

# **Framework and Implementation of the West Bengal Groundwater Resources (Management, Control and Regulation) Act, 2005**

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## **INTRODUCTION**

Since long, groundwater has received preference over surface water as source of irrigation as well as for use in domestic and industrial sector, due to several distinct features, like dependability on supply, wide aerial distribution, ease of availability in the proximity of place of use, natural availability in pure form, etc. However, this precious resource has often been wrongly regarded as an infinite and inexhaustible resource. As such, the important aspects relating to development of groundwater involving scientific management, conservation and augmentation of the resource have most often been a neglected affair.

In pursuit of higher target of food production, West Bengal has achieved massive groundwater development in the state, during the last three decades, particularly in the irrigation sector, which can largely be attributed to hydro-geological set up prevailing in greater parts of the state, favouring easy availability of groundwater. However, during the course of such development, the principle of sustained development has not been adhered to. Indiscriminate sinking of groundwater structures, in order to meet the growing needs of irrigation, urbanization and industrialization, led to lowering of water level below centrifugal pumping limits in many areas rendering the hand operated tube wells and tube wells fitted with centrifugal pumps, mostly belonging to the small and marginal farmers inoperative, particularly during summer. Adoption of submersible pump by a section of affluent cultivators further aggravated the situation. This ultimately gave rise to socio-economic problems. Certain areas of the state were also affected by quality problems.

The entire issue of groundwater development became a matter of concern for the government. It was felt that unless some regulatory means could be introduced, safe and economic availability of even drinking water could be in jeopardy within foreseeable future due to noticeable falling trend in the groundwater level during summer. In view of such situation, introduction of some Act had been under active consideration of the government whereby an authority could be set up and empowered to exercise due control over the utilization of groundwater resources of the state.

## REGULATORY MEASURES ADOPTED

In the mean time, in order to control indiscriminate sinking of submersible pump, an interim administrative restrictive measure was introduced in eight districts of the state viz. Murshidabad, Nadia, North 24 Parganas, Hooghly, Burdwan, Birbhum, Purba Medinipur and Paschim Medinipur in 1993. Concurrence of State Water Investigation Directorate was made a mandatory pre-requisite for electrification of STWs fitted with submersible pump set installed by private individuals in these eight districts. This restrictive measure being limited mainly to the private irrigation tube wells in the eight districts, was not at all adequate for exercising overall control on indiscriminate use of ground water.

### **The West Bengal and Groundwater Resources (Management, Control and Regulation) Act, 2005**

A Bill was finally passed in the West Bengal Legislative Assembly and “The West Bengal Groundwater Resources (Management, Control and Regulation) Act, 2005” was enacted with effect from 15<sup>th</sup> September, 2005. The Rules under the said Act have also been finalized and have come into force with effect from 1<sup>st</sup> August 2006. This Act envisages: (i) protection of the resource with due consideration to conservation and management, (ii) protection of resource against quality degradation and (iii) ensuring social equity. The salient features of the Act are discussed below in brief.

This Act applies to the entire state of West Bengal. It has been made mandatory to obtain one time permit from concerned Authority set up under this Act for sinking of tube well/well fitted with electrical/mechanical pumping device for any purpose i.e. for use in public health, irrigation and industrial sector by depositing prescribed fees. The Act does not, however, have any provision in respect of pricing of groundwater. The Act also stipulates that all existing tube wells/wells sunk before the enactment shall be registered with the competent authority established under the Act. The registration will, however, be made free of cost.

## IMPLEMENTATION MECHANISM

1. Two tiers of Authority have been set up under the Act. There is a State Level Authority (SLA) under the administrative control of the Water Investigation and Development Department, Government of West Bengal for formulating policies regarding conservation and management of groundwater resources. State Water Investigation Directorate (SWID) has been made the functional organ of the SLA, Director, SWID being the Chairman of the Authority. Office of the Superintending Geologist, SWID will act as the secretariat of the SLA of which the Superintending Geologist is the Member-Secretary. There are 16 other members in the SLA representing concerned departments of the state government and central government.
2. Under the SLA, one Corporation Level Authority (CLA) having jurisdiction covering the area of Kolkata Municipal Corporation and 18 District Level Authorities (DLA) having jurisdictions over the respective districts have been set up for implementation of the Act.
3. Commissioner, Kolkata Municipal Corporation has been made the Chairman of the CLA of which the Superintending Geologist is the Member-Secretary. In the CLA, there are four other official members from concerned departments of the state government and central government and six non-official members appointed by the state government.

4. Geologist, SWID, in the respective district has been made the Member-Secretary of the concerned DLA and office of the Geologist, SWID in the district will act as the secretariat of the DLA, which will be headed by the concerned District Magistrate as Chairman. District level officers of nine concerned departments and two Karmadhyakshas of Zilla Parishad have been included as other members in the DLA.
5. As per the Act, the DLA and the CLA have been authorized to issue permit/certificate of registration in respect of wells having capacity not exceeding 50 m<sup>3</sup>/hr and 100 m<sup>3</sup>/hr respectively within a time bound period. For wells of higher capacity, granting of permit/certificate of registration is to be made only with the concurrence of the SLA.
6. As per the provision of the Act, an applicant can make an appeal to the appropriate authority on payment of prescribed fee against any action or decision of the SLA, or DLA, within a period of sixty days from the date on which such action was taken or such decision was communicated to him. The appellate authority is to dispose off the appeal as expeditiously as possible after giving the appellant an opportunity of being heard. An officer not below the rank of the Joint Secretary, authorized by the Principal Secretary, Water Investigation and Development Department, Government of West Bengal, shall act as Appellate Authority in case of all appeals made in connection with wells having discharge not exceeding 50 m<sup>3</sup>/hr. The Principal Secretary, Water Investigation and Development Department, Government of West Bengal himself will be the Appellate Authority for all other cases.
7. The Act also provides for imposing penal measure for failing to comply with any of the provisions of the Act or the rules made thereunder, in the matter of construction or use of any well. The penalty shall be in the form of fine up to rupees five thousand in case of first offence and up to rupees ten thousand, for the second and subsequent offence.
8. Implementation of the Act shall follow the policies formulated by the SLA on allocation of the groundwater in line with the National Water Policy keeping in view the districtwise sectoral demand, status of groundwater development and hydro-geological condition to achieve the overall objective of management of groundwater resources. The SLA shall monitor the progress of groundwater development and accordingly formulate policies on conservation as well as augmentation of groundwater resources by way of recharging, replenishing, recycling the resource in coordinated manner, minimizing use of groundwater by adopting modern and traditional water harvesting practices and creating mass awareness and organizing people's participation in conservation and management of groundwater resources.
9. As per groundwater estimate carried out jointly by the State Water Investigation Directorate and the Central Ground Water Board following GEC'97 Methodology (modified criteria) in 269 blocks of the State, 231 Blocks were categorized as 'Safe', 28 Blocks are 'Semi-Critical' and 10 Blocks as 'Critical'. Such categorization is based on twin criteria of (i) stage of groundwater development, which is the ratio of gross groundwater draft and net groundwater availability expressed as percentage and (ii) long-term trend of groundwater level. A subsequent review of categorization of the aforesaid 38 'Critical' and 'Semi-Critical' blocks has placed 37 blocks under 'semi-critical' and one block under 'critical' category. 13 mountainous/sub-mountainous blocks of Darjeeling and Jalpaiguri districts having more than 20% slope and 59 blocks in the coastal tract having saline groundwater environment, which are not considered to have favourable groundwater regime for large scale groundwater development for agricultural activities, have been excluded from this exercise. The aforesaid categorization of the Blocks viz. 'Safe', 'Semi-Critical' and

'Critical' will be the primary consideration for issue of permit for sinking new wells and certificate of registration for the existing wells in the initial phase of implementation of the Act.

## CONCLUSIONS

It is important to note that although introduction of the Ground Water Act is an effective step towards management, control and regulation of groundwater development, successful implementation of such a programme essentially depends on the involvement of the common people. The common people must be made conscious about their role in protection of this vital resource. State Water Investigation Directorate contemplates to take up in association with the three-tier Panchayati Raj system in the state, various mass awareness programme including group discussion, workshops, seminars, etc. to educate the people about different aspects of the Act, present status of both quality and quantity of ground water in their respective areas, the adverse effects of over-exploitation of ground water, health hazards arising out of use of contaminated water, etc. so as to arouse in them a spontaneous spirit of involvement in the process of judicious use of ground water.