INDIA'S GREEN REVOLUTION BENEFITS THE POOR BUT REQUIRES BETTER IRRIGATION MANAGEMENT

New Delhi, May 1994 -- In no other developing country can the enormous impact of the Green Revolution better be shown than in India.

India went from being a food deficit country in the 1960s, with a heavy reliance on food aid supplied principally from the United States, to a grain surplus producer in the late 1980s despite nearly doubling its population.

Yet the Green Revolution -- a term used for big increases in wheat and rice yields in developing countries brought about by new high-yielding varieties combined with the use of fertilizers and agricultural chemicals -- created a controversy over its impact on the poor.

Critics have contended the rural poor did not receive a fair share of the benefits of the new technologies, and in some instances poverty increased.

Two studies undertaken in India by the International Food Policy Research Institute (IFPRI), headquartered in Washington, D.C., have refuted the critical claims.
One of IFPRI’s early studies on India by Dharm Narain established that the plight of the poor had been helped by the Green Revolution. Narain found that by increasing the productivity of Indian farmers, the Green Revolution increased rural incomes generally and provided the poor with cheaper food.

A more recent study by Peter B.R. Hazell, director of IFPRI’s Environment and Production Technology Division, found the Green Revolution in South India led to sizeable, across-the-board gains in income, nutrition and standard of living for both small and large farmers, and even for the landless poor.

Hazell found that large-scale farmers in Tamil Nadu state were the first to use the new technologies, but that small farmers also used them after a lag of three to five years. Wages almost doubled for both small farmers and landless laborers.

This study, the first to look at the effects of the Green Revolution on nonfarm households, found considerable economic growth in other activities in villages and small towns due, in large measure, to government policies. Hazell noted that initially both local and national governments invested heavily in basic infrastructure, which led to better transportation, telecommunication, postal, banking, irrigation, and electrification systems throughout the region. They also provided a wide range of producer and consumer services and direct assistance to small businesses.

But a third major IFPRI study on India’s irrigation network suggests policy changes and better design and management of existing systems are needed if the Green Revolution is to be sustained to meet the further food needs of the country.

The irrigation study by Ruth Meinzen-Dick and Mark Svendsen found that resources need to be redirected within India’s irrigation sector toward improving the
performance of existing systems by new management techniques and changes in policies.

Of the 47 million hectare meters of India’s known groundwater potential, less than 20 million is used to irrigate just under 30 million hectares of land.

The researchers noted that most major surface irrigation systems in India are affected by salinity and waterlogging, which can reduce yields in the short term and eventually lead to abandonment of irrigated land.

IFPRI, established in 1975, collaborates with more than 30 Indian institutions in a wide range of research that focuses on an understanding of the policy choices and options for future agricultural and economic growth. India has been a contributor to IFPRI since 1982.

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