



Deutscher Tropentag, October 9-11, 2002, Witzenhausen  
“Challenges to Organic Farming and Sustainable Land Use  
in the Tropics and Subtropics”

## The Challenge of Knowledge Transfer in Irrigated Agriculture

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### Abstract

Irrigation farming is one of the most diverse agricultural environments to work in. A large number of key routines, many of which go far beyond the standard agronomic practice, are the daily task of irrigation farm managers and extensionists as they attempt to maximize profits in an ecologically sound manner. Since irrigated agriculture is the largest single user of water, handling this precious resource requires utmost professionalism also from other involved decision-makers to enhance the productivity and attractiveness of marginal rural land.

Under the complex framework conditions of irrigation farming, appropriate action can only be taken though with an unrestricted view on *all* of the technical, organisational and social aspects of the subject — especially in developing countries. It was long before September 11, 2001 that the need for a (much) more refined knowledge transfer approach in this multi-faceted agricultural discipline had been clearly identified. As farming increasingly faces ecological and globalisation limits, innovative strategies become inevitable in irrigated agriculture, too, especially in the light of threatening social unrest and the undeniable climate change ahead. Yet, in many parts of the world, irrigation development still gives rise to severe acute problems.

Unfortunately, over the years isolated monocausal approaches were deemed sufficient to tackle these problems. But knowledge transfer in irrigated agriculture can only be successful with precise holistic concepts, evolved from the very basics of the art. Irrigation engineering and management in theory and practice is the foundation, on which further capacity building of any irrigation professional has to take place now. Analyzing the situation in the few specialized training facilities, which survived the brain and fund drain over the past years, it is recognized that more human and financial resources must be reallocated in favour of this otherwise endangered science.

**Keywords:** Holistic approach, irrigation, knowledge transfer