



## AID's Water Projects

AID Saathis (fellows) Swati Desai and Michael Mazgaonkar are helping farmers in the area of Juna Mozda, Gujarat, increase their crops by constructing small water embankments called bunds. Started in 1994, these bunds now serve 700 farmers in 9 villages. The duo's work in helping the farmers build these bunds received recognition in the form of Gujarat's 2002 Rural Development Award.

Sustainable water conservation eventually leads to soil conservation. Since India gets most of its rainfall during the monsoon season and because this water is not conserved, most of the water runs off causing soil erosion. This is a serious problem that might render more than 60% of India's arable land uncultivable. Bunds such as the ones in Juna Mozda, are built using readily available stone and mud, and they prevent rainwater runoff and provide water for the villages between monsoons. In the long term, they will also lead to better soil for farming.

In Surodi, Maharashtra, AID has been involved in teaching  
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Water sustains life and livelihood in indigenous and industrial societies alike. Many community development projects AID has supported eventually generate momentum towards improving the quantity, quality and reliability of water supply for household, agricultural, and small-scale industrial uses. A case in point is AID's association with the village of Surodi (Maharashtra), with the Mobile Science Laboratory. When AID volunteers visited the Lab and Ashok visited the Narmada *jeevanshalas*, together they decided to try to address the water problems of his native Surodi. Following the model made famous by Anna Hazare, Ashok worked through his village's *Gram-Sabha* and involved the entire village in *shramdan* (voluntary labor). This edition of Dishaa focuses on water-related projects that AID supports. Inside this issue you will find:

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## Water Privatization

Water is such a critical resource for all living beings on our precious planet that it is no wonder that UN has declared water a basic human right. Less than half a percent of earth's water is available as surface water for use by human beings. Water privatization and interlinking of water have been proposed as solutions to the growing water shortage.

The privatization of water treats water as a commodity as opposed to a basic human right as pledged by the UN. A number of issues associated with the commoditization of water have been brought to the forefront in countries such as Bolivia, US, Argentina and Nigeria. These include unsustainable usage of water resources, increase in water tariff, undemocratic contract management, and pollution. In Cochabamba, Bolivia, the water tariff was doubled when Bechtel, the multinational water company, won the contract to build and own the waterways. This resulted in mass protests in 2001 when the government was forced to rescind the contract and turn the water management to the local community.

India's water policy, updated in April 2002, has called for private participation as one of the ways to manage water resources. The trend has already started with the privatization of a lake in Chattisgarh and the reckless mining of ground water by beverage bottling companies. The subsidies given to these companies exacerbate the inequality of access to water. For example, a soft drink company pays Rs. 7.50 per kilo liter of water that it mines from the aquifers, while in Tirupur

where a gigantic water pipeline infrastructure has been initiated, the cost of water to domestic users will be at Rs5 per kilo liter.

Many NGOs in India, including partners of AID such as in the Surodi village, Paryavaran Suraksha Samiti in Juna Mozda and other organizations such as Tarun Bharat Sangh, have developed proven sustainable technologies and decentralized management of water resources. The key feature of these projects is that the local communities enjoy the ownership of the waterways and develop equitable sharing of water resources with in the community. The privatization and the interlinking rivers project are endangering these practices and further marginalizing the poor who are being forced to pay for such massive infrastructures.

*Chandrika Ramanuam (AID-Austin)*

### Summary of AID India Press Release for Mumbai blast

The Association for India's Development is deeply distressed by the loss of life and property caused by the powerful bomb explosions in Mumbai on August 25, 2003. We would applaud and support the efforts of the civic administration, eminent citizens and social activists to appeal for communal harmony, as also all efforts to pursue whoever may be responsible for the blasts using the full extent of the law.

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watershed management. With AID's support, the villagers organized and studied the pattern of rainfall and developed a water harvesting and distribution mechanism without any external help.

On the other hand, in association with rural development groups, AID supported the design and construction of a micro-hydel project in Bilgaon and a pedal power project for providing electricity to villages in the Narmada valley. The natural slope of the river Udai in the Bilgaon village is an ideal resource to generate 15KW of electricity enough to light 180 houses in the village and the local school.

Unfortunately, not all water projects are benign. Grandiose projects, such as the Sardar Sarovar dam will displace thousands of families with out giving them any sustainable rehabilitation.



**Gully bund to prevent soil erosion in the village of Juna Mozda, Gujarat**

*"If the wars of this century were fought over oil, the wars of the next century will be fought over water."*

- Ismail Serageldin, vice-president of World Bank

Decentralized management of natural resources is the best approach towards sustainable development and social empowerment. The successful water projects supported by AID attest to this.

Chandrika Ramanujam  
AID-Austin

## TIRUPUR AREA WATER PRIVATIZATION PROGRAMME

The Tiruppur Area Development Programme, a Rs. 1273 crore water privatization project, went online in Tiruppur (in Tamil Nadu) in the year 2002-03. It is a 30 year contractual BOOT (build, own, operate, transfer) operation under the aegis of NTDCL (New Tiruppur Development Corporation Limited). NTDCL chose Mahindra and Mahindra and Bechtel of UK as the BOOT operators. The project involves a 55km long pipeline from the river Bhavani. The water supply component is scheduled to be completed by 2003-04 and the sanitation component by 2006. This project signals the commodification of water, an erstwhile public utility and a basic right: it will potentially affect sustainable and equitable development in other spheres as well.

The project cost and its rapid implementation are hardly incidental, given Tiruppur's gargantuan share of the national textile exports. Indiscriminate water mining by its 4000 odd manufacturing units has exacerbated the region's water scarcity. They have also compromised ground water quality by dumping effluents. In a weird twist of logic, the polluters have come to control the community's water supply; Tiruppur Exporter's Association is an equity partner of the NTDCL project along with the central and state governments. Out of the estimated supply of 185 mld

(million liters per day), 115 mld will be allotted for the manufacturing units while Tiruppur municipality and neighboring panchayats will split the rest.

**Multinational Record in Water Privatization:** Besides lopsided water distribution, the operational efficiency of the project itself can be challenged on the basis of previous multinational led water privatization projects in developing countries. It was another Bechtel subsidiary that undertook the infamous project in Cochabamba, Bolivia. Besides repeatedly hiking the water charges, Bechtel also blocked domestic rainwater collection and storage under the premise that it reduces percolation and ground water availability. Post privatization in Ghana and South Africa, increased water costs left thousands bereft of potable water and led to the outbreak of water borne diseases. The NTDCL project has a review committee to check water charges over 3 year periods; but there are no set clauses to protect the domestic customers from inflation and cost increase.

The 30 year concession period could be potentially damaging; even if NTDCL's functioning is unsatisfactory, it will be difficult to repeal the contract given the GATS,

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*"Water is best protected by local communities and citizens who must be respected as equal partners with governments in the protection and regulation of water. Peoples of the earth are the only vehicle to promote earth democracy and save water."*

- Cochabamba declaration

the General Agreement on Trade in Services and other trade treaties. Bechtel has filed a \$25 million suit against the Bolivian government for loss of income and other charges when its contract was usurped. The Enron debacle in power sector is an example closer to home.

**Equitable Alternatives for Water Resources Management:** The NTDC project precludes equitable alternatives including capacity building of municipal bodies and community initiatives in water conservation and supply. It negates the spirit and purpose of the landmark 74<sup>th</sup> amendment to the Indian Constitution, which recognized municipal bodies as legitimate third tiers of administration and vested them with financial and administrative autonomy to facilitate community participation in local development. Out of all public utilities water supply will be most appropriate and

effective with local control.

The UN has recognized water security as a basic human right. UNDP has devised a Localized Agenda 21 to facilitate community participation in local development including water resource management. AID's partners Utthan and Paryavaran Suraksha Samiti have demonstrated how community water harvesting practices are crucial to development through empowerment. It is critical to initiate awareness campaigns on right to water, demand a countrywide debate and referendum on water privatization and promote community participation in water conservation and distribution.

Vennila Thirumavalavan  
AID-Austin

## Hundred Block Program Update: Health Program

The first phase of the Hundred Block Plan (HBP) project for block level health program started in two states, Bihar and Tamil Nadu in February 2002. Its aims were to:

- Make a measurable improvement in child health and women's health status,
- Organize and empower women around their health needs,
- Educate the public on health, nutrition and policy issues,
- Improve public health services, and
- Develop mechanisms for panchayat intervention in health.

Arogya Iyakkam (Health Movement), as the program initiated by Tamil Nadu Science Forum is called, today reaches about 10 lakh people in 1000 villages in 23 blocks in Tamil Nadu. The Arogya Iyakkam today is in its third phase, building up on the key lessons from the first two phases. The first phase shaped the child health content. The second stage tested the scalability, developed the basic training structure and methodology and process to build in sustainability. It is the third phase, where these components and methods are implemented on a greater scale across the state and elsewhere, that we call HBP.

This phase started with a state camp at Vaigai dam in February 2002 attended by all participating block full timers. The camp included training sessions on issues like child health, sharing of experiences by different blocks and a discussion on implementation with each block. The blocks identified villages and village health activists for each of these villages and conducted training camps for these activists. Support from AID accelerated the pace and intensity of the program. More training camps at the block level and state level were organized between September and November. Registers were prepared for the village health activist to record vital events such as death, birth, marriage and pregnancy. These registers guide in identifying the children at risk of malnutrition and their response to the program.

Weighing machines to record weights of children below the age of five were sent by October end and weighing started in all blocks by early December. February '03 saw two sets of state camps wherein apart from training and reviewing



***A health rally by Tamil Nadu Science Foundation (TNSF) volunteers in Theni district, as part of the Hundred Block Plan (HBP).***

the blocks, a detailed quiz was conducted to identify weak spots. The focus on one-on-one health advice for each mother was emphasized as the most critical part of the program and ways to improve the content training were developed. Data consolidation from the first round of weighing was completed towards end of February. AID volunteers analyzed the data and arrived at an initial set of indices to measure progress and effectiveness of the program.

In summary, the child health component is progressing well and so is the women's organization component. The TNSF state team's current focus is to develop a series of materials, quiz questions, visiting blocks and testing quality of training imparted and consolidating the child health component. Then following this, the emphasis will be on the women's health and utilization of public health services component in all the blocks.

--Gayathri (Austin), S. Govindarajan (Milwaukee)

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## Water Conservation - The Right Path

Water is the elixir of life for all flora, fauna and humans. The regional land and water relationship is critical for the balance of all life. The most disturbing problems of this century are freshwater shortage and global warming. The water crisis attributed to rise in population and need for better standard of living is aggravated by mismanagement of water resources.

For centuries, agrarian societies in India have conceived a wide range of hydraulic systems to suit diverse ecological regions. These societies were known for their 'water wisdom'. Rooftop and land surface rainwater harvesting were common practices. These indigenous solutions came to be abandoned during the British rule. Applying the British mantra of engineering solutions to ecological problems by independent India's new bureaucracy worsened the scarcity of water. Water management was never looked upon as a social issue.

The detrimental effects of unfettered exploitation of groundwater without providing for its replenishment have led us to accept the idea of soil as a water reservoir. This idea is

valid in both rural and urban environments. The dry region of Alwar in north India revived its vanishing rivers and the metropolitan city of Chennai in south India is also resorting to water harvesting as an important component of its strategy to deal with water scarcity.

Studies by the Centre for Science and Environment show that while a small catchment area of 0.1 hectare has a 15 percent rainfall catchment efficiency, 300 hectares has only 3 percent rainfall catchment efficiency. This observation emphasizes a decentralized approach to rainwater harvesting. Centralized initiatives like large dam projects or interlinking of rivers disregard subtle land and water relationships that sustain fragile ecosystems.

The question we need to ask is "How do we conserve water for future generations in an efficient eco-friendly fashion?" Let the success stories of rainwater harvesting of our indigenous people show us the path to water conservation and securing our future.

--Hozefa Abbas Haideri  
AID-Austin

**Book Review:** *Late Victorian Holocausts: El Niño famines and the Making of the Third World*, by Mike Davis. London: Verso, 2001. 464 + viii pages. \$20. In *Late Victorian Holocausts*, author Mike Davis shows how economies in various parts of the world had traditional, and reasonably effective, ways of dealing with monsoon failure, drought, and other natural disasters - until the 1870s. Davis has done his homework very thoroughly. His writing is straightforward, always readable, and accessible across disciplines. His main argument is that Asia, Africa, and Latin America's ability to deal with natural disasters became increasingly weakened, and their communities became increasingly vulnerable to death from disease and starvation, as they became raw material suppliers in a global market economy. Davis' writing is not full of ideological rhetoric; rather, it is a very methodical, dispassionate, and lucid analysis. Davis notes that by the late 19th century, imperialism and globalization increasingly transformed subsistence agriculture into plantation agriculture. Colonies provided iron ore, rubber, palm oil, diamonds, food, tea, etc for European industry and consumers. Apart from destroying the environment (Davis does a skilful job of showing how this happened swiftly in South Africa), this destroyed traditional arrangements for lending, insurance, food distribution, and relief in India, China, Brazil, Vietnam, Philippines, etc. So when there was a drought for one or two seasons, traditional relief mechanisms were gone, and the imperial governments had no interest in saving lives (Davis substantiates this very carefully indeed). As a result, an estimated 30-60 million people died in famines in India, China, and Brazil between 1875 and 1900. Today, the Victorian bureaucrats are gone, but ethnic, caste, and landed interests are not. Resource management is not free from many vested influences that distort even the most well-meaning free market. Those are the influences we need to be aware of when we propose the exploitation or utilization of natural resources. Every country still has its internal colonies - on the outskirts of Johannesburg, in the inner cities of the United States, and in the tribal villages of India. That is why this book is tremendously important.

--Uma Asher (AID - State College/Penn State)

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