

## Proposal under Project Varanasi

1. Title: Adopting River Assi Catchment for Improved Environmental Management in Varanasi
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### 4. Introduction:

The city of Varanasi derives its name from rivers Varuna and Assi. While the river Varuna meets river Ganga in down stream side of the city in north, the river Assi joins river Ganga in southern part on the upstream side of bathing ghats of river Ganga in Varanasi.

Due to increased population pressure, a significant portion of the catchment of the river Assi has been encroached and converted in residential cum commercial areas. The river Assi has been a confined seasonal river draining the runoff of its catchment to the river Ganga. Today, river Assi is defunct a nala carrying the waste water discharges of the area to the river Ganga.

Banaras Hindu University (BHU) is a premier center of excellence. In its vicinity exists Bhagwanpur sewage treatment plant (STP) as a major environmental infrastructure. At present, most of the waste water generated in IIT (BHU) and BHU campus goes to Bhagwanpur STP and, a very small fraction, if at all, of waste water from nala is diverted and treated through this STP. Consequently, a large fraction of Assi nala water load reaches the river Ganga, resulting in a heavy stress on its quality upstream of the bathing ghats.

Under the circumstances, it is proposed to adopt the catchment of river Assi for a detailed study in terms of:

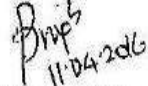
- > Current pattern of habitation and drainage in the catchment,
- > Identification of points of environmental stresses and environmental resources (ponds, tanks etc.)
- > Site identification for small scale decentralized domestic waste water treatment systems
- > Soft intervention plan for improved environmental management in the area.

### 5. Proposed Work Plan:

- i. Detailed survey of the river Assi catchment near Varanasi city as sub basin of the river Ganga.
- ii. Identification of water bodies and drainage lines of the catchment.
- iii. Identification of point sources of pollution reaching the river Assi.
- iv. Identification of possible sites for local decentralized waste water treatment system.
- v. Exploring options of in-channel waste water treatment and water quality improvement.
- vi. Exploring the possibilities of improvement of existing Bhagwanpur STP in terms of pollution load reduction of reduction of river Assi.

7. Milestones and deliverables:

S.N.	Item of work	0-6 months	7-12 months	13-18 months	19-24 months
1	Survey of the river Assi catchment and identification of water bodies and drainage lines				
2	Site identification for pilot studies and soft interventions				
3	Pilot study with improvements in use of water bodies and in-channel soft interventions				
4	Intervention Impact Study				
5	Conclusions and Report preparation				

  
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