



STUDY FOR RECHARGE OF GROUND WATER IN NCT DELHI

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Indian National Trust for Art and Cultural Heritage

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PREFACE

The years 1987, 2002 and 2008 are grim reminders of the failure of the monsoon. Normally, the post-monsoon water table [measured in November] is higher than the pre-monsoon [measured in May]. In these particular years the dependence on groundwater was far more than usual, and in the absence of natural replenishment the yearly hydrographs show that the post-monsoon level was lower than the pre-monsoonal level. This information demonstrates the importance of the groundwater reserve as a buffer in rainfall deficient years, in case of successive years of drought and for providing resilience against climate change.

An uncertain water future has been dogging Delhi for the last two decades. While thus far the gap between supply and demand has been met by mining the aquifer the rate of groundwater exploitation is proving unsustainable. In some areas of South Delhi the fresh water strata has nearly exhausted. Of late, supply side constraints from external surface water resources have begun catching up. Reservoirs in the Himalayas are clouded with uncertainty with local resistance, environmental constraints, Supreme Court directives and seismological threats putting precautionary brakes on construction.

By 2025 the Upper Yamuna Accord will expire and renewal will involve tough negotiations with demands of the other states also increasing. Internal demand is rising, surface resources are static, soft surfaces are being sealed with concretization cutting off rainwater access to the aquifers. This apart, 50% of NCT Delhi is officially urbanized and a total of 900 sq.km. come under the urban heel as per the Master Plan 2021.

Thus, NCT Delhi has no option but to rebuild its underground reserves which are its uncontested internal resource. Options such as roof water harvesting and rain water harvesting at the campus level have been suggested. However, in a decade of efforts no measurable results have emerged. Thus, it is time to recast the artificial recharge strategy in NCT Delhi and nourish the aquifers to secure Delhi's water future.
