

Sustaining tank irrigation in south India through time tested options

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The century old irrigation tanks mostly found in south India account for about 1/3 of rice irrigated area and benefit largely the small and marginal farmers. Current performance of these tanks is below 50% level. Major factors contributing for the declining performance are: erratic rainfall pattern and reduced inflows (hydrology side), poor management of the tanks (tank side), ineffective water control & poor groundwater development (farmers side). Given the future impacts of climate change on water resources, sustaining tank irrigation is considered important. Evidences show that developing an interface between tank ecosystems and wells is expected to augment water supplies, improve tank management and boost tank irrigation. To achieve this, the paper outlines a five pronged strategies: a) partial rehabilitation (partial desilting), b) full scale tank rehabilitation, c) converting tanks into percolation ponds, d) converting non-system tanks into system tanks, e) full scale groundwater development (tapping the full groundwater potential). Financial viability of the strategies also varies according to the scale and size of the investments and the expected benefits. Needed policy reforms converging ongoing as well as proposed programs (by national and international funding agencies) on tank rehabilitation are important and can be planned in a phased manner by prioritizing the investment scenarios.