



विजया चक्रवर्ती
BIJOYA CHAKRAVARTY
বিজয়া চক্রবর্তী



जल संसाधन राज्य मंत्री

भारत सरकार

द्वितीय तल, श्रम शक्ति भवन
रफी मार्ग, नई दिल्ली-110 001

MINISTER OF STATE FOR
WATER RESOURCES
GOVERNMENT OF INDIA
2nd Floor, Shram Shakti Bhawan
Rafi Marg, New Delhi-110 001

दूरभाष संख्या / TELEPHONE NOS. : 23325996, 23730719, 23711586
FAX : 23354496

D.O. No. 11/30/2003-GW/18

5th February, 2004

Dear Shri Jeyaseelan ji,

Please refer to your letter dated 8th August, 2003 seeking information on ground water and publications.

I have had the matter examined. The actual need of water of each State is assessed by the State Governments as water is a State subject. However, the water resources of the country is estimated by the Central agencies separately for surface water and ground water component. The surface water and ground water availability in the country is enclosed in Annexure-I. The principal reason for shortage of ground water can be attributed to indiscriminate exploitation of ground water to meet the increasing demands for drinking, industrial as well as for irrigation purposes and diminished natural recharge to ground water in urban areas due to increased concrete cover. I am enclosing a copy each of the publication on National Water Policy, 2002, Ground Water Resources of India and Guide on Artificial Recharge to Ground Water for your information. Some other details about the points raised in your letter are enclosed.

With regards,

Yours sincerely,


(BIJOYA CHAKRAVARTY)

Dr. A. D. K. Jeyaseelan,
Member of Parliament (Lok Sabha),
No.5, Bus Stand Road,
Tisaiyanvilai-627657
Tamil Nadu.

जल ही जीवन है, इसका संरक्षण करें ।

Information on the queries raised by Shri A. D. Jeyasealan, M.P.

- What is the reason for changing the ground water as saline water in coastal area?

In coastal areas, withdrawal of ground water in excess of annual recharge leads to landward movement of sea water - fresh water interface thereby deteriorating quality of fresh water.

- What is the reason for changing the ground water as saline water in the inland area?

In inland area, the following factors are responsible for salinity in ground water:

1. Occurrence of ground water in areas where sediments are originally deposited under marine transgression in the geologic past.
2. Occurrence of ground water in fine sand aquifers, which does not allow flushing of ground water because of its low permeability.
3. The long retention time of ground water in fine grained aquifers/ hard rock may lead to dissolution of minerals.
4. Discharge of industrial effluents rich in sodium chloride without treatment into open drains or surface water bodies which may cause leaching of salts into ground water.

- Which areas are mostly affected as saline ground water?

The areas affected with salinity in ground water are shown in statement given below:

S.No.	State	Areas affected with salinity in ground water
1.	Andhra Pradesh	East Godavari, West Godavari, Krishna, Guntur and Prakasam
2.	Bihar	Begusarai
3.	Gujarat	Banskantha, Junagarh, Bharauch, Surat, Mehsana, Ahmedabad, Surendranagar, Kheda and Jamnagar.
4.	Haryana	Sonepat, Rohtak, Hissar, Sirsa, Faridabad, Jind, Gurgaon, Bhiwani and Mahendragarh.
5.	Karnataka	Bijapur, Belgaum, Raichur, Bellary and Dharwar
6.	Kerala	Ernakulam, Trichur and Alleppey
7.	Madhya Pradesh	Gwalior, Bhind, Morena, Jhabua, Khargaon, Dhar, Shivpuri, Shajapur, Guja, Mandsoor, Ujjain.
8.	Maharashtra	Amravati, Akola

9.	Orissa	Cuttack, Baleswar, Puri
10.	Punjab	Bhatinda, Sangrur, Faridkot, Firozpur
11.	Rajasthan	Bharatpur, Jaipur, Nagpur, Jalore, Sirohi, Jodhpur
12.	Tamil Nadu	Karaikal, Pondicherry, Nagapattanam, Quidemillet, Pudukottai, Ramananthapuram, North Arcot-Ambedkar, Dharampuri, Salem, Trichy, Coimbatore
13.	Uttar Pradesh	Agra, Mathura, Mainpuri, Banmnda
14.	NCT of Delhi	Najafgarh, Kanjhawala, and Mehrauli Blocks.

➤ Which are the remedial measures to be taken to prevent the ground water change?

1. In coastal areas, withdrawal of ground water should be regulated so as not to exceed the annual recharge to prevent the salinity ingress.
2. In inland areas, the saline ground water needs to be withdrawn and used in conjunction with fresh water so that void space is created in the aquifers which can be subsequently filled by natural recharge during subsequent monsoon or by adopting artificial recharge measures.
