

Environmental Problems at National Level and their Solutions

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Abstract

Environmental issues can be discussed or considered at different level despite of having similar causes and effects and nature of these problems. At national level we are facing many environmental problems that could affect development of our country. Currently, India is experiencing rapid and widespread environmental degradation at alarming rates. Tremendous pressure is placed upon the country's land and natural resources to support the massive overpopulation on this background it is interesting to discuss various local and national environmental issues within groups and then making lists of issues as per the preference given by group members. Every time it is important for the environmental problems that one must discuss the solutions to these problems at individual, community and government level. Researcher had taken efforts to draw some conclusions on the basis of information collected by means of group discussions and then making various lists focusing on not only environmental problems but also their solutions.

KEYWORDS- environment, group, preferential list, pollution, national

Introduction

Environmental issues are one of the primary causes of disease, health issues and long term livelihood impact for India. India makes up 2.4 percent of the world's land, while supporting 16 percent of the world's population. The compounding result is a severely unsustainable use of natural resources for several generations. Currently, India is experiencing rapid and widespread environmental degradation at alarming rates. Tremendous pressure is placed upon the country's land and natural resources to support the massive overpopulation.^[1]

There are many **environmental issues in India**. Air pollution, water pollution, garbage, and pollution of the natural environment are all challenges for India. The situation was worse between 1947 through 1995. According to data collection and environment assessment studies of World Bank experts, between 1995 through 2010, India has made one of the fastest progress in the world, in addressing its environmental issues and improving its environmental quality.^{[2][3]} Still, India has a long way to go to reach environmental quality similar to those enjoyed in developed economies. Pollution remains a major challenge and opportunity for India.

Despite active passage of laws by the central government of India, the reality of environmental quality mostly worsened between 1947 to 1990. Most of Indian economy was nationalized and owned by India, and regulations were mostly ignored by state run enterprises. Rural poor had no choice, but to sustain life in whatever way possible. The state governments of India often regarded environmental laws enacted by the central government. Despite of having legislative measure air emissions

increased, water pollution worsened, forest cover decreased. Despite active passage of laws by the central government of India, the reality of environmental quality mostly worsened between 1947 to 1990. Most of Indian economy was nationalized and owned by India, and regulations were mostly ignored by state run enterprises. Rural poor had no choice, but to sustain life in whatever way possible.

Starting in the 1990s, reforms were introduced. Since then, for the first time in Indian history, major air pollutant concentrations have dropped in every 5 year period. Between 1992 to 2010, satellite data confirms India's forest coverage has increased for the first time by over 4 million hectares, a 7% increase.^[4]

Some have cited economic development as the cause regarding the environmental issues. Others believe economic development is key to improving India's environmental management and preventing pollution of the country. It is also suggested that India's growing population is the primary cause of India's environmental degradation. Systematic studies challenge this theory. Empirical evidence from countries such as Japan, England and Singapore, each with population density similar or higher than India, yet each enjoying environmental quality vastly superior than India, suggests population density may not be the only factor affecting India's issues.^[5]

Major environmental issues are forest and agricultural degradation of land, resource depletion (water, mineral, forest, sand, rocks etc.), environmental degradation, public health, loss of biodiversity, loss of resilience in ecosystems, livelihood security for the poor.^[6]

The major sources of pollution in India include the rampant burning of fuel wood and biomass such as dried waste from livestock as the primary source of energy,^[7] lack of organised garbage and waste removal services, lack of sewage treatment operations, lack of flood control and monsoon water drainage system, diversion of consumer waste into rivers, cremation practices near major rivers, government mandated protection of highly polluting old public transport, and continued operation by Indian government of government owned, high emission plants built between 1950 to 1980.^{[8][9][10][11][12]}

Air pollution, poor management of waste, growing water scarcity, falling groundwater tables, water pollution, preservation and quality of forests, biodiversity loss, and land/soil degradation are some of the major environmental issues India faces today.^[13]

Ecological issues are an integral and important part of environmental issues challenging India. Poor air quality, water pollution and garbage pollution – all affect the food and environment quality necessary for ecosystems.

India is a large and diverse country. Its land area includes regions with some of the world's highest rainfall to very dry deserts, coast line to alpine regions, river deltas to tropical islands. The variety and distribution of forest vegetation is large. India is one of the 12 mega biodiverse regions of the world.

Indian forests types include tropical evergreens, tropical deciduous, swamps, mangroves, sub-tropical, montane, scrub, sub-alpine and alpine forests. These forests support a variety of ecosystems with diverse flora and fauna.

Until recently, India lacked an objective way to determine the quantity of forests it had, and the quality of forests it had.

Mismanagement and overuse of India's once abundant forests has resulted in desertification, contamination, and soil depletion throughout the sub-continent. This has serious repercussions for the livelihoods of hundreds of millions of Indians that live off the land. In Rajasthan alone, it is approximated that nearly five million tribal people (as of 2004) rely on the collection of forest produce as their only source of income or nourishment. Without continual access to forest products such as fruit, honey, or firewood these communities experience debilitating hunger and are reduced to extreme poverty.

Drought is having severe consequences for the people Rajasthan who have endured chronic shortages of water. In 2003, one-fifth of the villages in Rajasthan reported that they had no access to a reliable water source, and approximately half relied on a single source for the entire area. This affects the availability of safe drinking water, the success of the livestock population, and the security of basic food sources. Without water, health, and agricultural productivity, Rajasthani people are forced to struggle for their survival.

On this background it is interesting to discuss various local and national environmental issues within groups and then making lists of issues as per the preference given by group members. Every time it is important for the environmental problems that one must discuss the solutions to these problems at individual, community and government level. This research activity is important as this is arranged for a specific group of respondents working in the capacity of assistant professors in various senior colleges and universities. It will help them to create more awareness of environmental issues among their students.

Material and methods

To understand and study various environmental problems and the solution to them at national level a research activity is arranged. For this research different methodology is adopted that constitute of group discussion, listing of data at individual level, representation of entire discussion by a group leader.

34 assistant professors (n= 35) are asked to make groups with 07 participants in one group.

Total groups made for activity were 5. They were asked to choose a group leader

They were requested to make a list of environmental problems at national level individually

Then each group has given a time of 10 minutes to discuss on the list they prepared.

They were asked to add environmental problem in the list after discussion by making a mark to that addition.

After discussion of 10 minutes they were requested to make another list showing preferential order of the identified environmental problems.

They were requested to discuss various mitigation measures on various environmental problems

They were asked to make a list of things that one can do for environment under the heading “What can I do for Environment” Every member of each group have been asked to make a list of mitigation measures. Lastly group leader of each group represented the group on the basis of discussion with reference to three points taken for discussion

Result and discussion

Group I with prepared a list of **13** environmental problems at national level (Table 1).they have mentioned most of the environment problems except few like radiation or nuclear pollution , biomedical waste problem , ozone hole , plastic pollution, overpopulation etc.

Group II has listed 11 environmental problems as mentioned in table no. 1. They have included E-waste, nuclear pollution and biomedical waste but not anything about population, soil and land.

Group III has listed only 09 environmental problems but not listed deforestation, overpopulation, desertification etc.

Group IV has listed 10 problems and excluded population problem, loss of biodiversity, etc.

Lastly group V listed 09 environment problems like group III. They have listed cultural pollution, and radioactive waste and radiation pollution separately.

Group I have listed maximum number of environmental problems (fig 1)

Preferential orders made by each group are shown in table 2 for the comparative study of the preference given by each group to the environmental problem at national level .

Two groups have given top priority to water pollution and two groups air pollution. One group (group IV)has given first priority to moral pollution. Researcher interpreted that as below. There are different kinds of environment as internal environment and external environment of man. Internal environment means all systems of man. Man is becoming very selfish and to fulfil own demands they are overexploiting environment. For the conservation of environment therefore it becomes very necessary to change our moral views. Further they have been asked to discuss and write about mitigation measures group I written many preventive measures that can be implemented by the government. In case of environmental problems most of the times we expect that government should take all responsibility actually speaking it is wrong . Unless and until we are not thinking and implementing the solutions at individual level environmental problems will not get solutions. Therefore researcher asked the group members to list the measures that can be implemented by him on their own under the heading “What can I do for Environment”. Water can be saved at individual level. Air pollution can be prevented individually. Solid waste can be segregated and disposed by environment friendly

method in each house. Some respondents mentioned about counselling and education of environment in schools. Tree plantation, reforestation, can be even contributed by any individual. Noise pollution can be reduced. Minimum use of refrigerator and air conditioners is one of the measure in favour of environment. Only one respondent of group II has written about use of solar energy. India receives maximum solar energy for more than six months per year it is free of cost and its use reduces pollution and can save other fuel.

Conclusion

Most of the respondents from all 5 groups are aware about pollution problems but not all environmental problems. All respondents are not considering some of the important problems like biodiversity loss, population problem, soil erosion, acid rain, energy etc.

Each group tried to give preference to the air, water and noise pollution. Each group has used their own concepts, knowledge and experience to prepare preferential order list. Group leader has explained nicely the preference given by the group.

It can be further concluded that most of the assistant professors are aware about today's national environment status. All respondents were agree that they individually can do many things to save environment. At last it can be concluded that everybody most understand "Earth do not belong to us, we belong to earth. Use of common or public transport, use of vehicles which are in good condition, use of natural organic fertilizers, population control, ecofriendly festival celebration are some of the simple measures to save our environment.

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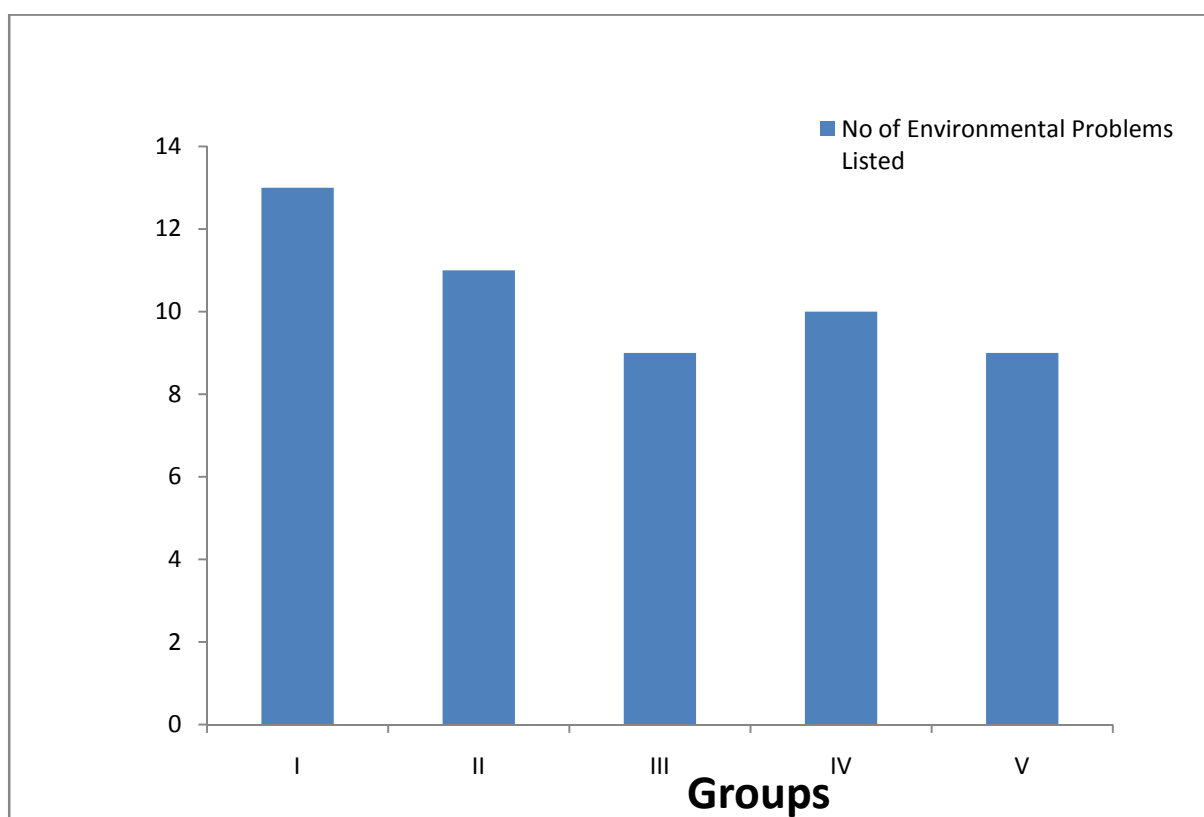
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Fig 1 No. Of environment problems listed by different groups



Group I	Group II	Group III	Group IV	Group V
Water pollution	Water pollution	Air pollution	Water pollution	Air pollution
Air pollution	Air pollution	Water pollution	Air pollution	Water pollution
Global warming	Global warming	Soil pollution	Soil pollution	Wastage of N.R
Deforestation	Noise pollution	Noise pollution	Noise pollution	Radioactive waste
Industrial chemical pollution	Industrial chemical pollution	Plastic waste	E-waste	Growing population
Pesticide pollution	Pesticide pollution	Chemical pollution	Global warming	Deforestation
Climate change	Nuclear pollution	Over population	Deforestation	Biomedical waste
Solid waste	Biomedical waste	Biomedical waste	Global warming	Various radiations
Soil erosion	Deforestation	E -Waste	Agricultural pollution	Cultural pollution
Noise pollution	E waste		Ozone layer	-
Desertification	Ozone hole			-
Loss of biodiversity			-	-----
Floods and draught			-	
13	11	09	10	09

N. R- Natural resource

Table 1 list of environmental problems made by all 5 groups

Group- I	Group- II	Group--III	Group- IV	Group- V
Water pollution	Air pollution	Air pollution	Moral pollution	Water pollution
Air pollution	Water pollution	Water pollution	Water pollution	Air pollution
Solid Waste mgt	Soil pollution	Soil pollution	Air pollution	Wastage of N.R
Deforestation	Deforestation	Over population	Global warming	Noise pollution
Soil erosion	Noise pollution	E- Waste	Deforestation	Food wastage
Desertification	Non degradable waste	Biomedical waste	Soil pollution	Deforestation
Noise pollution	Ozone layer threat	Plastic waste	Noise pollution	Biomedical waste
Flood and draught	Global warming	Noise pollution	Rituals & misbelieves	Radiation pollution
Loss of biodiversity	E- Waste	Chemical pollution	Agriculture pollution	Cultural pollution
Acid rain	Nuclear waste	-----	E- waste	-----
Global warming	Chemical pollution	-----	Population	-----
Climate change	-----	-----	-----	-----

N. R- Natural resource

Table 2 preferential order of environmental problems by each group.