Harvesting the Monsoons
Category : September/October 2001
Published by Anonymous on Sep. 01, 2001

ENVIRONMENT

Harvesting the Monsoons

Restoring ancient systems: to answer water woes

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Fifteen years ago, no father wanted to marry off his daughter to a boy from the village of Raj Samadhiyala as the village was starved for water. Now things are different. The villagers, with the help of a nongovernmental organization, have built 12 check dams and are carefully managing and developing their watershed. As a result, the farmers are growing cotton, wheat, groundnut and vegetables, which they could never have dreamed of growing before.

Hundreds of villages like this are scattered all over India. These rural communities, assisted by social service groups, are discovering the lost treasures of traditional water harvesting and benefiting immensely from it. Much of the work being done is repairing and reviving ancient water saving systems, including fixing rundown temple tanks. These methods contrast with the construction of huge dams across major rivers and help heal the environment, instead of harm it.

During the seasonal monsoon, there is plenty of water everywhere, flooding villages and towns, but not enough of that water soaks into the ground to fully replenish the groundwater. Over 90 percent of rural folk use groundwater for drinking. The flood water quickly runs through the villages' seasonal rivers which then dry up soon after the rains stop. But held back with small dams, ponds, tanks, etc., the water has a chance to soak into the ground and recharge the groundwater supply. This raises well water levels, giving ample water to last the rest of the year. The work is making near-desert lands much more hospitable.

For example, the once barren village of Laporiya in the Dudu block of Jaipur district now has large fields of green grass. The village community, through voluntary labor, create diked pastures on rectangular plots of land, called chaukas, to store the rainwater. The total irrigated area is now 750 acres and agricultural production has increased by more than 12 times.

The organization Tarun Bharat Sangh, headed by Rajendra Singh, has helped many parched villages in Alwar district of Rajasthan. This NGO assisted villagers in rejuvenating 3,000 johads, or small earthen check dams. The groundwater level has risen by 20 feet and agriculture is much more productive. Once-dry rivers have become perennial and forests are starting to grow back.

More than 300,000 wells and tubewells have been recharged by the rural folks of Saurashtra-Kachch region. In Ahmedabad and Bhavnagar districts of Gujarat, local village communities have constructed 21 lined ponds inspired by the NGO Utthan.

Local women have taken charge and are contributing 80 per cent of the labor to create the water harvesting structures.

Another example is the poor tribal district of Jhabua in Madhya Pradesh, which accomplished a complete turn around. Wastelands are now covered with greenery, thanks to help from the Rajiv Gandhi Mission for Watershed Development.

The governments of many states are also becoming involved, recognizing the importance of these revolutionary efforts. The Madhya Pradesh government launched the Ek Panch Ek Talab program. Every elected member is required to restore a water tank. The Andhra Pradesh government launched Neeru Meeru, or "Water and You," a water conservation program to deal with water scarcity in the state. The program aims to help communities manage their own resources and show them how to solve their own problems. The Gujarat government created the Sardar Patel Participatory Water Conservation Program to help build 2,500 check dams at a cost of us$22 million.

Without programs like these, the problem will just continue to escalate as India's demand for water grows. By 2025 India's water demand is estimated at 280 trillion gallons, or approximately one percent of the world's fresh surface water up from 103 trillion gallons. With this in mind, community based rainwater harvesting will help bridge the gap between the escalating demand and the low

supply. The Center for Science and Environment in New Delhi estimates that low-tech rainwater harvesting will, in fact, provide enough water, even in times of severe drought.