

Venture Capital Investing in India to Spur Innovations in Small-Scale Agriculture

Chicago Council Global Food Security Symposium 2014

May 22, 2014

OMNIVORE
PARTNERS

DRIVERS OF AG TECH STARTUP REVOLUTION IN INDIA

DEMAND

- Rising incomes transforming Indian diets
 - shift from grain-based to protein-based
 - rapid growth of processed foods, eating outside home
- Consuming more vegetables, fruits, sugar, dairy, pulses, edible oil, and meat/fish/eggs
- Trend will continue for the next decade, similar to China & SE Asia

SUPPLY

- Multiple bottlenecks limiting food production
 - land, soil, water, labor, logistics
- Arable land urbanizing
- Soil quality degrading
- Water table collapsing; physical deficit by 2025
- Labor costs skyrocketing (NREGA, migration)
- Logistics system failing; massive food wastage
- Companies that solve key bottlenecks will transform Indian agriculture

ECOSYSTEM

- Agri/Food technology startup activity leveraging India's unique strengths
- Expertise in IT (software & hardware), biotech, pharma, auto engineering
- Deep pools of technical & managerial talent
- Domestic agribusiness industry with global giants in tractors, irrigation, agrochemicals, seeds, and food processing
- Strong universities (IITs, IIMs, SAUs) and research institutes (ICAR, CSIR)

INDIA: LABORATORY FOR SMALL-SCALE AGRICULTURE

Country	Average Farm Size (ha)
India	1.4
Bangladesh	0.5
Nepal	0.8
Indonesia	0.8
Malaysia	1.0
Myanmar	2.5
Philippines	2.0
Vietnam	0.7
Ethiopia	1.0
Ivory Coast	3.9
Mozambique	1.3
Uganda	3.2
	Source: FAO

- India has potential to become an innovation hub for smallholder agriculture globally
 - subcontinent includes every major agro-climatic zone
- “Laboratory” to develop, pilot, and scale up products & services with export potential to other regions dominated by smallholders
 - South Asia
 - Southeast Asia
 - Sub Saharan Africa
- Challenge of innovating for smallholder farmers globally plays to India’s strengths
 - frugal engineering
 - small scale mechanization
 - lean IT (mobile & cloud centric)

KEY SECTORS IN INDIAN AG TECH

Farm Mechanization

- Tractor attachments & self-propelled machines that replace farm labor, increase productivity, and enable automation

Sustainable Inputs

- Biological alternatives to toxic pesticides
- Protected cultivation, irrigation, hybrid seeds, bio-fertilizers

Information Services

- Big Data applications for agriculture, livestock, aquaculture
- Satellite remote sensing, UAV, input/yield mapping

Precision Agriculture

- Internet of Things: machine-to-machine, sensor networks
- GIS/GPS guidance systems, variable rate technology

Supply Chain Technologies

- Innovations to revolutionize grain logistics & cold storage
- Tools to drive efficiencies across supply chain participants

Innovative Food Products

- New categories of farm-sourced, branded food products
- Platform technologies to improve food processing

INDIAN AG TECH STARTUP # 1



- Skymet Weather Services is India's leading weather forecasting and agriculture risk solutions company
- Current B2B clients from agribusiness, insurance, media and logistics sectors
 - > leading clients include AIC, ICICI Lombard, Reuters, HDFC Ergo
- Superior to IMD (government) forecasts in both accuracy and geographic granularity
- Rapidly expanding Automatic Weather Station (AWS) network enabling growth of agricultural insurance across India; also developing yield-based insurance services
- Exploring opportunities to launch agricultural insurance infrastructure and services across East Africa & West Africa

- Barrix Agro Sciences develops next generation pheromone traps that provide farmers with highly effective crop protection while reducing their dependence on chemical insecticides
- Founder has cross functional experience in pharmaceutical and biotech industry including techno-commercial, product development and commercialization activities
- Launched business in February 2011; currently selling in Andhra Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh, and West Bengal
- Exports to East Africa (Uganda) began in May 2014
- Developing unique gel-based delivery system for pheromones, enabling sustained release and superior insect control

OMNIVORE PARTNERS: OVERVIEW

- Omnivore Partners is a venture fund investing in early stage agriculture & food technology companies in India
- Omnivore supports entrepreneurs who are developing solutions to improve farm productivity, increase agricultural sustainability, modernize agribusiness supply chains, and promote farm-sourced food products
- Omnivore seeks to transform Indian agriculture through technology innovation, impacting the lives of farmers and rural communities

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THANK YOU FOR YOUR TIME AND CONSIDERATION