GOVERNMENT OF KARNATAKA

No. FEE 215 ENV 2000

Karnataka Govt. Secretariat
M.S.Building
Bangalore, Dated 18-11-2003

NOTIFICATION

Whereas Tippagondanahalli Reservoir (TGR), built at the confluence of Arkavathi and Kumudvathi rivers is one of the source of drinking water to the city of Bangalore and surrounding areas since 1930. Tippagondanahalli Reservoir in normal year, supplies up to 125MLD of water to Bangalore City and in recent years, the inflow to Tippagondanahalli Reservoir has been decreasing. The quality of water supplied by this reservoir has also deteriorated due to the effluent discharge into the reservoir. In view of these facts, BMRDA initiated a study by Indian Space Research Organisation (ISRO) in association with Indian Resources Information and Management Technologies Pvt Ltd. (IN-RIMIT) to ascertain the reasons for reduced inflow of water to Tippagondanahalli Reservoir.

And whereas the study carried out by Indian Space Research Organization in association with Indian Resources Information and Management Technologies Pvt. Ltd., (IN-RIMIT) reveals that unplanned development in the catchment area is one of the main reasons for the deteriorating quality and reduced inflow into the reservoir. Increasing urbanization and industrialization in the catchment area is one of the main reasons for the deteriorating quality and reduced inflow into the reservoir. Increasing urbanization and industrialization in the catchment area has altered the drainage pattern in the catchment areas. This in turn has affected the inflow into the Tippagondanahalli Reservoir. There are number of industries in the catchment area, whose effluents also flow into Tippagondanahalli Reservoir affecting the quality of water. Underground leachate from untreated effluent and sewage is also affecting the quality of ground water in this area.

And whereas the total extent of Tippagondanahalli Reservoir catchment is 1453 sq km and covers parts of Doddaballapur, Nelamangala, Devanahalli, Magadi and Bangalore taluks. Tippagondanahalli Reservoir receives inflows from two streams namely Kumudvathi and Arkavathi. This study done by ISRO and IN-RIMT, has made several recommendations, to protect and preserve the Tippagondanahalli Reservoir catchment. The recommendations include as follows:

Formation of a Conservation Zone covering the entire Tippagondanahalli Reservoir catchment and adopting suitable land utilization strategy therein, especially from the point of view of regulating the urbanization/industrialization.

Declaring a zone of about 10km radius around Tippagondanahalli Reservoir as area of protection.

Regulating a buffer of around 2 km on either side of the Arkavathi and Kumudvathi courses (within the catchment), for protecting the Tippagondanahalli Reservoir from further deterioration.

Implementing necessary measures to prevent alteration of drainage course or impediments to the flow of water along the Arkavathi and Kumudvathi rivers.

Checking of the uncontrolled disposal of effluent/sewage into the streams/ surface water bodies within the catchment. Implementing suitable measures for controlling over-exploitation of groundwater in the catchment. implementing proper waste management system and implementing programmes for revival of the tanks in the catchment.

And whereas in order to ensure improvement in the quantity and quality of inflow of water into Tippagondanahalli Reservoir, Karnataka State Pollution Control Board has recommended to regulate the development in the catchment areas in its 140th meeting held on 24-7-2002. The Karnataka State Pollution Control Board has taken the decision not to accord consent for any industry, as this is bound to change the surface contours and affect the catchment's drainage pattern. The Karnataka State Pollution Control Board has recommended to the Government that the area identified by ISRO be declared as a sensitive zone under Environment (Protection) Act, 1986 and also suggested to constitute a separate Authority for the conservation of 'Thippagondanahalli catchment area'.

And whereas in a meeting held on 08-07-2003 chaired by the Principal Secretary. Urban Development, it was resolved to protect this ecologically sensitive area. Since the quality and quantity of water supplied from Thippagondanahalli Reservoir will have direct impact on large population of Bangalore and whereas the Government considers it necessary to protect the catchment area of Thippagondanahalli Reservoir to prevent any activity that would lead to contamination of the reservoir.

And whereas the Central Government in exercise of the powers conferred under section 23 in the Environment (Protection) Act, 1986 has delegated the powers vested in it under section 5 of the said Act to the State of Karnataka vide Notification No.S.O.152 (E), dated 10-2-1988.

Now therefore in exercise of the powers conferred by section 5 of the Environment (Protection) Act, 1986, (Central Act 29(86) read with Notification No.S.O.152 (E), dated 10-02-88, the Government of Karnataka having considered it necessary in the public interest hereby issued the following directions in respect of Thippagondanahalli Reservoir catchment areas which are categorized into four zones comprising of areas specified in coloumn (2) of the schedule falling under the corresponding zones specified in column (1) thereof and also specify the nature of restricted for regularization of the activities in column (4).

Zone	Area Covered	Nature of restricted/regulated activities	Authorities responsible
(1)	(2)	(3)	(4)
Zone-1	Entire Tippagondanahalli Reservoir (TGR) catchment area specified in Annexure to this Notification.	Regulation and checking over exploitation of ground water. No fresh leases or licence for mining, quarrying and stone crushers shall be granted. No person shall dispose solid as well as liquid waste in this area without scientific Processing. To ensure adoption of rain water harvesting systems in all the new	Director Mines and Geology Department. 1.Deaprtment of Urban Development. 2.Bangalore Water Supply & sewage Board. 3.Nelamangala Planning Authority. Secretary, Department of

Zone	Area Covered	Nature of restricted/regulated activities	Authorities responsible
(1)	(2)	(3)	(4)
		and existing buildings, within six months from the date of issue of this order. To promote organic farming including bio-fertilizers and bio-pesticide.	Agriculture/ Horticulture.
Zone -2	Area covered within 2 kms from the Tippagondana halli Reservoir (TGR) boundary	No person shall carry on activities other than Agricultural or Agriculture related activities without prior permission	Department of Urban Development BMRDA. Nelamangala Planning Authority. Bangalore Development Authority. Directorate of Municipal Administration. Bangalore Water Supply and Sewage Board.
Zone-3	Area covered within 1 km distance from the river banks of Arkavathi (only upto Hesarghatta tank from TGR) and Kumudvathi	No person shall carry on activities other than Agriculture or Agriculture related activities without prior permission	Department of Urban Development. BMRDA Nelamangala planning Authority. Bangalore Development Authority. Directorate of Municipal Administration. Bangalore Water Supply and Sewage Board.
Zone- 4	Area covered within 1 km distance from the river banks of Arkavathy (only upto Hesaraghatta Tank from TGR) and Kumudvathi (Excluding the areas falling within zone 2)	Permit only those industrial activities which are listed as Green category, by the Karnataka State Pollution Control Board with mandatory adoption of rainwater harvesting systems and waste water treatment facilities. The other regulatory/civic agencies to issue permit only after Consent form Establishment (CFE) is obtained from the KSPCB. Permit new buildings with only ground and first floor with mandatory adoption of rainwater harvesting systems.	1. Department of Urban Development. 2. BMRDA. 3. Nelamangala Planning Authority. 4. Bangalore Development Authority 5. Directorate of Municipal Administration. 6. Bangalore Water Supply and Sewage Board.

The above directions shall come into effect immediately and non-compliance of the same shall attract penal action under sections 15 and 17 of the Environment (Protection) Act, 1986.

The concerned authorities entrusted with implementation of the above directions shall cause wide publicity of the provisions and submit monthly compliance report and of the action taken to the Secretary (Ecology and Environment), Department of Forest, Ecology and Environment, 709, 7th Floor, M.S Building, Bnagalore-560001.

By Order and in the name of the
Governor of Karnataka

Sd/-
(V.R.GAIKWAD)
Under Secretary to Government ,
Forest, Ecology and Environment Dept.,

To the compiler, Karnataka Gazatte for publication in the next Gazette and to supply 200 copies to the Department.

THE TIPPAGONDANAHALLI RESERVOIR CATCHMENT LOCATION AND EXTENT

The Tippagondanahalli Reservoir is situated about 34 Km west of Bangalore City and is drained by the river Arkavathi and the river Kumudvati. The catchment of the reservoir extends up to Dobbarpet towards northwest of Bangalore City on the Bangalore- Tumkur National Highway (NH-4) and upto Nandi hills, about 60 km.north of Bangalore City. The Tippagondanahalli Reservoir catchment covers an area of 1453 sq.km. and is covered in the Survery of India toposheet Nos. 57 G/3, G/4, G/7, G/8, G/11, G/12, H/5 and H/9. The area lies between 12^0 56' and $13^0$23' 15" North Latitudes and 77^0 13' 30" and 77^0 41' 15" East Logitudes. The catchment occupies on area of 461.80 sq.km. (31.78% of the total catchment) of Daddaballapur Taluk; 396.91 sq.km. (4.00% of the catchment) of Devanahalli Taluk; 40.26 sq.km (2.77% of the catchment) of Bangalore South and 8.00 sq,km. (0.55% of the catchment of Chikballapur Taluk.