

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA
REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 1197

ANSWERED ON 13.02.2023

SALINITY INGRESS IN COASTAL AREAS

1197. DR. PRASHANTA NANDA

Will the Minister of **JAL SHAKTI** be pleased to state:

- (a) whether Government has conducted any study regarding salinity ingress in coastal areas;
- (b) if so, the details of such study, State wise;
- (c) the details of steps taken by Government to check salinity particularly in the State of Odisha; and
- (d) the present status of such efforts?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) & (b) Water being a State subject, the aspects related to water resources are studied, planned, funded and executed by the State Governments themselves as per their own resources and priorities. Role of Government of India is limited to being catalytic, providing technical support and, in some cases partial financial assistance in terms with the existing schemes being implemented by the Department of Water Resources, River Development and Ganga Rejuvenation. Important studies conducted by the Government of India regarding salinity ingress in coastal areas are as under:

(i) National Institute of Hydrology (NIH) has conducted research studies to investigate aspects related to salinity ingress in coastal aquifers in different areas namely, Coastal Aquifer near Chennai(2002), Krishna Delta region of Andhra Pradesh(2004), Coastal tracts of North Goa(2007), Coastal Andhra Pradesh and Tamil Nadu (2011) and Coastal Saurashtra (Porbandar region) of Gujarat (2014) and Sunderbans in West Bengal(2020).

(ii) CGWB generates ground water quality data on a regional scale during various scientific studies and ground water quality monitoring throughout the country. These studies indicate the occurrence of high salinity beyond the BIS permissible limits in isolated pockets and in parts of coastal areas in the country. High salinity has been reported in parts of 47 coastal districts in 10 States/UTs namely, Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu, West Bengal, Andaman & Nicobar and Daman & Diu.

(iii) An Interdisciplinary Technical Committee under the chairmanship of Chairman, CWC has studied the problem of salination of land along the coast in a scientific manner and submitted its report in 2017. The report deliberates in detail the occurrence of coastal land salinity and its impact in States/UTs namely, Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu, West Bengal and Puducherry. The report has been circulated to various stakeholders in all coastal states/UTs.

(c) & (d) A pilot projects “Arresting Salinity Ingress and Artificial Recharge to Ground Water in parts of Basudevpur and Chandbali Blocks, Bhadrak District” was carried out by CGWB during IXth Plan, with a view to control salinity ingress in the creeks and artificial recharge to ground water. Further, the Coastal States namely, Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu and West Bengal and UT of Puducherry have adopted various types of remedial measures like construction of check dams, recharge wells, recharge tanks, spreading channel, embankment, salt water exclusion dam, surface dykes etc. to check salinity. Important works undertaken by the State Government of Odisha are as under:

(i) Construction of saline embankment facing the Bay of Bengal and adjacent to the river mouths

(ii) Construction as well as renovation of creek irrigation projects with construction of control structures to check the salinity ingress in command

(iii) Construction of sea wall at vulnerable reaches of the coast-line to check the inundation of the adjoining areas from the storm surge

(iv) Construction of different type of structures like control sluice, in-stream structures, etc.. The works undertaken had resulted in arresting salinity ingress mainly by impounding/ recharging fresh water. The stored / recharged fresh water has also generated assured irrigation in adjoining area.
