

## Addressing Water Security in the Agricultural Sector in India

IFC worked with Jain Irrigation Systems Ltd., an IFC investment and advisory client, to conduct a Water Footprint Assessment which helps companies reduce water-related risks, improve water efficiency, and mitigate social and environmental impact.

This was the first time that a business conducted such an assessment in a developing country and it paved the way for similar assessments for IFC clients in countries that face water scarcity.

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*“This water footprint assessment has exceeded our expectations. At a local level, the strategy validates our efforts to make a profound difference in farmers’ lives by providing extra income and sustaining rural livelihoods. At a regional level, the strategy will help increase water supply and decrease demand for water. The water footprint assessment attests to the leadership that both IFC and Jain Irrigation Systems are taking in the area of sustainable management and consumption of water resources.”*

—Anil Jain, Managing Director, Jain Irrigation Systems Ltd.

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### RESULTS AND IMPACT

- Increased its water savings through a solid understanding of the water footprint of its operations.
- Increased uptake of its sustainable drip irrigation system by farmers in both its supply chain and in the broader region, replacing traditional flood irrigation systems.
- Formulated strategies for alleviating water scarcity and improving the sustainability of water use in the surrounding onion-growing region.
- Encouraged local onion farmers to use drip irrigation to reduce water consumption and pollution.
- Established a forum for local water stakeholders to work together toward sustainable water resource management.
- IFC has invested \$133 million in Jain Irrigation Systems Ltd. since 2007.

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\*This series provides examples of IFC’s impact, expertise and lessons learned working with clients and partners.

## The Opportunity

Water scarcity is an alarming 21st century issue. It is estimated that by 2025, two-thirds of the world's population will be living in water-stressed conditions. Businesses around the world recognize this challenge as a threat to their reputations as well as their bottom lines.

Water footprinting is a method similar to carbon footprinting that determines how much water a company uses in its operations as well as in its supply chain. It can also identify the social and environmental impact associated with that consumption. It is particularly useful for agribusiness, which consumes 70 to 85 percent of total fresh water.

India is one of the world's most water-affected countries. India-based IFC client Jain Irrigation Systems Ltd. is one of the world's largest manufacturers of drip irrigation systems and operates in an area where water scarcity is an imminent issue. It is also one of the world's largest producers of dehydrated onions and mango pulp, puree, and concentrate. It was the first business in a developing country to conduct a Water Footprint Assessment, which led to a reduction in its water consumption as well as a strategy to increase local water availability.

## IFC's Approach

IFC worked with Jain Irrigation Systems Ltd. to produce a Water Footprint Assessment which assessed the production of its dehydrated onions and the manufacturing of its micro-irrigation system (MIS). Among the most important findings was that onions grown under drip irrigation have a 42 percent smaller water footprint than those grown using traditional irrigation methods.

IFC views water footprinting as an integral part of its climate change strategy given that it can help its clients reduce water-related risks, improve water efficiency, and limit their water-related social and environmental impact.

Overall, this Water Footprint Assessment serves as an example of an effective tool for managing water-related risks and paves the way for similar assessments for IFC clients in countries that face water scarcity.

More broadly, IFC has been engaged in addressing water scarcity issues as a founding partner of the Water Footprint Network, a platform for private sector, academics, research institutions, international organizations and NGOs interested in furthering research in this field.

*IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector.*

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**IFC CLIENTS** Jain Irrigation Systems Ltd.