

# A Study of Maharashtra Nature Park for its role in Environmental Education

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**Abstract :** As human beings, we continue to have significant impacts on the environment and its resources. Environmental education seems to be the best tool for providing the public with an understanding of the ramifications of their actions and behavior patterns in order to increase sensitivity and concern surrounding environmental issues. This can be done by taking aid of nature parks and other environmental education centers. Nature Parks are now viewed as places which offer much more than just recreation and leisure. These parks influence visitors at a much deeper level and help them realize the importance of the environment and the need for conservation and one such park is Maharashtra Nature Park, Mumbai.

This research was aimed at studying Maharashtra Nature Park and its role in environmental education using a questionnaire survey method. Around 160 individuals were interviewed. These individuals belonged to the age group of 18 and above. The questions were based on their awareness about the park and their experiences after visiting the park. According to the data collected, most individuals agree that Maharashtra Nature park has indeed helped them to become environmentally aware and sensitive. There was also a consensus to the fact that more centers like Maharashtra Nature Park should be set up to help increase environmental awareness amongst the public.

**Keywords:** Maharashtra Nature Park, Environmental Education, Awareness, Attitude

## Introduction :

Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978). The natural environment encompasses all living and non-living things occurring naturally on Earth or some region thereof, and also the interaction within all living and non-living species. Each passing year as the population on the planet increases, we exert additional pressure on the natural world. Till we realized the need to stabilize the population of the country, we added a population of approximately one Australia to India every year. With about 16% of the world's population and a little over 2% of its land, there is already enormous pressure on our resources (Sarabhai K.V., 2000). However, there are those that think we as a whole are doing nothing wrong to the environment and that the pollution and the extinction of animals is all a cycle of life and everything is balanced. This situation has started to degrade the environment in which we live. This overall environmental threat, according to K. V. Sarabhai (2000); has initiated a movement in both the formal and non-formal education system, which has lead specialists to consider providing environmental education (EE) in schools. Our nation's future relies on a well-educated public to be wise wardens of the very environment that sustains us, our families and communities, and future generations. All education departments in India recognize EE as an essential part of education.

Studies carried out in the field of environmental education have confirmed the fact that students, tend to learn better and comprehend to a situation, when taught with a practical approach. This is possibly why environmental education techniques work best outdoors or outside the classroom. In cities like Mumbai, open spaces are on a rapid decline. This brings us to think about the detachment between the fast paced people of Mumbai and their natural environment. Nature parks like are not only hubs of biodiversity, but also allow visitors to be 'one on one' with nature. A study was carried out by Armstrong H.G., (2005) in Tobago's schools which supports this statement. This was the key motivation behind carrying out this study, to explore the role of nature parks in environmental education. Maharashtra Nature Park (MNP), located on the southern bank of Mithi river, and at Bandra-Sion Link Road is not just a green getaway in this concrete jungle we call Mumbai, but also is a center for promoting environmental awareness. One of the major aims of the park is to create environmental awareness and to educate children especially, about ecology and Nature conservation. While interacting with Deputy Director, Mr. Avinash Kubal, it was brought to light that since his joining MNP in October 2000, the number of visitors in the park had increased from 11,000 to a massive 1.5 Lakh per year, as the number of activities conducted at MNP have increased. He also claims that now a large section of people are aware about the park, since the activities at MNP do not only cover different age groups, but also different segments of the society. Since the park reaches out to so many people from different strata of the society, it is an exceptional aid in creating environmental awareness.

A questionnaire survey method was used to document the attitudes of the public towards Maharashtra Nature Park. Its popularity in Mumbai, history and large scale socio-environmental awareness oriented activities, is the reason behind choosing Mahim Nature Park as the study area.

### Methodology

The idea of a nature park was conceived by the World Wide Fund for Nature- India (WWF-India) in the late 1970s, an area of about 37 acres in the "H" Block of Bandra-Kurla Complex, which was earlier a garbage dump or land fill, was decided to be ecologically restored and developed as a Nature Park by MMRDA. Over a period of time, tons of harmful garbage was scraped into, soil spread over, by enthusiastic student volunteers and a team of workers. Over the next three years several thousand saplings were planted, including five more by Dr Salim Ali in 1987. On Earth Day, 22<sup>nd</sup> April 1994, Mahim Nature Park (now known as Maharashtra Nature Park) was declared open to people. Today experts from around the world visit the MNP to study the flora that grows on a dumping ground used for decades by the Municipal Corporation of Mumbai. MNP plays host to about 100 species of butterflies and more than 80 species of birds. Also, as many as 350 tree species have been listed, many naturally planted by birds and insects.

The study was carried out using survey questionnaire method. The analysis of the data was carried out using both qualitative and quantitative analysis methods. For this study, a random sample of 40 participants of the age group of 25 years and above was taken (referred to as 'adult' group). Moreover, 40 students each from 3 different colleges were asked to fill in the questionnaire. The three colleges selected viz., The Institute of Science, Ramnarain Ruia College and Mithibai College are situated at different areas in the city. The questionnaire was designed keeping in mind that it was to be filled by the general public. Thus, the language used was simple and not scientific and the questions were very basic. Furthermore, only a few explanatory questions were added so that the person answering it would not lose interest or spend too much time filling the questionnaire. The questions asked were based on the respondent's awareness about the park, visits, its location, importance, experiences during visits and so on. The data received was analyzed using MS Excel 2007.

### Observations

Out of the 160 questionnaires handed over, 151 filled questionnaires were received. Thus only the 151 questionnaires were considered during analysis. According to the data, **83.4%** of the participants interviewed are aware about MNP and **16.6%** are not. The answers of the 83.4% of the survey takers were taken into account during further analysis.

It was observed that out of all the participants who were aware about Maharashtra Nature Park (MNP), **84.1%** knew the location. On being asked, if the location of MNP is ideal; **80.4%** agree. However, only **64%** have actually visited the park. This brings to light the fact that there should be more centers like MNP around Mumbai, that are accessible to all people, so as to help increase the public's interest about the environment.

When asked the purpose of them visiting MNP, the answers of **57%** of the participants was related to academics. Since a large percentage of participants answering the questionnaire were students that were taken for study visits. (FIG 1)

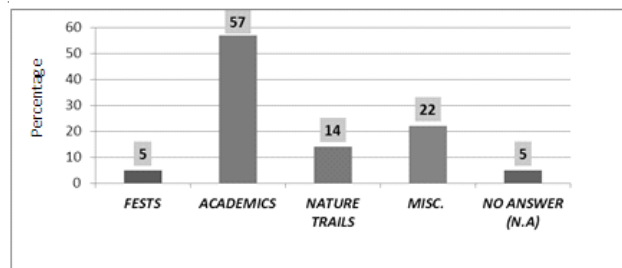


FIG:1 Purpose of visiting MNP (Values in %)

**89.3%** the survey takers, aware about MNP, feel that MNP has some kind of importance in society (FIG 2), environment or education; whereas **7.9%** disagree. Since these 7.9% people are aware about MNP and its location, we can say that the purpose of MNP has not been fulfilled and its potential has been overlooked. Majority of the survey takers who have given this answer are students.

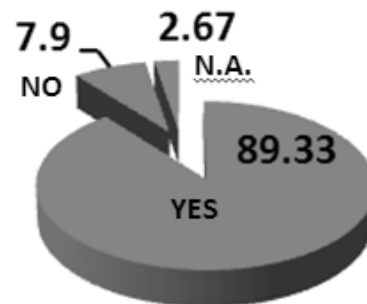
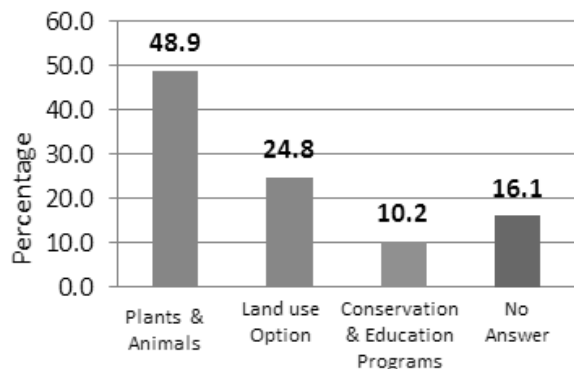


FIG:2 Importance of MNP (Values in %)

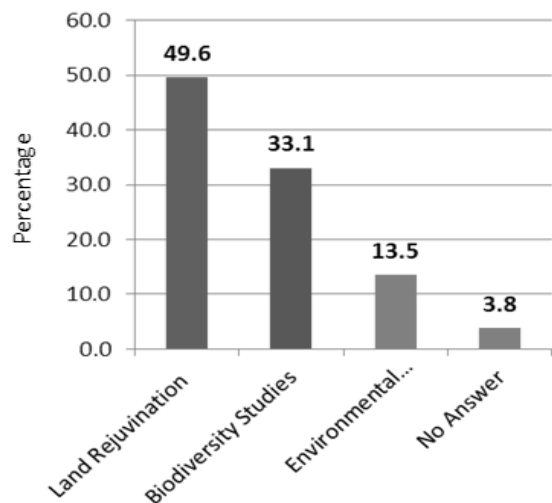
When asked in what way they feel MNP is important (FIG 3), **48.9%** of the survey takers, who answered positively in the previous question, felt that MNP is important for plant and animals- with relation to studies and conservation. From all three colleges, students mostly feel MNP is important as it harbors plants and animals in a concrete jungle like Mumbai. The one dimensional focus of

environmental education in colleges today is clearly reflected in these answers.



**FIG: 3 Why MNP is Important (Values in %)**

90% of the survey takers believed that MNP plays a role in environmental education. And the following table (FIG 4) shows what kind of role MNP seems to play in environmental education.



**FIG: 4 Role of MNP in environmental education (Values in %)**

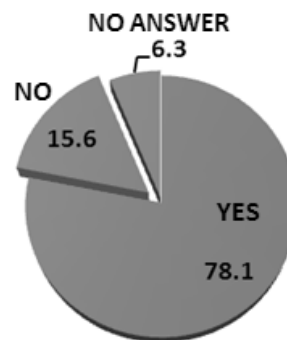
49.6% of the participants feel that since MNP was once a dumping ground, the process of rejuvenation of the land and its associated ecological studies helps creating awareness about the environment and also increases interest. 33.1% feel MNP aids in environmental education by promoting studies about its biodiversity. 13.5% people feel that since MNP helps in creating environmental awareness, it plays an important role in Environmental education. The answers of most participants were close to or with reference to land use and land rejuvenation. It inspires people to study about nature and how it works. Few students

believe that MNP helps creating environmental awareness and thus aids in environmental education.



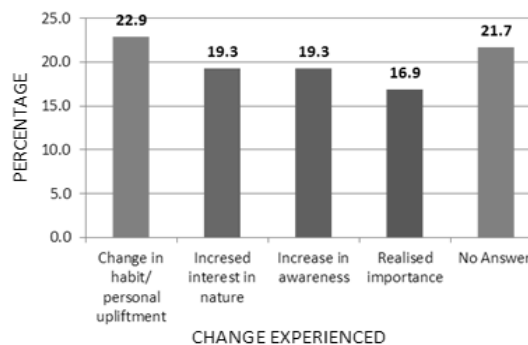
**FIG: 5 Should there be more centers like MNP?**

Most of the survey participants were positive about wanting more centers like MNP in Mumbai. 92.7% of the participants agreed while 5.3% did not. The 5.3% may have not visited the park or may have not been oriented well on their visit. (FIG 5)



**FIG: 6 Change After Visiting MNP (Values In %)**

Of all the people who were aware about MNP and had visited MNP, 78.1% felt a change or growth in them. 15.6% people were unaffected after the visit and 6.3% did not answer the question. (FIG 6)



**Fig: 7 Kinds of change after visiting MNP (values in %)**

On the basis of the answers received, they were segregated into 4 major response heads. In the overall data, the answers were pretty much equally distributed under all four heads.

**19.3%** found themselves to be more interested in nature after visiting MNP. **19.3%** found themselves to be more aware about issues related to the environment. **16.7%** realized the importance of the environment and were more sensitive towards it. **22.9%** felt a change in habit or some other personal change. (FIG 7)

## Results

Maharashtra Nature Park is well known amongst students and people of the higher age group, however the essence of setting up an establishment of this sort, is being overlooked.

For students, the purpose of visiting MNP is academic, where they study only one or two aspects of the environment- plants and animals. Thus their awareness about the environment is restricted to these factors only. More importance is being given to the 'floral-faunal conservation' aspect of the environment. Biodiversity studies are only a tip of the iceberg that we call the environment; there are many more aspects that should be given equal importance especially where education is concerned. The percentage of participants, who find MNP to have no importance or no role in environmental education, highlights the fact that MNP is not being used to its potential. Even though 7.9% is a small number, its value amplifies in terms of environmental awareness. This indicates a lack of or limited orientation to the park visitors during visits emphasizing on the inadequate teaching methodology as discussed earlier. A noteworthy percentage of survey participants feel that there should be more centers like MNP in Mumbai. This is supported by the fact that a considerable number of people who took the survey experienced a change in them after visiting MNP. During an interview, Mr. Kubal stated that MNP has the potential of changing people's outlook not only towards the environment, but to life as well.

## Conclusion

The questionnaire was so designed so that the environmental awareness, the attitude of the participants towards environment and the role of MNP in creating this awareness could be assessed.

The answers that received from the questionnaire raise a concern about environmental education in colleges today. Answering environmental related questions was a chore for most students- which is why many students may left the explanatory questions blank. Even though environmental science is taught in most schools and colleges across India,

students are not instinctive about their thoughts about the environment. This is clearly seen in the answers obtained in the survey. As the survey progressed, the answers of most participants became more environmentally inclined and sensitive.

In the beginning of the questionnaire, a lot of answers were related to biodiversity, but later in the questionnaire the answers seemed to have changed. This clearly supports the fact that we need to reform the way environment education is being taught in educational institutes, not only in the city but also in the country and Nature Parks like MNP can help enhance this experience. This is clearly seen in the results of a certain question that inquires the respondent about the change or growth they felt after visiting the park. Not only is MNP important to a city like Mumbai, but it also plays an important role in creating environmental awareness. We all may be educated with respect to the environment, but only a few of us are environmentally conscious. Environmental awareness is important to sensitize oneself to nature and to respect all forms of life around us, as all aspects of the environment are important for is optimal functioning. And what better example of optimal functioning may there be other than Maharashtra Nature Park what was once a landfill site, is now a heaven for plant and animal life in Mumbai, the commercial capital of India.

Mumbai needs more centers like MNP. A few suggestions while setting up such centers would be to keep in mind that MNP is much more than just a garden. It is a result of natural selection over a period of many years. The trees planted should be those which can survive harsh conditions and help rejuvenate the land. Most trees in MNP exist as a result of natural propagation by insects, birds and mammals. The main idea of setting up a similar center should not be beautification, but to create a natural habitat within the city.

Parks like MNP have the potential of changing the way people think. And changing people's thought process towards a better and secure future is what education and awareness are about.

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