



## DEVELOPMENT OF GROUND WATERS : NEED FOR LEGAL REGULATION

**THE INCREASING** use of ground water resources for various uses as domestic, irrigation, industry and livestock consumption, *etc.*, has brought about a global awareness of the necessity to introduce regulatory mechanism in respect of such waters.

In India the law relating to ground waters is found in the Indian Easements Act 1882 which embodies the principles of common law as applicable in UK. The common law distinguished between underground percolating water and an underground running stream. The percolating ground water does not flow in a defined channel but the latter does.

In percolating ground water every landowner through whose land the water is percolating has an absolute right to such water. A landowner or landholder can abstract as much percolating water as he likes leaving his neighbour's wells dry. He has a right to sink a bore-hole or well in his land to intercept water percolating underground through his land and prevent it from going to the other man's property.

The common law right of an individual landowner's right to exclusively appropriate percolating ground water is statutorily recognised in the Indian Easements Act. Illustration (g) to section 7 of the Act provides:

The right of every owner of land to collect and dispose within his own limits of all water under the land which does not pass in a defined channel.

However, the English common law is different for underground streams. Here the doctrine of riparian rights applies which also apply to surface water resources. Illustration (h) to section 7 of the Act embodies this doctrine over all natural streams whether on the surface or underground. It provides:

The right of every owner of land that the water of every natural stream which passes by, through or over his land in a defined natural channel shall be allowed by other persons to flow within such owner's limits without material alteration in quantity, direction, force or temperature.

Under section 2 of the Act, the individual's rights of water are subject to the state's sovereign rights over waters, both surface and underground, to regulate and control them in public interest. No prescriptive rights of easement can be claimed against the government.

Apart from the two special cases, namely inevitability of ground water extraction in arid areas with little possibility of recharge from rainfall and the necessity for over exploitation of ground water in water-logged regions, the essential task of ground water regulation is one, of controlling over-



crowding of wells and the other of limiting total withdrawal of ground water well within the limits of total recharge.

The absence of legal regulatory mechanism for limiting withdrawals of ground water led to a writ petition in the Kerala High Court under article 21 of the Constitution of India in *Attakoya Thangal v. Union of India*.<sup>1</sup>

The Administration of Lakshadweep Islands had evolved a scheme to augment water supply by digging wells for meeting the increasing demands of potable water. The scheme was adopted in pursuance of the recommendations of the Kerala Public Health Engineering Department. Implementation of the scheme was challenged by the petitioners as violative of article 21. They contended that the availability of ground water was limited in the islands. As the potential for recharge was also limited, pumping of water by electrical or mechanical devices would disturb the fresh water equilibrium by the intrusion of saline water from the surrounding Arabian Sea.

The respondents, however, defended the scheme on the basis that the water would be skimmed to collector wells, and from there pumped to distribution outlets. Further, it was said that there would be no direct pumping, that the bottom of the wells would be plugged and that pumping would be restricted to half an hour followed by a break of 2 1/2 hours for ensuring against excessive withdrawals.

The court required an expert assessment of the whole situation and directed the Central Ground Water Board to investigate from all angles. Investigations were conducted with reference to the following:

[P]hysiography, climate, soil, agriculture and irrigation, hydrogeological aspects, tidal and water level fluctuations, hydrology infiltration studies, aquifer characteristics, hydrochemical studies, resources evaluation, recharge potential, water management concerns and other relevant matters <sup>2</sup>

The findings of the expert group were:

(i) Ground water potential which could be extracted was around 0.20 MCM (million cubic metres) of which the present withdrawals amounted to 0.18 MCM.

(ii) Saline water intrusion was present around pumping centres and salt water and fresh water interface was moving inland where withdrawals was excessive.

(iii) There should be continuous monitoring of the level of ground water and its quality.

In the light of these findings, the group did not recommend the feasibility of the administration's water supply scheme. On the other hand,

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1. 1990 (1) K.L.T. 580.

2. *Id.* at 582.



they suggested alternative means of increasing water supply by harvesting rain water, desalination and reverse osmosis.

The court recognised the importance of water for sustaining life and held that the right to sweet water was an attribute of right to life. On the basis of the expert study, it held that the proposed scheme should not be implemented till it was examined in its totality by the Ministry of Science and Technology and Ministry of Environment. This was required because the administration had proposed plugging of the bottom of wells, which would in effect limit recharge potential. The court, while recognising the need of augmenting water supply, observed that what was needed in that process was the preservation of the quality of water. Hence safeguards be evolved to stop extraction of ground water at a cut off level and also introduce a system of effective monitoring at all levels.

With the increased development of ground waters in the country, new statutory regulations to alter the provisions in the Indian Easements Act as regards underground water needs to be made. The existing statutory provisions have also to be re-examined in the light of the fundamental right to life guaranteed under the Constitution under article 21 which includes the right to potable water for sustaining life. The *Attakoya Thangal* case has re-affirmed this legal view.

Legal provisions for regulating ground waters have of necessity to be region-specific. For example, ground water abundant regions like the east Gangetic plains and command areas served by canals and tanks whose seeped-in waters add to the availability of ground water in ground water short regions would require different set of regulations than hard rock areas south of the Vindhias without tanks and canal waters and also groups of islands surrounded by oceans. In the ground water abundant regions, there need not be restrictions on the spacing or depth of wells and tube-wells. In the islands surrounded by sea waters, it is absolutely essential to have regulatory mechanism to prevent excessive withdrawal of ground water in the interest of preservation of fresh water equilibrium. In the hard rock regions with scarcity of ground water, regulations be framed to prevent overcrowding of wells.<sup>3</sup>

In India we still do not have a comprehensive legislation to regulate the development of ground waters. The legislative competence to enact laws on waters is primarily with the states under entry 17 of the State List. Consequently, the Central Government formulated a Model Bill on the regulation

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3. The ground water position in Tamil Nadu is alarmingly critical and if steps are not initiated immediately to arrest overexploitation and ensure economic utilisation of the available water, even drinking water may not be available in another five to ten years, according to a study made by D.K. Sivanappan, Water Management Expert and former Director of the Water Technology Centre of the Tamil Nadu Agricultural University. See "Groundwater Position Critical in State" in *Hindu*, 3 June 1990, (Madras ed.) quoted in the Centre for Science and Environment, *Green File* 49 (No. 31, 1-31 July 1990).



of ground waters in 1974 and circulated it among the states. The Bill sought to introduce a licencing mechanism by which the prescribed authority can prohibit a landholder or landowner from constructing wells exceeding a certain prescribed depth except according to the terms and conditions mentioned therein. The Bombay Irrigation Act 1879 in its applicability to the State of Gujarat was amended in 1976 which contains provisions for licencing of wells in Gujarat in notified areas. Once the areas are notified no holder of any agricultural land located within the area may construct any tube-well, artesian well or bore-well exceeding 45 meters in depth for extracting ground water, except and in accordance with the terms and conditions of licence issued by the regional canal officer. Though enacted as early as 1976, it was brought into force only in 1988. It is applicable to certain specified areas in Gujarat.

The Tamil Nadu Government formulated a Bill in 1977 to regulate exploitation of groundwaters but it could not be enacted as law as a strong lobby opposed it.<sup>4</sup>

It is time that the states enact legislation for the development of ground waters taking into account physical and hydrogeological considerations.

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4. *Ibid.*

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