

Case Note: Case concerning a scheme formulated by the Government to augment drinking water supply involving the extraction of groundwater by pumps. The same was challenged by the petitioners on the ground that it would lead to an intrusion of salt water. The court held that the scheme should receive approval from the Ministry of Science and Technology and the Ministry of Environment and Forests before being implemented.

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IN THE HIGH COURT OF KERALA

Decided On: 26.02.1990

F.K. Hussain

v.

Union of India (UOI) and Ors.

Hon'ble Judges:

Chettur Sankaran Nair, J.

ORDER

Chettur Sankaran Nair, J.

1. The conflict in these cases, is the conflict of yesterdays and a new day the conflict of the lifestyle of a lotuseyed leisurely day gone by and the exacting demands of today on material resources.

2. The coral isles of Lakshadweep, with their wind swept beaches of silver sands washed by the soft ripples of the lagoons, lie scattered like pearls in the sapphire sea, to the west of the Malabar coast. The palm fringed isles are endowed with scenic loveliness; but are not endowed with enough material resources. According to petitioners, ground water resources in these islands are limited. Potable water is in short supply, and large scale withdrawals with electric or mechanical pumps can deplete the water sources, causing scopage or intrusion or saline water from the surrounding Arabian Sea. The administration has evolved a scheme to augment water supply, by digging wells and by drawing water from those existing wells to meet increasing needs. This, petitioners say, would upset the fresh water equilibrium leading to salinity in the available water resources. Pursuant to a scheme recommended by the Kerala Public Health Engineering Department, the administration is said to have taken this decision to extract ground water by using pumps. Action of the administration amounts to an invasion of the rights under Article 21, say petitioners and they seek to restrain the administration from implementing the scheme, by the issuance of appropriate writs or directions.

3. Referring to the data available, petitioners submit that only Order 6 to Order 75 metres deep of ground water is available in the island. The potential for recharge is limited, and if available ground water is withdrawn, hydraulic head will be lowered and water lens, penetrated, by saline water causing diminution of potable water. Pristine form of hand withdrawal of water from wells alone will sustain the water resources, and the digging of radial wells would disturb the water equilibrium, according to them. They base their submissions on observations made by the Central Ground Water Board, the Indian Council of Agricultural Research, the Central Public Health Engineering and Environment Department and other expert bodies.

4. Petitioners place considerable reliance on passage from the report, on "Strategy for an Integrated Development of Lakshadweep" by Prof. M. G. K. Menon, then Scientific Advisor to the Prime Minister of India and Member of the Planning Commission. Prof. Menon observed:

"A hydrogeological survey of the islands is essential. Although the Kerala Public Health and Engineering Department and Central Public Health and Engineering Organisations have prepared a report, it needs to be carefully examined by a group of experts, particularly in terms of aquifer sizes, recharge rates, intrusion of saline water etc."

The Advocate General appearing for petitioners referred to the decision of the Supreme Court in *Sachidanand Pandey v. State of West Bengal*, AIR 1987 SC 1109 to highlight the risk in interfering with nature beyond the degree of tolerance. For every triumph that men make over nature, she takes her revenge. In answer, respondents submit that with the growing need for more water, it is not possible to content with the available sources of supply. It is further submitted that low environmental sanitary conditions and prevalence of water borne diseases, make it necessary to introduce a scheme of protected water supply. The available water is of bad quality and purification is necessary, according to respondents. They further submit that infiltration galleries pumps will be located only at shallow depths and that water will only be skimmed from the surface of available resources, guarding against excessive withdrawals. Water will be skimmed to collector wells, and from there pumped to distribution outlets. It is submitted that there will be no direct pumping, that the bottom of wells will be plugged, and that pumping would be restricted to half an hour, followed by a break for 2 1/2 hours, thus ensuring against excessive withdrawals. This method would not jeopardise fresh water equilibrium, and respondents rely on a Project Report of the National Environmental Engineering Research Institute, shortly called 'Neeri', and on another Report by the Centre for Earth Science Studies, shortly called 'Cess', to support their contention.

5. By orders on C.M.P. 5763/87 in OP 9736/86, this court directed the Central Ground Water Board to investigate into the various aspects raised in the writ petition, and submit a Report. A team consisting of Sarvashree V. C. Jacob, K. Rajagopalan, D. S. Thambi, K. M. Najeeb & K. Raman made a very detailed study of various aspects, and submitted a Report. They examined the question from different angles. Investigations were made with reference to physiography, climate, soil, agriculture & irrigation, Hydro-geological aspects, tidal and water level fluctuations, hydrology infiltration studies, aquifer

characteristics, hydrochemical studies, resources evaluation, recharge potential, water management concerns and other relevant matters.

6. Some of the findings of the team are :

1. Extractable ground water potential is around Order 23 MCM, of which the present draft is around Order 18 MCM.

2. Salt water intrusion is observed around pumping centres and that salt water fresh water interface was moving inland wherever pumping was more. Hence pumping of ground water should be stopped by legislation.

3. The ground water level and quality should be continuously monitored.

They categorically expressed the view that water supply scheme that is proposed is not feasible. The team estimated the volume of ground water that could be safely drawn as Order 23 cms. According to them, Order 525 MCM is the total dynamic reserve of ground water above mean sea level, and tidal fluctuation is between 0.03 and 0.39 m. To keep a buffer of 10 cm. water column above sea level, 0.05 MCM water is required which is approximately 10% of the reserve. According to them, by A.D. 2013, the water requirement will be around 0.35 MCM and this cannot be met by ground water resources. If withdrawals exceed 0.23 MCM, salinity will result. During test pumping it was noticed that water quality fell to 908/US/cm from 1100. Electrical conductivity varied from 3000 to 8000 during pumping.

7. They therefore suggested other means of augmenting water supply, mainly by harvesting rain water, desalination and reserve osmosis. More or less similar are the recommendations and findings of the 'Neeri', 'Cess' and the other agencies, relied on by the respondents. Thus, largely there is consensus between these agencies. All the agencies are agreed that existing ground water resources are limited, that excessive withdrawals will upset fresh water equilibrium, leading to salinity and diminution of potable water, and that new sources must be identified for augmentation. The sources indicated by all agencies are similar and they are, harvesting of rain water, desalination and reverse osmosis. But while the team that reported in pursuance of orders of this court is positively against use of mechanical devices, the 'Neeri' and 'Cess' are not against restricted extraction of ground water by use of infiltration galleries to collector wells, under controlled conditions. How and how much of ground water can be extracted is thus the issue to be determined. The question arises in an area, where administrative and technical aspects come into sharp focus. The Executive Government has onerous responsibilities in the matter of providing civic amenities. The Technocrat too has his role to play, in view of the impact the matter has on environmental and hydrogeological concerns. There must be an effective and wholesome interdisciplinary interaction. At once, the administrative agency cannot be permitted to function in such a manner as to make inroads, into the fundamental right under Article 21. The right to life is much more than the right to animal existence and its attributes are many fold, as life itself. A prioritisation of human needs and a new value system has been recognised in these areas.

The right to sweet water, and the right to free air, are attributes of the right to life, for, these are the basic elements which sustain life itself.

8. Consistent with these diverse concerns, a methodology has to be evolved for extraction of ground water. As already indicated, over exploitation of water resources has to be contained.

9. Water and rivers have dominated the destiny and fortunes of man. Plentiful rivers, have brought prosperity to those who lived on their banks. Great civilisations, going back to India's immemorial past, flourished along the banks of our great rivers. Regards and lores, linger around them. Along the banks of Indus and Ganges grow up the greatest civilisations, that mankind know of. If Bhageerathi brought salvation, Ganga sustains life. The Ganga rising in torrential springs from the foothills of Himalayas, runs like lifeline through India's Heartland and has brought plenty and prosperity. Ages have rolled by it, and it has remained eternal. In a way it has been a symbol. In the words of Jawaharlal Nehru, 'the Ganga has been to me a symbol and a memory of the past of India, running into the present, and flowing on to the great ocean of future'. Prof. Humayun Kabir in 'Men and Rivers' has portrayed life on the banks of Padma. The vicissitudes of life, varied happiness and sorrows -- with her moods and seasons.

10. Environmentalists and Scientists in other disciplines, have indicated the importance of water management in the present day. Perhaps water management, will be one of the biggest challenges in the opening decades of the next century. Water resources have therefore to be conserved.

11. Consistent with natural constraints, a Scheme, viable technically and meeting the requirements as nearly as possible has to be evolved. With changes in the way of life, even a basically conventional society, may go in for modern means and make use of pumps to draw water from private wells. Restrictions, comprehending the total situation, will be necessary, even in the shape of statutory regulations. Safeguards must be evolved to stop withdrawal of ground water at a cut off level, to impose restrictions and introduce a system of effective monitoring at all levels. To decide on the modalities the matter should receive a final look, at the hands of the competent Ministries of the Government of India, which may be the Ministry of Science and Technology and the Ministry of Environment.

12. The Scheme as envisaged shall not be implemented until it gets the final green signal from the aforesaid agencies. I say so, because some of the suggestions indicated by the administration in its counter-affidavit do not seem to be satisfactory. For example, to protest equilibrium, the Administration has suggested plugging of the bottom of wells. If plugging is done, recharge potential will be limited. These matters will be considered by the aforesaid Ministries and the Ministries will issue such directions as they consider appropriate, informed as they are of the technical aspects. If considered necessary, statutory regulations should be made and a responsible agency set up for monitoring the functioning of the system set up. The respondents will refer the matter to the Ministries aforesaid.

13. With these directions, writ petitions are disposed of. No costs.

14. I express appreciation of the thorough work done by the Committee constituted pursuant to the directions in C.M.P. 5763/87 in O.P. 9736/86. The reports of the 'NEERI' and 'CESS' have also helped this court considerably in considering the various questions raised in the writ petitions.

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