

## **A Study on Environmental Awareness of Pupil-Teachers of Manipur In Imphal East And Imphal West District With Respect To Sex And Place Of Residence.**

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### **ABSTRACT:**

*Environmental degradation seriously poses a great threat to mankind at the global level. Man is a part of nature. The congregation of people with their daily living habits and modern lifestyle has added a new dimension to environmental distress like the generation of waste and proliferation of pollution with the abundant spread of diseases. The hunger of cities for resources of all kinds has been growing phenomenally- food and raw material as much as huge amounts of fuel, energy and water. Environmental crises are ultimately human problems. Environmental education is a process in which individual gain awareness of their environment and acquire knowledge, skills, values, experiences and also the determination which will enable them to act individually and collectively to solve present and future environmental problems. This research paper investigates the awareness of environmental issues and best practices adopted by pupil-teachers of Manipur. With environmental degradation causing significant challenges, the role of teacher-training institutions in promoting sustainable behaviours becomes crucial. The goal of creating environmental awareness among masses is to develop a world population that is aware of and concerned about the environment and its associated problems. The paper focuses on the role teacher training institution for fostering and helping the young future teacher to obtain experiences and the knowledge necessary to assure wise decisions. The present study is an attempt in this direction.*

### **Keywords:**

*Environment, Environmental Awareness, Pupil-Teachers*

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Date of Submission: 06-08-2024

Date of Acceptance: 18-08-2024

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## **I. INTRODUCTION**

Nature can fulfil the needs of man but not his greed. The present condition of our environment is overwhelmed with issues and problems. The present social problems relating to degradation of environment results largely from ignorance and indifferent trends along with continued misuse of the environment. It can, however, be altered by creating awareness among people of how man's activities affect the environment for good and ill. The blessing bestowed upon mankind by nature has now been changed drastically with the advent of progress in civilisation. The environmental issues result from man's ignorance and non-judicious use of the earth's resources. Human centric approach of civilisation and industrialisation has deteriorated the environment to a very large extent. The environmental degradation is directly associated with the continuous problem of pollution, solid waste disposal, issues related to economic development and productivity as well as ecological crisis. The increasing levels of global warming, depletion of ozone layer and a serious loss of biodiversity have made everyone aware of the growing environmental challenges.

Though the destruction of environment in the past may be excused from the point view of ignorance, now, we have access to knowledge and information and therefore it becomes imperative on our part that we re-examine ethically as well as morally what we have inherited, what we are accountable for and what we will permit to our coming generations. Many of earth's habitats, animals, plants, insects and even microorganisms that we know of today as here or endangered may not be known at all by future generations.

Since, the environmental education is the application of knowledge from different disciplines to study and manage the environment (Arunkumar, 2012), it is socially more relevant today than the past as it helps us to know how unchecked and unplanned development give rise to various kinds of environmental problems and threatens our existence and sub-existence. On the other hand, environmental awareness helps social groups and individuals to acquire an awareness of sensitivity to the total environment and its associated problems. It is not a question of air and water pollution, but also includes elimination of diseases, hunger, malnutrition, poverty, destruction of forest, extermination of wild life, erosion of soil and accumulation of waste and many more. World educators and environmental specialists have repeatedly pointed out that a solution to environmental

problems will require an understanding of environmental awareness which are deeply rooted in the education system at all levels of education (Khan, 2013).

Now the time has come for us to be careful. Since, the present problems result largely from unsustainable development by human activities; it can also be modified by creating awareness among people regarding how to adopt environmentally friendly lifestyles. Education is the only way to boost environmental awareness. In the long run, behaviour can be modified through the process of environmental education.

#### **Significance of the study.**

The people who are responsible for shouldering the responsibility of generating awareness are our pupil teachers. Teacher training institution plays a very important role in developing social awareness towards environment in the society. Education institution can organise different programme for awareness from time to time. We can make our future prosperous and happy by controlling the pollutant. We must use our natural resources judiciously and live a peaceful life. The mentality of the youth needs to be changed and it is high time for everyone to develop the right attitude towards conservation and protection of our environment. In order to enable people lead quality life, knowledge and environmental problems need to be inculcated in the minds of the future teachers because concern for environmental awareness is possible only when the future teachers have full mastery over the various environmental issues, causes, consequence, solutions and the sources of information. In the light of the abovementioned facts, the present study was conducted.

#### **Statement of the problem:**

The study is stated as “**A Study on Environmental Awareness of Pupil-Teachers of Manipur in Imphal East and Imphal West District with respect to sex and place of residence**”

#### **Objective of the Study:**

The main objective is to find out the environmental awareness of the pupil teachers of Imphal East and Imphal West Districts with respect to their socio-economic background namely sex and place of residence namely rural and urban.

#### **Research Questions:**

1. Does sex of the pupil-teacher affect the level of environmental awareness?
2. Does residence of the pupil-teacher affect the level of environmental awareness?

#### **Delimitation:**

The study is delimited only to the pupil-teachers of two B. Ed. colleges each in Imphal East and Imphal West of district of Manipur.

## **II. METHODOLOGY:**

The study follows the descriptive method of research. Sex and residence are considered as independent variable and environmental awareness of the pupil as dependent variable.

All the pupil-teachers studying in B. Ed college of Imphal East and Imphal West district of Manipur constitute the population of the present study.

The sample for the present study was selected in two layers and one college from each district were chosen purposively. The study consisted of 185 samples.

#### **Technique of data analysis:**

Only percentage was adopted as the descriptive statistical tool and the data collected was classified and tabulated according to the objective of the study.

#### **Tool used:**

A personal information schedule (PIS) relating to the socio-economic background of the respondents and an Environmental Awareness Questionnaire (EAQ) developed by the investigator was used.

#### **Techniques of Data Analysis: -**

To analyse the data, only percentage was adopted as the descriptive statistical tool.

## **III. DATA ANALYSIS**

**Table I: District and Sexwise distribution of respondents regarding Environmental Awareness issues.**

Sl. No.	Issues that concern the respondents about Environmental Awareness	Imphal East		Total	Imphal West		Total	Total		Grand Total
		Male	Female		Male	Female		Male	Female	
1	Poor disposal of household waste	17 (40.48)	25 (59.52)	<b>42</b> <b>(45.65)</b>	26 (44.83)	32 (55.17)	<b>58</b> <b>(62.37)</b>	43 (43.00)	57 (57.00)	<b>100</b> <b>(54.05)</b>
2	Water Pollution	16 (40.00)	24 (60.00)	<b>40</b> <b>(43.48)</b>	28 (40.00)	42 (60.00)	<b>70</b> <b>(75.27)</b>	44 (40.00)	66 (60.00)	<b>110</b> <b>(59.46)</b>
3	Air Pollution	16 (39.02)	25 (60.98)	<b>41</b> <b>(44.57)</b>	27 (41.54)	38 (58.46)	<b>65</b> <b>(69.89)</b>	43 (40.57)	63 (59.43)	<b>106</b> <b>(57.30)</b>
4	Deforestation	18 (41.86)	25 (58.14)	<b>43</b> <b>(46.74)</b>	28 (47.46)	31 (52.54)	<b>59</b> <b>(63.44)</b>	46 (45.10)	56 (54.90)	<b>102</b> <b>(55.14)</b>
5	Flood	7 (36.84)	12 (63.16)	<b>19</b> <b>(20.65)</b>	9 (33.33)	18 (66.67)	<b>27</b> <b>(29.03)</b>	16 (34.78)	30 (65.22)	<b>46</b> <b>(24.86)</b>
6	Disposal of litter	11 (40.74)	16 (59.26)	<b>27</b> <b>(29.35)</b>	17 (44.74)	21 (55.26)	<b>38</b> <b>(40.86)</b>	28 (43.08)	37 (56.92)	<b>65</b> <b>(35.14)</b>
7	Excessive Traffic Congestion	14 (38.89)	22 (61.11)	<b>36</b> <b>(39.13)</b>	19 (38.78)	30 (61.22)	<b>49</b> <b>(52.69)</b>	33 (38.82)	52 (61.18)	<b>85</b> <b>(45.95)</b>
8	Over Population	20 (35.09)	37 (64.91)	<b>57</b> <b>(61.96)</b>	22 (47.83)	24 (52.17)	<b>46</b> <b>(49.46)</b>	42 (40.78)	61 (59.22)	<b>103</b> <b>(55.68)</b>
9	Genetically Modified Food	4 (20.00)	16 (80.00)	<b>20</b> <b>(21.74)</b>	8 (57.14)	6 (42.86)	<b>14</b> <b>(15.05)</b>	12 (35.29)	22 (64.71)	<b>34</b> <b>(18.38)</b>
10	Depletion of Ozone Layer	26 (44.83)	32 (55.17)	<b>58</b> <b>(63.04)</b>	20 (46.51)	23 (53.49)	<b>43</b> <b>(46.24)</b>	46 (45.54)	55 (54.46)	<b>101</b> <b>(54.59)</b>
11	Excessive use of earth's resources	11 (34.38)	21 (65.63)	<b>32</b> <b>(34.78)</b>	17 (45.95)	20 (54.05)	<b>37</b> <b>(39.78)</b>	28 (40.58)	41 (59.42)	<b>69</b> <b>(37.30)</b>
12	Extinction of Species	16.00 (36.36)	28.00 (63.64)	<b>44.00</b> <b>(47.83)</b>	26.00 (47.27)	29.00 (52.73)	<b>55</b> <b>(59.14)</b>	42 (42.42)	57 (57.58)	<b>99</b> <b>(53.51)</b>
13	Poor disposal of radioactive waste like waste of nuclear power plants	7.00 (31.82)	15.00 (68.18)	<b>22</b> <b>(23.91)</b>	9.00 (31.03)	20.00 (68.97)	<b>29</b> <b>(31.18)</b>	16 (31.37)	35 (68.63)	<b>51</b> <b>(27.57)</b>
14	Ill effects of radiation specially mobile towers	12.00 (40.00)	18.00 (60.00)	<b>30</b> <b>(32.61)</b>	20.00 (52.63)	18.00 (47.37)	<b>38</b> <b>(40.86)</b>	32 (47.06)	36 (52.94)	<b>68</b> <b>(36.76)</b>

\* Figures in the parenthesis are percentages.

(Source - Author's contribution.)

**Table II : District and Residence wise Distribution of Respondents regarding concerns about Environmental Issues**

Sl. No.	Issues that concern the respondents about Environmental Awareness	Imphal East			Total	Imphal West			Total	Total			Grand Total
		Rural	Urban	Sub-Urban		Rural	Urban	Sub-Urban		Rural	Urban	Sub-Urban	
1	Poor disposal of household waste	21 (50.00)	8 (19.05)	13 (30.95)	<b>42</b> <b>(45.65)</b>	17 (29.31)	20 (34.48)	21 (36.21)	<b>58</b> <b>(62.37)</b>	38 (38.00)	28 (28.00)	34 (34.00)	<b>100</b> <b>(54.05)</b>
2	Water Pollution	19 (47.50)	10 (25.00)	11 (27.50)	<b>40</b> <b>(43.48)</b>	17 (24.29)	29 (41.43)	24 (34.29)	<b>70</b> <b>(75.27)</b>	36 (32.73)	39 (35.45)	35 (31.82)	<b>110</b> <b>(59.46)</b>
3	Air Pollution	16 (39.02)	11 (26.83)	14 (34.15)	<b>41</b> <b>(44.57)</b>	17 (26.15)	28 (43.08)	20 (30.77)	<b>65</b> <b>(69.89)</b>	33 (31.13)	39 (36.79)	34 (32.08)	<b>106</b> <b>(57.30)</b>
4	Deforestation	15 (34.88)	11 (25.58)	17 (39.53)	<b>43</b> <b>(46.74)</b>	16 (27.12)	21 (35.59)	22 (37.29)	<b>59</b> <b>(63.44)</b>	31 (30.39)	32 (31.37)	39 (38.24)	<b>102</b> <b>(55.14)</b>
5	Flood	8 (42.11)	6 (31.58)	5 (26.32)	<b>19</b> <b>(20.65)</b>	4 (14.81)	16 (59.26)	7 (25.93)	<b>27</b> <b>(29.03)</b>	12 (26.09)	22 (47.83)	12 (26.09)	<b>46</b> <b>(24.86)</b>
6	Disposal of litter	11 (40.74)	7 (25.93)	9 (33.33)	<b>27</b> <b>(29.35)</b>	7 (18.42)	18 (47.37)	13 (34.21)	<b>38</b> <b>(40.86)</b>	18 (27.69)	25 (38.46)	22 (33.85)	<b>65</b> <b>(35.14)</b>
7	Excessive Traffic congestion	10 (27.78)	8 (22.22)	18 (50.00)	<b>36</b> <b>(39.13)</b>	11 (22.45)	19 (38.78)	19 (38.78)	<b>49</b> <b>(52.69)</b>	21 (24.71)	27 (31.76)	37 (43.53)	<b>85</b> <b>(45.95)</b>
8	Over Population	26 (45.61)	14 (24.56)	17 (29.82)	<b>57</b> <b>(61.96)</b>	9 (19.57)	21 (45.65)	16 (34.78)	<b>46</b> <b>(49.46)</b>	35 (33.98)	35 (33.98)	33 (32.04)	<b>103</b> <b>(55.68)</b>
9	Genetically Modified Food	10 (50.00)	7 (35.00)	3 (15.00)	<b>20</b> <b>(21.74)</b>	2 (14.29)	9 (64.29)	3 (21.43)	<b>14</b> <b>(15.05)</b>	12 (35.29)	16 (47.06)	6 (17.65)	<b>34</b> <b>(18.38)</b>
10	Depletion of Ozone Layer	33 (56.89)	7 (12.07)	18 (31.04)	<b>58</b> <b>(63.04)</b>	10 (23.26)	19 (44.19)	14 (32.56)	<b>43</b> <b>(46.24)</b>	43 (42.58)	26 (25.74)	32 (31.68)	<b>101</b> <b>(54.59)</b>
11	Excessive use of earth's resources	14 (43.75)	8 (25.00)	10 (31.25)	<b>32</b> <b>(34.78)</b>	9 (24.32)	17 (45.95)	11 (29.73)	<b>37</b> <b>(39.78)</b>	23 (33.33)	25 (36.23)	21 (30.43)	<b>69</b> <b>(37.30)</b>
12	Extinction of Species	21 (47.73)	12 (27.27)	11 (25.00)	<b>44</b> <b>(47.83)</b>	12 (21.82)	24 (43.64)	19 (34.55)	<b>55</b> <b>(59.14)</b>	33 (33.33)	36 (36.36)	30 (30.30)	<b>99</b> <b>(53.51)</b>
13	Poor disposal of radioactive waste like waste of nuclear power plants	13 (59.09)	4 (18.18)	5 (22.73)	<b>22</b> <b>(23.91)</b>	4 (13.79)	15 (51.72)	10 (34.48)	<b>29</b> <b>(31.18)</b>	17 (33.33)	19 (37.25)	15 (29.41)	<b>51</b> <b>(27.57)</b>
14	Ill effects of radiation especially mobile towers	16 (53.33)	11 (36.67)	3 (10.00)	<b>30</b> <b>(32.61)</b>	8 (21.05)	18 (47.37)	12 (31.58)	<b>38</b> <b>(40.86)</b>	24 (35.29)	29 (42.65)	15 (22.06)	<b>68</b> <b>(36.76)</b>

\* Figures in the parenthesis are percentages.  
(Source - Author's contribution.)

#### IV. FINDINGS

##### Regarding concerns for Environmental Issues (Sex wise)

On the basis of data analysis, the concerns for environmental issues of the pupil teacher, it is observed that majority of the female pupil teachers in both Imphal East and Imphal West districts of Manipur are more concerned about 'Water Pollution' followed by 'Air Pollution', 'Over Population', 'Deforestation', 'Depletion of Ozone Layer', 'Poor Disposal of Household Waste', 'Extinction of Species', 'Excessive Traffic Congestion', 'Excessive Use of Earth Resources', 'Disposal of Litter', 'Poor disposal of Radioactive Waste Like Waste of Nuclear Power Plants' and 'Flood' respectively than that of male pupil teachers.

But the male-pupil teachers in both the districts of Manipur are having more concern regarding issues of 'Genetically Modified Food' and 'Ill Effects of Radiation especially Mobile Towers'.

District-wise study reveals that the female respondents of Imphal West District have more Environmental concerns compared to their male counterparts. There is a variation observed in case of Imphal West district. The males are more aware about 'Genetically Modified Food' and 'Ill Effects of Mobile Tower Radiation' than the female pupil teachers. But in all other options given in the questionnaire for this item, female pupil teachers have shown more awareness in both districts than that of their male counterparts.

The study conducted in Imphal East District shows that the female pupil teachers have more concerns about the Environmental Issues than the male pupil teachers. It is also observed that maximum of the respondents of Imphal East District showed more concern about 'Depletion of Ozone Layer', 'Over Population' and 'Extinction of Species' out of the 14 options mentioned in the tool.

##### Regarding concerns for environmental issues (Rural/Urban)

It is observed by the investigator during the fieldwork that the Sub-Urban areas in Imphal East and Imphal West are largely influenced by the urban areas and are quite similar to urban areas. Therefore, at the time

of presenting major findings and drawing conclusions, the investigator has clubbed figures of Sub-Urban area's with Urban area's figures and explained it accordingly.

The study reveals that the Pupil Teachers, who are residents of Urban areas in both the districts of Manipur, are more concerned about the Environmental Issues like 'Water Pollution', 'Air Pollution', 'Over Population', 'Deforestation', 'Depletion of Ozone Layer', 'Poor Disposal of Household Waste', 'Extinction of Species', 'Excessive Traffic Congestion', 'Excessive Used of Earth's Resources', 'Ill Effect of Radiation of Mobile Towers', 'Disposal of Litter', 'Poor Disposal of Radio Active Waste', 'Flood' and 'genetically Modified Food' as compared to pupil teachers with Rural background.

The study in Imphal West District of Manipur, shows that the respondents of Urban areas have more Environmental concerns as compare to the respondents of Rural areas.

The study conducted in Imphal East District, also shows that the Urban respondents have more concern as compare to the Rural respondents. A slide variation is also observed in case of 'Disposal of Household Waste', 'Excessive Traffic Congestion' and 'Genetically Modified Food' where the Rural and Urban respondents have same level of Environmental concerns. Another variation is also observed in case of 'Poor Disposal of Radio Active Waste' where the Rural respondent have more Environmental concerns as compared to the male respondents.

## V. CONCLUSION

On the basis of the main findings, it can be concluded that female pupil-teachers have more awareness about Environmental Issues than the male pupil-teachers. These differences in the awareness level need to be examined carefully because we cannot expect improvement process unless the concern for environmental issues is inculcated in the minds of the present and future generations irrespective of Sex. Education, therefore, plays a vital role in shouldering the responsibility of generating social awareness towards environment in the society. Educational institutions need to be instrumental in preserving and conserving our environment. Since, the destiny of a nation is shaped inside the classroom, it becomes very important for a future teacher to have the right kind of attitude towards our environment and so education becomes the only means in creating knowledge and awareness about the environment, the related challenges, the necessary skills and expertise to address the challenges and foster attitudes, motivations and commitments, to make informed decision and take responsible action as a human being.

The differences in the awareness of the Environmental Issues among the pupil-teachers residing in urban and rural areas may be related to the geographical location of the place of their origin and the societal norms they are exposed to. Establishment of more educational institutions in Manipur with a common curriculum will help in giving more meaningful insight regarding certain Environmental Issues.

Environmental Education is treated as an optional subject as per the B.Ed curriculum which is followed in Manipur. If this is made a compulsory paper, the Environmental Awareness of the pupil-teachers may not differ significantly.

### **Educational Implication:**

Our great need of today is knowledgeable citizens who are conscious of their surrounding and willing to take necessary steps to assure a better environment for everyone on earth. Keeping in view the importance of the environment and for bringing about sustainable development, the present study was undertaken to study the environmental awareness of pupil-teachers. This sincere attempt will help in revamping the curriculum about Environmental Education so that the teachers and students can have access to the latest knowledge, skills, information and ideas that are very much essential to save our degrading Environment. The study will also be helpful in generating more awareness about the Environmental Issues with a view to promote the conservation and judicious use of Environmental resources and services. The problem of our Environment has become a main social issue and education is the only tool to address this short coming.

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