

**SUSTAINABILITY THROUGH PEOPLE'S SCIENCE**  
*An Empirical Study conducted in the Extension Department*  
*(SHEPHERD), St. Joseph's College, Tiruchirappalli.*

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**Abstract:**

*The purpose of the study is to explore the scientific outlook of the people and its development either through educational institutions or through other forms of organizations like Kerala Sastra Sahitya Parishad in Kerala. The basic theme of this study is the need for science in every society, particularly in Tiruchirappalli. St. Joseph's College through its Extension Department Programme namely the SHEPHERD, an acronym for Science and Humanities for Peoples' Development, trains the students to bring out necessary changes in villages around Tiruchirappalli by applying classroom learning to peoples' needs and learning from them. In this paper, the views of the students are collected as responses for arriving at an analytical construct. In addition, questions were asked about their abstract level thinking in connection to humanity, equality, liberty and analytical ability.*

**KEYWORDS:**

Sustainability, people's science, scientific knowledge, scientific thinking.

**INTRODUCTION**

The purpose of the study is to explore the scientific outlook of the people and its development either through educational institutions or through other forms of organizations like Kerala Sastra Sahitya Parishad in Kerala. The basic theme of this study is the need for science in every society, particularly in Tiruchirappalli. St. Joseph's College through its Extension Department Programme namely the SHEPHERD, an acronym for Science and Humanities for Peoples' Development, trains the students to bring out necessary changes in villages around Tiruchirappalli by applying classroom learning to peoples' needs and learning from them. In this paper, the views of the students are collected as responses for arriving at an analytical construct. The students were very helpful, readily cooperating as motivated by their director and the principal. The questions were very fundamental related with their experience and understanding about the people, their thinking process pertaining to agriculture, health, and other modes of livelihood. In addition, questions were asked about their abstract level thinking in connection to humanity, equality, liberty and analytical ability. The details are given below.

**OPERATIONAL DEFINITION:**

**People's science:**

- i) The knowledge and benefits of science ought to be equitably distributed.
- ii) Individuals working in science and technology establishments must understand the problems of the poor

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and offer solutions through scientific approach.

### **Sustainability:**

Sustainability is the capacity to endure. For humans, sustainability is the long-term maintenance of well being, which has environmental, economic and social dimensions and encompasses the concept of union, an interdependent relationship and mutual responsible with all living and non living things on earth.

Statement of the problem:

The nature and development of every society depends upon its level of scientific thinking in the day to day life of the people. Unless they know causes and effects of the human activity, they would not be able to decide effectively for themselves. This process of scientific thinking is a product of education and democratic governance. Many of the non-government organizations are trying to imbibe such thinking among its beneficiaries. This paper attempts to evolve the level of thinking and sustainability. However, it only breaks the tip of the iceberg.

Respondents are transferring their knowledge into field through lecture method (70%) and exhibition method (30%) to the village people. In addition to that they have utilized various modes like video images, chart work, conducting rally, seminar and workshop, e-learning method and forcing to follow by verbal communication.

Moreover, they have done many achievements like motivating children going to school regularly, organized evening tuition centre, taught fundamental mathematics, planted medicinal plants, given computer to the village, provided tailoring machine to start a self employment opportunity to women, introduced mushroom cultivation, formed milk society, trained the children how to write, speak and listen the subject etc.

## **METHODOLOGY**

### **Objective**

To find out the nature of scientific thinking of the people in their day to day life and their concerns about human life. Further it is linked with agriculture, family, marriage and health.

### **Sampling:**

The respondents hail from five disciplines namely, biotechnology, botany, chemistry, computer science and mathematics. Of these, ten (6 males and 4 females) post graduate students are selected on random basis for this study. The size of the students or the number of the departments does not have any implication on the basic theme of the paper. However, the student's observation of the people could be considered more accurate than any formal agency of the government. They have visited people living in 7 villages. They are Alathur, Boothagudi, Devarayaneri, Goundampatti, Idayanatti, Innamkulathur and Mela Nagamangalam. These people have identified the following needs. They are bus, computer, employment opportunities, library, bank loan, and toilet facility.

## **FINDINGS**

### **I - Scientific thinking:**

This was adjudged by the volunteers of Extension Department of SHEPHERD on agriculture, health, using household goods, vehicles and computers. In addition, the sociological phenomena namely, rearing of children, taking care of elders and selection of bride or bride groom were also collected. The study has offered a mixed variety of responses.

## Annexure – I - Scientific thinking

S.No	Applied in Scientific Thinking	Frequency		Percentage		Total
		Yes	No	Yes	No	
1	Agriculture	7	3	70.00	30.00	100.00
2	Agri-business	2	8	20.00	80.00	100.00
3	Health	8	2	80.00	20.00	100.00
4	Accumulating Property	3	7	30.00	70.00	100.00
5	Selection of bride and bridegroom	2	8	20.00	80.00	100.00
6	Usage of household goods	3	7	30.00	70.00	100.00
7	Usage of vehicles	5	5	50.00	50.00	100.00
8	Usage of computers	2	8	20.00	80.00	100.00
9	Rearing of Children	4	6	40.00	60.00	100.00
10	Taking care of elders	4	6	40.00	60.00	100.00

70 percent of the respondents are of the view that rural people are scientific in agricultural decision making, and implementation. They offered the examples of choosing fertilizer, vermi compost, and hybrid seeds. They are also aware of the water requirement of crops and strictly adhere to that without exceeding the limit and avoiding deficiency of water. Further, they discuss and decide appropriate pesticides to be applied for crop diseases. Therefore, the respondents rated scientific thinking at the higher level in agriculture. However, their judgments decline when it comes to agribusiness. Shockingly, only 20 percent are of the view that scientific thinking is applied in agribusiness. This may be associated with lack of awareness by the rural people due to the non-availability of market based information.

In response to the question of health, the study found 80 percent of the respondents are of the view that the rural people are very scientific. They are following hygienic methods in their social environment and apply medicines which are cheaper and effective. They are home made herbal medicines. The examples are turmeric, neem, thuthuvalai, omavalli, pepper, cumin seed etc.

A similar approach is called for, in the usage of household goods, vehicles, computers etc. The respondents are of the view that the scientific thinking is applied by 50 % of people in usage of vehicles, followed by usage of household goods 30% and very minimal in using computers 20%. This may be interpreted since vehicle usage has direct effect/impact on human life they are more cautious rather than other household goods. Depending upon the emergency, availability of time and expenditure they make use of buses, bikes and cycles accordingly.

Scientific thinking on non-material culture seems to be very difficult. The respondents are requested to express their view on how rural people rear their children. Similarly, their views on taking care of aged and selection of life partner for marriage alliance are, examined. It was found only 40 per cent of respondents view that the rural people apply scientific thinking both in rearing of children and taking care of elders. Probably both the social phenomena are complimentary to each other in rural society unlike in urban society. However, in case of marriage with the finding is quite shocking that only 20 per cent of respondents are of the view, that the people could not apply scientific thinking for the choosing of life partner. Because the social system is inextricably intertwined with 'paternal aunt' and 'maternal uncle', their daughters and sons, giving least importance to education, most importance to property etc. Therefore, the rural society is concerned with kinship relationship and economic aspect rather than better understanding of approach between bride and bridegroom. It was mostly taken for granted.

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**II - KNOWLEDGE**

To 90 per cent of the respondents in village there is no social equality. In the seven villages it was found that, there is caste conflict. Each caste has a separate street and each member has strong caste feeling. Therefore scientific knowledge has not been applied for caste equality and still there is long way to go to apply science in social aspect.

**Annexure – II - Knowledge**

S.No	Applied in Scientific Knowledge	Frequency		Percentage		Total
		Yes	No	Yes	No	
1	Social equality	1	9	10.00	90.00	100.00
2	Gender equality	3	7	30.00	70.00	100.00
3	Making effort to find the reason	3	7	30.00	70.00	100.00
4	Emotional maturity in their decision making	6	4	60.00	40.00	100.00
5	Analyse in terms of monetary benefit	7	3	70.00	30.00	100.00
6	Analyse in terms of social benefit	4	6	40.00	60.00	100.00
7	Working for living together	7	3	70.00	30.00	100.00
8	Working for separation	3	7	30.00	70.00	100.00
9	Aspiring for change and progress	7	3	70.00	30.00	100.00
10	Maintaining their existing status	8	2	80.00	20.00	100.00

According to 70 per cent of the respondents, gender inequality still persists in these villages. Male domination still exists and treats women as inferior. However, when comparing to social equality, more scientific knowledge is applied in gender equality. Scientific attitude seems to be more easily applicable in gender equality than caste equality.

Another 60 per cent, is of the view that people are more emotional in their decision making than analytical and rational.. More than half of the village set up is still under emotional grip and do not apply science in their thinking.

However, for 70 per cent, the village people are analyzing in terms of monetary benefit, for example, saving their earnings avails bank loans for employment etc. Thus people apply cause and effect analysis in monetary aspects.

In contrast, for 60 per cent, the people do not analyse in terms of social benefit because they are self-centered.

Finally, for 70 per cent of respondents, the people aspire to change and progress in their existing status. This shows the progressive attitude of the people who aspire for social change. However, the remaining 30 per cent must also join with the others. This shows a green signal towards social progress in terms of social equality, gender equality and other social benefits to be achieved by people.

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### **CONCLUSION**

People do not apply science when it is associated with their value system. They apply science with day to day life particularly with monetary aspects. In other words, materialism goes along with science rather than non-materialism. Hence, sustainability could be related only with material life.

All these findings may not exactly fit to the total society. However, these may be accepted as trend setters. The reality may be shaped through further studies.

More training is necessary for the village people to give serious attention for rearing children, taking care of elders which require scientific approach and ensure sustainability. Similarly, more effort is necessary to bring out social equality (gender and caste), emotional maturity to achieve sustainability in human life.

Some of the progressive changes in their scientific approach towards life is identified as an impact of their interaction with students members of SHEPHERD, an organ of St. Joseph's College, Tiruchirappalli.

### **REFERENCE:**

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