

Jain Irrigation Systems Ltd.

COMPANY BACKGROUND

Jain Irrigation Systems Ltd. (JISL), an integrated agribusiness, is the largest manufacturer of micro irrigation systems (MIS) in India and worldwide and a leading processor of fruits and vegetables—the world’s largest in pureed mangos and third-largest in dehydrated onions. The company also manufactures plastic pipes for industrial and residential use. JISL has establishments in India, the Middle East, Europe, Australia, Central and South America, and the United States. The company is listed on the National Stock Exchange of India and the Bombay Stock Exchange, but the Jain family has controlling ownership. JISL currently employs 6,000 people in India.

Country: India

Sector: Agribusiness and Manufacturing

IFC’s Investment: \$110 million in long-term debt financing and \$24.5 million in equity

DRIVERS FOR JISL’S INCLUSIVE BUSINESS MODEL

- Market opportunity for MIS which increases productivity and income for farmers, enabled by government subsidy
- Need to ensure consistent quality and quantity of produce for processed foods for export
- Buyer and consumer concerns regarding food safety and farm-level practices
- Water scarcity and low productivity of farmers in JISL’s supply chain

DRIVERS FOR SERVING FARMERS AS CONSUMERS

JISL founder Mr. B.H. Jain’s vision to promote sustainable water management in agriculture, based on his own experiences with the challenges facing farmers in India, is a strong driver for the company’s entry into and commitment to promoting MIS in India. Today, the founder’s vision is embodied in the company’s mission statement “to leave this world better than you found it.”

Another driver is the large market for MIS, enabled by the government’s subsidy and by the increased production, income, and water use efficiency (WUE) that MIS make possible. MIS can increase India’s WUE in agriculture to 80-90% from its current 30-40%. The government’s task force on irrigation recommended that 17 million hectares of cultivated land be brought under MIS between 2004 and 2012. This will save the government money as it reduces the need for other subsidized inputs such as fertilizer.

Finally, as JISL’s food processing business procures fruits and vegetables from farmers, it is in JISL’s interest to ensure consistent supply quantities, and the use of MIS is key for productivity especially in water stressed regions.

DRIVER FOR REACHING FARMERS AS PRODUCERS

Securing regular supplies of consistent quality and quantity for food processing is a strong driver for JISL’s entry into contract farming, enabling a cost-effective supply chain in a fragmented supply market with many intermediaries. Further, compliance with food safety standards, traceability and farm-level practices for buyers have led JISL to introduce systems such as Jain GAP. Such measures are necessary to maintain and grow the company’s customer base over time, and they are easier to introduce in a contract farming model.

JISL'S INCLUSIVE BUSINESS MODEL

JISL's business model makes almost a full circle through the value chain. The company offers farmers inputs—micro-irrigation systems (MIS), seeds, saplings, PVC pipes—financing, and training on good agricultural practices to produce more and higher-quality crops.

JISL also purchases fruits and vegetables from farmers through its food processing division for processing and sale in export and domestic markets. In this way, JISL's inclusive business reaches farmers as both consumers and producers.

SERVING FARMERS AS CONSUMERS

JISL's MIS are enabling farmers to switch from flood irrigation to more water- and energy-efficient systems such as drip and sprinkler which yield water savings of over 30-65% over traditional surface irrigation systems. Since 30% of agricultural land in India is irrigated through canals, JISL created the concept of digghies or farm ponds near canals for farmers to store and channel water to their drip irrigation systems. The farm ponds ensure ongoing availability of water for MIS, especially when there are fluctuations in the water supply.

The drip irrigation products are supplied via a network of more than 2,000 distributors throughout India. JISL has also set up an institute to train distributors, government officials, and others on the skills to lay out and use MIS. All of JISL's dealers and distributors are trained by the company, including specialized training for engineers and fitters.

A key factor in the success of JISL's MIS business is a subsidy provided by the central and state governments in India. Farmers working less than five hectares of land receive a 50% subsidy on MIS equipment. The subsidy is routed through banks in some states and administered through special purpose vehicles set up by the government in other states. Farmers raise the balance of the funding from their own sources or from the banks responsible for routing the subsidy. JISL works with several banks to facilitate access to financing for MIS, including Yes Bank, Central Bank of India, IDBI Bank, and others. These banks have developed the

necessary procedures as well as systems for monitoring and reporting. An average loan for purchasing a drip irrigation system is about \$817 per farming household. In 2011, JISL launched Sustainable Agro Commercial Finance Ltd. (SAFL), a non-banking finance corporation, to initially finance farmers as well as suppliers and distributors' purchases of JISL's products and eventually other types of loans for the agriculture sector. Current loan tenors for JISL products are one to three years.

REACHING FARMERS AS PRODUCERS

JISL procures fruits and vegetables directly from over 10,000 contract farmer suppliers—6,000+ for onions and 4,000+ for mangoes—and indirectly through traders who source from over 25,000 farmer suppliers.

Launched in 2002, JISL's contract farming model is built on selecting progressive, receptive farmers and providing them with high-quality seeds; access to MIS, fertilizers, saplings, and other inputs; agronomical training and guidance on



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all aspects of planting, input application, and other farm functions via JISL's 60 extension associates. An important aspect of JISL's work is research and development so farmers' can improve yields. For example, JISL has produced a banana variety that takes 11-12 months to grow instead of 15-18 months and bears about 25-30 kilograms of fruit over its lifetime as compared to 12-15 kilograms traditionally. In partnership with Coca-Cola India, a major buyer of JISL's mango puree, JISL has launched a project on ultra-high density plantation for mangoes, which is expected to double output as well as reduce water and pesticide intake.



Farmers' relationships with JISL often allow them to obtain credit from commercial banks to fund MIS and other purchases, such as seeds, planting material, and packaging for certain crops.

For JISL, the advantages of contract farming include greater control over the quality and quantity of supply compared to traditional procurement channels. JISL has thus far applied the contract farming model to onion and mango and plans to expand to tomato. Approximately 90% of JISL's onion contract farmers are small, with an average farm size of less than 2 hectares.

Additionally, farmers' relationships with JISL often allow them to obtain credit from commercial banks to fund MIS and other purchases, such as seeds, planting material, and packaging for certain crops. The company then buys the produce back—at a minimum price established at the beginning of the growing season or at approximately market price at harvest time, whichever is greater. Successful contract farms are used for demonstration to encourage others to adopt good agricultural practices.

In response to its major buyers' concerns about food safety and increased interest in farm-level practices and traceability, JISL helps farmers meet international standards. JISL's own farms are GLOBALGAP-certified and the company developed with IFC the Jain GAP standard for its farmer suppliers. The Jain GAP standard helps the company meet its buyers' concerns without significantly increasing costs for low-income farmers. By August 2012, 1,623 farmer suppliers of onions and mangos were certified on Jain GAP. JISL has also expanded Jain GAP to an additional 1,249 farmers, bringing a total of 5,427 acres of farm land under sustainable management.

RESULTS OF JISL'S INCLUSIVE BUSINESS MODEL

- Use of MIS has resulted in annual yield increases between 60%–130%, and income increases between \$500–\$6,000 for farmers
- Almost 3,000 farmers certified on Jain GAP by mid-2012
- Recognized as a winner of the G20 Challenge on Inclusive Business Innovation

JISL is the largest MIS provider in India and globally. Farmers using JISL's MIS products have increased water use efficiency and reduced their dependence on rain for their livelihoods. As a result of these efficiency improvements, farmers have seen their annual yields increase from between 60% to 130%. Also, farmers are increasing their annual gross incomes by \$500 to \$6,000 depending on the crop, and their investment in MIS typically pays for itself in less than a year. For example, for \$500 invested per hectare in MIS, certain farmers have experienced annual income increases of over \$6,000 for pomegranate, \$2,500 for bananas, and \$1,500 for tomatoes.

By working with JISL, contract farmers benefit from the availability of high-quality seeds, input finance, agronomic support, MIS, and an assured market for a crop that yields an additional \$300-400 per acre compared with previous

growing practices. Farmers who comply with GLOBALGAP are able to sell their higher-grade fresh mangos to markets outside India at substantial premiums. Compliance with Jain GAP was a stepping stone to this end. By August 2012, almost 3,000 farmers supplying onions, mangos, and other produce were certified on Jain GAP.

For its part, JISL benefits from its work with farmers both as a built-in market for its agricultural inputs and as a way to manage quality and security of supply. For example, in 2011 JISL procured 24,946 tons of onions from 2,379 contract farmers, of which 90% were small farmers.

JISL more than tripled its consolidated revenues from \$315 million in 2007 to over \$1 billion expected in 2012. During the same period, the company's EBITDA grew at a compound annual growth rate of 29%. The company was recognized as a winner of the G20 Challenge on Inclusive Business Innovation at the G20 Leaders Summit in 2012.

IFC'S ROLE AND VALUE-ADD

IFC's Investment: \$110 million in long-term debt financing and \$24.5 million in equity

Investment Year: 2008 to 2013

- Since 2007, IFC has invested \$120 million in debt financing and \$16.4 million in equity in JISL and SAFL
- IFC Advisory Services helped develop the JAINGAP standard, supporting project design and implementation, monitoring and evaluation, and knowledge-sharing of international good practices
- IFC Advisory Services worked with JISL on a water footprint assessment to document and disseminate the benefits of MIS

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For more information, visit ifc.org/inclusivebusiness and jains.com