INTRODUCTION

Today the World is facing rather passing through many crises but the most dangerous crisis is that of gross and constantly increasing pollution of environment. Ironically and probably unknowingly, it is human beings themselves who are responsible for degrading, destroying and polluting environment. The future generations will have to reap the crop of unplanned and insensitive approach that has irreparably damaged the relationship and harmony of human beings with nature. The ill effects are evident and future potentialities of destruction are immense.

Environment has become the concern of all the scientists, academicians, intellectuals, policy makers and government all over the World. Widespread and systematic concern for environmental issues has grown the world over particularly after the 1960s, as a fall out of hazardous effects of the developmental activities initiated the world over, a number of environmental problems erupted in critical sectors like climatic changes, depletion of forests, pollution, shortage of water etc. These particularly threatened human health, energy resources, soil productivity, rains and water resources. In fact the nature, its forces and equilibrium all put together were disturbed, which posed an imminent danger to earth's life sustaining systems.
The UN World conference on the Environment in Stockhom (1972), the Earth Summit held in Rio de Janeiro (1992), the Global Forum (1992) show that environment is on the agenda of the international community. The environmental movement has focused attention on the quality of the air we breathe and the water we drink, how new dam construction harms wildlife and how strip mining devastates the landscape and causes floods. Today human race stands at crossroads in choosing the options it has in the areas of environment and development. The industrial countries having enjoyed more than their of development, have achieved descend standard of living. This has given to the biosphere, pollution and ecodegradation, as a result of affluence and underlying greed. It has now become clear that such pattern of development, life styles and quality of life are unsustainable. On the otherhand, the developing countries are struggling to attain the minimum levels of sustenance. No doubt, they also have contributed to the ecodegradation and pollution, but this is essentially need and poverty based issue.

Thus, Both overdevelopment in the industrialized world and underdevelopment in the developing countries pollute and ecodegrade the environment; former out of greed and luxury, and the latter for the existence. The developing countries need abundant material growth to fulfill the basic needs of their people, but they cannot afford to repeat the mistakes of industrial countries. Decades ago, when environment was not a buzz word, Mahatma Gandhi said, "the earth provides enough to satisfy
everyman's needs, but not everyman's greed." This is the statement with profound social, economic, cultural and ethical ramifications.

The educational system in Ancient India was quite rich in its understanding and appreciation of environmental studies. Further more, non-violence towards both animate and inanimate components of biosphere has been ingrained as a guiding principle is the Indian psyche. Therefore, awareness and education of environment is the paramount concern of all the citizens of society. For the sustainable future of our planet, we should shift towards the nation "Think globally, Act locally" (Steel 1996). Environment protection starts by creating an awareness among the people so that it becomes part of their life style. The key to achieve this goal lies in environmental education and its related programmes. The objective of environmental education includes awareness, knowledge, attitudes, skills and participation of people in protecting the environment.

1.1 Justification of the study

The environment which sustains life is in peril at present. Human activities are responsible for this. Rapid industrialization, further advancement in science and technology and the abuse of this advancement in an arbitrary way as well as the fast growth of urbanization have posed danger to man himself. Man's life, in terms of quality and sustainability, is dependent on the interrelationships among the natural environment, social environment and technological
environment. As proposed by the sociologist William Ogburn, a change in any one of the environments will lead to changes in every other part of the total complex. These changes will have a tremendous impact on the life of human being. The most threatening aspect is the uncertainty prevailing about the fate of our future generations.

Generally people are indifferent to their environment. Newton's third law states, "Every action has an equal and apposite reaction." This also applies to man's relationship with nature as it relates to application of force on inanimate objects. While man sought domination over nature in five thousand years of recorded history, he has begun to realise that his welfare and his every existence are deeply intertwined with the natural cycles and systems.

The main obstacle in protecting the environment in India today is that there is a lack of scientific knowledge and the will to act. In such a position society needs to be convinced of the importance of environment and we have to realise the fact that the way we live, will determine our future. Therefore, the awareness regarding the environment and proper awareness towards the worsening of the environmental condition of the world is imperative.

After review of related literature, it was felt that environmental awareness and its relation to scientific attitudes is not well covered area. It was also realized that cognitive and attitudinal developments may affect each other. It was thought that these two variables i.e. environmental awareness and scientific attitude, may be correlated so
they may be important from education point of view for improving environmental awareness. Therefore it is imperative to study the environmental awareness and its relationship with scientific attitude.

1.2 Statement of the Problem

"A study of relationship between environmental awareness and scientific attitude of high school students."

1.3 Definitions of Important Terms

Environment

Environment is defined as the material and non-material surroundings of human being. Environment can also be defined as a surrounding or conditions influencing development or growth of human being. It can be understood as a system which includes all living and non-living things; i.e. air, water, soil, vegetation, flora and fauna.

Awareness

Awareness is concerned with the consciousness to understand the workings of the inner life of man. It is the characteristic quality of man to understand and realize the things and their operations around him.

Environmental Awareness

Environmental awareness is the characteristic quality of man to understand and know the ins and outs of working forces and conditions of the environment. Environmental awareness is indicative of one's conscious state of being towards one's own environment.
In the present study environmental awareness has been operationally defined as follows:

Environmental awareness is an attitude towards environment which manifests itself in terms of the awareness towards:

(a) Causes of pollution,
(b) Conservation of soil, forest, air etc,
(c) Energy conservation,
(d) Conservation of human health, and
(e) Conservation of wild-life and animal husbandry.

**Attitude**

According to L.L. Thurstone. "An attitude is the degree of positive or negative effect associated with some psychological object."

**Scientific attitude**

Scientific attitude has been used to denote the opinions, feelings, beliefs and appreciations which individuals have for and about science. According John Dewey (1933), the major characteristics of scientific attitude are an ordent curiosity, fertile imagination and love to experimental enquiry.

Brumester and others (1954) rated scientific attitude as being the most important objects of science instruction. According to them scientific attitude seems to include the following characteristics- (a) Belief in cause and effect relationship (b) open mindedness, (c) Freedom
from superstition (d) Suspended judgement (e) Freedom from prejudice and (f) Intellectual curiosity.

1.4 Objectives of the present Research

(1) To study the factors affecting the environmental awareness of high school students.

(2) To study the factors affecting the scientific attitude of high school students.

(3) To study the relationship between environmental awareness and scientific attitude of high school students.

1.5 Null Hypotheses

For the present research following null hypotheses were formulated and statistically tested.

\( H_{01} \) - There is no significant difference between environmental awareness of high school boys and girls students.

\( H_{02} \) - There is no significant difference between environmental awareness of rural and urban high school students.

\( H_{03} \) - There is no significant difference between environmental awareness of rural boys and rural girls high school students.

\( H_{04} \) - There is no significant difference between environmental awareness of urban boys and urban girls high school students.

\( H_{05} \) - There is no significant difference between environmental awareness of rural boys and urban boys high school students.
Ho6- There is no significant difference between environmental awareness of high school girls students on the basis of their residence.

Ho7- There is no significant difference between environmental awareness of high school students with reference to their religion.

Ho8- There is no significant difference between environmental awareness of high school Hindu students on the basis of their sex.

Ho9- There is no significant difference between environmental awareness of high school Hindu students with reference to their residence.

Ho10- There is no significant difference between environmental awareness of high school rural Hindu students on the basis their sex.

Ho11- There is no significant difference between environmental awareness of high school urban Hindu students on the basis of their sex.

Ho12- There is no significant difference between environmental awareness of high school Hindu boys students on the basis of their residence.

Ho13- There is no significant difference between environmental awareness of high school rural Hindu girls and urban Hindu girls students.
There is no significant difference between environmental awareness of high school Muslim students on the basis of their residence.

There is no significant difference between environmental awareness of high school Muslim students on the basis of their sex.

There is no significant difference between environmental awareness of high school rural Muslim students on the basis of their sex.

There is no significant difference between environmental awareness of high school urban Muslim students on the basis of their sex.

There is no significant difference between environmental awareness of high school Muslim boys students on the basis of their residence.

There is no significant difference between environmental awareness of high school Muslim girls students on the basis of their residence.

There is no significant difference between environmental awareness of rural high school students on the basis of their religion.

There is no significant difference between environmental awareness of urban high school students on the basis of their religion.
Ho$_{22}$ - There is no significant difference between environmental awareness of rural high school boys students on the basis of their religion.

Ho$_{23}$ - There is no significant difference between environmental awareness of rural high school girls students on the basis of their religion.

Ho$_{24}$ - There is no significant difference between environmental awareness of high school urban boys students on the basis of their religion.

Ho$_{25}$ - There is no significant difference between environmental awareness of urban high school girls students on the basis of their religion.

Ho$_{26}$ - There is no significant difference between environmental awareness of high school schedule caste students and students other than schedule caste.

Ho$_{27}$ - There is no significant difference between environmental awareness of high school schedule caste students on the basis of their residence.

Ho$_{28}$ - There is no significant difference between environmental awareness of high school rural schedule caste students on the basis of their sex.
There is no significant difference between environmental awareness of high school urban schedule caste students on the basis of their sex.

There is no significant difference between environmental awareness of high school students other than schedule caste on the basis of their residence.

There is no significant difference between environmental awareness of high school rural students other than schedule caste on the basis of their sex.

There is no significant difference between environmental awareness of high school urban students other than schedule caste on the basis of their sex.

There is no significant difference between environmental awareness of high school rural schedule caste boys students and rural non-schedule caste boys students.

There is no significant difference between environmental awareness of high school rural schedule caste girls students and rural non-schedule caste girls students.

There is no significant difference between environmental awareness of high school urban schedule caste boys students and urban non-schedule caste boys students.
There is no significant difference between environmental awareness of high school urban schedule caste girls and urban non-schedule caste girls students.

There is no significant difference between environmental awareness of high school schedule caste girls students on the basis of their residence.

There is no significant difference between environmental awareness of high school students of government added schools and students of SFS schools.

There is no significant difference between environmental awareness of high school students, studying in govt. added schools on the basis of their sex.

There is no significant difference between environmental awareness of high school students, studying in self financed schools on the basis of their sex.

There is no significant difference between environmental awareness of high school boys students of government added schools and boys students of SFS schools.

There is no significant difference between environmental awareness of high school girls students, studying in government added schools and girls students of SFS schools.

There is no significant difference between environmental awareness of high school students having parent education below
high school and students having parent education upto intermediate.

**Ho44** - There is no significant difference between environmental awareness of high school students having parent education upto intermediate and students having parent education upto graduation and above.

**Ho45** - There is no significant difference between environmental awareness of high school students having parent education below high school and students having parent education upto graduation and above.

**Ho46** - There is no significant difference between environmental awareness of high school students having parent income per month less than 10,000 rupees and students having parent income per month between 10,000 to 20,000 rupees.

**Ho47** - There is no significant difference between environmental awareness of high school students having parent income 10,000 to 20,000 rupees per month and students having parent income more than 20,000 rupees per month.

**Ho48** - There is no significant difference between environmental awareness of high school students having parent income less than 10,000 rupees per month and the students having parent income more than 20,000 rupees per month.
There is no significant difference between scientific attitude of high school students on the basis of their sex.

There is no significance difference between scientific attitude of high school students on the basis of their residence.

There is no significance difference between scientific attitude of rural high school students on the basis of their sex.

There is no significance difference between scientific attitude of urban high school students on the basis of their sex.

There is no significance difference between scientific attitude of high school boys students on the basis of their residence.

There is no significance difference between scientific attitude of high school girls students on the basis of their residence.

There is no significance difference between scientific attitude of high school students on the basis of their religion.

There is no significance difference between scientific attitude of high school Hindu students on the basis their sex.

There is no significance difference between scientific attitude of high school Hindu students on the basis of their residence.

There is no significance difference between scientific attitude of high school rural Hindu boys and rural Hindu girls students.

There is no significance difference between scientific attitude of high school urban Hindu students on the basis of their sex.
Ho$_{60}$- There is no significance difference between scientific attitude of high school Hindu boys students on the basis of their residence.

Ho$_{61}$- There is no significance difference between scientific attitude of high school Hindu girls students on the basis of their residence.

Ho$_{62}$- There is no significance difference between scientific attitude of high school Muslim students on the basis of their residence.

Ho$_{63}$- There is no significance difference between scientific attitude of high school Muslim students on the basis of their sex.

Ho$_{64}$- There is no significance difference between scientific attitude of high school rural Muslim students on the basis of their sex.

Ho$_{65}$- There is no significance difference between scientific attitude of high school urban Muslim students on the basis of their sex.

Ho$_{66}$- There is no significance difference between scientific attitude of high school Muslim boys students on the basis of their residence.

Ho$_{67}$- There is no significance difference between scientific attitude of high school Muslim girls students on the basis of their residence.

Ho$_{68}$- There is no significance difference between scientific attitude of high school rural students on the basis on the basis of their religion.

Ho$_{69}$- There is no significance difference between scientific attitude of high school urban students on the basis of their religion.

Ho$_{70}$- There is no significance difference between scientific attitude of high school rural boys students on the basis of their religion.
$H_{071}$ There is no significance difference between scientific attitude of high school rural girls students on the basis of their religion.

$H_{072}$ There is no significance difference between scientific attitude of high school urban boys students on the basis of their religion.

$H_{073}$ There is no significance difference between scientific attitude of high school urban girls students on the basis of their religion.

$H_{074}$ There is no significance difference between scientific attitude of high school schedule caste students and non-schedule caste students.

$H_{075}$ There is no significance difference between scientific attitude of high school schedule caste students on the basis of their residence.

$H_{076}$ There is no significance difference between scientific attitude of high school rural schedule caste students on the basis of their sex.

$H_{077}$ There is no significance difference between scientific attitude of high school urban schedule caste students on the basis of their sex.

$H_{078}$ There is no significance difference between scientific attitude of high school students other than schedule caste on the basis of their residence.

$H_{079}$ There is no significance difference between scientific attitude of high school rural students other than schedule caste on the basis of their sex.
$H_{o_{80}}$ There is no significance difference between scientific attitude of high school urban students other than schedule caste on the basis of their sex.

$H_{o_{81}}$ There is no significance difference between scientific attitude of high school rural schedule caste boys students and rural non-schedule caste boys students.

$H_{o_{82}}$ There is no significance difference between scientific attitude of high school rural schedule caste girls and rural non-schedule caste girls students.

$H_{o_{83}}$ There is no significance difference between scientific attitude of high school urban schedule caste boys and urban non-schedule caste boys students.

$H_{o_{84}}$ There is no significance difference between scientific attitude of high school urban schedule caste girls students and urban non-schedule caste girls student.

$H_{o_{85}}$ There is no significance difference between scientific attitude of high school schedule caste girls students on the basis of their residence.

$H_{o_{86}}$ There is no significance difference between scientific attitude of high school students of government added schools and students of SFS schools.

$H_{o_{87}}$ There is no significance difference between scientific attitude of high school students of government added schools on the basis of their sex.
$H_0_{88}$ There is no significance difference between scientific attitude of high school students of SFS schools on the basis of their sex.

$H_0_{89}$ There is no significance difference between scientific attitude of high school boys students of government added schools and boys students of SFS schools.

$H_0_{90}$ There is no significance difference between scientific attitude of high school girls students of government added schools and girls students of self financed scheme (SFS) schools.

$H_0_{91}$ There is no significance difference between scientific attitude of high school students having parent education below high school and students having parent education upto intermediate (10+2).

$H_0_{92}$ There is no significance difference between scientific attitude of high school students having parent education upto intermediate (10+2) and students having parent education upto graduation and above.

$H_0_{93}$ There is no significance difference between scientific attitude of high school students having parent education below high school and students having parent education upto graduation and above.

$H_0_{94}$ There is no significance difference between scientific attitude of high school students having parent income less than 10,000 rupees per month and students having parent income 10,000 to 20,000 rupees per month.
Ho\textsubscript{95} - There is no significance difference between scientific attitude of high school students having parent income 10,000 to 20,000 rupees per month and students having parent income more than 20,000 rupees per month.

Ho\textsubscript{96} - There is no significance difference between scientific attitude of high school students having parent income less than 10,000 rupees per month and students having parent income more than 20,000 rupees per month.

Ho\textsubscript{97} - There is no relationship between environmental awareness and scientific attitude of high school boys students.

Ho\textsubscript{98} - There is no relationship between environmental awareness and scientific attitude of high school girls students.

Ho\textsubscript{99} - There is no relationship between environmental awareness and scientific attitude of high school rural students.

Ho\textsubscript{100} - There is no relationship between environmental awareness and scientific attitude of high school urban students.

Ho\textsubscript{101} - There is no relationship between environmental awareness and scientific attitude of high school students.

\textbf{1.6 Delimitation of the study}

(1) Environment Awareness Ability Measure (EAAM) has limited dimensions of environmental awareness.
(2) Science Attitude Scale (SAS), used for present study has limited dimensions of scientific attitudes.

(3) Among a number of variables only some demographic and educational variables were selected for the study.

(4) Only high school students of different schools of District Ghazipur affiliated to U.P. Board Allahabad were considered for the study.