

**OFFICE OF  
PRINCIPAL CHIEF CONSERVATOR OF FORESTS, HARYANA**  
**Forest Department, Government of Haryana**

C-18, Van Bhawan, Sec. 6, Panchkula Tel./Fax +91 172 2563988, 2563861 E-mail: cffcpanchkula@gmail.com

---

No. : NT/D-I-721/ 48 78

Dated : 18-3-2020

To

Consultant (Judicial)  
National Green Tribunal,  
New Delhi.  
E-mail : judicial-ngt@gov.in

Sub.: Submission of Factual Report in O.A. No. 841 of 2019 in the matter of  
Ravinder Yadav Vs. State of Haryana & Others.

--

It is stated that while hearing the Original Application No. 841 of 2019 on dated 16-9-2019 the Hon'ble National Green Tribunal had directed to furnish a factual and action taken report from Principal Chief Conservator of Forests (HoFF), Haryana.

As directed the factual report of the case along with the annexure is hereby submitted for consideration.

Encl. As Above

  
Principal Chief Conservator of Forests,  
Haryana, Panchkula.

**FACTUAL & ACTION TAKEN REPORT IN O. A. NO.841 OF 2019 TITLED**  
**RAVINDER YADAV V/S STATE OF HARYANA & ORS.**

\*\*\*\*\*

The Original Application No.841 of 2019 (IA 688/2019) has been filed by applicant Sh. Ravinder Yadav before the National Green Tribunal. It has been alleged by the applicant that a track is being constructed in khasra no 420, 457 and 493 in revenue estate of Sikanderpur Ghosi in district Gurugram. The applicant has made prayer as under before the Hon'ble National Green Tribunal as under:

- "1. Direct the Respondent No 4 to stop and demolish the illegal construction on Gair Mumkin Pahar land, and initiate legal proceedings individually against each and every encroacher in light of 1992 MoEF Notification.
2. Direct the Respondent no 1 and allied authorities to fix the responsibilities of its officers who have derelicted their duties and allowed such illegal construction and initiate legal proceedings against such officer.
3. Direct the Respondent No 4 and 5 to forthwith re-plant and adhere to polluter pay principle in consequence of environmental degradation and deforestation that has resulted;
4. Pass any other order as this Hon'ble tribunal may deem fit and proper in facts and circumstances of the case.

The Hon'ble National Green Tribunal while considering the matter on 16.09.2019 has passed an interim order which is as under:

*"3. Before proceeding further, we find it necessary to require a factual and action taken report to be furnished in the matter by the Principal Chief Conservator of Forest (HoFF), Panchkula, Haryana within one month by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in).*

*4. A copy of this order be sent to the PCCF (HoFF), by email*

*5. The applicant may furnish a complete set of papers to the Principal Chief conservator of Forest (HoFF) and file an affidavit of service within one week. List for further consideration on 26.11.2019"*

  
Divisional Forest Officer  
Gurugram



**FACTUAL STATUS:**

1. It is stated that the khasra no 420, 457 and 493 in revenue estate of Sikanderpur Ghosi village in district Gurugram are neither Reserved Forest neither Protected Forest and nor covered under aravalli Plantation Project or Closed under section 4 and/or 5 of PLPA. However these khasra numbers come under the general notification No S.O. 8/ PA.2/ 1900/S.4/2013 dated 04.01 2013 of Punjab Land Preservation 1900, where prior permission of Divisional Forest Officer is required for felling of trees (Annexure-I). It is stated that Gurugram Metropolitan Development Authority vide Memo no EP-15010/01/2018/ Env/2019/851 dated 16.09.2019 of additional CEO, GMDA sought permission from DFO Gurugram for removal of weeds, jungle clearance and other silvicultural operations for eco-restoration of watershed and rejuvenation of Sikanderpur water body which was to include Soil Moisture Conservation works and restoration of the area with Aravalli species (Annexure -II). The Divisional Forest Officer accorded permission vide letter no 636 dated 10.09.19 (Annexure -III).

2. GMDA has also reported that the area has already been planted with approximately 16876 plants of indigenous Aravalli species. Cleaning operations and rejuvenation of the waterbody is presently under progress by GMDA. No non-Forestry activity is being planned at the site. A detailed concept plan had been uploaded on the GMDA website for public comments. The same is attached Annexure IV)

3. As far as encroachments are concerned, as the area belongs to MCG, any action regarding identification and removal of the same has to be done by them and as per the directions of this Hon'ble Tribunal. As far as the specific allegation regarding construction of a road/ track for visitors being built is concerned, the GMDA has reported that the area is being developed and rejuvenated as a urban green area for restoration of the waterbody and biodiversity for the citizens of Gurgaon. A walking/jogging track has been proposed in the restoration plan for the use of citizens as a nature walk.

4. As far as notification dated 7th May 1992 under section 3(1) and 3(2) of the Environment Protection Act is concerned, it comes under the ambit of Environment Department.

  
CF (South Circle)  
Gurugram

  
Divisional Forest Officer  
Gurugram

483

HARYANA GOVT. GAZ. JAN. 15, 2013  
(PAUS 25, 1934 SAKA)

25

[Authorized English Translation]

HARYANA GOVERNMENT

FOREST DEPARTMENT

Notification

The 4th January, 2013

No. S.O. 8/P.A. 2/1900/S. 4/2013.—Whereas the Governor of Haryana is satisfied, after due enquiry, that the regulation, restrictions and prohibitions hereinafter contained are necessary for the purpose of giving effect to the provisions of the Punjab Land Preservation Act, 1900 (Punjab Act 2 of 1900);

And, therefore, in exercise of powers conferred by Section 4 of the said Act, the Governor of Haryana hereby prohibits the following acts for a period of fifteen years with effect from the date of publication of this order in the Official Gazette in the areas more particularly specified in the Schedule given below, which has been notified under Section 3 of the said Act, vide Haryana Government, Forest Department, Notification No. S.O. 81/P.A. 2/1900/S. 3/2012, dated the 19th December, 2012.

- (a) The cutting of trees or timber except Eucalytus, Poplar, Bakain, Bamboo, Tut, Amrood and Ailanthus or the collection or removal or subjection to any manufacturing process, of any forest produce other than flower, fruit and honey, save for *bona fide* domestic or agricultural purposes of the right-holders in the land, provided that the owners of the land may sell trees or timber after obtaining a permit to do so from the Divisional Forest Officer of the concerned Division. Such permit will prescribe such conditions for sale as may, from time to time, appear necessary in the interest of forest conservancy. The farmers of the State shall be liberty to sell Khair trees to any person/agency/Haryana Forest Development Corporation Limited of their choice so as to enable them to get remunerative price of their products provided that the owners of the land may sell the Khair trees after obtaining a permit to do so from the Divisional Forest Officer concerned.

HARYANA GOVT. JAL. JAN. 8, 2013  
(PAUS 18, 1934 SAKA)

SCHEDULE

District	Tehsil	Village
1	2	3
Panchkula	Kaika	Areas lying on North side of metalled & unmetalled road connecting Chandigarh, Panchkula, Ramgarh, Raipur Rani, Naraingarh, Sadhaura, Bilaspur, Chhachhrauli, Dadupur and reaching Jamuna river near villages Nathanpur and Lokur.
	Panchkula	
Arbaha	Naraingarh	
Yamuna Nagar	Jagadhari	Areas lying on western side of Delhi-Ballabgarh road and northern road and northern side of Ballabgarh-Sohna road.
	Chhachhrauli	
Pandabhad	Ballabgarh	Areas lying on western side of Delhi-Alwar road.
	Pandabhad	
Mewar	Nuh	All Revenue Estates of Ferozpur Jhirka Tehsil.
	Ferozpur Jhirka	
Gurgaon	Gurgaon	All Revenue Estates of Gurgaon Tehsil.
	Sohna	All Revenue Estates of Sohna Tehsil.
	Pataudi	All Revenue Estates of Pataudi Tehsil.
Mohindergarh	Narnaul	All Revenue Estates of Narnaul Tehsil.
	Mohindergarh	All Revenue Estates of Mohindergarh Tehsil.
Rewari	Rewari	All Revenue Estates of Rewari Tehsil.
	Bawal	All Revenue Estates of Bawal Tehsil.
	Kosli	All Revenue Estates of Kosli Tehsil.
Bhiwari	Dadri	Areas lying on western side of Dadri, Bhiwari, Tosham & Hisar Road.
	Bhiwari	
	Loharu	

KRISHNA MOHAN,  
Additional Chief Secretary to Government Haryana,  
Forest Department.



## Urban Environment Division

Gurugram Metropolitan Development Authority, Plot No. 44, Sector 32, Gurugram  
Ph. 0124-2746603, 2746628; Email ID: [addlceo.gmda@gov.in](mailto:addlceo.gmda@gov.in)

T/

Division of Forest Officer  
Gurugram - 122001

Memo No.: EP-15010/01/2018/Env/2019/851 Dated: - 16/09/2019

Sub: Eco-restoration & rejuvenation of Sikanderpur waterbody and watershed.

The foundation stone for the rejuvenation and eco-restoration of the Sikanderpur waterbody and watershed project was laid by Hon'ble Chief Minister of Haryana on 28/08/2019. The project involves the eco-restoration of the watershed and rejuvenation of the Sikanderpur waterbody and will include SMC works along with plantation of local Aravali plants. For this removal of weeds, jungle clearance and other silvicultural operations will be required. The location map of the area is enclosed. As the area is under general section 4 of PLPA, 1900, therefore, permission for jungle clearance and removal of weeds may kindly be given to GMDA. No trees shall be cut.

*For info*  
*18/9*

*[Signature]*  
Addl. CEO,

Gurugram Metropolitan Development Authority,  
Gurugram -122001

Enclst No. EP-15010/01/2018/Env/2019/852

Date: 16/09/2019

Copy to:-

Conservator of Forest, South, Circle for information & n.a.

*Saw proposal to CF for granting approval.*  
*concerned*

*[Signature]*  
Addl. CEO,

Gurugram Metropolitan Development Authority,  
Gurugram -122001

*Attested*  
*[Signature]*  
Divisional Forest Officer  
Gurugram

19/9/19

**FOREST & WILDLIFE DEPARTMENT, GOVT. OF HARYANA**  
**Office of Divisional Forest Officer, Gurugram**

Near District Court, Sohna Road, Gurugram-122001, Tel. 0124-2322057; Email: dfogurgaon1@gmail.com

No. 1489-G.

Date 27/9/19

To

Additional Chief Executive Officer  
 GMDA  
 Gurugram

**Sub.: Eco-restoration & rejuvenation of Sikanderpur water body and water shed**

**Ref: Your office Endst No. EP-15010/01/2018/Env/2019/851 Dated 16.09.2019**

\*\*\*\*\*

With reference to the subject cited above and advise received from CF (South), Gurugram, the permission for removal of weeds for undertaking plantation and other silvicultural operations for undertaking rejuvenation and eco-restoration of Sikanderpur water body and watershed is hereby granted subject to following conditions:-

- (i) Only weed removal will be undertaken as a part of plantation process. No tree will be felled. If any tree has to be felled for any purpose necessary permission under provisions of PLPA, 1900 from Divisional Forest Officer will be taken by concerned authority.
- (ii) Other silvicultural operations may be carried out as per schedule of operation required maintenance of plantation. Pruning if required will be done for branches less 30 cm. girth under intimation to DFO office.
- (iii) Natural course of water will not be disturbed.
- (iv) Plantation should be done with native Aravalli species.

*[Signature]*  
 Divisional Forest Officer  
 Gurugram

No. 1490-G

Date 27/9/19

Copy to:

1. Conservator of Forests, South Circle, Gurugram for kind perusal and information in reference to letter No. 2235 Dated 26.09.2019.

*[Signature]*  
 Divisional Forest Officer  
 Gurugram

*Attested -*

*[Signature]*  
 Divisional Forest Officer  
 Gurugram

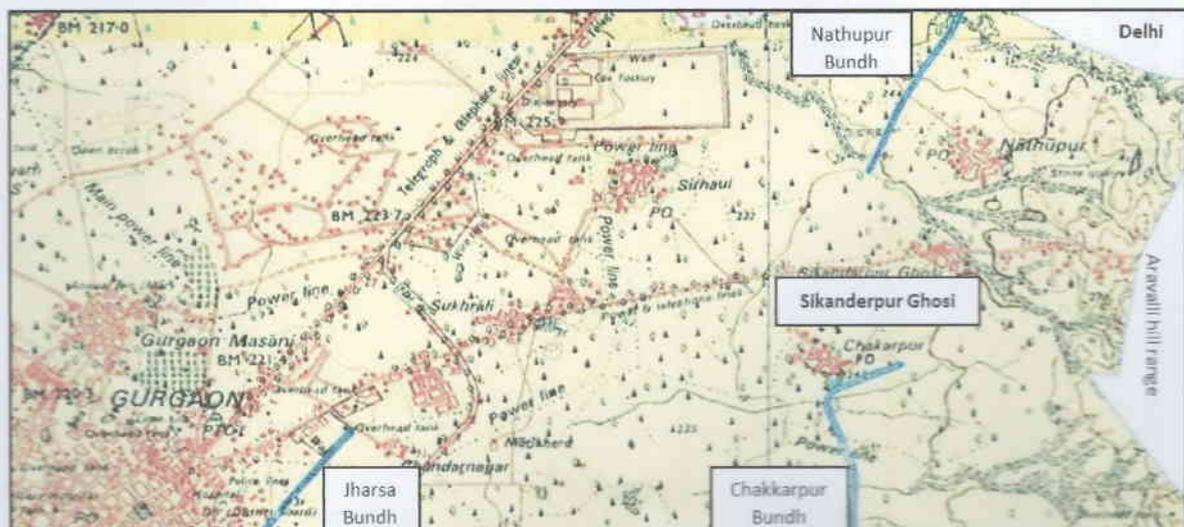
## Concept Paper

### Revival and Habitat Eco-restoration of Sikanderpur Ghosi Waterbody

#### Gurugram

#### I. Background

Sikanderpur Ghosi is a bordering village of Gurugram district adjoining NCT Delhi located on southern side of the Gurugram-Mehrauli road. The village is now completely urbanised and included in Municipal Corporation Gurugram. The area topography is typical of Aravalli ranges underlying hard rocks wherein a deep gorge passes through the middle. The gorge is nestled between Nathupur Bundh in the north and Chakkarpur -Wazirabad Bundh towards the south. The Survey of India Map (1976) depicts three major streams flowing from Aravalli hills in the east down towards western direction. The area geography indicates that the gorge was continuous with the water channel that used to carry the runoff from Aravalli hills to Najafgarh Lake.



*Fig. 1 Topography of Sikanderpur Ghosi water basin as depicted in Survey of India map of 1976*

A large pond in the 'Bhur' foothills naturally formed at the convergence point of the three streams constitutes an important water body in the area. A remnant of the water body still exists despite complete urbanization of the surroundings, severe degradation of the Aravalli watershed and major hydrological re-engineering works due to the network of roads that have come up.

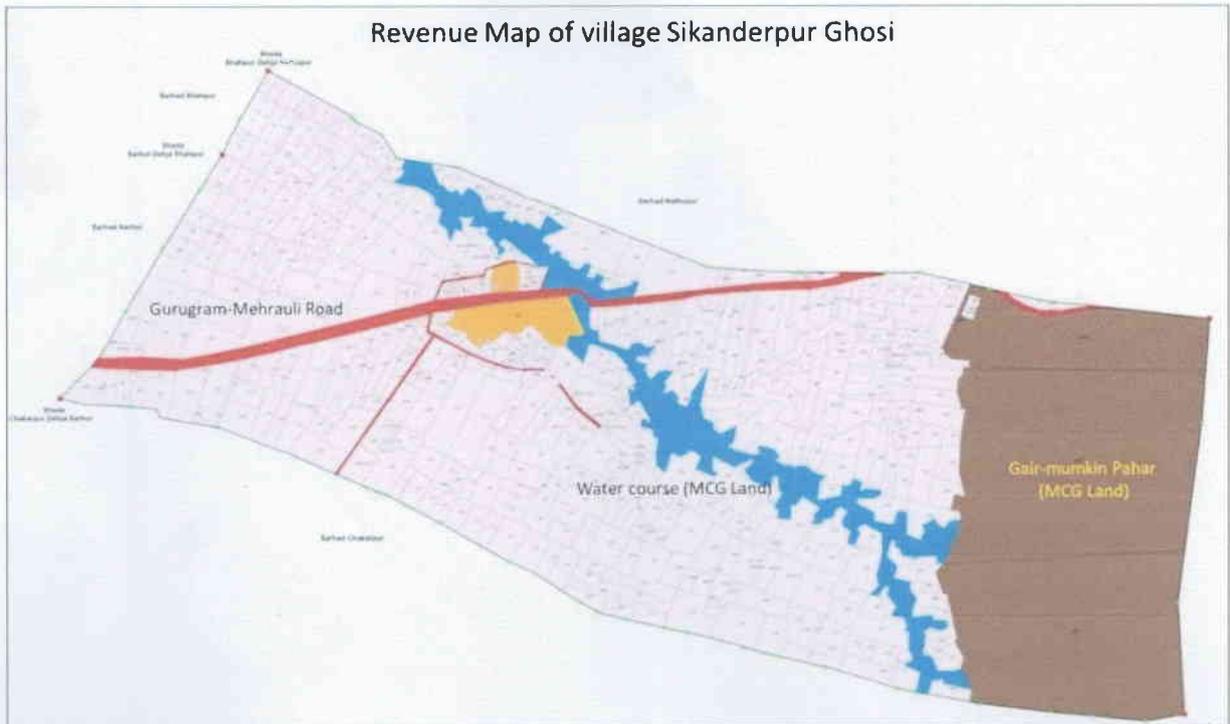


Fig. 2 Revenue map of village Sikanderpur Ghosi

In the village revenue map (Shajra) shown in figure 2 above, the erstwhile water body is depicted in blue and the Gair-mumkin Pahar, which is main recharge area of this water body is shown in brown. With passage of time, the water body has reduced to a small pool full of water hyacinth due to extreme eutrophication (Fig.3, Fig.4) In addition, this has become a sink for discharging waste water and sewerage coming from Sikanderpur village and other surrounding buildings. The undulating topography in the nala basin is covered by *Prosopis juliflora* interspersed with a few trees of *Butea monosperma* and other associated Aravalli species in highly degraded stages. The area has also been



Fig. 4 Dense cover of water hyacinth



Fig. 3 Growth of *Prosopis juliflora*

used for dumping construction and demolition waste.



It is now a shadow of its former self and is being slowly encroached from the sides. Fortunately, the land is still under the waterbody and its watershed, which comprised a village common land, now vests with the MCG and also that a large part is free from encroachment, it is still possible to viably restore it. The photograph (Fig. 5) and drone imagery of May 2018 (Fig.6) are self -explanatory of the present state of affairs on the ground.

Fig. 5 Present condition of the watershed

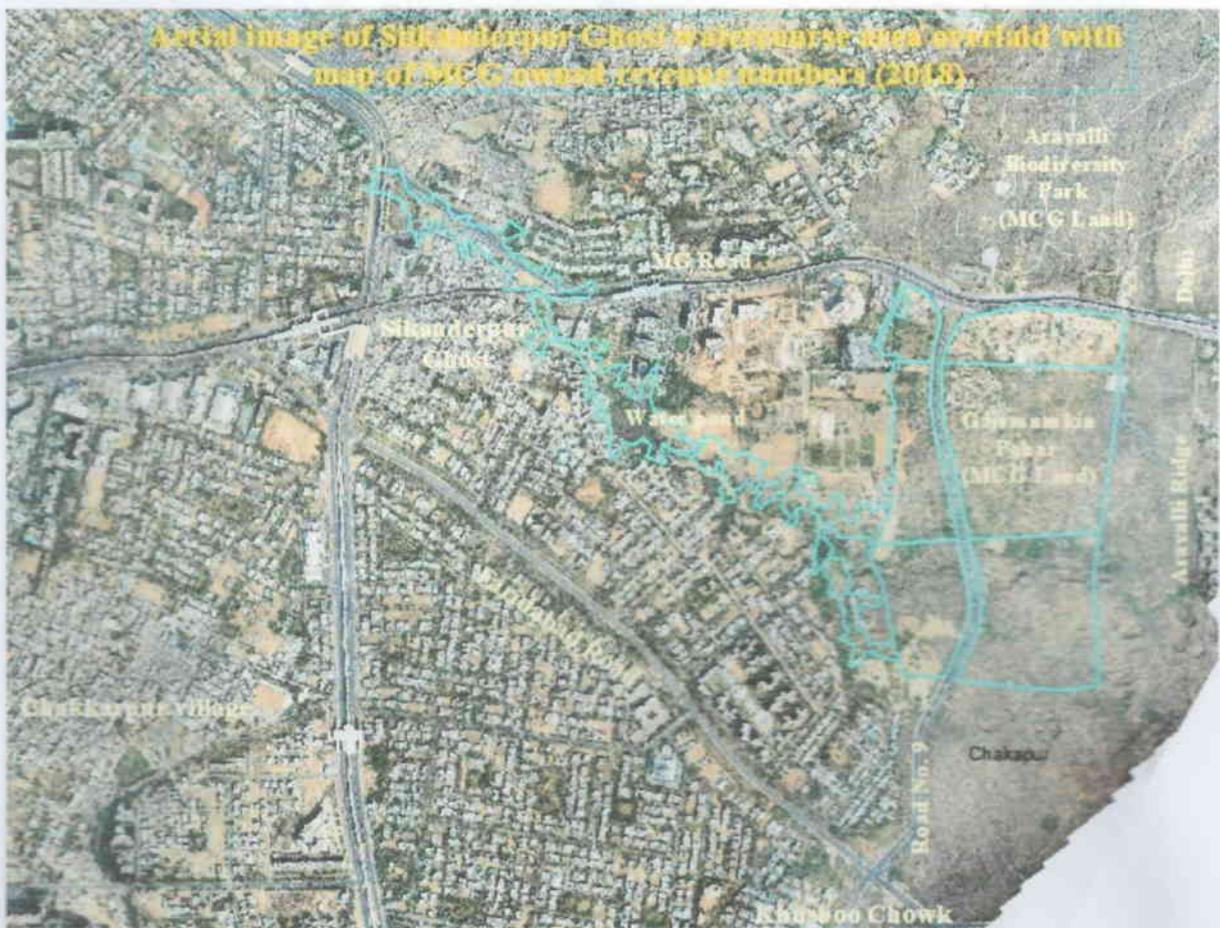


Fig. 6 Aerial (Drone) image of Sikanderpur Ghosi water-basin and MCG land (May 2018)

## II. Major issues to address during Lake Restoration

### i) Moisture Status and Water Stress Conditions

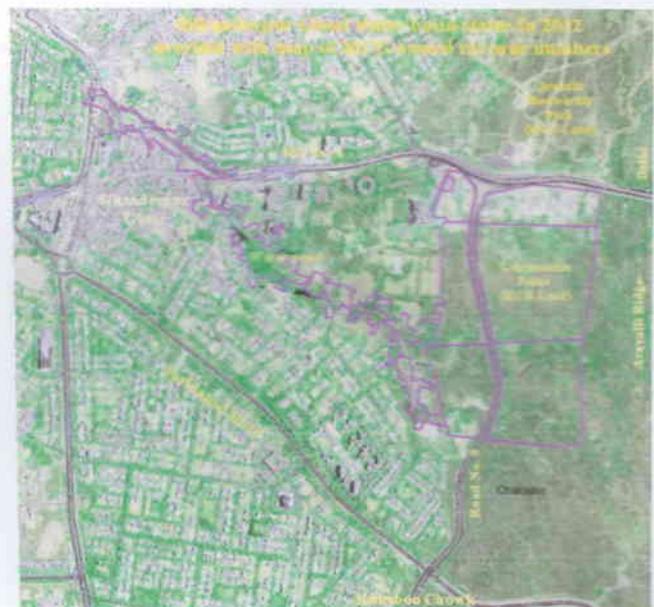
Average annual rainfall in the project area varies from 337 mm to 781 mm, but there are wide variations from year to year. The number of rainy days ranges from 23 to 26 in a year and rainfall often comes in intense storms. Eighty percent of the annual rainfall is received between July and September. In May and June temperature rises above 40°C (highest recorded in 10 years is 46.5°C). High wind velocity is common during March to August. December and January are the coldest months when temperature often touches 0°C. These months witness severe ground frost frequently. The region has high evaporation rates ranging from 2.1 mm/day in January to 15.6 mm/day in June. In such conditions, the evaporation losses of a standing water column would be 1cm/day.

### ii) The Aravalli Aquifer System:

The area is semi-arid with low average annual rainfall levels of 400-700 mm, concentrated mostly during the monsoon months. The infiltration is important for groundwater recharge. The Aravalli hills with high levels of secondary porosity play an important role in rainwater infiltration and ground water recharge. The Aravalli aquifers are basically low capacity, low yielding aquifers with slow release capability and hence need to be managed scientifically. This has not been done in the region, hence leading to alarming decline in groundwater levels.

### iii) Changes in the surface hydrology of the area.

A comparison of the Survey of India toposheet of 1976 (Fig.1) with the existing drainage lines (Fig.7, Fig.8) indicates drastic changes in the surface hydrology of the area. Any sustainable revival of the lake would depend on the restoration of these drainage channels and further augmentation of water flows.



*Fig. 7 Natural streams feeding the lake in 2012*

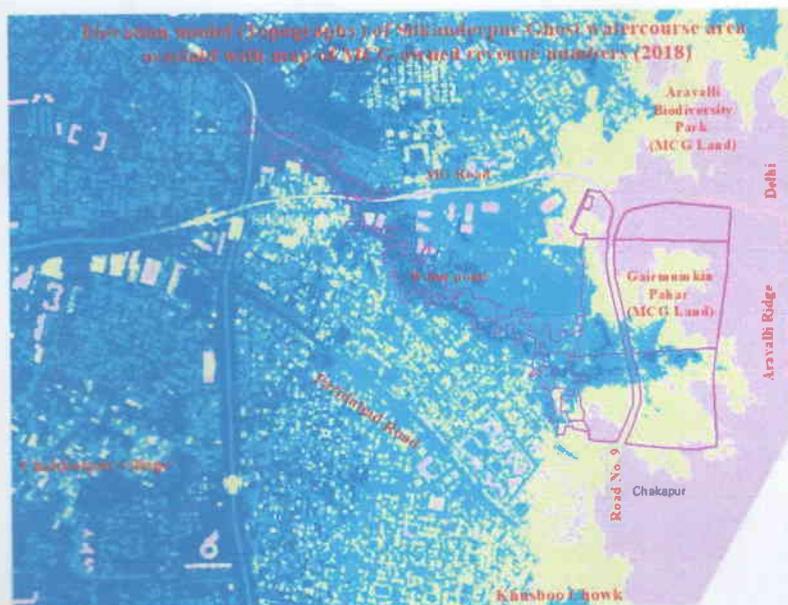


Fig. 8 Elevation model (topography) of the landscape in May 2018

### III. Objectives of the Project

The principle objective of the project proposal is revival of the Sikanderpur waterbody and Eco-restoration of the surrounding watershed/ Habitat restoration in an ecologically sustainable manner, besides preservation of green areas as accessible public space for the residents of Gurugram and to arrest the deteriorating groundwater hydrology. The Floral and Faunal biodiversity conservation of the

severely endangered Aravalli biotype and climate change mitigation for the city also forms the larger objective that the project hopes to address over a longer timeframe.

### IV. The Need for the Project

The Aravallis are one of the most critically threatened eco-system in the NCR region. Traditionally, they have acted as a bulwark against the advancing sands from the Thar desert and have acted as heat and pollution sinks for the region. During the last few centuries, a series of bundhs parallel to the hills were built which not only protected the villages from periodic flooding but also played an important role in groundwater recharge. This dual role was deliberate in their design and was an example of indigenous Indian engineering. In fact, the manual written by William Strange in 1905 entitled 'Indian Earthen Dams' describes similar structures and has served as an important reference.

As per the climatic conditions in the region, 365 cms tall standing column of water would be required in the waterbody just to take care of evaporation losses. Therefore, technically, the secret to revival of any waterbody in the region lies in the protection of its habitat and restoration of the natural water flows to the extent possible. The physical changes in the area between 2004 and 2017 can be seen in the Google imageries (Fig.9, Fig.10). A major hydrological disruption was caused by the construction of roads which effectively stopped the flow of rainwater across to the old lake. Now besides the work on actual lake site, habitat restoration of the watershed would determine the success or failure of the entire project.



*Fig. 9 Lake area and watershed-2004*



*Fig. 10 Lake area and watershed-2017*

## V. The Strategy

The whole area including the lake site and catchment is placed in two zones, Zone-I on left side of Road No. 9 (Fig.11) which includes the lake site, water course and some catchment area, and Zone-II on right side of the road which primarily includes catchment area.



Fig. 11 Rejuvenation Strategy: Delineation of Zone-I and Zone-II

The development work can be started from Zone-I area of Sikanderpur Ghosi which encompasses 26 ha area with a perimeter of 8.4 km. Subsequently, the work can be extended to Zone-I portion of Chakarpur and so on. The periphery in Zone-I is abnormally long due to zig-zag boundary of the MCG revenue numbers along the water course. Therefore it is prudent to explore whether the periphery can be straightened to any extent by negotiating with the neighbouring owners. Since development of lake site and restoration of the lake and The major interventions needed for the revival of the waterbody can be categorized as follows:

- i) Demarcation and Protection measures to ensure future continuity and remove any spatial ambiguity;
- ii) Habitat Restoration works in Zone II;
- iii) Restoration of the natural water flows by appropriate engineering measures;

As can be seen from the maps, the catchment area of the lake site extends to Delhi as well as to the adjoining Chakarpur village. Since the Chakarpur area comprises public land, it is intended to extend the project area southward up to Faridabad Road. The village-wise, zone-wise area and perimeter are given in the table below (Fig. 12)

Area Statistics				
S/N	Village	Zone	Area (ha)	Perimeter (Km)
1	Sikanderpur	I	26	8.4
		II	38.4	2.8
			<b>64.4</b>	<b>11.2</b>
2	Chakarpur	I	1.9	1.2
		II	26	2.3
			<b>27.9</b>	<b>3.5</b>
<b>Total of 2 villages</b>				
		I	27.9	9.6
		II	64.4	5.1
			<b>92.3</b>	<b>14.7</b>

Fig. 12 Zone-wise Village-wise area

- iv) Dredging of the bottom of the waterbody, if necessary, in order to remove plastic waste and other detritus, strengthening of the embankments , cleaning operations and removal of construction and demotion waste and other measures;
- v) Aesthetic and Ecologically sound redesign of the actual waterbody area.
- vi) Concurrently, strategies for using water of impaired quality for sustaining a permanent waterbody has to be evolved.

This would entail a multi-disciplinary team effort between the govt. organizations in charge of the land and/or responsible for it, participation of citizen groups, scientists and experts and also participation from Corporate houses with stakes in Gurugram who would be committed to a green Gurugram as part of their CSR objectives.

## **VI. Execution**

### **i) Improving the quality and quantity of water in the pond**

- Intercept and treat all sewage entering the pond .
- Stop dumping of garbage and construction debris by the surrounding population by demarcating the pond and fencing .
- Improve the water quality in the pond by introducing specially cultured bacteria/ enzymes and other mitigation measures.
- Removal of water hyacinth on an on-going basis to aid natural processes such as aeration and sunlight that will help improve water quality.
- Creation of irrigation infrastructure to support plantation and aeration zones to promote action of biological agents.
- Undertake watershed improvement work by constructing check-dams, contour bunding and gully-plugs to improve *in-situ* moisture retention, reduce erosion, provide soil moisture for tree plantation and increase the amount of local water availability. This will also improve the groundwater regime.
- Rainwater harvesting in surrounding areas to augment inflow of fresh water.

### **ii) Habitat Restoration**

- Use of local Aravalli species of trees and shrubs for rewilding of the watershed area..
- Extensive replantation over the entire watershed to assist the natural regeneration of natural Aravalli species. Removal of exotic species in a graded manner by mosaic grids . These would provide a habitat to birds and animals and enhance natural regeneration and establishment of native species
- Provide facilities for watering the plantation from the existing pond and using treated waste

water from the Global Business Park.

**iii) Provide safe, accessible public, green space to the residents of Gurgaon**

- Provide nature trails and walking/cycling tracks along the pond
- Provide leisure facilities in a natural setting for children and elderly
- Provide recreation zone with open air theatre, viewing points etc
- Provide public facilities such as parking, toilets, dustbins

**iv) Environmental Sustainability**

By its very nature, a project of this nature also has to use ecological and green friendly technologies to justify its *raison d'être*. This would mean the adoption of environmentally friendly measures such as:

- Utilisation of construction debris from surrounding construction sites and landfills
- Use of pervious paving material to reduce surface run off
- Integrated drainage system to ensure ground water recharge
- Provision of compost pits for collection of bio-degradable waste for on-site generation of plant manure
- Solar powered lighting in the entire area
- Use of Recycle water to support the regreening

**VII) Outcomes**

1. Complete natural treatment of all waste water entering the Pond
2. Stopping and controlling encroachment besides removal of debris dumped in the Pond
3. Restoration and rewilding of natural vegetation
4. Improvement of water quality
5. Reduction of diseases e.g., malaria and diarrhoea
6. Elimination of source of pollution and undesirable smells
7. Improvement of groundwater regime in terms of quality and quantity that will benefit the hydrology of the entire area.
8. Increased green cover in Gurugram through revival/conservation of the rare Aravalli ecotype.
9. Create aesthetically pleasing and eco-friendly public green spaces with open access to accessible to all

**VIII. Financing:**

It is proposed that this project would be jointly executed by Govt., Civil Society and Corporates in a participatory model. The work has been divided into two zones physically with regard to the proposed interventions.

The approximate budget and timelines are tabulated below:

<b>Sr. No.</b>	<b>Work Proposed</b>	<b>Approximate cost</b>	<b>Funding Source/Agency</b>	<b>Timeline</b>
1.	Fencing and demarcation	60 Lacs	GMDA	4 months
2.	Preparation of DPR	15 lacs	Civil Society	3 months
3.	Cleaning , dredging operations	1.0 crores	CSR funds	3months
4.	Shaping and contouring of the Waterbody	1.0 crores	CSR funds	3 months after finalization of DPR
5.	Watershed treatment for in-situ water conservation in Zone -I	2.0 crores	CSR funds	1 year
6.	Plantation and Habitat restoration works in Zone -I	3.0 crores	CSR funds	3 years
7.	Watershed treatment for in-situ water conservation in Zone -II	2.5 crores	GMDA	2 years
8.	Plantation and Habitat restoration works in Zone -I	3.0 crores	GMDA	4 years
9.	Aesthetic enhancements and civic amenities	2.0 crores	CSR funds	3 years
	<b>Total</b>	<b>15.25 crores</b>	-	<b>4 years</b>

The above costing are only approximate in nature as the detailed estimates would only emerge after the approval of the DPR. The area would be maintained by GMDA after completion of the works.