

**GOVERNMENT OF INDIA
WATER RESOURCES
LOK SABHA**

UNSTARRED QUESTION NO:2792
ANSWERED ON:09.08.2000
GROUND WATER
JAGANNATH MALLICK;TRILOCHAN KANUNGO

Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether the survey in regard to existing Ground Water Potential for irrigation has been completed;
- (b) if so, the findings thereof, State-wise;
- (c) the extent to which the ground water has been exploited for the purpose of irrigation, State-wise;
- (d) whether there is any over exploitation of ground water in any part of the country;
- (e) if so, the details thereof; and
- (f) the remedial measures taken/proposed to be taken by the Government in this regard?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SMT. BJOYA CHAKRAVARTY)

(a) & (b) Yes, Sir. The survey in regard to the existing ground water potential for irrigation has been carried out. The total replenishable ground water resources assessed for the country is 432 billion cubic metre. The irrigation potential from the ground water has been assessed as 64 million hectre. A statement showing the replenishable ground water resources State-wise as on 01.04.1998 and utilisable irrigation potential is given in Annexure-I.

(c) A statement indicating the State-wise position of irrigation potential created and utilised through ground water is given in Annexure-II.

(d) & (e) Yes, Sir. There are certain pockets in various States where over-exploitation of ground water in excess of annual availability exists. A list of over-exploited and dark blocks in various States is given in Annexure-III

(f) Water being a State subject, steps to augment ground water resources is to be taken by the concerned State Government. The steps taken by the Union Government to increase ground water level in the country include:-

(i) Constitution of Central Ground Water Authority under the Environment (Protection) Act, 1986 for regulation and control of ground water management and development.

(ii) Circulation of a Model Bill to all the States/Union Territories, to enable them to enact suitable legislation for regulation and control of ground water development.

(iii) Circulation of Manual on artificial recharge of ground water to the States/Union Territories to enable them to formulate area specific artificial recharge schemes to check the declining trend in ground water levels.

(iv) Implementation of a Central Sector Scheme on studies in artificial recharge of ground water in some 'Over-exploited' and 'Dark' blocks of the country at a cost of Rs.25.00 crore during the IX Five Year Plan.

ANNEXURE-I REFERRED TO IN REPLY TO PART (a) AND (b) OF LOK SABHA UNSTARRED Q. NO. 2792 FOR 9.8.2000

Annexure-I

Ground Water Resources Potential As on 1.4.1998

| States | Total | Utilisable |
|---------------|-----------|------------|
| Irrigation | | |
| Replenishable | Potential | |
| Ground | | |
| Water | | |
| Resource | | |

MHaM/Yr m.ha.

States

| | | |
|-------------------|----------|----------|
| Andhra Pradesh | 3.52909 | 3.96008 |
| Arunachal Pradesh | 0.14385 | 0.01800 |
| Assam | 2.24786 | 0.90000 |
| Bihar | 3.35841 | 4.94763 |
| Goa | 0.02182 | 0.02928 |
| Gujarat | 2.03767 | 2.75590 |
| Haryana | 1.11794 | 1.46170 |
| Himachal Pradesh | 0.02926 | 0.06850 |
| Jammu & Kashmir | 0.44257 | 0.70795 |
| Karnataka | 1.61750 | 2.57281 |
| Kerala | 0.79003 | 0.87925 |
| Madhya Pradesh | 5.08891 | 9.73249 |
| Maharashtra | 3.78677 | 3.65197 |
| Manipur | 0.31540 | 0.36900 |
| Meghalaya | 0.05397 | 0.06351 |
| Mizoram | | |
| Nagaland | 0.07240 | |
| Orissa | 2.01287 | 4.20258 |
| Punjab | 1.81923 | 2.91715 |
| Rajasthan | 1.26021 | 1.77783 |
| Sikkim | | |
| Tamil Nadu | 2.64069 | 2.83205 |
| Tripura | 0.06634 | 0.08056 |
| Uttar Pradesh | 8.53870 | 16.79896 |
| West Bengal | 2.30914 | 3.31794 |
| Total States | 43.30063 | 64.04514 |

Union Territories

| | | |
|----------------------|---------|---------|
| Andaman & Nicobar | | |
| Chandigarh | 0.00297 | |
| Dadar & Nagar Haveli | 0.00422 | |
| Daman | 0.00071 | |
| Diu | 0.00037 | |
| NCT Delhi | 0.02916 | |
| Lakshdweep | 0.03042 | |
| Pondicherry | 0.01746 | |
| Total Uts | 0.08530 | 0.00504 |

Grand Total 43.38593 64.05018

ANNEXURE-II REFERRED TO IN REPLY TO PART (c) OF LOK
SABHA UNSTARRED Q. NO. 2792 FOR 9.8.2000

Annexure-II

IRRIGATION POTENTIAL CREATED AND UTILISED THROUGH GROUND WATER UPTO 'VIII PLAN

| Sl No | States | Potential Created | Potential Utilised |
|------------------------|-------------------|-------------------|--------------------|
| Figure in thousand Ha. | | | |
| 1 | Andhra Pradesh | 1678 | 1644 |
| 2 | Arunachal Pradesh | 2 | 2 |
| 3 | Assam | 200 | 142 |
| 4 | Bihar | 4365 | 3906 |
| 5 | Goa | 2 | 2 |
| 6 | Gujarat | 1790 | 1707 |

| | | | |
|----|------------------|-------|-------|
| 7 | Haryana | 1544 | 1498 |
| 8 | Himachal Pradesh | 16 | 11 |
| 9 | Jammu & Kashmir | 10 | 10 |
| 10 | Karnataka | 788 | 772 |
| 11 | Kerala | 142 | 127 |
| 12 | Madhya Pradesh | 1515 | 1496 |
| 13 | Maharashtra | 1635 | 1594 |
| 14 | Manipur | 1 | 1 |
| 15 | Meghalaya | 9 | 9 |
| 16 | Mizoram | | |
| 17 | Nagaland | 1 | 1 |
| 18 | Orissa | 701 | 571 |
| 19 | Punjab | 3384 | 3324 |
| 20 | Rajasthan | 2049 | 2015 |
| 21 | Sikkim | | |
| 22 | Tamil Nadu | 1315 | 1312 |
| 23 | Tripura | 21 | 21 |
| 24 | Uttar Pradesh | 22634 | 20358 |
| 25 | West Bengal | 1861 | 1408 |

Total States 45663 41931

Total Uts 63 62

Grand Total 45726 41993

Source: Report of the Working Group on Minor Irrigation for formulation of IX plan Proposals ANNEXURE-I REFERRED TO IN REPLY TO PART (d) AND (e) OF LOK SABHA UNSTARRED Q. NO. 2792 FOR 9.8.2000

Annexure-III

CATEGORISATION OF BLOCKS/MANDALS/TALUKS/WATERSHEDS AS OVER EXPLOITED AND DARK ON ALL INDIA BASIS

| Sl. No. | States | Number of Districts | Number of Blocks/Mandals/Watersheds | Over-exploited | | Dark | |
|---------|--------|---------------------|-------------------------------------|----------------|---|------|---|
| | | | | No. | % | No. | % |

| Sl. No. | States | Number of Districts | Number of Blocks/Mandals/Watersheds | No. of Over-exploited | % of Over-exploited | No. of Dark | % of Dark |
|---------|-------------------|---------------------|-------------------------------------|-----------------------|---------------------|--------------|-----------|
| 1 | Andhra Pradesh | 22 | 1104 | 12 | 1.09 | 14 | 1.27 |
| 2 | Arunachal Pradesh | 3 | | 0 | 0.00 | 0 | 0.00 |
| 3 | Assam | 23 | 134 | 0 | 0.00 | 0 | 0.00 |
| 4 | Bihar | 42 | 589 | 3 | 0.51 | 9 | 1.53 |
| 5 | Goa | 3 | 12 | 0 | 0.00 | 0 | 0.00 |
| 6 | Gujarat | 19 | 184 | 13 | 7.07 | 15 | 8.15 |
| 7 | Haryana | 17 | 108 | 33 | 30.56 | 8 | 7.41 |
| 8 | Himachal Pradesh | 12 | 69 | 0 | 0.00 | 0 | 0.00 |
| 9 | Jammu & Kashmir | 14 | 123 | 0 | 0.00 | 0 | 0.00 |
| 10 | Karnataka | 19 | 175 | 7 | 4.00 | 9 | 5.14 |
| 11 | Kerala | 14 | 154 | 0 | 0.00 | 0 | 0.00 |
| 12 | Madhya Pradesh | 45 | 459 | 2 | 0.44 | 1 | 0.22 |
| 13 | Maharashtra | 29 | 231 | 2 | 0.87 | 6 | 2.60 |
| 14 | Manipur | 6 | 26 | 0 | 0.00 | 0 | 0.00 |
| 15 | Meghalaya | 5 | 29 | 0 | 0.00 | 0 | 0.00 |
| 16 | Mizoram | 3 | 20 | | | Not Assessed | |
| 17 | Nagaland | 7 | 21 | 0 | 0.00 | 0 | 0.00 |
| 18 | Orissa | 30 | 314 | 4 | 1.27 | 4 | 1.27 |
| 19 | Punjab | 17 | 138 | 72 | 52.17 | 11 | 7.97 |
| 20 | Rajasthan | 32 | 236 | 74 | 31.36 | 20 | 8.47 |

| | | | | | | | |
|--------------|---------------|-----|------|-----|-------|--------------|-------|
| 21 | Sikkim | 4 | 4 | | | Not Assessed | |
| 22 | Tamil Nadu | 27 | 384 | 64 | 16.67 | 39 | 10.16 |
| 23 | Tripura | 3 | 17 | 0 | 0.00 | 0 | 0.00 |
| 24 | Uttar Pradesh | 58 | 819 | 19 | 2.32 | 21 | 2.56 |
| 25 | West Bengal | 16 | 341 | 0 | 0.00 | 1 | 0.29 |
| Total States | | 470 | 5691 | 305 | | 158 | |

Union Territories

| | | | | | | | |
|-------------|----------------------|--|------|-----|-------|-----|-------|
| 1 | Andaman & Nicobar | | | | | | |
| 2 | Chandigarh | | | | | | |
| 3 | Dadar & Nagar Haveli | | | | | | |
| 4 | Daman & Diu | | 2 | 1 | 50.00 | 1 | 50.00 |
| 5 | NCT Delhi | | 5 | 3 | 60.00 | 1 | 20.00 |
| 6 | Lakshdweep | | 9 | 0 | 0.00 | 0 | 0.00 |
| 7 | Pondicherry | | 4 | 1 | 25.00 | - | 0.00 |
| Total Uts | | | 20 | 5 | | 2 | |
| Grand Total | | | 5711 | 310 | | 160 | |

Note - Andhra Pradesh - Mandal - Gujarat, Karnataka, Maharashtra - Taluks/Tehsils