

## Environmental awareness among the industrial workers: A study in Tangail district, Bangladesh

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### Abstract

The Principal determination of the study was to fix the extent of environmental sentience among the different classes of industrial workers. A hundred ten workers were selected through purposive sampling technique from several industries in the region of Tangail district, Bangladesh. Among the selected workers, the female respondents were 37 in number and rests of the 73 were male. The workers were asked questions to appraise their level of understanding considering environment, environmental issues, and their persuasion to solve the different environmental problems. The determinations disclosed that, majority (91.8%) of the workers have approximately general conception about environment, idea about pollution of environmental constituents, Global warming and climate change awareness. From the view of most (85.5%) of the workers, the country is most vulnerable due to environmental pollution and not executing competent rules and ordinance along with public awareness.

**Keywords:** Environment, Awareness, Climate change, Industrial worker

### Introduction

The ultimate goal of environmental education whether it is formal or non-formal is to create awareness among the citizens of a country. This can be understood by the quotation mentioned in the Belgrade Charter, which was issued in the environmental education workshop held at Belgrade, Yugoslavia in 1975 (Tanner, 1980). It emphasizes the basic aim of environmental education to develop a world population that is aware of and concerned about the environment, its associated problems, so that the population will have the knowledge, skill, attitudes, motivation and commitment to work individually and collectively towards the solutions of current problems and prevention of new ones. Conservation of environmental resources is the most important duty for human being. Polluted environment endangers the human race by threatening its survival on earth. This large-scale environmental degradation has caused a global concern about the conservation and protection of the earth's environment. Climate change, ozone layer depletion, deforestation, global warming, air pollution, water pollution and so on are widely accepted as serious problems and they are the threats for earth survival and existence. In order to catalyze environmental action and to create awareness worldwide, the United Nations Environmental Program (UNEP) was established in Stock-Holm in 1972. To know the degradation rate of environment in global context has emphasized the need for environmental education. The need of the hour is to make people sensitive towards nature through a strong program of environmental education (Nachimuthu and Vijayakumari, 1993). Environmental Education is a process of recognizing values and clarifying concepts in order to develop skills and added tools necessary to understand and appreciate the inter-relationship among man, his culture and his biophysical surrounding. It creates an overall perspective, which acknowledges the fact that natural environment and fabricated environment are interdependent. It should consider the environment in its totality and should be a continuous lifelong process beginning at the pre-school level and continuing through all stages. It is not just a subject of education but also an expansion of its whole philosophy recognizing our environment as continuous with ourselves and in need of the same care and understanding as we give to our personal and social well-being (Smyth, 1995). In this present context each individuals need to develop an awareness of protection and preservation towards environment. Our environment is degrading at an alarming rate. Therefore, it is necessary to protect and conserve our environment. The role of workers is very much essential in achieving such desired goals. In order to faster, their awareness towards environment it is necessary to know what levels of awareness they possess in these areas. Information related to environmental awareness among workers was not reported so far. Considering the above views in mind, the present research work was undertaken with the objective to determine the status of environmental awareness about climate change among the Industrial workers.

## Materials and Methods

### Study area

The study area was conducted in Tangail region. Tangail district (Dhaka division) with an area of 3424.39 sq km, bounded by Jamalpur district on the north, Dhaka and Manikgonj district on the south, Mymensingh and Gazipur district on the east, Sirajgong district on the west. The study was conducted on 110 industrial workers in Mirzapur and Tangail sadar upazila (Banglapedia, 2008).



Fig. 1. Map showing the Study area (Source: Banglapedia, 2008).

**Sampling procedure:** Simple random sampling technique was used by direct questionnaire among the industrial workers from the selected study area (primary sources).

#### a. Data collection method

- Primary data collection: Data were collected through in depth interview from the people by questions and interviews from the questionnaire. There are different types of questions such as ranking, open-ended, close-ended.

**Development of the questionnaire:** A standard questionnaire was developed to obtain the relevant information regarding the general information, socio-economic information and personal information. The purpose of the pre-test was to test the content, wording and expression, the topical sequence of questions and duration of the interview and the reliability of some items. After pre-test, the questionnaire which was related to quantitative data collection was improved and reformed to ensure content coverage,

the reliability and validity of the study. The selected 110 industrial workers from four different places were interviewed through questionnaire. Interview of each individual was taken separately. Through the questionnaire, information was collected from them.

- Secondary data collection: Some secondary data has been collected from various published article but many data were not found because this is the first survey in Tangail region.
- b. Data processing and analysis: The collected data was “tabulated” and “coded”. The SPSS (Statistical Package for Social Science) software and Microsoft office excel were used for analysis.
- c. Report preparation and presentation: Final report has been prepared by using the result of the analyzed information in accordance with objectives of the study.

## Result and Discussion

### Selected characteristic of the respondent

Among the selected 110 respondents most of them were industrial workers and they took part spontaneously in the survey. Most of the respondents were garment workers; others were medicine factory and textile industry. Most of the workers education level was under SSC (Secondary School Certificate) level. Sex of the respondents is showed in the following pie diagram (Fig. 2).

The questionnaire survey included both male and female industrial workers, whereas 66.4% respondents were male and 33.6% respondents were female (Fig. 2). The age of the respondents was also studied and the outcome expressed by Fig. 3.

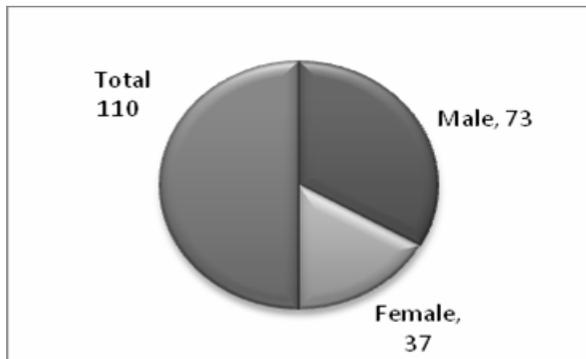


Fig. 2. Sex of the respondent (Industrial workers, n=110)

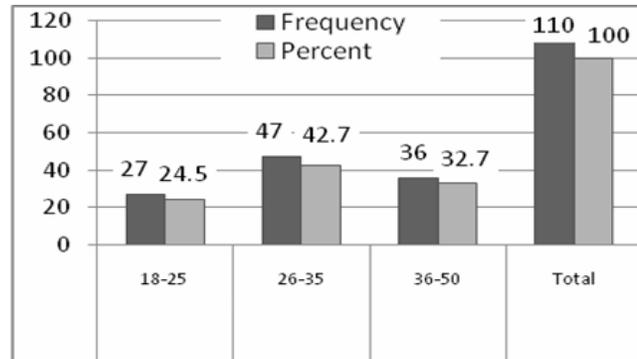


Fig. 3. Age distribution of the industrial workers

The age distribution of respondents (aforementioned figure) revealed that, 24.5% fell within 18-25 years of age while 42.5% fell between 26-35 years, and 32.7% were aged 36-50 respectively.

Figure 4 reveals that majority (91.8%) of the workers have more or less idea about the environment (working environment, environmental pollution, health risks, etc.) and rest of the 8.2% respondents have no concept on environment, therefore this minority of workers do not know therewithal impacts (e.g. health impact associated with environmental problem and so on).

Most of the workers (80%) represented the general concept on environment as “everything that surrounds us”, 14.5% as “man and animals”, 2.7% as “all plants and animals” and 2.7% workers did not have any comments (Fig. 5).

The meaning of the climate change among the industrial workers is that, 46.4% workers thought temperature change, 29.1 % thought weather change, 18.2% thought seasonal changes over a long period of time and 6.4% think climate change means environmental change (Fig. 6). However, it has been observed that, most of the industrial workers donot have enough idea about climate change.

Different problems which arise due to climate change are seen from the aforementioned Fig. 7. Among the workers, 36.4% think scarcity of rain, 30% think health problem, 20% think temperature rising, 6.4 % water crisis and 7.3 % think other problem.

Environmental awareness among the industrial workers

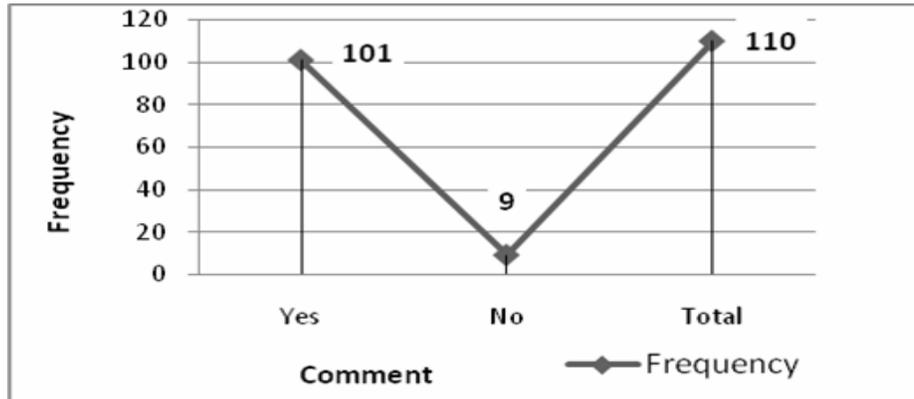


Fig. 4. Idea on environment and related facts

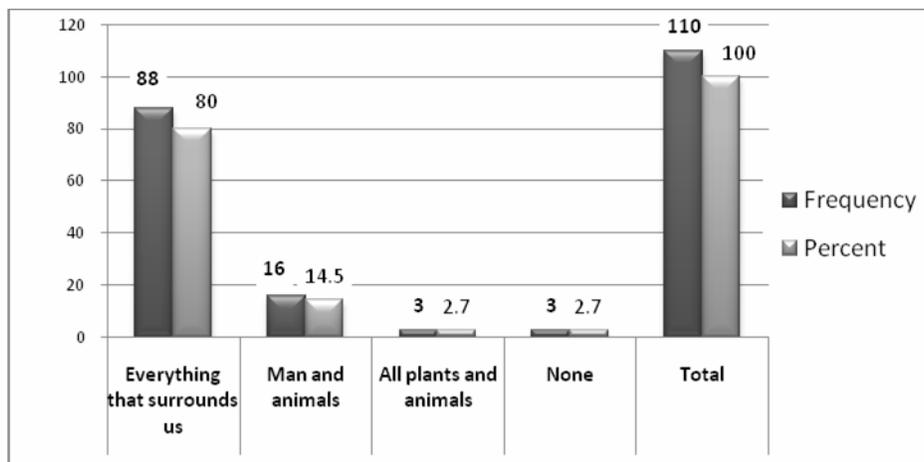


Fig. 5. Response of the workers about meaning of the environment

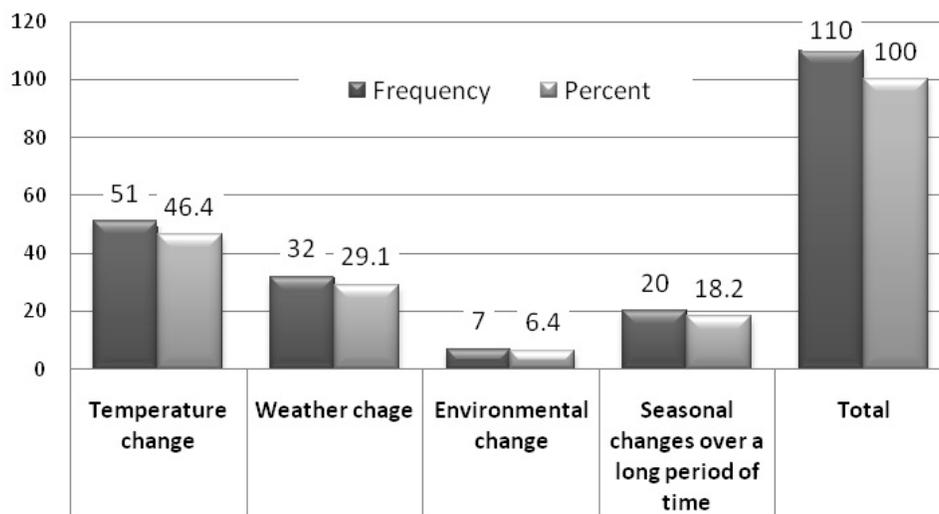


Fig. 6. Responses of the workers about meaning of the climate change.

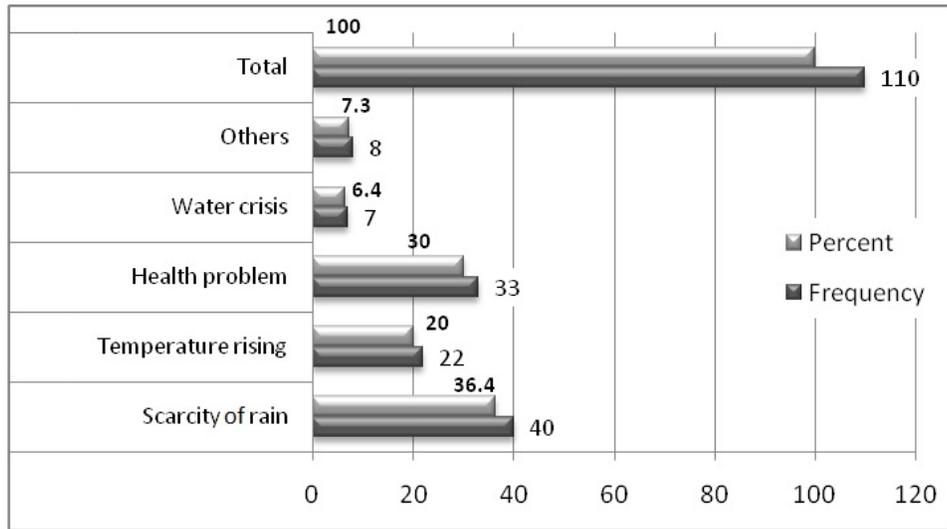


Fig. 7. Responses of the workers about main problem arising due to climate change

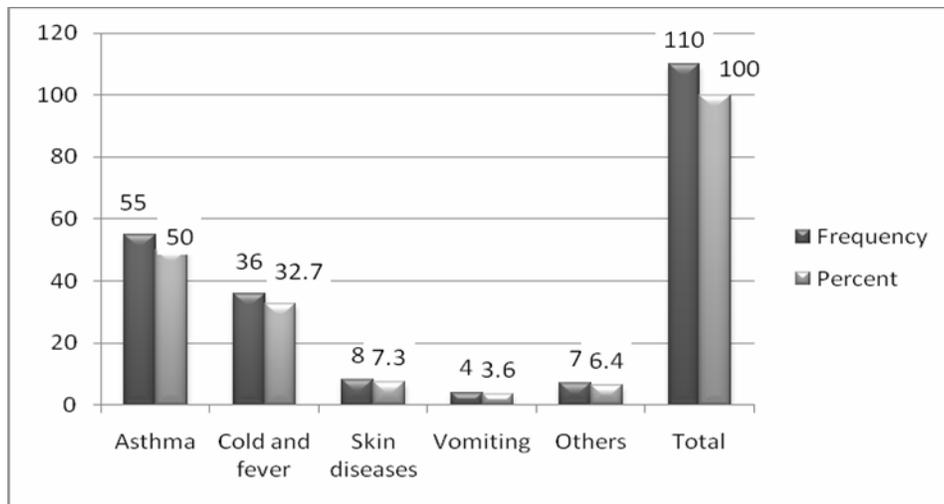


Fig. 8. Health risk arising among the workers

A different type of human disease arose was found during working period among the industrial workers. The aforementioned figure shows that 50% of the workers suffered from Asthma, 32.7% from cold and fever, 7.3% from skin diseases, 3.6% from vomiting and 6.4% suffered from different types of diseases. During the working period most of the workers did not know about environmental education and hygiene. Other causes include lack of proper management practices. The respondents think that the effect of climate change mainly disrupt agricultural production (70.9%), human health (14.5%), fish production (0.9%) has been shown in Fig. 9.

Climate change has adverse impact on different sector. The workers suggested different ways that can play a vital role of belittling climate change impact, where most of the workers (70.9%) evoked plantation of trees in a large number, 10.9% articulated to reduce the emission of carbon dioxide (CO<sub>2</sub>) from anthropogenic sources, 2.7 % said about reduction of pollution and 15.5% enunciated about all of the aforementioned ways to derogate the adverse impacts of climate change (Fig. 10).

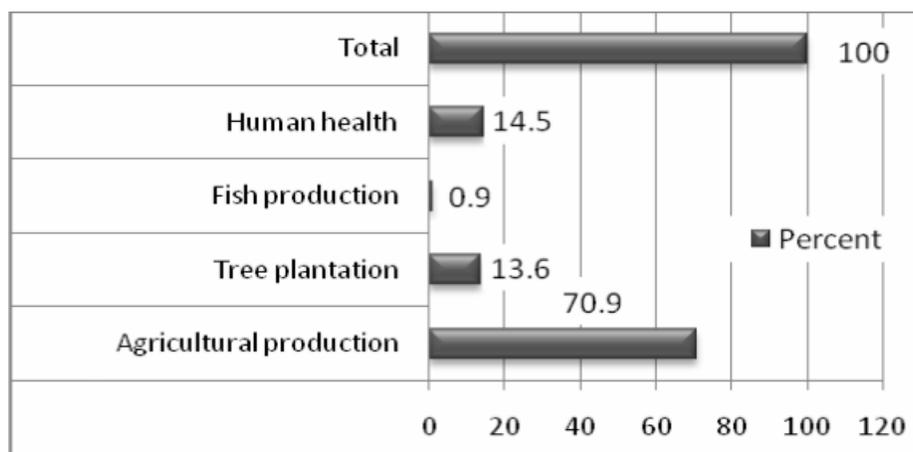


Fig. 9. Effects of Climate change

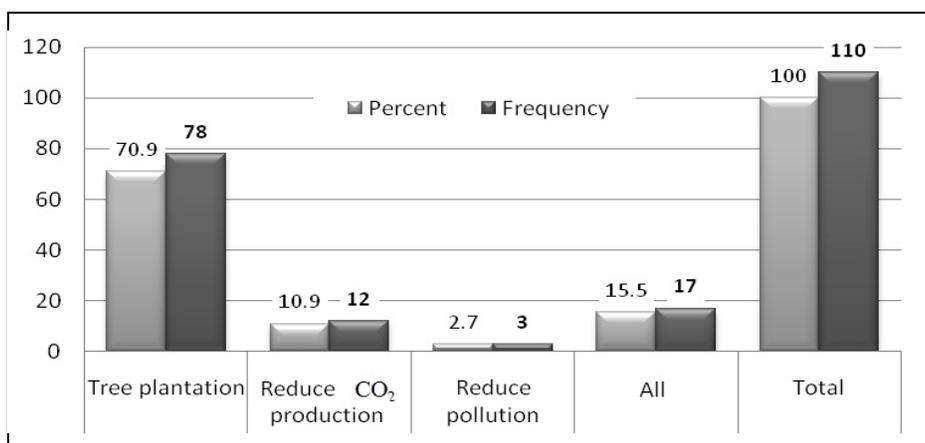


Fig. 10. Minimize the climate change impact

## Conclusion and Recommendation

The termination that can be drawn from this study based on the findings is that, most of the people are illiterate consequently they don't have appropriate scope to accept all of the required awareness issues. Majority of the workers never took part any environmental program and males are more concerned to participate in environmental program than that of females. The paper likewise focuses a few issues raised by the drivers themselves requiring immediate attention in enhancing the credibility of the training program as a matter of due importunity as workers play a significant role in our national economy.

Increase spontaneous participation in environment related program (Tree plantation, Environmental fair, Environmental rally, etc.) should be there for both male & female workers along with proper training to increase awareness and health and hygienic system should be maintained in the industry during working period.

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