Linking fragmented Biodiversity spots by building Green Corridor along the stretch of the river Yamuna

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India is known for its rich heritage of its biological diversity consisting of approximately 91 thousand species of animals and around 45.5 thousand species of plants. The conservation of biodiversity is basic for the sustenance of our life. There are many biodiversity spots in India which need some kind of conservation models along the course of Indian rivers on the priority basis.

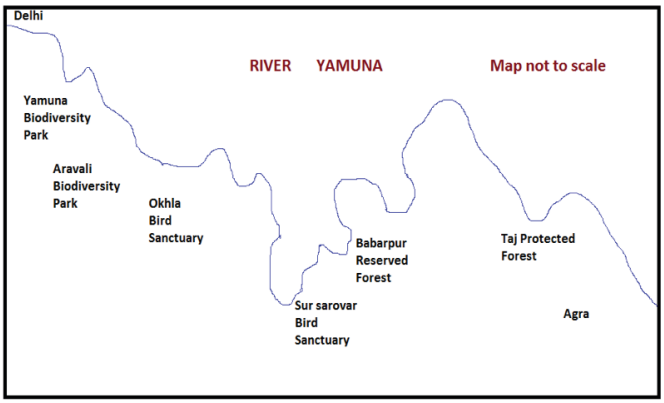
The total length of the river Yamuna is 1376 km and the stretch of river Yamuna from Delhi to Agra is about 235km. The river Yamuna between Delhi and Agra is the worst polluted section of the river showing the seasonal flow of water. In peak summer season the river takes the shape of a drain. This not only affects the total environmental quality of life in that area but the most impact is felt by the animals and vegetations comprising the biodiversity. Thereby river banks have been encroached leaving no space for recharging the river water.

This write up proposes a conservation model leading to sustenance and protection of six (6) biodiversity spots falling under the Yamuna stretch between Delhi and Agra. Six biodiversity spots namely- Yamuna bio diversity park (located near Wazirabad village), Aravali biodiversity park (near Mehrauli-Mahipalpur road), Okhla bird sanctuary (at Okhla near Delhi), Sur Sarovar bird sanctuary (Keetham at Agra-Mathura, NH-2), Babarpur reserve forest (at Agra-Mathura road), and Taj protected forest (Near Taj Mahal in Agra) have been located along the Yamuna stretch.

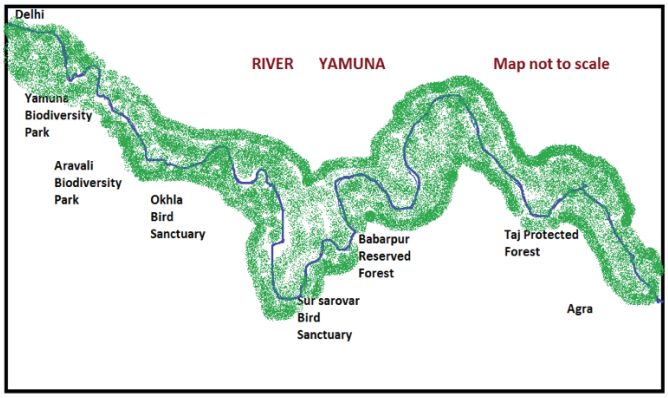
The proposal is an approach to link these fragmented patches through a 50 meter wide green corridor which may enable the exchange and migration between the species living in the respective spots. This will also enhance the existing species of flora and fauna on the bank of river

Six biodiversity spots

Sr. No.	Sites	Present Scenario
1.	Yamuna Biodiversity Park	Located near Wazirabad village herbal garden, sacred grove, butterfly conservatory.
2.	Aravali Biodiversity Park	Located at the Mehrauli - Mahipalpur road, blue bull, butterfly garden, orchidarium, fernery.
3.	Okhla Bird Sanctuary	Located at Okhla near Delhi, shelter to approximately 329 species of birds 2 critically endangered, 9 vulnerable, 7 near threatened species.
4.	Sur Sarovar Bird Sanctuary	Located in keetham at Agra-Mathura NH-2 over 106 species of birds, bear rescue center (SOS) and python point.
5.	Babarpur Reserve Forest	Located at Agra-Mathura road, conserves many species of butterflies.
6.	Taj Protected Forest	Located near Taj Mahal in Agra includes Bulbul, myna, Varanus, blue bull, Hornbill, mongoose etc.



Site Description



Future Scenario

Yamuna. Also the protection from anthropological exploitation takes place. It promotes the holistic approach to conservation, enhancement and sustainable utilization of biodiversity. The other objective includes- enhance the continuous gene flow, reduce the inbreeding depression, prevention of developmental activities along the area of the proposed plan. This Yamuna stretch between Delhi and Agra area is under the flood zone of the river bank so there is no chance for the encroachment and floods can be prevented as well by this model. This model also will influence the hydrological phenomenon such as infiltration and surface flow and helps to conserve endemic, endangered as well as keystone species on the priority basis which is basic to our survival and well being i.e. it maintains the biodiversity at all levels- species level, genetic level and ecosystem level. The expansion of genetic diversity in turn provides lesser vulnerability to diseases and adaptability to environmental changes. This approach also avoids the loss of habitat due to over exploitation of natural resources.

Given the state of conditions of these selected biodiversity spots it appears that model proposed for conservation may be replicated in other areas of urgency for the betterment of our country and mankind.

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