

**Eco-skills and Capacity Building Training Program *for* GANGA MITRA
(Task Force at Grass Root Level)**

SYLLABUS/COURSE CONTENT

TOPIC	CONTENT
GENERAL COURSE (COMMON FOR ALL)	
Socio-economic & religious significance of river Ganga & its associated water bodies, recent initiative of Government of India	<ul style="list-style-type: none"> • Origin & History of Ganga – Religious, Mythological & Scientific • Development of Civilization on the bank of the Ganges • Ganga the source of Livelihood and life line • Changing pattern of agricultural practices in Ganges basin • Religious significance – Sadhu/Saint perspectives • Concepts of Clean India, Skill India & Digital India etc. National programs
Eco Skills Training	<ul style="list-style-type: none"> • Concept based ecological training to improve Eco-centralization, IQ, SQ and holistic development of the Ganga Mitra. • Improvement in the Emotion Quotient (EQ) of the Ganga Mitra towards Mother Ganga. • Stress management through different eco-therapies. • Improvement in the self awareness, learning efficiency and memory boosting through energy flow & frequency matching technologies. • Management of physical & mental health of the Ganga Mitra through body oxygenation, balancing water in the body and nutritional care.
Water Quality of Ganga and its Impact on Health	<ul style="list-style-type: none"> • Unique properties of Ganga Water: Chemical, Biological and Medicinal • Water-borne diseases in human being at individual and community level due to use of polluted water • Remedial measures to protect the human health
Major pollution sources of Ganga	<ul style="list-style-type: none"> • Sewage, industrial effluents, solid waste disposal, dead body cremation, run-off from agricultural crop fields using chemicals fertilizers and pesticides indiscriminately, etc. • Washing of clothes, use of detergents, animal bathing, dumping of plastics and religious materials • Significance of Kumbh & other Melas/social gathering on bank of river Ganga • Impact of Kumbh and other Melas / social gathering organized on the bank of river Ganga

Concept based environmental awareness among the Ganga water users	<ul style="list-style-type: none"> • Basic concepts of environmental education • Local issues and challenges of river Ganga • Possible solution to resolve local issues related to Ganga conservation • Basic concept of disaster management • Significance & awareness of Ganga Conservation Programs of Govt. of India
Field Demonstration	<ul style="list-style-type: none"> • Visit of different sites related to discharge of wastewater, industrial effluents & solid waste etc. in river Ganga and its associated bodies
OPTIONAL COURSE - 1 (SCIENCE/TECHNICAL)	
Technologies for the reduction, reuse & recycling of the wastewater and industrial effluents	<ul style="list-style-type: none"> • Principles of reduction, reuse & recycling of the wastewater • Basics of traditional wastewater treatment technologies • Basics of advanced wastewater treatment technologies • Basics of biological wastewater treatment technologies • Cost effective & appropriate traditional technologies for the Rainwater Harvesting and Ground Recharging
Use of solid wastes materials as a resource	<ul style="list-style-type: none"> • Nature & composition of solid waste materials • Basic principles of solid waste disposal • Basic principles of recycling of solid wastes
Water quality examination (Lab Work)	<ul style="list-style-type: none"> • Examination of Physico-chemical, Biological & Medicinal properties of River Ganga water • Eco-skill training to reduce negative impact of environment on human health and improving the working efficiency • Use of modern digital technologies for disseminating the data to act as real time informant • Synthesis & compilation of data and its reporting
Sampling and Field Demonstration	<ul style="list-style-type: none"> • Demonstration of different methodologies for the collection of samples & spot testing • Industrial visit

OPTIONAL COURSE - 2 (NON-TECHNICAL)

Common remedial measures to prevent Ganga from pollution	<ul style="list-style-type: none"> • Duties and responsibilities of common people towards mother Ganga • Public awareness among school children • Women participation in Ganga conservation programmes • Networking of NGOs and Govt. Organizations engaged in Ganga conservation • Basic concepts & economical aspects of Eco-tourism
Issues and Challenges of Ganga with respect to its three major ecosystems	<ul style="list-style-type: none"> • Ecological significance - FRAGILE HIMALYAN Ecosystem <ul style="list-style-type: none"> - GANGETIC PLAIN AGRO-URBAN Ecosystem - DELTA Ecosystem • Distribution pattern & utilization of Ganga water • Legal remedies available to check the Ganga water pollution
Appropriate Methodologies for the development of green belt	<ul style="list-style-type: none"> • Identification of native plant species • Methodologies to develop Green belts of resilient and ecologically adaptable plant species on both banks of river • Aforestation and its positive impact • Concepts of ancient practices to keep the water bodies pollution free
Field Demonstration	<ul style="list-style-type: none"> • Visit of different sites related to discharge of wastewater, industrial effluents & solid waste etc. in river Ganga and its associated bodies

Training Programs of the Ganga Mitra:

- A. General Program:** Promoting Eco-Tourism, Spreading Public Awareness, Among School Children, Green Belt Development and Local issues of Ganga etc.
- B. Technical Program:** Trained in specialized Water Testing, Sources of Pollution and Adverse Impact of Pollution on Health etc.
- C. Advanced Program:** In order to promote Digital India Program of the Government of India, advance training program shall also be organized for capacity building under Digital India initiative for the Ganga Mitra having completed General/Technical programs in future using Internet of Things (IoT) because:
- Real time primary ecological data generation is the urgent need of the policy makers. This is possible with the help of IoTs.
 - Internet of Things shall be helpful in Smart Water Management in Ganga basin.
 - Advanced technical training of the Ganga Mitra may be helpful for rejuvenation of mother Ganga.