

The ecological degradation in “the city of saints” hoshiarpur in punjab (India)

Abstract

Hoshiarpur is a small town in the northern state of Punjab in India that remained ecologically rich until recently, when unplanned urbanization, population explosion and humungous tree cutting contributed in large to a disturbed ecology in the region. This work is a small effort to provide a broader overview towards massive ecological changes that have taken place in the city and suggest the path towards its ecological restoration and remediation.

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Introduction

Hoshiarpur is a northeastern district situated in the Doaba region of the state of Punjab in India. Lying between the north latitude 30 degree-9 and 32 degree-05 and east longitude 75 degree -32 and 76 degree -12', the district shares common boundaries with Kangra and Una districts of Himachal Pardesh in the north east, Jalandhar and Kapurthala districts (interspersed) in south-west and Gurdaspur district in the north-west. The district has an area of 3386 Sq. Kms. and a population, as per 2011 Census is 15,86,625 persons (Figure 1). The district headquarter of Hoshiarpur is the city of the same name.



Figure 1 The district of Hoshiarpur is shown painted in red in the state of Punjab in India.

Hoshiarpur city, commonly known as the City of Saints, was once recognized for its ecological purity and beauty, but is no longer clean and green. The city was graded among the dirtiest in India almost seven years back. Out of a total of 476 cities surveyed under Swachh Bharat Abhiyan in 2015, Hoshiarpur ranked 447th in its cleanliness as per the reports of Indian Express. Present scenario doesn't look any better either. The objective of this study was to review the ecological degradation in the city of Hoshiarpur and present a possible course of action for its ecological restoration and management.

The green history of town

There was a time when green belts of trees lined the sides, and fresh water seasonal drains flowed through the city with the Shivalik ranges visible in the background. It is unlikely that today's generation is aware of the town's former ecological beauty. In those years of 1950s and 1960s; when the city's boundaries did not extend beyond the civil Hospital on Jalandhar road, Bhangi choe (a big seasonal drain) on Dasuya road, Bahadurpur chowk or DAV college on Chandigarh road, the city was famous for three distinct features: One, the Mango orchards; Two, the seasonal drains “choes” that demarcated the city boundaries in different directions; and three, the dense canopies of different varieties of trees; kikkar, tahli, eucalyptus, Jamun, beri etc. With these environmental saviors on the ground, the city was accustomed to abundant rainfall every year. People from that generation are very familiar with the wetness of the monsoon season, when the downpours continued for ten to fifteen days, thus bringing a generous supply of freshwater in its seasonal open drains (the choes) & groundwater reservoirs every year.

A unique feature of the city of Hoshiarpur was its proximity to several seasonal drains, “choes”, on its outer edges in all directions, which delineated the city borders in those times. It is learnt that all these seasonal drains tended to overflow to their full capacity during the rainy seasons making it hard for the people to cross over when the bridges were not in place. With the gravel and sand at the bottom acting as bed filters, the overflowing drains allowed the rainy waters to trickle down and replenish our groundwater reservoirs.

It is well known that thick canopies of mango orchards covered most of the land outside the limits of the city in all directions: Be it the Jalandhar Road, Dasuya road, Tanda road or Chandigarh Road. The region was so famous for mango orchards that it got its mention in one of the famous Punjabi songs, “Ambiyan nu tarsengi chadd ke des Doaba”. The old generation of nearby villages of Hoshiarpur remember those green times very well. Besides, thick canopies of other trees as well gave the city a complete green vibe. It might surprise today's generation to learn that freshwater was accessible at or below 20 ft in the handpumps or little deeper level in the wells in this area. These green canopies also kept oxygen in abundance in the environment and pollution at minimum. The air in the city was so pure that almost every morning, snowy Shivalik ranges could be seen from the rooftops of most of the houses. The city was small, people were considerate towards their surroundings and hardly any big dumps could be seen on the streets or roads.

Current state of environment in the city

The current state of the environment in and around this once lush green city is appalling. All the features that kept this green city clean and beautiful seem to have disappeared in the urbanization and expansion of the city. Once known for its clean and green environment, this city of mango orchards, hills and drains, has turned into an uninvited garbage dump.

The seasonal drains, “choes”, which functioned as natural water purifiers and refilled the city’s underground reservoirs, were closed down either up in the hills or down in the city a few years ago. Having restricted the rainy waters from flowing down the hills through the city, most of these seasonal drains remain dry during the wet season. Very little or no water is seen flowing through these in the rainy season. In the absence of any waters, these dry drains are being used either as dumping grounds for solid waste or for some activities or as home to several homeless. This not only has caused nuisance in and around the city but also has limited the natural groundwater recharge system.

Much of the green belt in and around the city has been lost to unplanned urbanization and unsustainable development. Mostly, expansion and construction of colonies/roads lead to cutting of most of the trees with almost no new plantation. Numerous eucalyptus and other trees have been cut in the development of residential colonies or expansion of different highways going out of Hoshiarpur. The region in and around the city is now mostly devoid of forested land or mango orchards. No mango orchards can be seen in and around the city.

Disturbing the nature over the last 30-40 years has put younger generation’s future at jeopardy. The groundwater that was once available at depth of 20 feet is no longer available at a depth of even 300 feet. This level is seen dropping down almost every year. Huge deforestation has badly affected the rainfall in the region, which has become very scanty. Almost drought like conditions are prevailing in and around the city for the past two years. No major rainfall has been received in the city against the expectation during the monsoon times, which is certainly bringing the water levels down every year in the city. The biggest groundwater recharge system of the city, the seasonal drains “Choes” are not working anymore. Neither these choes that acted as natural water purification system in those old times, are adding any water to our groundwater reservoirs, nor the rainfall otherwise is enough to add the purified water to our underground system and the consequences are depleting water tables.

Numerous huge garbage dumps are in place at several prominent places within the city. Be it one of the most prestigious, peaceful and best considered residential areas of the city- model town, be it the wall of one of the most renowned educational institution in the city- the Govt college of Hoshiarpur that was once upon a time the university college of Panjab University, be it a most recently constructed parking lot right by the side of Cooperative bank on railway road or be it the one of the largest and closest villages to the city, Piplanwala – everywhere large dumps of solid waste are seen most of the times. There is one big dumping ground in the fields of village Piplanwala, which receives all the municipal solid waste. Needless to say, that these big dumps are big attraction to several stray animals- bulls, cows and dogs that can be seen hoarding there day and night in search of the food for their survival (Figures 2 & 3).

Ecological restoration and management

Let’s not think about green, let’s rebuild the green. Someone said, the plants, trees, flowers, waters and biodiversity have the power to

transform people’s overall mental well-being, as well as physical spaces. Hoshiarpur needs this transformation urgently. If Singapore that had become a polluter’s paradise in 1960s with polluted canals and dirty surroundings, could transform itself into a global green powerhouse, so can any city. As an Environmental Educationist, there are a few suggestions for restoring and revitalizing the city’s degraded ecosystem.



Figure 2 Piplanwala dumping Ground that is very close to residential area.



Figure 3 Cooperative Bank Parking on Railway Road in the midst of the city of Hoshiarpur.

Eco activists

António Guterres, the UN secretary general on his state of planet speech said that human activities are at the root of our descent towards chaos. But that means human action can help solve it. Green cities are green because of collaborative efforts of policy makers and its residents. On the one hand, it is the administration’s obligation to formulate and implement pragmatic policies based on research and sound economic principles. On the other hand, it is the inhabitants’ responsibility to work together to ensure that such policies are implemented effectively. Clean and green cities exist because the residents are aware of, and concerned about its environment. The future of the environment is dependent in part on the activities of its residents, which necessitates the development of eco-active and eco-conscious minds, for which public awareness campaigns are essential in the region. There is a need to instill a sense of appreciation for our environment among the next generation.” Every person should play a role of “Eco-Activist” in restoring the city’s green vibe. Every home that pledges to plant at least one huge tree on its property can assist the city return to its former state.

Protect and afforest

It’s just as crucial to protect old trees as it is to grow new ones. In recent years, afforestation drives have grown common in schools, universities and colleges in past a few years, yet the consequences of these are not readily apparent on the ground. Planting saplings one day, having photographs, sharing on social media isn’t enough; the saplings need to be watered regularly until they are large enough

to thrive on their own. Every sapling that is planted one day need attention for the first few years. As a result, it is critical for every city inhabitant to have a sense of environmental responsibility.

One good way to promote environmental ethics in society is through educating our younger generations in schools, colleges and universities about the importance of environment, which is already been done at some level. However, it is important to get the students practically involved in every school. Every student in class 5 must choose the “One Tree” Project, in which the student is assigned the task of cultivating one tree in five years from the time the sapling is planted until they reach the tenth grade. As a result, by the time a student graduates in matriculation, he or she will have grown and cared for one plant for five years. Thousands of trees can be planted in five years by children who recognize the importance of clean air and water. Only one government or department cannot be held responsible for clean air or water for the residents. Like Singaporeans transformed its polluter’s paradise to city to a global green powerhouse, Hoshiarpureans can also take directions from there to develop teams of student eco-volunteers to bring the city environment back on track.

Solid waste management

There is a strong need to evaluate suitable, economical and sustainable solid waste management strategy for the city. Simply choosing a vast area of fields amidst the residential area of Piplanwala to throw away all the garbage is no solution to the issue. Foul smells, mosquitoes, flies and disease, are the potential outcomes of the same. Recycle, and reuse, composting must be encouraged. Use of plastic bags and plastic cutlery must be banned. Instead, cloth bags and leaf cutlery “pattals” and mud pots should be encouraged.

Seasonal drains “Choes”

Though people see the dry seasonal drains as vacant lands to throw away the garbage of the houses, it is the land that nature has chosen for bringing sand, gravel and fresh waters into the plains. Michel de Montaigne said, “Let us permit nature to have her way. She understands her business better than we do.” The nature should not be restricted from bringing the rainy waters down the hills into the city and plains ahead. Letting the waters flow through its natural course in the choes can help keeping balance in nature and in recharging of our underground reservoirs rapidly.

Conclusion

Having observed massive changes in the ecology of city of Hoshiarpur, it is suggested that efforts need to be done to save the degrading environment of the city. Jonas Salk said, “Eventually we’ll realize that if we destroy the ecosystem, we destroy ourselves.” *Therefore, it becomes very necessary to develop* a better sense of responsibility among children and younger generation towards the environment.

Conflicts of interest

The author has no conflict of interest to declare.

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