

# Rising Scope and Challenges of Rural Technology: An Inspection in the Emerging Scenario

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## ABSTRACT

*The application of scientific knowledge to amplify the agrarian society, to lessen the farm works, to make use of the available resources for household amenities which reduce expense etc. can be termed as rural technology. Because of its less expense and availability of resources makes rural technology friendlier to the people. In Kerala there are various rural technologies are employing in different areas according to their availability and needs. Again the problem of the emerging scenario with regard to rural technologies is its fewer acceptances. That means, a very majority of the people were not at all concern or less aware about this scientific procedure which established in the society based on indigenous technology. The study tries to find out the major rural technologies avail and its impact upon the current Kerala society. Also tries to analyse the major reasons for its fewer acceptances. The ineffective media to transfer or to market these technologies to the every category of people is the major reason behind this. The growth of information and communication technology is also an influential factor for its development. Interview with the experts in the field of rural technology, observation and the secondary sources were used to collect the data.*

**Keywords:** Rural technology, scientific knowledge, Information and communication technology.

## Introduction

Rural development generally refers to the process of improving the quality of life and economic wellbeing of people living in relatively isolated and sparsely populated areas. (Moseley: 2003). The necessity of harnessing science and technology for transforming rural India has long been recognized. Technology refers to a particular type of technique or method of doing something with special skill or knowledge (Reddy: 2001). Speaking about the importance of science with reference to agricultural growth, T.W. Schultz rightly observes: "The man who farms as his forefathers did, cannot produce much food no matter how rich the land or how hard he works. The farmer who has access to and knows how to use what science knows about spoils, plants, animals and machines can produce an abundance of food though the land be poor"(Schultz:1970). The literature clearly defines that technology is not able to fulfil without science even in any area. In short, the application of scientific knowledge to amplify the agrarian society, to lessen the farm works, to make use of the available resources for household amenities which reduce expense etc. can be termed as rural technology.

The science and technology together frame incredible alterations in rural society. It also brings change among the farmers of Kerala society. Many Non Governmental Organizations take diverse technologies in order to boost up the rural society. The Organizations such as Integrated Rural Technology Centre (IRTC), Kerala State Council for Science, Technology and Environment and Agency for Non-Conventional Energy and Rural Technology (ANERT) are few among them. The some of the examples for rural technologies are aquaculture, mushroom cultivation, rabbit farming, nursery, Azolla cultivation, vermin composting, the hot box, biogas gassifier, watershed based planning, roof water harvesting, making of soap and toiletries, motorised wheel for potteries, studio pottery, and solar energy programmes etc. And the most noteworthy facet is that these organizations provide training and workshops to those who fascinated in these technologies. Every organization's research wing looks for more advancements and conducted studies in developing technologies for the growth of agriculture.

## Methodology

The study aims to analyse the major rural technologies employing in the society and its impact upon Kerala society. It was a qualitative study, the researcher conducted direct Interviews and observations with the experts in the Non-Governmental Organization of rural technology and the persons who come in to direct contact or experiencing these technologies. The sample size was 5 each from both the organizations.

## Findings and Discussions

The organisations can be divided on the basis of its nature, professional and amateur's, who experiment and experience the research and findings of rural technology in their daily lives as a life style. The research group of these organizations are giving more concern in developing and modifying these technologies and also tries to transform it to the hands of common people before tested and practiced in their wing itself. The professional organizations organize varieties of programmes and workshops to the people in order to make aware of these technologies and also provide attention to the traditional ones. The amateur type organizations like Sarang find, innovate, develop and modify various rural technological methods which existing already or not. For them the rural technology means part of life. Some of the major rural technological methods used in our society are biogas plant, mushroom cultivation, ornamental fishes, studio pottering, advancement in pottery machines, vermin composting, rabbit farming, solar energy programmes are very functional, income generating and solutions for some of the reflected obstacles in the society.

The bio gas plant is an inevitable feature of the present society. The waste management is one of the major issue prevails today especially in the urban sector, the plant will be more helpful to the society. The first innovations of the biogas plant needs modifications, the organisers working continuously and developed anew model of biogas plant, which is portable and can be used by every household. The advancing machine in pottery is really useful for those who practising. Now the advancement in these areas by introducing new machines will reduce human effort, less time consuming and low price to a finished product. Ornamental fish is the most demanded product today and a very few of them accept as part of their beliefs too. Mushroom is now an indispensable vegetable in the new era as part of the revolution in food habits of our society. And also provide proper training and information regarding mushroom cultivation. For women, especially the housewives make use of this programme because it's an income earning too. The rabbit farming, studio pottery, toilet soaps also categorised into an income earning programme. It's very appreciable aspect is that these organizations giving concern to the people in developing these aptitudes. The influence of technology in the agriculture sector formulates farming easier and cost effective and brings farming an unproblematic situation which attracts the human beings to support rural technology and get back to it soon.

The participation from urban sector is more over less than the rural area. The lack of awareness among the common people especially in the urban area is a factor for this participation. As a result these technologies will remain in the smaller sections of the society. To make involvement from the urban people, it's better to develop those technologies which are acceptable to the urban society too. Another noticeable fact is that, majority of the technologies developed by the organisations having certain limitations too. That is, the farming such as ornamental fish, mushroom, rabbit etc. needs more care and concern. The proper training and information regarding these will bring more people into this sector.

We know that our societies are rich enough with the traditional technologies and products. But during the process of commercialisation, a variety of multinational companies are introduced their products, which may results into the declining demand of native products. This may reflect in every sphere especially the basic necessities of life. Their less expense and finished products turn down the demand of native products; makes the farmers to leave farming and took part in some other jobs. And as we know that the demand increases, price also rise, and the common people are the one who pay for it. Rather we ourselves equipped with all the necessities which we need in our daily livelihoods, then no one can beaten or control the products of our basic life. So if these organizations are giving concern in developing the products for the satisfaction of basic necessities in life, then it will be a solution for the major challenge to the society.

A major technological development by most of the organisations are rain water harvesting and water shed management. It will be one of the solutions for the major issue like scarcity of drinking water. The major reason for the drinking water scarcity is the worsening of rivers and lakes. Lack of soil conservation is the root cause of water depletion. Along with these technologies, why these organisations are not make aware to the people regarding soil conservation. Soil conservation is the natural technology for maintaining rivers and lakes. Sarang is one of the best examples in using this natural technology for the conservation of drinking water. Likewise the formal organizations also take care of these and make awareness to the people through the leaning and doing approach, which makes the people to adopt these natural technologies in the everyday practice of their lives.

While analysing the major rural technologies both by the formal and informal agencies, it is true that, most of the rural technologies are developed by human beings according to their needs. The further modifications also made with regard to humans convenience, i.e. to make effort easier. The current demand of the society also prompts the human beings to develop more technologies. Here, in the case of rural

technology, the technologies are shaped by human beings according to their needs and convenience, and the theory social construction of technology absolute to the maximum.

With regard to 'diffusion of innovation theory', the five stages are also applicable in the paper while analysing their process. The five distinct stages are gone through the people who are practising the technologies developed by any of these organizations. We can apply the theory to the people who came into contact with the formal organization. The first stage is knowledge; the people came to know about the technology from the organization through training programmes and workshops. Obviously, during training programmes, the organisers reveal the merits and demerits of the technology to the people. If the technology introduced by them is eco-friendly and useful, the people set their mind to adopt this technology to their work profile. A farmer adopt machines first as it helps to reduce human effort. At the same time, a business man adopts the product which is more demand or marketable in the society. Of course these technologies are experienced and practised by the organizations first, so the people may not have to face more difficulties while practicing it. And they understand its benefits and confirm that their decision is appropriate. This is the way a rural technology is accepted by the people who come into contact into this organization. So, the theory by Rogers is very applicable in the case of the adoption of rural technology. As the theory says, it's necessary to provide awareness and information regarding the new technology while implementing it. The analysis of these organizations and their technologies reminds us that, most of our natural resources are degrading because of the unconcern attitude towards society. So it's really benefitted to improve and maintain the natural technologies along with the newly developed ones. If more technologies are developing to satisfy the basic needs of the people, then it will be more blessing to the common people, as they are the one who are paying according to the demand of multinational companies. To conclude as, Gandhiji said that "India needs production by the masses and not mass production", i.e., the whole society should concern about these and not to the particular category alone. It's not the responsibility to someone else, but is the duty of every citizen to promote these types of programmes and brings our nation to the forefront of the new era. And for this education is the good media to transform these ideas to the society as a whole.

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