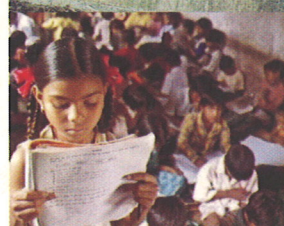
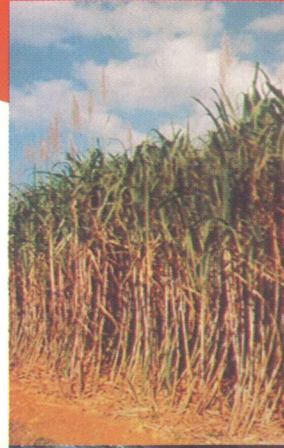
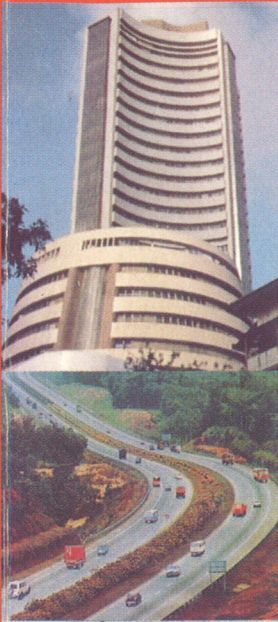


INDIA'S GROWTH STORY



हिंदुस्थान समाचार
Hindusthan Samachar

सत्य संवाद सेवा

How to make it Sustainable & Inclusive ?



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Water Management for Sustainable and Inclusive Growth

Bhavarlal Jain

Life is water

The first living entity, bacterium, came into existence on the earth in water about 3.5 billion years ago. From then on, water has been the primordium of birth, life, sustenance and growth of all life on this globe. It is preposterous and incredible to conceive of life without water in the universe. The food chain concept validates this fact as many a plant species and animal communities have become extinct in the absence of water.

Principal life-line

Agriculture around the world is a principal source of food supply for mankind. And most critical input for agriculture is water. With number of mouths to be fed growing at staggering rates, agriculture is under strain to meet food demand. The situation is becoming more and more acute because of increasing scarcity of irrigation water.

Many countries like India have been going through agony of food shortages.

Approach that can't be relied on anymore

Indian agriculture depends vastly on rainwater. Water reservoirs (dams, lakes), water courses (streams, rivulets, rivers) and waterways (canals, channels) to be useful, for that matter, also require rainwater for their water replenishment. These sources, coming apart at their seams, are proving to be inadequate, and, in the long run, uneconomical and unviable. Moreover, arid areas and rain shadow zones suffer from miseries of their own.

Exigency

Like many developing and underdeveloped countries, water scarcity is growing at an alarming rate in India. As a result, the first casualty is invariably the agriculture, since the first to suffer the cut is usually irrigation water. Such an action erodes the efforts in national growth through agriculture – not to speak of colossal waste of inputs already gone into the farm sector (fertilizers, insecticides, manures, power), let



alone the massive human labour invested.

It is imperative that for sustainable and inclusive growth this crippling problem of water scarcity is immediately tackled on priority to ensure 4% growth in agriculture sector. Here is a simple and effective approach that would provide quicker returns. Just constructing structures for catching every raindrop where it falls would do the trick!

Water resource near the farm

Very high percent of rainwater flows away as surface run-off. This is the foremost reason for poor aquifer recharge. It would do immense benefit to construct a series of simple bunds right from hill-top (highest countour line) and moving downwards to hill-bottom to prevent / obstruct / reduce surface waterflow currents. The fear that this would affect already constructed dams is misplaced. (Huge quantities of water are required to be released every year by opening dam valves.) Since excess of percolated water flows along underground cracks after recharging the aquifers, such a view is myopic, to say the least.

More significant aspects of this approach include simple, already-known construction techniques, creation of small locally manageable units, faster implementation requiring short spans of time and quicker returns from the investments made. Moreover, the beneficiaries of the area can

be involved not only for receiving the benefits but also in design, construction (financial investment / labour), distribution (crop regulation), and maintenance (upkeep and sustained longevity). If the local population is trained on all the different long-term issues under the project, they would be able to undertake the ownership of the same, realizing and recognising their interests and benefits to them.

Higher water-use efficiency

Creation of long-life water source is winning half the battle. The remaining half is the wise utilisation of the available water. That cultivating high-water guzzling crops should be done away with forthwith hardly calls for emphasis. Moreover, for using every drop of available water economically, application of drip irrigation technology should be made obligatory. Crop planning for the area could ensure prioritisation in meeting the local needs (eliminating transportation burden on nation – say, e.g., wheat from Punjab or groundnut from Tamilnadu.) It will also go a long way in minimising either gluts or shortages causing undue stress on the farm economy.

It must also be ensured by governments that electricity is made available to agriculture sector on priority. We must all recognise that in agriculture inputs are





provided to farms over a period of time. And in the event of failure of electric power supply, all previous inputs go waste. Such a situation not only drains the farmer resources but also adversely affects the farm fertility owing to harmful residues.

Government role

It is likely that all the requirements in completing such small projects on an integrated scale are not met by funds and labour made available by the groups benefitted. The government can however take a very constructive approach in this scheme.

First, the government can develop several small projects and arrive at a holistic plan. Second, as a central agency, it can undertake training and awareness programmes for the people to be involved in the plan by roping in support even of subject experts. Third, it should chip in its financial support wherever required.

It can levy suitable tariffs to recover this amount (like soil conservation charges in the past) from the groups financed. Fourth, it has to play a role of co-ordination agency to mobilize various resources in executing

the whole plan as envisaged.

Fifth, it can also encourage NGOs and Industrialists in the area to adopt areas / villages for their time-bound development, by providing tax relaxations to industries.

Multiplier effect

The farmers would get higher income from the farm crops. Their income would be augmented by the livestock as enough fodder will be available for them. As the needs are met locally, not only heavy strain on traffic – road or rain – will reduce but also consumption of petroleum products would drop, leave alone the savings in foreign exchange. Rural prosperity would prevent population migration to already stressed urban settlements. Strengthening of agricultural sector would reinforce the all round developmental efforts through other sectors.

To me Mahatma Gandhi's statement makes mega sense – "India's progress lies in the progress of its villages."

Shri Bhavarlal Jain is the Chairman of Jain Irrigation Systems Ltd. Jalgaon.

