Report on Inter State Boundaries Rivers Water Quality Monitoring
South Zonal Office, Bengaluru

CPCB South Zonal Office has been monitoring eight nos monitoring locations in south zone. The monitoring locations are depicted in table below:

S. No.	River Name	Monitoring Location Name
1	River Cauvery	Sathyagala Bridge
2	River Thenpennai (Dhakshina Pinagini River)	Mugalur Bridge
3	River Tungabhadra	Hochechali
4	River Krishna	Deodurga
5	River Pennar	Hindupur (no flow in the year from many years, hence monitoring has been stopped)
6	River Godavari	Baser
7	River Bhima	Ganagapur
8	River Manjira	Janawada

The monitoring location map is enclosed as **Annexure 4.** As per the CPCB H.O. letter no. A-19014/41/2006-Mon/6674 dated 18.11.2008. Rivers which are small/seasonal or not causing any dispute to be monitored only once in a year, whereas dispute river locations and rivers which are not meeting the water quality criteria to be monitored quarterly. In this regard Bengaluru South Zonal Office is monitoring the River Thenpennai (Dhakshina Pinagini River) at Mugalur Bridge has been monitored quarterly, whereas other Rivers are monitored yearly.

Results and Discussions:

As per the River quality criteria, Bio-Chemical Oxygen Demand (BOD) should be 3mg/l or less for drinking water after conventional treatment.

In South Zone Inter Sate River water quality, all monitoring points are meeting the standard except Thenpennai River at Mugalur Bridge (Karnataka State). Most of the time, BOD values are exceeding the limit of 3 mg/l and phosphate and Nitrogen are also very high in this monitoring point. The reason behind this may be due to Bengaluru city, the city has an area of 941 sq. km and urban population is 1,00,00,000 (one crore). Bengaluru city generates about 1459 MLD of domestic waste water. 50% of domestic waste water treated remaining 50% sewage water goes untreated (source Bengaluru BWSSB). This may be attributed to the mixing of untreated sewage into River. There is a need of complete 100% treatment of city sewage in Bengaluru so as to reduce the pollution load in River ecosystem.

In Bengaluru sewage which treated/untreated is been discharge into lakes. These lakes water over flows joins together and become River Dhashina Pinagini (Thenpennai River). Surplus water from Belandur Lake over flows into Varthur Lake in Bengaluru. The Varthur Lake over flows and joins Thenpennai River and this River flows to Sokkaranapalli, Mugalur and reaches to Kelvarpalli Dam in Tamil Nadu State which is located 15 km away from Hosur. The distance from Varthur Lake in Bengaluru to Kelvarpalli Dam in Tamil Nadu is around 35 to 40 km. In this 35 km distance, the surplus water is used for irrigation and washing purpose. The Kelvarpalli dam water is utilized for drinking water to Hosur City, industrial purpose.

Recommendation:

Bengaluru city sewage should be treated 100% and the phosphate should be removed and meet the treated sewage standard.