

## **Knowledge of Postgraduate Research Scholars of Anand Agricultural University about Global Warming**

**J.B.Dobariya<sup>1</sup> and N.B.Chauhan<sup>2</sup>**

### **ABSTRACT**

Global warming has an impact on our planet, agriculture, human and animal lives. The future problems caused by global warming are raising sea water, growing deserts and more frequent droughts, all looks set to affect the developing world more than rich countries. In an effort to combat against global warming, issues related to agricultural development, agricultural research scholars as a future generation of agricultural development need to possess general awareness and knowledge about global warming issues and problems. Focused and timely efforts to apply knowledge by the agricultural research scholars can enable them to stand successfully against the global warming problems to play a leadership role in overall development of agriculture. The present study was undertaken on a random sample of 100 postgraduate research scholars studying in agriculture faculties of B. A. College of Agriculture, Anand Agricultural University located at Anand of Gujarat state. Selected dependent and independent variables were measured with the help of suitable scale and procedures. The level of knowledge of the postgraduate scholars was observed significantly higher among those who had higher academic performance, involvement in extracurricular activity, information collection habit, more than one occupation of family, elevated scientific orientation and positive attitudes towards integrated pest management.

### **INTRODUCTION**

Various degrees of uncertainty exist about several technical aspects of climate change. While most agree that anthropogenic emissions of carbon dioxide (CO<sub>2</sub>), methane (NH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), chlorofluorocarbons and other substances are warming the Globe, there is still much uncertainty about the likely magnitude or impact of the global warming on the climate. Some regions may also suffer damages from inundation as a result of rising sea levels; an increased frequency and magnitude of natural hazards such as storms, floods and droughts; an increase in human and animal diseases such as malaria and decreases in biodiversity. As a result of these uncertainties, the magnitude and distribution of the benefits of abating emissions are unclear. Global warming has taken a dramatic turn and posed an urgent and serious problem. We don't need to wait for governments to find a solution for this problem each individual can bring an important help adopting a more responsible lifestyle: starting from little, everyday things. It's the only reasonable way to save our planet, before it is too late. Environmental awareness can continue to control global warming problems. To get complete benefits using the knowledge of global warming, agricultural research scholars must prepare themselves to act as future generation of leaders in the development process as change agent to save earth and agriculture. Realizing significant roles of agricultural postgraduate research scholars in the development of agriculture in view of

solution of global warming problems, a study on knowledge of postgraduate research scholars of Anand Agricultural University about global warming was under taken.

### **METHODOLOGY**

The present investigation was conducted in the B. A. College of Agriculture, Anand Agricultural University, Anand. A random sample of total 100 postgraduate research scholars was taken for the study. The data were collected through structural interview schedule. The dependent variable like knowledge about global warming was measured with the help of structural interview schedule. The collected data were classified, tabulated and analyzed in order to make the findings meaningful. The statistical measures such as percentage, mean score, standard deviation and coefficient of correlation were used.

### **RESULTS AND DISCUSSION**

More than one-third (35 %) of the postgraduate research scholars had high level of knowledge about global warming, followed by 34 and 31 per cent with medium and low level of knowledge about global warming, respectively (Table 1). The result indicates that a majority (69 %) of the postgraduate research scholars had created medium to high level of understanding about global warming problems.

<sup>1</sup> PG student, Department of Extension Education, B.A. College of Agriculture, AAU, Anand

<sup>2</sup> Professor & Head, Department of Extension Education B.A. College of Agriculture, AAU, Anand

**Table 1: Postgraduate research scholars according to overall knowledge about global warming  
n=100**

Knowledge about global warming	Number	Per cent
Low knowledge (below 67 score)	31	31.00
Medium knowledge (between 67 to 80 score)	34	34.00
High knowledge (above 80 score)	35	35.00
Total	100	100.00

**Relationship between profile of postgraduate research scholars and their knowledge about global warming**

In order to determine the relationship between the personal, social, communication, economic, psychological and situational characteristics of the postgraduate research scholars with their knowledge about global warming, a correlation co-efficient was computed (Table 2).

**Age and knowledge about global warming :** Age of the postgraduate research scholars had non-significant correlation with their knowledge about global warming (Table 2). The result indicates that knowledge about global warming issues was observed almost identical among irrespective ages of postgraduate research scholars. Thus, there was non-significant relationship between ages of the postgraduate research scholars and their knowledge about global warming issues.

**Academic performance and knowledge about global warming:** The data of Table 2 showed that the academic performance was found positively and highly significant with the knowledge about global warming of postgraduate research scholars. The result indicates that knowledge about global warming was observed better among those research scholars who had higher academic performance. It is natural that person having high level of academic background will have tendencies to know new things because of his scholarly mind-set. This was also observed true here in this study.

**Involvement in extracurricular activities and knowledge:** Involvement in extracurricular was found positively and highly significant with the knowledge about global warming of postgraduate research scholars (Table 2). The result indicates that the knowledge about global warming was better among research scholars who had active and enthusiastic in extracurricular activities. The persons participating more in extracurricular activities tend to be more dynamic with impressive personality and versatile in their talents. They possess good command on communication skills and seem outstanding as far as their innovativeness is concerned. Such qualities make them active in collecting useful scientific information.

**Table 2: Relationship between profile of postgraduate research scholars and their knowledge about global warming  
n=100**

Characteristics	Correlation coefficient
Personal Variables	
Age	0.0021
Academic performance	0.2580*
Social variables	
Involvement in extracurricular activity	0.2490*
Fathers' education	0.1135
Mothers' education	0.0047
Communication variables	
Information collection habit	0.2116*
Library exposure	0.0137
Internet exposure	- 0.0077
Economic variables	
Family annual income	- 0.0880
Fathers' occupation	0.1980*
Psychological variables	
Scientific orientation	0.1989*
Innovation proneness	0.0970
Attitudes toward IPM	0.2275*

**Fathers' education and knowledge about global warming:** The data presented in the Table 2 revealed that education of research scholars, fathers' had non-significant correlation with their knowledge about global warming. This leads to accept the null hypothesis (Ho) in case of fathers' education, that there was non-significant relationship between fathers' education of postgraduate agricultural scholars and their knowledge regarding global warming. The result revealed that educated father could not play role in sensitizing the children towards global warming issues in present case. In other words, it can also be said that an educated father has not realized significance of possession of knowledge about global warming among their children.

**Mothers' education and knowledge about global warming:** Mothers' education of postgraduate scholars had also non-significant correlation with their knowledge about global warming (Table 2). This leads to accept the null hypothesis (Ho) in case of mothers' education and it can be said that there was non-significant relationship between mothers' education of postgraduate scholars and their knowledge about global warming in the present case. Here also same trend was observed as it was seen in fathers' education.

**Information collection habit and knowledge about global warming:** Information collection habit of the postgraduate research scholars had significant correlation with their knowledge about global warming (Table 2). The result indicates that the level of knowledge about global warming issues was observed better among postgraduate research scholars, who had good habit to collect information and exposure of information materials. The tendency to collect useful information among postgraduate research scholars might have led

them towards collection of useful information to form knowledge towards global warming issues.

**Library exposure and knowledge about global warming :** Library exposure of postgraduate scholars also had non-significant relationship with their knowledge about global warming (Table 2), indicating that library exposure did not play any role in improving knowledge of global warming of postgraduate research scholars. During the investigation it was known from them that generally their major interest to explore the library, was to collect their research related materials and references, hence majority of them explored the library only for their research work.

**Internet exposure and knowledge about global warming:** Internet exposure of postgraduate research scholars also had negative and non-significant correlation with their knowledge about global warming. The result indicates that internet exposure did not play any role in cultivating knowledge about global warming issues of postgraduate research scholars. During the survey it was noticed from them that usually their major interest to explore internet was to gather their study related substance and references, hence greater part of them used internet only for their research work.

**Family annual income and knowledge about global warming:** The data in Table 2 showed that a family income of postgraduate research scholars was negative and non-significant with their level of knowledge about global warming. It indicates that level of knowledge about global warming issue was observed almost comparably among the research scholars with their irrespective level of family income. Here, it can be said that level of knowledge about global warming issue was observed almost parallel among the scholars with their irrespective level of annual income.

**Father's occupation and knowledge about global warming:** From the data presented in Table 2 it can be said that father's occupation of the postgraduate research scholars had positive and significant correlation with their knowledge about global warming. It indicates that level of knowledge of the scholars was observed whose father had involvement on more than one occupation. It is natural that the family which is involved in more than one occupation to earn money has more exposure with social, communication, scientific and communication features, such exposure gives chance to family members to know more and more about all such aspects, this might be the reason to have more knowledge about global warming problem among the scholars, whose family is involved in more than one occupation.

**Scientific orientation and knowledge about global warming:** The calculated 'r' value indicates that there was positive significant relationship between scientific orientation of the postgraduate research scholars and their knowledge about global warming. The result signifies that level of knowledge was observed better among the scholars who were highly oriented towards the use of scientific methods in terms of decision making during their everyday life. It is natural that a person who is positive towards science and technology and has faith in science and technology will always try to be familiar with scientific knowledge everyday. This tendency was also observed here in this investigation and it was seen that postgraduate research scholars who had positive feeling and faith in science and technology had shown more activeness in possession of knowledge about global warming.

**Innovation proneness and knowledge about global warming:** Degree of innovativeness of the research scholars and their level of knowledge about global warming were non-significant with each other. The outcome of the study showed that the level of innovation proneness did not play any positive role in motivating postgraduate research scholars to possess knowledge about global warming. It can also be said that the degree of an individual's interest and desire to seek change in application of techniques in life as and when found viable and feasible had not influenced them to develop knowledge about global warming.

**Attitude toward IPM and knowledge about global warming:** The data presented in Table 2 showed that there was a positive and significant relationship between the attitude of the postgraduate scholars towards IPM and their knowledge about global warming. The result indicates those positive feelings towards application of eco-friendly methods to solve insect and pest problems in the crop and motivated postgraduate research scholars to build useful awareness and knowledge about global warming. This may be due to fact that postgraduate research scholars with favourable attitude towards IPM had better understanding and awareness about environment and pollution related aspects.

## CONCLUSION

It can be concluded that more than one third (35 %) of the postgraduate research scholars had high level of knowledge about global warming, followed by 34 and 31 per cent with medium and low level of knowledge about global warming, respectively. The level of knowledge of the postgraduate scholars was observed significantly

higher among those who had higher academic performance, involvement in extracurricular activity, information collection habit, more than one occupation of family, elevated scientific orientation, positive attitudes towards IPM and higher sensitivity to minimize global warming problems.

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