

Department of Science and Technology
Technology Mission: Winning, Augmentation and Renovation (WAR) for Water

INVITATION FOR SUBMISSION OF RESEARCH PROPOSALS

The Department of Science and Technology, Ministry of Science and Technology, Government of India has launched Technology Mission: 'Winning, Augmentation and Renovation (WAR) for Water' to come out with research based technological solutions to address various water challenges in the country. Problems associated with water can be broadly categorized as:

- a) availability of water,
- b) poor quality of water for the intended use, and
- c) indiscriminate use of a valuable natural resource namely water.

The technological approaches for solving the problems can be addressed through the following interventions:

- (i) Winning water from sustainable resources,
- (ii) Augmentation of quality of water from available and accessible sources, and
- (iii) Renovation for recycle.

In order to have a strong R & D base on various aspects related to water, it is proposed to encourage launch research programmes under WAR for Water programme, involving academia, research institutions, etc., in the country. Sea Water Intrusion is identified as one of the key areas under this initiative. In specific, the following themes/ topics are given importance for taking up further study.

1. Precise estimation of water resources in time and space keeping in view the critical parameters
2. Restoration of damaged aquifers and to improve the performance and sustenance of healthy aquifer systems
3. Collation and integration of available data to identify data gaps, avoid redundant activities and facilitate easy access to available data
4. Identification and development of situation and site specific numerical models for the location, characterization and dynamic behavior of submarine ground water discharges
5. Impact of mining of placer sand deposits on the coastal environments and coastal water resources.
6. Simple and scientific approaches to distinguish geogenic and process-response salinities from sea water intrusion
7. Coastal water resources development without environmental degradation
8. Optimum and safe sea water farming techniques
9. Development of precise quantitative techniques for estimation of sea water intrusion

10. Assessment of Influence of coastal processes including tidal variations on coastal aquifers
11. Biological productivity in coastal waters
12. Integrated geophysical and geo hydrological studies in the Characterization of coastal aquifers and sea water intrusion
13. State of the art field experimental stations for an integrated study
14. Augmentation of analytical and processing facility
15. Influence of climate change on coastal water resource systems
16. Scientific strategies for sustainable drinking water in coastal regions
17. 'More crop and income per drop of water' – a scientific approach for its effective realization
18. Impact of natural hazards and possible mitigation approaches
19. Regional mapping of the Indian coast for sea water intrusion
20. Hand book on Sea Water Intrusion
21. Capacity building, awareness, education and outreach programme

Proposals are invited on the above broad topics from the Universities, Colleges, individual scientists, affiliated to any University/ Institute as an Emeritus Scientist, Research Institutions/ laboratories, etc. The proposals, after peer reviewed, will be evaluated by a team of experts, as per the DST mechanism. Proposals can be submitted, as per the prescribed format (download from www.dst.gov.in), throughout the year.

There is also scope for supporting the Brainstorming sessions, seminars/ Workshops and training and awareness programmes on the above themes or any other relevant topics. The proposals under this category should provide brief background, importance/relevance, objectives, expected out come, target groups, resource persons and budgetary details.

5 hard copies and a soft copy of the proposal duly forwarded by the Head of Institute, may be submitted to Dr. Ch. Sivaji, Scientist-E, Technology Mission (W & SE), Department of Science and Technology, Technology Bhavan, New Mehrauli Road, New Delhi 110016, Email: sivaji@nic.in.