2011), “State of the Economy and Prospects Economic Survey”, available at <http://exim.indiamart.com/economic-survey10-11/pdfs/echap-01.pdf>
- Hosseini, S.J.F., M. Niknami and G.H.H. Nejad, 2009.” Policies affect the application of information and communication technologies by agricultural extension service”. *Am. J. Applied Sci.*, 6: 14781483. DOI: 10.3844/ajassp.2009.Pp-1478-1483
- IFDC, (2003). *Input Subsidies and Agricultural Development: Issues and Options for Developing and Transitional Economies. Paper Series P-29. International Fertilizer Development Center, Muscle Shoals, AL.*
- J.V Mande and N.W.Darade(2011),”Training needs of Farm input Dealers for Transfer of Agricultural Technology”Department of Extension Education ,College of agriculture,Latur-413512,M.K.V.,Parbhni
- Jamilah, O., M. S.H. Azril, U. Jegak, M. Asiah and A.N. Azman et al., 2010. Can quality of work life affect work performance among government agriculture extension officers? A case from Malaysia. *J. Soc. Sci.*, 6: 64-73. DOI: 10.3844/jssp.2010.64.73
- Jana, H. (2005). *Agricultural input retailers and their role in extension. Ph. D. Thesis (Unpublished) submitted to Dept. of Agricultural Extension, BCKV, Nadia, West Bengal.*

Jirli B. (2011). E- ready extensionist. Department of External Education, Institute of Agricultural Sciences, Banaras Hindu University, (article pulled from agropedia 23May, 2013 at 10.44am

Jha,Mithileshwar(1998),Rural marketing:some conceptual issues,Economic and political weekly,Vol.13(9),1998

Joshi,P.K,Pal.S Birtnal ,P.S and Bhanthilam ,M.C.S(2005)Imapct of Agriculture Research :Post –Green Revolution Evidence from India,NCAP/ICRISAT,New Delhi

Kekane Maruti Arjun ,2013,” Indian Agriculture- Status, Importance and Role in Indian Economy”, Department of Commerece, University of Pune, Pune (Maharashtra), India. International Journal of Agriculture and Food Science Technology. ISSN 2249-3050, Volume 4, Number 4 (2013), pp. 343-346 Research India Publications <http://www.ripublication.com/ijafst.htm>

Kenya: Challenges and Opportunities’, African Journal of Agricultural Research 3(3):

Lisa A Schwartz,(1994)” THE ROLE OF THE PRIVATE SECTOR IN AGRICULTURAL EXTENSION: ECONOMIC ANALYSIS AND CASE STUDIES ,pp-2

Mitra, S. (1999). Study on pesticide market as perceived by retailers. M.Sc. (Agri.) Thesis (Unpublished) submitted to Dept. of Agricultural Extension, BCKV , Nadia, West Bengal

Mohammad Chizari, Amir Hossein Ali Baygi and Don Breazeale(2006)” Analysis of the Training Needs of Multi-Functional Extension Agents Associated with Sustainability” Journal of International Agricultural and Extension Education, Volume 13.

NAAS (National Academy of Agricultural Sciences) (2009). State of Indian Agriculture. New Delhi, India

National Institute of Agricultural Extension Management(An Organization of Ministry of Agriculture & Framers Welfare, Government of India,(2005).

National agricultural sector extension policy (NASEP) implementation framework, (2007).  
National extension task force; Nairobi.

National Commission on Farmers (2006), report available at <http://agricoop.nic.in/NCF/NCF%20Report%20-%203.pdf>

Olusola, S.A. (2011). "Farmers' perception on public and private extension services on south-western Nigeria". Ph.D . Thesis, University of Ilorin.

Ogunlade I., Atibioke O.A., Ladele A.A. and <sup>1</sup>Adumadehin G. S.(2012)" Capacity of agro-input dealers in advisory service delivery to maize farmers in Kwara State, Nigeria" Dept. of Agric. Extension and Rural Development, University of Ilorin, P.M.B. 1515, Ilorin, Nigeria Nigerian Stored Products Research Institute, P.M.B. 1489, Ilorin, Nigeria Dept. of Agric. Extension and Rural Development, University of Ibadan, Nigeria\*Corresponding Author, E-mail: [iogunlade@yahoo.com](mailto:iogunlade@yahoo.com) ,Received 09 August, 2012; Accepted 11 September, 2012

P. Venkatesh and M.L. Nithyashree(2014), "Institutional Changes in Delivery of Agricultural Inputs and Services to Farm Households in India", Agricultural Economics Research Review Vol. 27 (Conference Number) 2014 pp 85-92

Pal,s(2008)Agricultural RCD policy and institutional reforms:Learning form the experiences of India and China ,Economic and politiacl weekly,PP-145-155.

Parthasarathi Senapati (2008)" A STUDY OF AGRICULTURAL INPUTS MARKETING IN INDIA", Indian Streams Research Journal-2230-7850.

Planning commision(2008)Elevent-five year plan(2007-2012) vols I & III New Delhi , Government of India.

Poullisse, J.(2007); "Increased fertilizer use opportunities and challenges for food security in sub-Saharan Africa". Paper presented at the 13th International Annual conference and Exhibition. Arab Fertilizer Association, Sharm El-Sheikh, 6–8 Feb 2007.

- Rabbe,K(2008),”Reforming the Agricultural Extension System in India .What do we know about what works where and why?New Delhi”.Pp-28-30
- Robert Chapman and Robert Tripp(2003) “CHANGING INCENTIVES FOR AGRICULTURAL EXTENSION – A REVIEW OF PRIVATISED EXTENSION IN PRACTICE”,Pp-7(Research paper)
- Sallam, M.S., (1994). “Expectations from farmers in mediterranean southern countries: The case of Egypt”. J. Cahiers Options Mediterranean's, 2: 119-122.
- Saravanan Raj(2010). “AGRICULTURAL KNOWLEDGE INFORMATION SYSTEMS AND IN-NOVATIONS FOR TECHNOLOGY DISSEMINATION AND SUSTAINABLE AGRICUL”.Pp-140-162
- Shekara, C., and Charyulu, A. (2002) “Agriculture to agripreneurship: Success stories of agripreneurs.Hyderabad: National Institute of Agriculture Extension Management (MANAGE)”.Pp-34-36
- Shekara, P.C., Malik, H. A., and Jan, N. (2011). “Gender Empowerment through Agri-clinics and Agribusiness Centers.” Research Journal of Agricultural Sciences, 2(1), Pp-170-173.
- Sanchez P.(2005)” Implementing the Hunger Task Force Recommendations in Africa. Power point presentation. Hayes Memorial Lecture,University of Minnesota”.Pp-150
- Shekara, P. (2001) “Private Extension in India: Myths, Realities, Apprehensions and Approaches, National Institute of Agricultural Extension Management (MANAGE)”.Pp-24-28.
- Shoji Lal Bairwal , Saket Kushwaha<sup>2</sup>, Lokesh Kumar Meena and Kerobim Lakra(2014)” Present Status of Agriclinics and Agribusiness Centers Scheme in India: An Analysis, International Journal of scientific research and management (IJSRM) .

- Singh JP, Swanson BE and Singh KM. (2006). "Developing a decentralized, market-driven extension system in India: The ATMA model. In AW van den Ban and RK Samanta, eds. changing roles of agricultural extension in Asian nations" pp. 203–223.
- Singh, K.M., and Swanson, B.E., (2006). "Developing a market-driven extension system in India. Annual Conference Proceedings of the Association for International Agricultural and Extension Education", 22, 627–637.
- Singh, Sukhpal (2005). "Contract Farming for Agricultural Development: Review of Theory and Practice with special reference to India, Centre for Trade and Development, New Delhi" ..Pp-70-75
- Sontakki,B.S., Samanta, R.K . And Joshi,P.K (2010) "Redesigning agricultural extension in India:Challenges and oppourtunities,summary proceedings and recommendations of NAARM-IFPRI work shop held during 20-21 august 2010".National Academy of Agricultural research management,Hydrabad,Andhra pradesh.
- Sulaiman V Rasheed (2012) "AGRICULTURAL EXTENSION IN INDIA: CURRENT STATUS AND WAYS FORWARD"Centre for Research on Innovation Pp167-173.
- Sulaiman r. (2015): INFORMATION provided by Rasheed Sulaiman in February 2015
- Suman RS.(2014). "Attitude of farmers towards sustainability of vegetable cultivation". Journal of AgriSearch 1 (1): 1-3.
- Swaminathan, M. (1991) "Segmentation, collateral undervaluation, and the rate of interest in agrarian credit markets: Some evidence from two villages in south India. Cambridge Journal of Economics", 15 (2): 161-178.
- Swanson, B. (2008) "Global Review of Good Agricultural Extension and Advisory Service Practices, Rome: FAO"
- Sygenta, (2010). "Improving the livelihood of smallholder farmers agricultural extension: Foundation for Sustainable Agriculture".Pp-130-135

- T.B. Etyang, J.J. Okello, S. Zingore, P.F. Okoth, F.S. Mairura, A. Mureithi and B.S. Waswa,(2014),” Exploring Relevance of Agro Input Dealers in Disseminating and Communicating of Soil Fertility Management Knowledge: The Case of Siaya and Trans Nzoia Counties, Kenya” *Agricultural Information Worldwide* – vol.6
- Tiraieyari, N., K. Idris, J. Uli and A. Hamzah, (2010). “Competencies influencing extension workers’ job performance in relation to the good agricultural practices in Malaysia. Am”. *J. Applied Sci.*, 7: 1379-1386. DOI: 10.3844/ajassp.2010.Pp-1379-1386.
- Ulrich G. Mueller, Nicole M. Gerardo, Duur K. Aanen, Diana L. Six, and Ted R. Schultz (December 2005). "The Evolution of Agriculture in Insects". Annual Review of Ecology, Evolution, and Systematics 36: 563–595. doi:10. 1146/annurev. ecolsys.36.102003.152626.*
- Umali L. Dina and Schwartz Lisa. 1994. *Public and Private Agricultural Extension: Beyond Traditional Frontiers*. World Bank Discussion Paper 236. Washington DC.
- Usha Tuteja Subhash Chandra,2012” Impact of Emerging Marketing Channels in Agricultural Marketing – Benefits to Producer– Seller and Marketing Costs and Margins of Agricultural Commodities in Haryana” *Agricultural Economics Research Centre University of Delhi Delhi -110 007*.Research Study No. 2012/01
- Veerpaul Kaur Maan and Amritpal Singh,2013” Role of NABARD and RBI in Agricultural Sector Growth, *International Journal of Emerging Research in Management &Technology* ISSN: 2278-9359 (Volume-2, Issue-3)
- Vijay Paul Sharma(2007), *India’s Agrarian Crisis and Smallholder Producers’ Participation in New Farm Supply Chain Initiatives: A Case Study of Contract Farming*, INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD-380 015 INDIA
- WGAE(Working Group On Agricultural Extension )(2007)*Recommendation of working group on Agricultural Extension for Formulation of Eleventh five-year plan(2007-12)*,Planning commission ,Government of India ,New Delhi.

Working Group on Agricultural Extension. 2007. Recommendations of working group on agricultural extension for formulation of eleventh five-year plan (2007–12). New Delhi: Planning Commission.

Zaheeruddin Mirani and Aslam Memon(2009)"FARMERS' ASSESSMENT OF THE FARM ADVISORY SERVICES OF PUBLIC AND PRIVATE AGRICULTURAL EXTENSION IN HYDERABAD DISTRICT, SINDH

Brewer F. (2000).History of Indian Extension  
<http://web3.canr.msu.edu/vanburen/India/histupd.htm>.

World Bank (2007) World Development Report 2008: Agriculture for Development,  
<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/EXTWDR2008/0,,menuPK:2795178~pagePK:64167702~piPK:64167676~theSitePK:2795143,00.html> (Accessed 14 March 2012)

**ANNEXURE - I**

**Avinashilingam Institute of home science and higher education for women  
Coimbatore -641043**

**Questionnaire to elicit information on Assessment of Extension service by  
Agricultural input agents**

**(I)Socio-Economic Background of the Respondent**

Name

.....

Address:.....

.....

Phone No:.....

E-mail id:.....

Characteristics	Tick it below(√)	
Age	Below 30 years	
	30-39 years	
	40-49 years	
	50-59 years	
	Above 60 years	
Sex	Male	
	Female	
	High School	
	Higher secondary	
	Graduate	
	Post graduate	
	Diploma	
Marital status	Married	

	Unmarried	
	Widow	
Type of family	Nuclear	
	Joint	
Family size	Up to 2 [Small]	
	3 to 4[Medium]	
	Above 4[large]	
Area	Rural	
	Urban	
	Municipality	
	Corporation	
Occupation(earlier)	Private employee	
	Small shop holder	
	Businessman	
	Labor	
Income		
Monthly	Less than 20,000	
	20,000 to 30,000	
	30,000 to 40,000	
	40,000 to 50,000	
Annual	Less than 20,000,00	
	20,000,00 to 30,000,00	
	30,000,00 to 40,000,00	
	Above 40,000,00	
Land holding		
Type of land	Dry land	
	Wet land	
Type of farmer	Small farmer	
	Medium farmer	
	Large farmer	

**(II) Family Background:**

Name	Age	Relationship with the family	Education	Occupation	Monthly income

**(III) Information about Banking:**

a. Are you an account holder in any bank: Yes  No

b. If Yes, Mention the name of the bank:

.....

.....

.....

c. Type of Account:

I) Deposit

ii) Saving

d. Purpose of accounting:

I) Business Transaction

ii) Income tax purpose

iii) Saving money

iv) Getting loan

v) Deposit purpose

**(IV) Economic Motivation:**

Please state the degree of your agreement or disagreement with each of the following statements, which I am reading to you.

<b>Statements</b>	<b>A</b>	<b>SA</b>	<b>DA</b>	<b>SDA</b>	<b>N</b>
An Entrepreneur must work hard towards large production and economic profit					
A most successful Entrepreneur is one who makes the most profit.					
An Entrepreneur should try new business ideas which may earn him more money					
An Entrepreneur should produce products that have demand in the market					
It is difficult for an Input agent's child to make a goodstart unless he is provided with an economic assistance					
An Entrepreneur must earn his living but the most important thing in life cannot be defined in economic terms.					

**\*SA: Strongly Agree, A: Agree, DA: Disagree, SDA: Strongly Disagree, N: Neutral**

**V)Detail about input service:**

Year of establishment		
Year of registration		
Are you having license for your shop	Yes	
	No	
Problems faced while getting license	Financial problems	
	Lack of communication	
	Others, Specify	
Whether the license is renewable	Yes	
	No	

Year of getting license		
Shop size	Own	
	Rented	
Labor working in your shop	1	
	2	
	Above 3	
First Investment (Rs)	Less than 50,000	
	50,000 to 60,000	
	60,000 to 70,000	
	70,000 to 1,000,00	
How long do you work(per day)	3 hours	
	4-6 hours	
	7-12 hours	

**(VI)Information about services:**

Types of product		
	Seeds	
	Equipment	
	Fertilizer	
	Multipurpose	
Reason	Earning money	
	Solve family problem	
	Other	
Motivational factors	Desire to be independent	
	Will to do something of my own	
	Self motivation	
	Family Business	
	Dissatisfaction with the earlier job	

Source of motivation	Family	
	Friends	
	Neighbor	
	Relatives	
	Newspaper	
	Television	
	Educational institutions	
	NGOs	

**(VII) Purchase Details:**

Getting product	Local area	
	Near village	
Where do you purchase input	State	
	District	
	Block	
	Village	
Frequency of the purchase	Monthly once	
	Monthly twice	
	Weekly	
	Weekly Twice	
How do you manage your demand periods	Direct visit to customer	
	Area visit	
	Wholesale market	

**(VIII) Information about Investment:**

Amount of Investment(Rs)	Less than 50,000	
	50,001 to 60,000	
	60,001 to 70,000	
	Above 70,001	
Source of mobilization of	Bank	

funds	Family	
	Friends	
Types of tax paid	Income tax	
	Sale tax	
Investment source(Per month)	Initial advance	
	Monthly rent	
	Maintenance	
	Product	
	Electricity bill	
	Workers	
	Transportation	
	Marketing advertisement	

**(IX)Information about marketing system:**

Marketing channels by input agents	Wholesaler	
	Retailers	
Type of owner ship	Sole	
	Partnership	
Marketing strategy used	E-mail	
	Advertisement	
	Distribution of notice	
	Customers	

**(X)Problem faced by the input agents:**

Problems	Financial Problem	
	Lack of customers	
	Less sales	
	Lack of technological	

	advancement	
	Lack of transport facility	
	Lack of communication	
How do you manage your time when there is no customer	Watching TV	
	Read newspaper	
	Talking with friends	

**(XI) Stress level faced:**

Are you facing any stress during your working hours	Yes	
	No	
If, Yes what type of stress	Occupational stress	
	Family stress	
	Financial stress	
	Customers stress	
Whether you interact with your customers	Yes	
	No	
Are you facing any problems in your launch time	Yes	
	No	
How do you manage the stress from your work	Yoga and meditation	
	TV and movies	
	Music	
	Other	

**(XII) Attitude scales of input agents:**

Please indicate your agreement or disagreement to the following statement.

Statement	SA	A	DA	SDA	N
I have capacity to control my input dealers					
I use to talk with my customers					
I have ability to give good response for the customers					
I have good manners					
My workers listen to my advice					
Workers like me very much					
Sometimes I feel bad					
Sometimes I feel bored					
I am a good decision maker					
I feel I have to develop my input dealers					
I am not satisfied with my works					
I am satisfied with my work					

**(XIII) Support service:**

Support from	Government	
	NGOs	
	Research centers	
	Educational Institutions	
Types of support	Loan	
	Subsidy	
	Training program	
	Awareness program	

**(XIV) Types of training attended:**

Types of training	Duration	Year

**(XV)Information about Computer knowledge:**

Do you know to operate computer?	Yes	
	No	
If, Yes what type of training did you undergo for learning computer	Tally	
	DCA	
	PGDCA	
Do you browse	Yes	
	No	
If, Yes why	Online banking	
	Online shopping	
	Marketing	
	Preparation of bills	
	Paying tax	
	Paying electricity bills	
	Using apps	
Are you aware of ICT	Yes	
	No	
If, Yes mention this are	Mobile	
	Television	
	Radio	
	Network system	
	Skill camera	
	Video camera	

**(XVI) Self Confidence and self reliance:**

Please indicate your agreement or disagreement to the following statement.

<b>Statements</b>	<b>A</b>	<b>SA</b>	<b>DA</b>	<b>SDA</b>	<b>N</b>
I feel no obstacle can stop me from achieving final goals					
I am generally confident in whatever I do					
I am bothered by the feeling that I cannot compete with others					
I am interested to do things at my own initiative					
I usually work out things by myself rather than getting someone's help					
I get discouraged easily					
Life is a struggle for me most of the time I seem myself worrying about something or others					
The future prosperity of my family depends upon my income alone					
The future prosperity of my family depends upon the help rendered by my wife					
The future prosperity depends to certain extent on the help rendered by my children also					

**(XVII)Benefit received:**

Are you getting any benefit through your work	Yes	
	No	
If , Yes what types of benefit	Financial	
	Development in personal Relationships	
	Inventiveness and innovation	
	Low overheads	

**(XVIII)Knowledge on government Schemes and policy:**

a) Are you aware about any government policy? Yes  No

b) If, yes List out the name of the schemes and policy:

i)

ii)

iii)

c) Are you getting any Oppportunity from government scheme and policy? Yes

No

d) If, Yes what types of oppportunity:

i) Financial oppportunity

ii) Training oppportunity

iii) Any others, Specify.....

**(XIX) Suggestion for improvement:**

Statement	Yes	No
Government should provide loans		
Government should provide free tablet		
Government should give training program for improvement of input agents		
Government should provide marketing complex with less rent		

**(XX)** Did you receive any award regarding your contribution as an input agent?

Yes  No

**(XXI)** If, Yes mention the name of the awards and year of receiving :

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## ANNEXUTRE - II

### INSTITUTIONAL HUMAN ETHICS COMMITTEE



*Avinashilingam*

Institute for Home Science and Higher Education for Women

*University*

(Estd. u/s 3 of UGC Act 1956)

**Chairman**

Dr. S. Ramalingam  
Principal, PSG Institute  
of Medical Sciences  
& Research, Coimbatore

**Member Secretary**

Dr. P. R. Padma  
Professor, Department of  
Biochemistry, Biotechnology and  
Bioinformatics

**Members**

Dr. S. Premakumari  
Mr. K. Arulmoli (Legal Expert)  
Dr. A. Saraswathy  
Mrs. V. Mangayarkarasi  
Dr. S. Kowsalya  
Dr. N.S. Rohini  
Dr. Subhashini K. Sripathi  
Mrs. S. Radha Devi  
Mrs. Judith Justin

11<sup>th</sup> March 2016

To  
Ms. Jugamaya Gogoi  
Department of Home Science Extension Education  
Avinashilingam Institute for Home Science and  
Higher Education for Women  
Coimbatore – 641 043

Dear Madam,

Ref: Your proposal No. IHEC/15-16/EXT/13 entitled "Assessment of extension service by agricultural input agents" submitted for approval of the IHEC

The Institutional Human Ethics Committee of our University hereby grants approval to your research proposal No. IHEC/15-16/EXT/13 entitled "Assessment of extension service by agricultural input agents" submitted by you. The Approval number for the same is AUW/IHEC/EXT-15-16/XMT-13.

We wish you all the best in your research endeavours.

Regards,

Dr. P.R. Padma  
Member Secretary

