

River Mahanadi Research Project

(An Interdisciplinary Study)



Sponsored by:
Sambalpur University



Professor Deepak Kumar Behera
Vice-Chancellor, SU
Chairman of the Project



Professor Sanjat Kumar Sahu
P. G. Dept of Environmental Sciences, SU
Principal Investigator of the Project



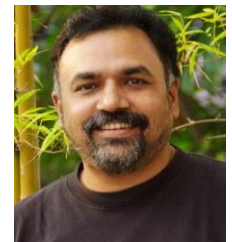
Professor Balgovind Baboo
Retd, Prof. of Sociology, JNU
Advisor

Professor Bijay Kumar Mishra
Retd. Prof. of Chemistry, SU
Advisor



Mr. Arttabandhu Mishra
Retd. Faculty of Life Science, SU
Advisor

Mr. Ranjan Kishor Panda
Convenor, Water Initiatives Odisha
Advisor



Investigators of the Project



Prof. B. Satapathy
MBA, SU



Prof. A.K. Dash
Odia, SU



Prof. A.K. Mohapatra
English, SU



Prof. M.K. Mohapatra
Principal & Dean, VIMSAR



Prof. S.C. Panda
Com. Medicine, VIMSAR



Prof. P.K. Naik
Biotechnology, SU



Prof. P.K. Behera
Chemistry, SU



Prof. S. Mohapatra
Law, SU



Prof. B. Maharana
Lib. & Inf. Sc., SU



Dr. S.K. Pattanayak
Environmental Sc., SU



Dr. E. Kariali
Life Science, SU



Prof. P.K. Behera
History, SU



Dr. A. Patel
Biotechnology, SU



Dr. R. Kumbhar
Economics, SU



Dr. D. Behera
Earth Sc., SU



Dr. S. Pujari
Sociology, SU



Dr. R. Pramanik
Anthropology, SU



NO IMAGE
AVAILABLE

Dr. N. Ekka
Life Science, SU

Technical Supporting Staff



Mr. Arun Kumar Basa
Programmer, UCC, SU



Er. Subrat Kar
SIC, e-Gov. SU

Backdrop of the Project

- The proposal was made by “Sponsored Research and Industrial Consultancy” (SRIC) of Sambalpur University.
- The project proposal is a response to one of the recommendations of the NAAC Peer Team
- The NAAC team suggested to undertake University-sponsored Inter-disciplinary Research Project relating to regional issues
- Project Proposal was approved by Syndicate on 3rd May 2018 vide resolution number 76.
- The project is part of our institutional commitment to address regional issues by creating a database.

The Mahanadi: At a Glance

- The Mahanadi (Sanskrit words *maha*: "great" and *nadi*: "river") is a major peninsular river in the Eastern India and is the lifeline of Odisha and Chattisgarh
- Its headwaters lie at a distance of 6 kilometres (3.7 mi) from Pharsiya village, 442 metres (1,450 ft) above sea level south of Sihawa town in Dhamtari district of Chattisgarh.
- It drains an area of around 141,600 square kilometres (54,700 sq mi) and has a total course of 858 kilometres (533 mile).
- The important tributaries of Mahanadi are Shivnath, Mand, Ib, Hasdeo, Ong, Parry, Jonk and Tel
- Important towns and cities lying on the banks of river Mahanadi in Odisha are Sambalpur, Sonepur, Boudh, Banki, Cuttack and Paradeep

The Mahanadi: At a Glance contd.

- Near the city of Sambalpur, the largest earthen Dam in the world, the Hirakud Dam is constructed over the river in the year 1956.
- It forms the biggest artificial lake in Asia, with a reservoir holding 743 square kilometres (287 sq mi) at full capacity, with a shoreline of over 640 kilometres (400 mi).
- The canals scattered in the command area are Bargarh Main Canal (84.28 km long), Sasan Main Canal (21.79 km long) and Sambalpur Distributary (18.08 km long).
- The project provides 155 635 ha of kharif (summer crop) and 108 385 ha of rabi (winter crop) irrigation.
- Heavy rain in the Mahanadi basin cause large scale flooding and deposits more silt than any other river in the Indian subcontinent.
- Drought is a frequent occurrence in the Mahanadi River Basin
- The Mahanadi River Basin is one of the most impacted by Global Warming among other rivers of India.

The Mahanadi: At a Glance contd.

- In Mahanadi basin there are 254 minor and major dam projects out of which 169 are in Chattisgarh and 84 are in Odisha.
- Large clusters of Industries are also situated along the banks of the river Mahanadi in both Chhatisgarh and Odisha.
- In the Mahanadi river basin, several industrial pockets with many polluting industries and coal mines are reported to have been discharging huge quantities of water with heavy metal and sulphur compounds posing a serious environmental threat.
- As a result, the water quality of the Mahanadi has, by and large, has been deteriorated over the time, rendering it unfit for potable use at many places.
- Besides, there are many urban settlements in the Mahanadi basin, also discharging waste water without any treatment.

The Mahanadi: At a Glance contd.

- Several discussions, discourses and disputes on the river Mahanadi have been aroused during in recent past.
- Many studies have been made on different aspects relating to River Mahanadi, but, no systematic or scientific investigation has been executed till today pertaining to holistic view of the river.
- Sambalpur University, being located in the bank of river Mahanadi, feels to discharge **an Institutional Social Responsibility** by carrying out an **interdisciplinary research work** on River Mahanadi titled **“River Mahanadi Research Project”**.

Disciplines involved in the Project

1. Environmental Science
2. Life science
3. Chemistry
4. Earth Science
5. Biotechnology
6. Community Medicine
7. Economics
8. History
9. Sociology
10. Anthropology
11. Law
12. Lib .& Inf Science
13. Odia
14. English
15. Business Administration

Objectives

- **Historical perspective** on the river Mahanadi
- **Local literature:** Folklore, Tale, Song, Travel narratives etc.
- **Land Environment:** rock, soil and geomorphology
- **Water Environment:** water availability, water abstraction, water quality and silt load in water
- **Atmospheric Environment and Climate:** industrial set-up and release, mining set-up and release, air quality, meteorological parameters and their variability leading to occurrence of drought and flood
- **Biotic Environment:** forest cover, flora (rice) and fauna (fish and earthworm)
- **Human Health:** water borne diseases, air borne diseases
- **Peoples' Livelihood:** forest dwellers, women and children, farmers/peasants, fisher(wo)men, indigenous knowledge on resource management
- **Development and Displacement:** Trade, Commerce, Tourism
- **Legal issues** on the river Mahanadi (Inter-state River Dispute)
- **Modelling and forecasting**

Study Period, Project Associates & Budget

- **It is a University-sponsored Inter-disciplinary Research Project**
- **Study Period**
One year (from June 2018 to May 2019)
- **Project Associates**
Four Project Associates will be appointed for the purpose.
- **Budget**
Rs.10.00 Lakhs

Thank You All