

PM Calls for Better Water Management for Agriculture Growth

By G. Kalyan Kumar

Prudent management of India's water resources is crucial to ensure its rational and sustainable use. For this, action is required at many fronts and coordination across different sectors of the economy.

This was the message of the Prime Minister Dr. Manmohan Singh's inaugural address at the fifth Asian Regional Conference of the International Commission on Irrigation and Drainage on improvement in efficiency of irrigation projects through technology up-gradation and better operation & maintenance held in New Delhi on 10 December 2009.

Water Conflict

Dr. Manmohan Singh noted that "just

as the conflicts of the 20th century were often over the sharing of scarce petroleum resources, those of the 21st century will probably be over the sharing of water. Some estimates suggest that world food demand could double in the next two decades. That will translate into a huge demand for water. Further stress on scarce water resources will be caused by population growth, the majority of which will be dependent on agriculture industry and will lead to urbanisation. Nowhere are these challenges more pressing than in Asia".

The Prime Minister observed that "efficiencies of surface water systems can be improved from the present level of 35 to 40 percent to about 60 percent and that of groundwater systems from

the existing 65 percent to about 75 percent. Similar situations prevail in most developing countries in Asia and we have a great deal to learn from each others experience. Utilization of created irrigation potential is another crucial issue. In India only 84 percent of the created irrigation potential has been utilised thus far. Efficient use of crop water can increase the gross irrigated area, either by increasing the irrigated cropped area or the intensity of irrigation".

Second Green Revolution

Dr. Manmohan Singh said that the target of doubling the annual rate of growth of agriculture in India to 4 percent during the Eleventh Plan Period of 2007-2012



IRRIGATION



is a top priority for the government. "To achieve this, we are sharply increasing public investment in agriculture. The most important area for investment in agriculture relates to the provision of water and its efficient use. In fact, we hope to be able to add about 16 million hectares to the irrigated area during the Eleventh Five Year Plan," the Prime Minister added.

"The first Green Revolution came from innovations developed in the public sector. The second Green Revolution will come from technologies developed in the private sector. It is therefore essential that private investment and innovation be incorporated within a broader vision and strategy of development in the agriculture and water sectors. We need to increase investment in agricultural technologies, particularly those related to improved crop practices, water savings, design of storage structures and more efficient farm implements," Dr. Manmohan Singh said.

It is equally important that developed technologies reach the farmers, particularly the poorest farmers. "I am very happy that the Ministry of Water Resources has launched a Farmers' Participatory Action Research Programme" through Agriculture Universities and Agriculture Research Institutes to demonstrate available technologies for increasing productivity and profitability of agriculture. Such programmes need to be expanded," the Prime Minister said.

Climate Change

The spectre of climate change will also

have an unpredictable consequence on the water regime. Various studies point towards its adverse impact on the hydrologic cycle that could result in the intensification of both temporal and spatial variations in precipitation.

India is already struggling every year with floods in one part of the country and droughts in other parts.

"This year, we had severe floods in Karnataka, Andhra Pradesh and elsewhere. At the same time around 300 districts of the country were declared as being drought affected. These imbalances will only intensify with climatic distortions that are now on the horizon. Moreover, there are concerns that climate change may also adversely impact on the groundwater table and its quality, affecting thereby productivity of the cropping systems," the Prime Minister said.

National Water Mission

"To address these complex inter-relationships of the water sector to development and growth, we have set up a National Water Mission, which is one of the eight national missions that are part of our National Action Plan on Climate Change launched recently by the Government of India," Dr. Singh said. The Prime Minister said that the main objective of National Water Mission would be integrated water resource management by conserving water, minimizing wastage and ensuring its more equitable distribution both across and within various states of our union. Its mandate will cover the following:

- Filing of a comprehensive water data base in the public domain;
- Assessment of the impact of climate change on water resources;
- Promotion of citizen and State actions for water conservation, augmentation and preservation;
- Focused attention to over-exploited areas;
- Increasing water use efficiency by at least 20 percent; and,
- Promotion of basin level integrated water resource management.

The Water Mission will also seek to develop new regulatory structures, combined with appropriate entitlements and pricing of water. It will seek to optimize the efficiency of existing irrigation systems. Incentive structures will be designed to promote water-neutral or water positive technologies, recharging of underground water sources and adoption of large-scale irrigation programmes that rely on sprinklers, drip irrigation and ridge and furrow irrigation.

Pawan Kumar Bansal, the Union Minister of Water Resources in his address said, "Sustainable development of water resources and its most efficient use is a critical challenge before us today".

Dr. Chandia Madramontoo, President, International Commission on Irrigation and Drainage, also addressed the conference. About 700 professionals from 45 countries including India participated in the conference to deliberate on issues like: Modernization of public/state operated irrigation system and services; Public Private Partnership in irrigation development and management; Integrated approach in agricultural drainage; Capacity Development for modern irrigation management; Impact of climate change on water resources availability and crop productivity; and, legal aspects in sharing of water resources.

The PM concluded his speech by saying, "We should work together, learn from each other and harness all our scarce resources to give substance to the slogan 'More Crop and Income per Drop'".