

## Chapter 1

### Environmental Flow

#### Issues

As a living river the Yamuna should be able to fulfill its own ecological functions. These include recharging the ground water aquifers, carrying nutrient rich alluvial sediment while also supporting biodiversity and aquatic life. A river passing through the capital of the country can realistically be expected to be a source of well-being for the citizens by promoting a range of cultural and ecological activities in tune with the special place accorded by many civilizations that came up on the river banks.

This legitimate expectation is belied because the river is presently fighting for just oxygen to stay alive. The Central Pollution Control Board has specified that the river must achieve at least bathing standard. Presently the pollution in the Yamuna is far in excess and no impact on river quality is likely unless there a minimum environmental flow. The situation is exacerbated by a suffusion of sewage, industrial effluent and municipal waste which is also responsible for near destruction of the river.

NGT in its orders dated 13-01-2015 and 11-06-2015 had referred to the Order of Hon'ble Supreme directing release of 10 cumecs of water and reiterated that the state of Haryana must release at least 10 cumecs of water in the river, downstream of Hathankund barrage.

NGT had additionally directed that the water bodies and wetlands upstream of Wazirabad should be deepened for improving ground water recharge and increase flow in the river during the lean seasons. The Principal Committee in its report submitted to NGT on 6<sup>th</sup> May 2015 had also recommended a slew of measures including creating off river reservoirs along the floodplains, recycling of treated waste water in all urban centres along the Yamuna, improving water use efficiency in agriculture and giving much greater thrust to mandatory rain water harvesting.

#### Present Status:

The Executive Director, NMCG (National Mission for Clean Ganga) who is also the Member Secretary, Upper Yamuna River Board (UYRB) confirmed that 10 cumecs of flow is being released by the State of Haryana at Hathankund. However, most of it evaporates or percolates before it reaches Palla during the lean season.

No action has, however, yet been taken on the other measures to augment flow in the river as suggested by the Principal Committee.

## **Action Plan**

First, the release of E flows prescribed in the NGT orders would be monitored and reported on by 31st December. MC proposes to visit the site and satisfy itself about the 10 cumecs release at Hathanikund barrage and to understand whether either of two alternatives which have been suggested for improving the river flow have substance and are prima facie feasible.

Second, from discussions with all experts it emerges that in the lean months 10 cumecs of water as ordered by the Supreme Court and NGT would be completely insufficient to sustain the flow in the river as the 10 cumecs released at Hathanikund evaporates or percolates as it flows downstream. Resultantly, most parts of the river are completely dry. There is presently no possibility of the release of more water in the river by the upper riparian states like Haryana and UP howsoever much the river runs dry downstream of Hathanikund.

The Executive Director of NMCG informed the MC that a study of E- Flow for Ganga has been done by Central Water Commission (CWC) with the help of Experts and such a technical assessment was needed if justification for augmenting the water discharge was to be based on factual data. The authority which can assign more water would be the MoWR, RD&GR.

The MC, therefore, proposes to get a study done through CWC to assess E-flows for Yamuna in the stretch between Hathanikund to Okhla as recommended by the Shashi Shekhar Committee in its report dated 01-08-2014 which forms part of the judgement of NGT dated 13-01-2015. This has to be related to monthly data and the changing temperatures.

The scope for introducing other measures to enhance the lean season flow in the river e.g. through creation of off river reservoirs, deepening of wetlands, recycling all the treated waste water, rainwater harvesting and promoting water conservation and efficiency in agriculture, including growing less water intensive crops, all of which had all been recommended by the Principal Committee constituted by the NGT, will also be made a part of the proposed study.

The MC is working in tandem with the Principal Committee under the Chairmanship of the Secretary, MoWR, RD&G who heads both NMCG and the Principal Committee set up by NGT. The Terms of Reference would accordingly be discussed with the Ministry and with experts who have been identified.

A progress report would be given to NGT by 31<sup>st</sup> December.