

## Efficacy of Self-Developed Environmental Information Empowerment Package (IEP) in Transferring Knowledge to Farm Families

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**ABSTRACT** The study was under taken with an objective to assess the impact of self-developed Environmental information empowerment package (EIEP) on environment protection through gain in knowledge of farm families. The present study was conducted in rural areas of Rajasthan. A sample of a mixed group of 30 willing farm men and women were identified data was collected by the self-developed questionnaire. The results of the study indicate that an apparent gain in knowledge can be observed after exposure to self-developed EIEP. Further, while the coefficient of variation during pre-test was as high as 20.57 percent with 1.81 SD and 0.33 SE it reduced to 7.13 percent (1.63 SD and 0.33 SE) in post-test. This indicates that there was a significant gain in knowledge in all the contents of IEP.

### INTRODUCTION

The World Health Organization defines "health" as a complete stage of physical, mental and social well-being and not merely the absence of disease or infirmity. This holistic health concept views health as a stage of equilibrium between human's external and internal environment (WHO 2003)

The ideology of 'growth at any cost' had developed at an accelerated pace, resulting in to the disintegration of our social fabric and the destruction of the environment. According to official figures, India's per capita green house gases emissions are only 23 percent of the global average, and in past few years, India has delivered economic growth of 8 percent per year with only 3.7 percent increase in total primary energy consumption (Bagchi 2007).

The majority of environmental problems are generated through the various human developmental activities like industrialization, urbanization, mechanization etc. Industrialization is the main source of catalyst for economic development. On the other hand, it not only causes reckless exploitation of natural resource resulting in ecological imbalances, its effluents also cause

environmental pollution threatening everybody's health. A deterioration of the ambient environment hurts the poor more than the rich.

Industrial activities are a major source of air, water and land pollution, leading to illness and loss of life all over the world. The World Health Organization estimates that outdoor air pollution alone accounts for around 2 percent of all heart and lung diseases, about 5 percent of all lung cancers, and about 1 percent of all chest infections (WHO 2006). In the state of Rajasthan there are 11,554 industrial units which are polluting the environs; many of these are fertilizer industries. Out of these 2,373 industrial units are in red category (Rajasthan Patrika 2005). These industries take an enormous toll on human and environmental health

In ancient time, the changes in the climate were clearly natural. Now the changes in environment are more due to excessive anthropogenic activities. A group of international scientists from 113 countries associated with IPCC (International Panel of Climate Convention) issued a landmark report on February 2, 2007 in Paris (France) expressing their unanimous opinion that the problem of global warming is caused by man {Union of Concerned Scientists 2009}.

It is the basic responsibility of all people to join the environment protection movement. For this two fold action is required i.e. the local perception that give the indigenous people, a voice and an empowerment tool of Right to Information

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(RTI) provided by government. Lack of information paralyzes the battle against pollution. Lack of information and the official's resistance in giving the available information are the major hurdles that one would face while fighting pollution.

Right to information (RTI) is a tool to empower people action and can be employed to gain information (National Informatics Centre 2007). A silent revolution in the form of RTI campaign is sweeping across the country. State after state have passed laws granting right to the citizen to question their government, inspect government records, take copies there of and participate in day to day governance. But as Muralidharan (2001) reported that still the rural people are devoid of the advantage due to illiteracy and ignorance.

Therefore, a need was felt to not only study the pollution problem created by fertilizer industries in the vicinity of village Umarda and also to developing a package that can provide a complete knowledge to villagers on the various dimensions of pollution created by the industrial activities in the village with information that the villagers, now have the right to information (RTI) which can be utilized fruitfully to improve the environmental conditions around the village.

### METHODOLOGY

The present study was conducted in purposively selected locale of Umarda village in Girwa panchayat samiti of Udaipur district. In order to achieve the objectives, the sample of respondents was selected for impact assessment of EIEP. A mixed group of 30 willing farm men and women was identified from the stage I for impact assessment of IEP by gain in knowledge stage II

A tool was developed for testing the impact of IEP through pre-test and post-test from the group of 30 members. It comprised of five sub-heads i.e. air pollution, water pollution, soil pollution, general environment and Right to Information (RTI). It consisted of 27 questions. The data was collected through personal contacts by the investigator at respondent's respective farms/home.

### RESULTS AND DISCUSSION

To test the effectiveness of self developed IEP a mixed sample of 30 male and female farmers was identified from the surveyed sample of 60

males and females. A checklist on various dimension of pollution included in the EIEP was prepared. The package had information on general awareness about environment, air, water soil pollution and right to information. The checklist had 27 questions in all for which the trainees had to answer in yes or no. while yes answer was proposed to earn "one" score the No's were not giving any scores to the respondent. Thus each trainee could earn any score between zero to twenty-seven.

To test the effectiveness of the package the check list was administered on the trainees both before and after the exposure of self developed EIEP. The scores received through pre test and post test were thrown to t-test to see if there is any significant improvement in the knowledge of the trainees.

The table 1 indicates that while the average of pre-test scores was trailing as low as at 8.8 with range of scores between 6 to 13. The average scores of post test hiked to 22.83 with minimum 21 and maximum 27 scores among the trainees. Thus, an apparent gain in knowledge can be observed after exposure to self developed IEP. Further, while the coefficient of variation during pre-test was as high as 20.57 percent with standard deviation (SD) of 1.81 and 0.33 standard error (SE) it reduced to 7.13 percent (1.63 SD and 0.33 SE) in post test. While student's t-test was calculated it came to 4.07 which were found to be significant at 1 percent level of significance. This indicates that there was a significant gain in knowledge in all the contents of EIEP and thus it can be concluded that the package is effective in transferring the knowledge about various pollution problems and also about right to information RTI (Fig. 1).

**Table 1: Statistical summary of t-calculated between pre and post test conducted for self developed EIEP.**

	Average scores	Range	SD	SE	CV	t - cal
Pre test	8.8	6-13	1.81	0.33	20.57%	4.07**
Post test	22.83	21-27	1.63	0.30	7.13%	

\*\* Value significant at 1% level of significance.

### CONCLUSION

The destruction of the environment in the present era is reaching unprecedented heights fuelled by runaway of global economic system.

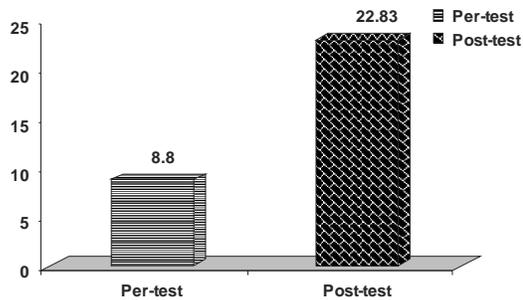


Fig. 1. Average scores of pre-test and post-test

It threatens to harm the planet's ecosystem irreversibly.

A deterioration of ambient environment hurts the poor more than the rich (Reddy 2004). Thus, there is a need to empower people to the level that they can right fully lead healthier lives. After the calculation of student's 't' test it was concluded that there was a significant gain in knowledge in all the contents of IEP and thus it can be concluded that the package is effective in transferring the knowledge about various pollution problems and also about RTI. The awareness about RTI

will empower the villagers in taking care of their environment.

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