Roof-Top Rainwater Harvesting Measures Initiated by the Government of Tamil Nadu

Rainwater harvesting has received a big boost in Tamil Nadu with the Chief Minister and the iron lady Jayalalitha lending her full support to the scheme. There are no half measures in her approach. She has gone ahead full steam and ordered the heads of all municipal organizations in the State to effect required changes in existing buildings for catching and storing rainwater. Individual householders in the different cities of Tamil Nadu are told that if such changes are not effected by 31 August, 2003 the government will undertake to install rainwater harvesting structures and recover the expenditure from the owners of the buildings. The notification in original and a free translation are furnished below:



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DO YOU KNOW?

The Government has ordered that rainwater harvesting structures should be installed in all buildings before 31st August 2003, failing which such structures will be installed by the local government establishments and the expenditure incurred for the same will be recovered from the owners of the buildings. In the whole of Tamil Nadu, the qualified and eligible service providers are being imparted requisite training in installing rainwater harvesting structures. A list of such service providers is displayed in the District Collectorate. These service providers are also supplied with guide books on operating instructions and along with estimates of probable expenditure. It is hereby informed that such service providers may be contacted immediately to initiate action on installing rainwater harvesting structures in their own buildings.

Rainwater Harvesting Structures for Every Home Conserve Groundwater Resource

For further particulars and advice about rainwater harvesting structures:

In Districts: (1) District Collectorate, (2) Tamil Nadu Water Board Offices, (3) City Corporation Offices, (4) Municipal Offices, (5) Taluk Offices, (6) Panchayat Offices and (7) Village Offices.

This notice appears to have been distributed to house owners of all the cities in Tamil Nadu. They have also been orally informed that if what is suggested is not done by 31st August, the' municipal water supply would t?e cut-off. In cases where instructions are not followed 'Service Providers' will themselves come and do it (without invitation) and the Municipality will collect the installation cost from the owner. It will be interesting to see to what extent the house owners will voluntarily comply with these instructions and what action the Municipalities will initiate in the case of defaulters.

Tamil Nadu Government is also reported to have promulgated an ordinance banning transportation of water from notified areas. Registration of bore wells has been made compulsory and hefty fines are imposed for unauthorised sinking of wells. These measures may appear draconian but they are needed to impose discipline and prevent misuse of a precious resource.

Roof-top rainwater harvesting is only a small part of the larger issue of rainwater harvesting.

In view of the highly seasonal character of the monsoon rainfall, which is confined to just 30-60 days in a year, householders can expect to satisfy their requirement for only a small part of

30-60 days in a year, householders can expect to satisfy their requirement for only a small part of the year. For rainwater harvesting to be really successful and provide assured drinking water throughout the year, the entire land surface has to be prepared to receive the rainfall and allow it to seep through the soil cover and enrich the groundwater reservoir.

Tamil Nadu has been a pioneer in rainwater harvesting through the construction of innumerable tanks, 'keres', 'ens' or 'kulams\ The Madurai-Ramnad tank country is a classical example. No streamlet, however miserable, in this region escapes unchecked to the sea without yielding its toll of water. These tanks, however, are in a state of neglect. The first and foremost duty on the part of the government as well as the people is to see that they are desilted and bunds strengthened, enabling maximum interception of rain water which otherwise would run off the surface. The stored water will slowly seep through the weathered zone and enrich the groundwater reservoir. This stored groundwater, if judiciously used, can be made to supply water throughout the year not only for drinking but even for irrigation. Special efforts are necessary to grow crops like ragi, jowar, sesamum, pulses and groundnut which require minimum quantity of water. Cultivation of sugarcane and paddy should be discouraged under well irrigation. Excessive utilization of groundwater by means of deep borewells and turbine pumps should be strictly avoided. Such practices have led to the drying up of streams, lakes and wells. Modern technology should be availed by introducing sprinkler irrigation and drip irrigation, making the best use of the limited water resources. It is time that our farmers are educated in measuring and maintaining soil moisture as only then they will come to appreciate the necessity of feeding the right quantity of water instead of flooding the fields. Israel, with less than 200 mm of annual rainfall, has made a success of its agriculture only through adoption of such practices. There is no reason for our farmers with rainfall per year of not less than 500 mm to be forever complaining of drought. There is also need to concentrate on growing high value crops like fruits and vegetables.

In almost all States of the Indian Union a large extent of land lies fallow. It is such land which requires preliminary treatment to receive rainfall and transfer it underground. Such lands generally are at a higher elevation than the surrounding cultivated fields form recharge areas for groundwater. Excavation of a number of water ponds, each about a hectare in area, a depth of 8 to 10 m and a catchment area of 30 to 40 acres is most desirable. Allowing about 2 metres for evaporation, 6 to 8 hectare metres of water would be available from each pond in non-rainy months. Groundwater levels would rise and provide water for irrigation throughout the year. Trees can be planted all around the ponds which will further aid in the interception of rain water.

Even in farm lands, farmers should dig a series of channels and erect bunds" all round the farm to see that no rainwater falling on the land escapes. There is also enormous scope for recharging groundwater with afforestation and better land management.

Governments are earmarking considerable amounts of money for rural development but most of it is being squandered away in making substandard roads, breaking stones and such other futile

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works. Despite the fact that the weathered zone to a depth of over 100 m has been sucked dry through over exploitation of groundwater, vast sums continue to be spent on drilling borewells which are bound to be failures. Recharging of aquifers through water harvesting is far more important than reckless exploitation of groundwater through deep bore-wells.

Excellent cadastral maps are available for every village and the extent of cultivable land is clearly shown on these maps. Contours at 5 m interval can be drawn with little extra effort on these maps. A blue-print of development works for each village furnishing details of the number of ponds to be excavated, their location, the tanks to be desilted, contour ditches to be dug and bunds erected, shallow water wells to be excavated, fencing of fields for growing vegetables, planting of trees - all these can find a place on the maps and provide employment for every idle hand in the village. Farmers can be expected to come forward with voluntary labour and payment could be made in the shape of food grains. Within a couple of years a transformation of the whole land can take place. What is required is good leadership at village level and good planning and monitoring of the progress. Village community is the rightful custodian of water and nothing should be done without its knowledge and consent. Group action at soil and water management aided by government support can achieve wonders. Caution is necessary in preventing giant corporations from taking control of our water resources leading to excessive groundwater extraction..

Tamil Nadu can be at the forefront of such a transformation. If the government shows the same zeal as it has evinced in the case of harvesting water falling on roof tops, much can be accomplished.

Water is at the root of all prosperity. Vedic rishis prayed:

Oh Water! you are verily capable of conferring bliss May you give us energy and nourishment

There is too much talk about interlinking of rivers, construction of major dams with the promise of providing unlimited quantities of water for irrigation, controlling floods and generating vast amounts of electrical power. They forget that they create no more new land than they destroy and cause misery to numerous people who have to be resettled. These grandiose schemes may never see the light of day. Making the best use of what is available at our door step is what is required. That way lies our prosperity. Let us make a beginning.

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