CSE and rainwater harvesting

The Centre for Science and Environment (CSE), an Indian non-governmental organization in New Delhi led by Ms Sunita Narain, last year received the 2005 Stockholm Water Prize.

The award was given to CSE for its efforts to build a new paradigm of water management that uses the traditional wisdom of rainwater harvesting and advocates the role of communities in managing their local water systems. In its citation, the Nominating Committee lauded CSE, under the leadership of Ms Narain, 'For a successful recovery of old and the generation of new knowledge on water management, a community-based sustainable integrated resource management under gender equity, a courageous stand against undemocratic, top-down bureaucratic resource control, an efficient use of a free press, and the use of an independent judiciary to meet these goals.'

CSE received the $150 000 Prize from HM King Carl XVI Gustaf of Sweden in August. CSE's work, through its many publications, its research and advocacy has helped create new thinking on how traditional systems of water management, which use rainwater endowment, could become the starting point for the removal of rural poverty in many parts of the world. CSE advocates capturing rain in millions of storage systems – in tanks, ponds, stepwells and even rooftops — and using it to recharge groundwater reserves for irrigation and drinking-water needs.

The world faces a critical challenge in improving the productivity of rainfed and marginalized lands. In this challenge, water can turn a large part of the country's currently parched lands into productive lands, reduce poverty and increase incomes where it is needed the most. CSE has shown through its advocacy that localized water management is a cost-effective approach and more importantly that local water management – harvesting and storing water where it falls – can only be done through community participation.

CSE forcefully argues that the prevalent mindset that water management is the exclusive responsibility of government must give way to a paradigm built on participative and local management of this critical life source. This powerful idea is gaining ground to become the policy and practice in many regions of the world.

CSE's founding director, Anil Agarwal, co-edited with Narain in 1997 *Dying Wisdom: Rise, Fall and Potential of India's Water Harvesting System.* It spawned a rediscovery of this practical, traditional and inexpensive technique to capture rainwater for drinking, sanitation and agricultural purposes, and to help alleviate pressure on India's inefficient, centralized water system – itself a remnant of colonial times. *Making Water Everybody's Business* (2001) expanded upon *Dying Wisdom* by documenting traditions, practices, technologies and policies of water harvesting in India, and by assessing state government efforts to deal with drought.

CSE's National Water Harvesters' Network has put the ancient wisdom into practice by creating awareness, undertaking policy research and lobbying to bring about change in policy as required so that water management is decentralized and water availability increased.

CSE has worked actively with both global and Indian issues. Through Narain, CSE became involved in discussions on the Kyoto Protocol to the UN Framework Convention on Climate Change. Claiming that the Kyoto emission quotas favoured rich countries, CSE campaigned that the atmosphere is a global common and should be equally shared by all citizens. CSE campaigned to bring policy changes in the areas of air pollution, industrial pollution, water management and pesticide use.

In India, CSE's Green Rating Project (GRP), for example, is a respected civil society initiative to develop an alternative form of governance to control industrial pollution. Its ratings scorecard has led to sharpened scrutiny on the activities of the paper, automobile and cement industries.

CSE has distinguished itself in the global crowd of NGOs through its insistence on hard facts before rhetoric. This philosophy has given the Centre considerable social capital within civil

CSE has argued that local water management – such as building check dams like these – can only be done with community participation

society, politics and the media in the push for policy change.

For further information, visit www.cseindia.org

Ethiopia: crop insurance pilot

In early 2006, the Ethiopian Government, the United Nations and other humanitarian aid agencies appealed for food and other aid for Ethiopia in the wake of drought last year. Droughts and international appeals for help occur regularly in Ethiopia, but a new scheme might offer a better way for farmers to cope with the results of failed rains. The prototype of a 'weather insurance' scheme will be launched by the World Food Programme (WFP) in 2006 with technical support from the World Bank, which is carrying out a number of small-scale weather insurance pilot projects in Africa.

If successful, the scheme could help in devising effective financial solutions to address natural disasters throughout the world, enabling faster interventions to prevent the sale of crucial assets and finally breaking the cycle of dependency in which millions of vulnerable people find themselves.

When the rains in a country like Ethiopia fail to arrive, subsistence farmers act fast, selling their tools and livestock within four to six weeks. They do this firstly because they know that everyone else will be selling their assets too, driving down prices, and secondly because they need cash to buy food at harvest time, when it is cheapest.

Appeals to donors by agencies such as WFP for funds or donations in kind are traditionally based on the failure of the harvest, which does not occur until several months after the failure of the rains. This means that by the time donors have come up with the aid and it has been passed on to the farmers and their families, four or five months have passed since the rains failed to show and those families have long since sold their assets, leaving them unable to benefit from better weather the following year and therefore trapped in a state of dependency. Studies show that it takes a decade to recover from the state of dependency caused by a severe drought.

The solution proposed by WFP in its pilot project in Ethiopia is to write insurance contracts based on a rainfall index, which correlates with historic, drought-induced food needs. In other words, the amount of rainfall will be measured and if the index falls below the trigger line on the graph, suggesting a drought severe enough to warrant food aid to the region, the insurance company will issue a payout that will be used to fund relief.

In the first quarter of 2006, WFP is going to the international markets and appealing for funding to insure the 2006 harvest in Ethiopia, offering to pay an attractive premium in order to have several hundred million dollars on standby in case of drought. To satisfy the needs of reinsurance companies and the capital markets, over 30 rainfall-measuring stations across Ethiopia will provide reliable, objective data, to be measured against an index based on rigorous, comprehensive records of the past correlation between the lack of rainfall and the need for food aid, including research on the depletion of household assets in response to droughts.

Aside from providing tightly controlled data, WFP is willing to pay commercial prices for its insurance in order to make the proposal attractive to the providers.

With an insurance company paying out as soon as rainfall dips below the index, WFP can get aid to the vulnerable much faster – an estimated four to five months earlier than with the traditional appeals-based system, and in time to prevent the sale of those crucial productive assets.

In India, smallholder farmers in some districts of Andhra Pradesh have been able to buy weather insurance against drought since 2002, through Hyderabad-based microfinance institution Basix and Mumbai-based insurance company ICICI Lombard. The project, initiated with support from the World Bank's Commodity Risk Management Group, has spread rapidly from the initial pilot; in 2005 Basix offered weather insurance for the monsoon season to 10 000 farmers across seven Indian states.

In Africa, until now many farmers do not have access to insurance or cannot afford it. This is why a humanitarian agency is paying for a policy on their behalf, thereby pre-empting the need to provide emergency food aid further down the line.

Source: James Morris, Executive Director of the UN World Food Programme, in The Financial Times

CSE advocates capturing rain in millions of storage systems such as this field bund and using it to recharge groundwater reserves for irrigation and drinking water