under section 5(3) of the Act from the Tribunal. Meanwhile, the Government of Punjab enacted Punjab Termination of agreements Act-2004 on 12.7.2004 terminating the water sharing agreements with the co-basin States in this regard. The Central Government has made a Presidential Reference in July, 2004 on the same before Supreme Court and the matter is *sub-judice*. The Tribunal has not submitted its further report to the Government.

The Cauvery Water Disputes Tribunal (CWDT) submitted report and decision under section 5(2) of the ISRWD Act, 1956 on 5.2.2007. Party States and Central Government have sought guidance/clarification from the tribunal under section 5(3) of the Act. The tribunal has not submitted its further report to the Government. Further, party States have also filed Special Leave Petition (SLP) in Hon'ble Supreme Court against the report and decision of the tribunal as mentioned above.

The effective date of constitution of Krishna Water Disputes Tribunal (KWDT) is 1.2.2006. The KWDT forwarded its report and decision under Section 5(2) of the ISRWD Act, 1956 on 30.12.2010 to the Central Government. Party States and Central Government have sought guidance/ clarification from the tribunal under section 5(3) of the Act. The tribunal has not submitted its further report to the Government.

The Vansadhara Water Dispute Tribunal was constituted by the Central Government on 24.2.2010 and the dispute related to Interstate River Vansadhara has been referred to it for adjudication.

The Mahadayi (Mandovi) Water Disputes Tribunal was constituted by the Central Government on 16.11.2010 and the dispute related to Interstate River Mahadayi (Mandovi) has been referred to it for adjudication.

- (b) and (c) A standing tribunal for all Inter State River Water Disputes is at conceptual stage at present.
  - (d) No time line has been fixed.

## Dwindling ground water resources

- 141. DR. JANARDHAN WAGHMARE: Will the Minister of WATER RESOURCES be pleased to state:
- (a) whether the World Bank report has recently indicated the need for urgent action by Government about dwindling ground water resources;

- (b) if so, the details thereof; and
- (c) the details of the technological infrastructure and regulatory mechanisms undertaken for increasing productivity and profitability of agriculture?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI VINCENT PALA): (a) and (b) The World Bank report on "Deep Wells and Prudence" released recently has indicated that the era of increasing reliance on ground water for both drinking water and irrigation purposes is approaching its limit as a number of aquifers have reached unsustainable levels of exploitation, and year, 2004 nationwide assessment found that 29 % of the blocks are in the semi-critical, critical and over-exploited categories, with the situation of groundwater deteriorating rapidly. The indicated management interventions are as:

- Demand side measures aimed at reducing consumptive groundwater use.
- Conjunctive use through better alignment of surface and groundwater resources in a specific area.
- Groundwater recharge enhancement through construction of physical structures.
- Effective regulatory measures.
- Economic instruments like pricing measures including volumetric charges, taxes and user fees.
- Tradable groundwater rights.
- Community management of groundwater, which can involve any mix of instruments including regulation, property rights, and pricing.
- (c) The technologies adopted under the Farmers Participatory Action Research Programme (FPARP) for increasing productivity and profitability of agriculture are micro irrigation (Drip and Sprinkler), rain water harvesting structures (water storage tanks), soil moisture conservation (Mulching, dead furrow, opening of furrow, tied ridging etc.), System of Rice Intensification (SRI) Broadbed and Furrow irrigation, land leveling/configuration, precision farming irrigated crops/dry crops, multiple use of water, use of recycled water for irrigation, application of subsurface drips for irrigation, application of low cost drips for irrigation and application of treadle pump technology for irrigation in shallow water table areas. There is no regulatory mechanism undertaken for the purpose.