



Presentation from
**2015 World Water
Week in Stockholm**

www.worldwaterweek.org

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The BoP Market for Drip Irrigation

A man with a mustache, wearing a tan suit jacket over a green and white striped shirt, is kneeling in a field of dark, rich soil. He is holding a wooden-handled shovel vertically in front of him. The background is a vast expanse of tilled earth.

READY FOR BUSINESS

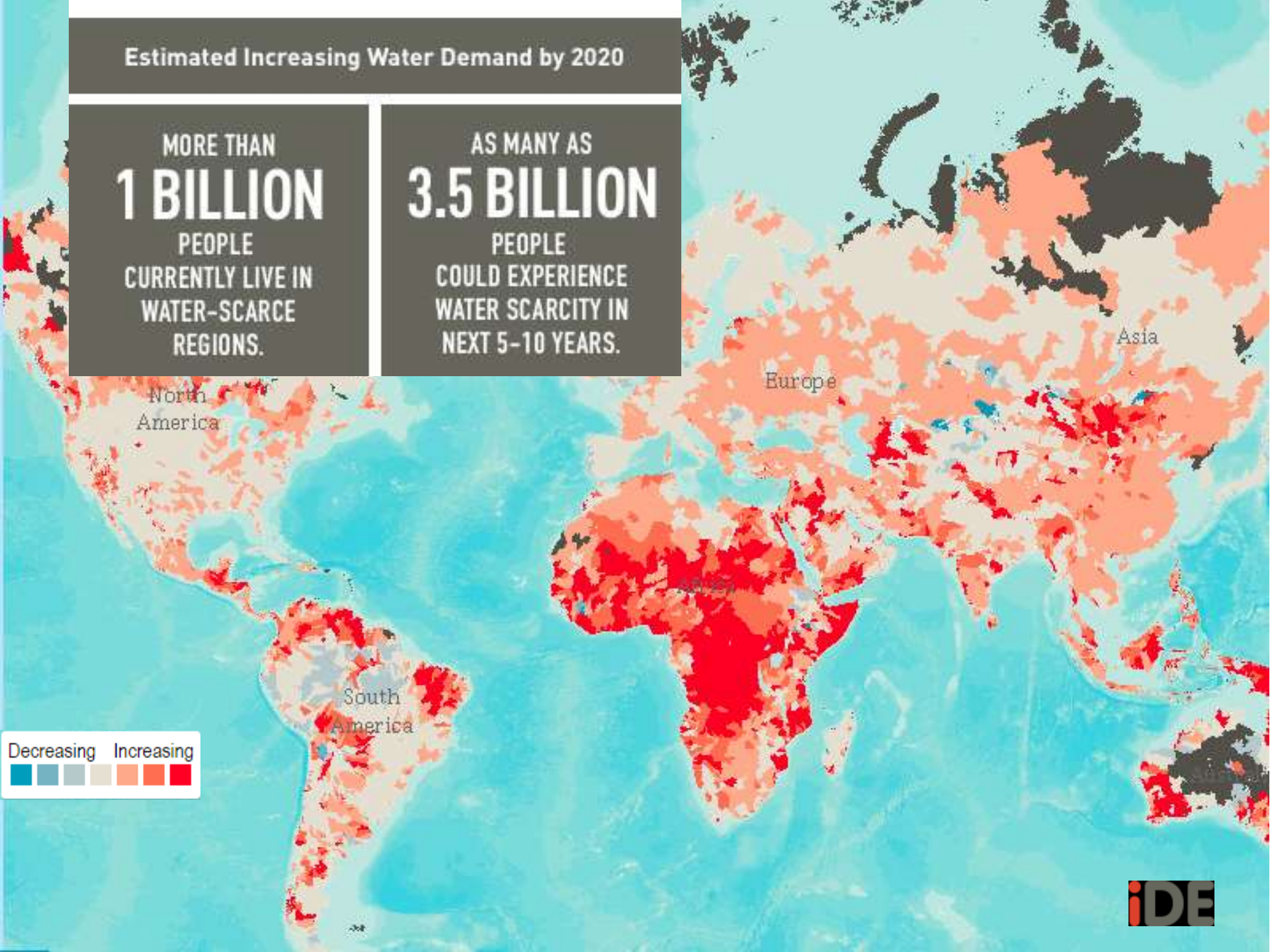
World Water Week
August 2015

iDE

Estimated Increasing Water Demand by 2020

MORE THAN
1 BILLION
PEOPLE
CURRENTLY LIVE IN
WATER-SCARCE
REGIONS.

AS MANY AS
3.5 BILLION
PEOPLE
COULD EXPERIENCE
WATER SCARCITY IN
NEXT 5-10 YEARS.



North
America

South
America

Europe

Asia



500 million
SMALL FARMS GROW
80%
OF THE FOOD

FOR
2.3
billion
PEOPLE

FARMERS ARE MORE SUSCEPTIBLE TO
CLIMATE CHANGE

BY 2050 IN SOUTHERN HEMISPHERE

↓ **54%**

LESS
CROP
YIELD

↑ **60%**

MORE
FOOD
NEEDED

77% FUTURE CROP GROWTH

WILL COME FROM INCREASED YIELDS ON THE SAME LAND

THIS WILL BE ATTRIBUTED TO

TECHNOLOGY

DRIP IRRIGATION

FERTIGATION

CLIMATE RESISTANT
STRAINS

DEMAND

MENTALITY
SHIFTS
& TRAINING

FINANCING

OPTIONS

BENEFITS OF DRIP

REDUCES WATER REQUIREMENTS

REDUCES LABOR

REDUCES WEED GROWTH & DISEASE

INCREASES YIELDS

ENABLES YEAR-ROUND FARMING

IMPROVES INPUT EFFICIENCY

MORE CROP PER DROP

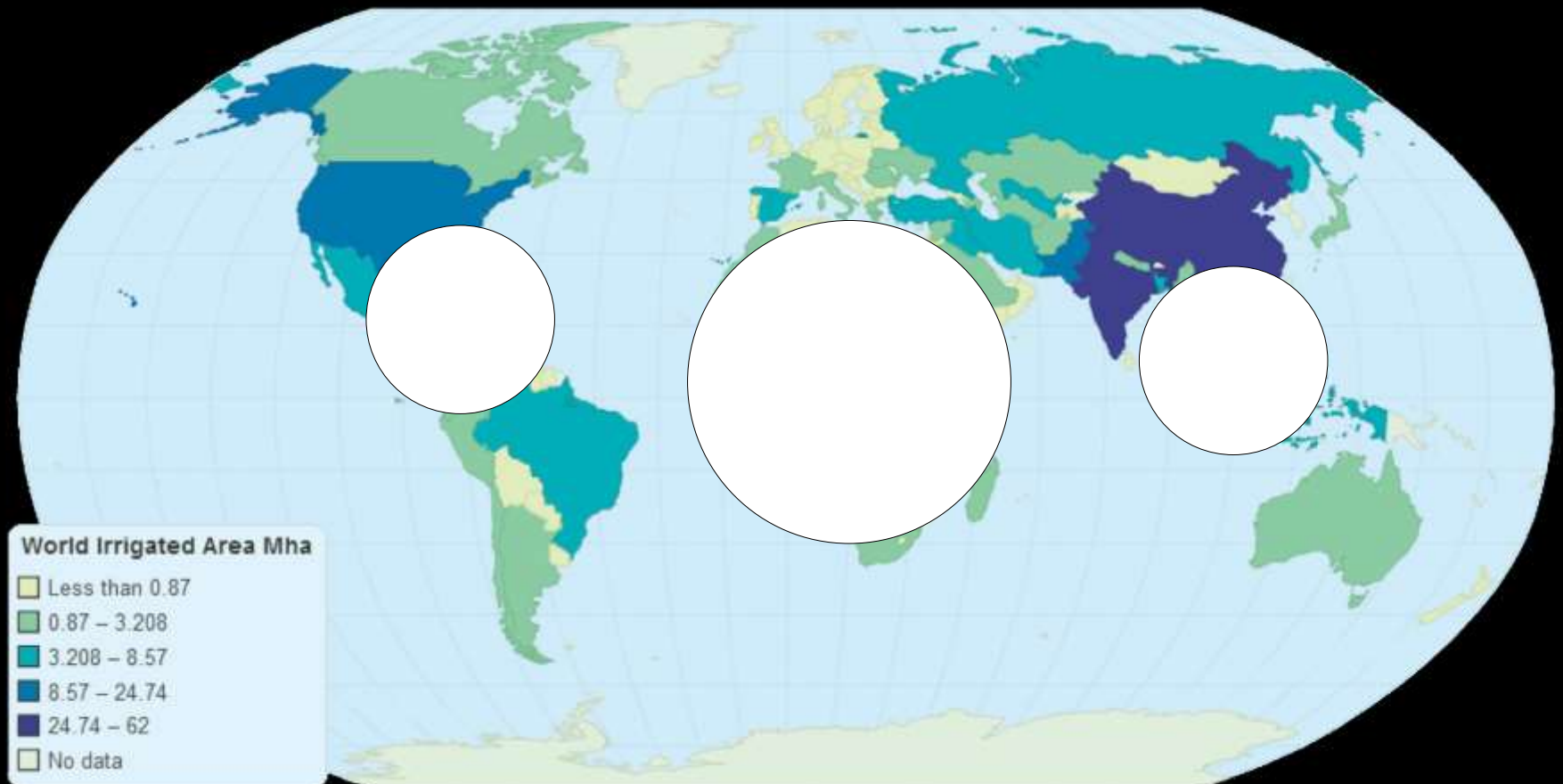
High Potential for Smallholder Farmer Income

Impact of Drip, Inputs & Technical Assistance
on Farmer Earnings in Cambodia



Irrigation

Area Equipped for Irrigation as a % of Agricultural Area



AFRICA MARKET POTENTIAL

420,000
km² of
IRRIGABLE
LAND

+1%
IRRIGABLE
LAND GETS
DRIP

AVERAGE
FARMER
PLOT SIZE
500m²

AVERAGE
RETAIL COST
500m² DRIP
\$250

THE SECTOR COULD GENERATE UPWARDS OF
US \$21.1 BILLION

IN REVENUES AND SELL 84.6 MILLION DRIP IRRIGATION KITS

A Wealth of Information Collected from the World's Experts

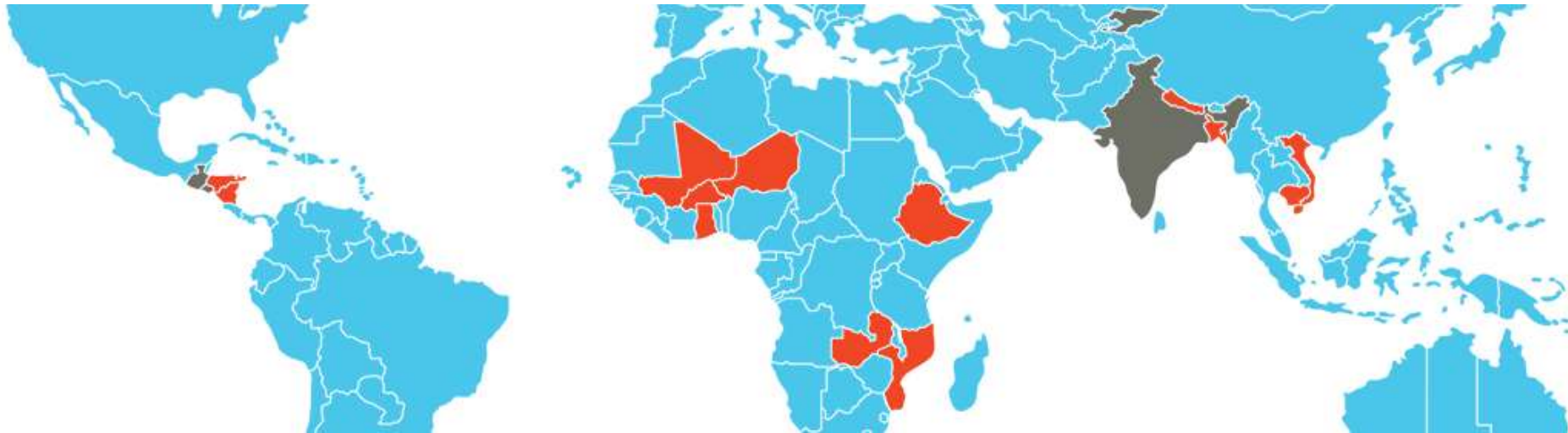
Manufacturers



Distributors

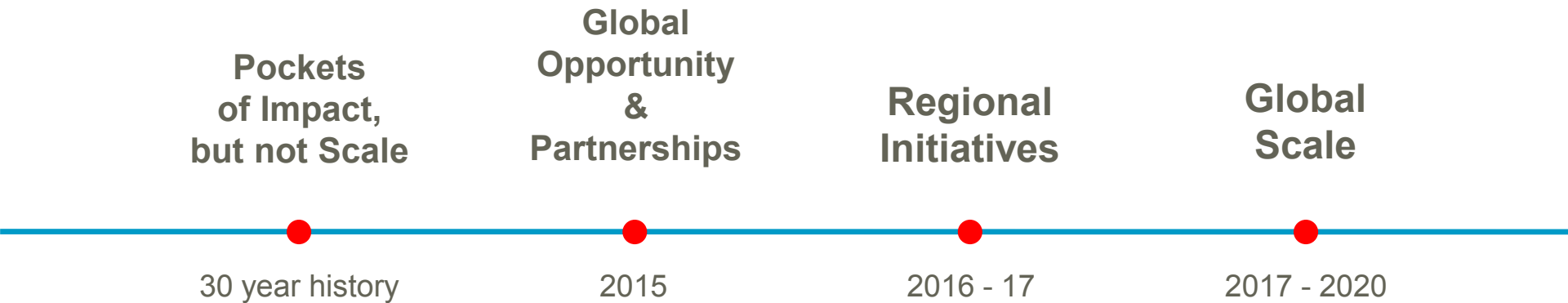


iDE Senior Staff



A Roadmap to Reach 1 Million Smallholders

An aggressive campaign will require collaboration. It will begin with concentrated efforts in key regions.



Our Question:

How can we unlock the global drip
BoP market opportunity?



A person wearing a striped shirt and green pants is walking away from the camera on a dirt road. They are carrying a large, shallow basket filled with fresh produce, including leafy greens and root vegetables, balanced on their head. The road is flanked by lush green fields and trees under a bright, cloudy sky. In the distance, a motorcycle and a car are visible on the road.

Market Systems Analysis

Insight:

We must start by analyzing the local value chain, including technology, supply, agro-economics, road improvements, cold chain storage, and market access.

A photograph of a man with short dark hair, smiling and looking to the left while holding a black mobile phone to his ear. He is wearing a bright green t-shirt. The background is a textured, light brown wall. The text '5Ps: Perception Product Price Place Promotion' is overlaid on the right side of the image in white.

5Ps:
Perception
Product
Price
Place
Promotion

Insight:

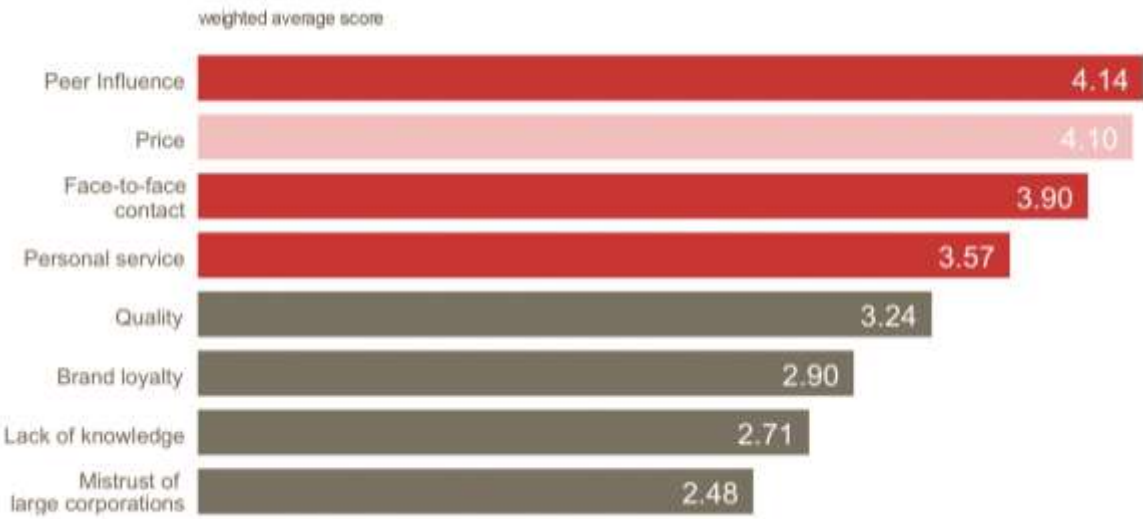
We must also unleash
a new class of micro-entrepreneurs
who can make a profitable business
of selling, training and providing services.



Insight:
Smallholders rely on
peer influence.

Smallholder Mindset

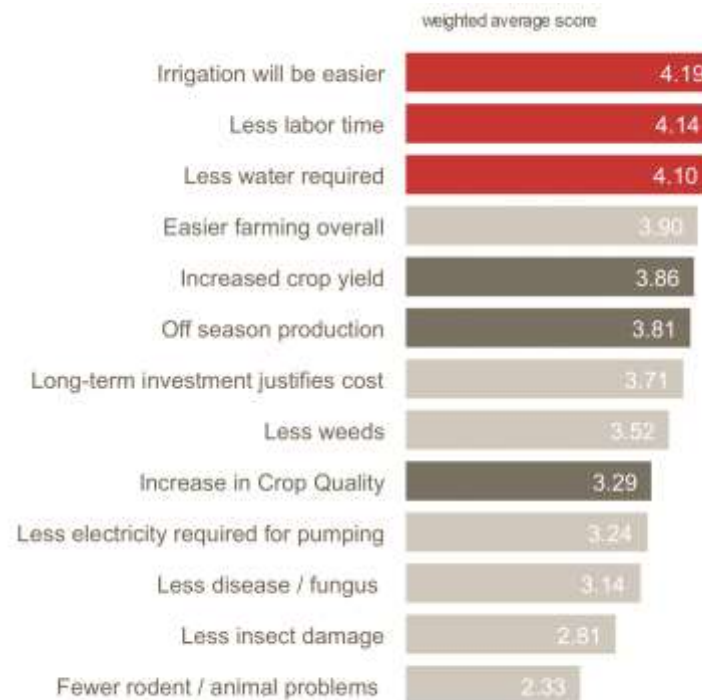
Market Research Data:
Top Perceptions that Influence Purchase Decisions





Benefits of Drip Not Understood

Market Research Data: Perceptions of the Benefits of Drip



Insight:

Strongest perceptions of drip are around time and water savings, less about increase in yield and crop quality.



Insight:

Price and availability of financing are among the largest obstacles to farmers accessing irrigation technology.

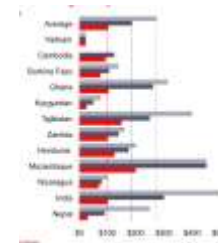
Price & Access to Finance

Market Research Data:

Obstacles to Accessing Irrigation Technology

Willingness to Spend

Key Criteria in Access to Finance



See report for detailed research findings.

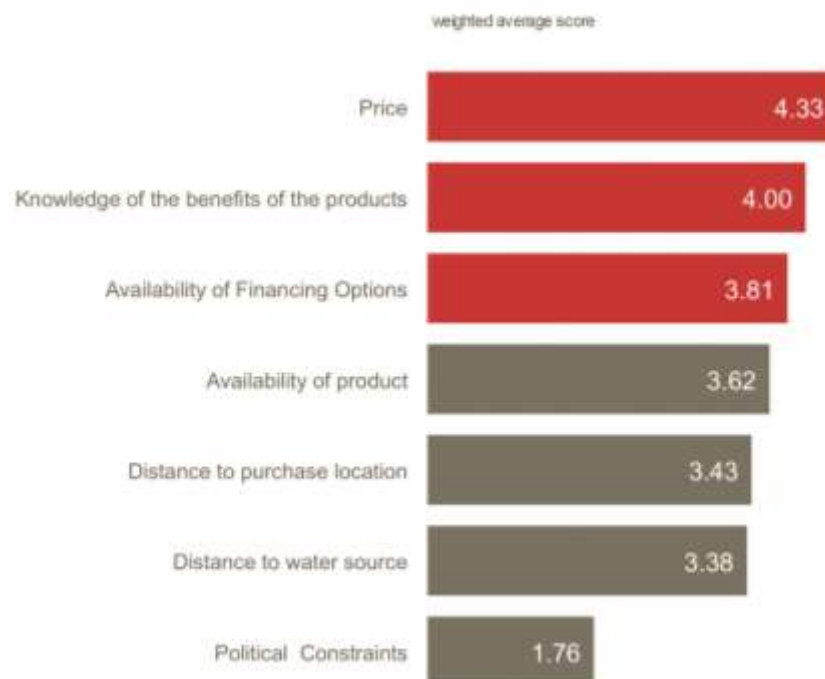


Price

Price & Access to Finance

Market Research Data:

Obstacles to Accessing Irrigation Technology



Insight:

Price and availability of financing are among the largest obstacles to accessing irrigation technology.

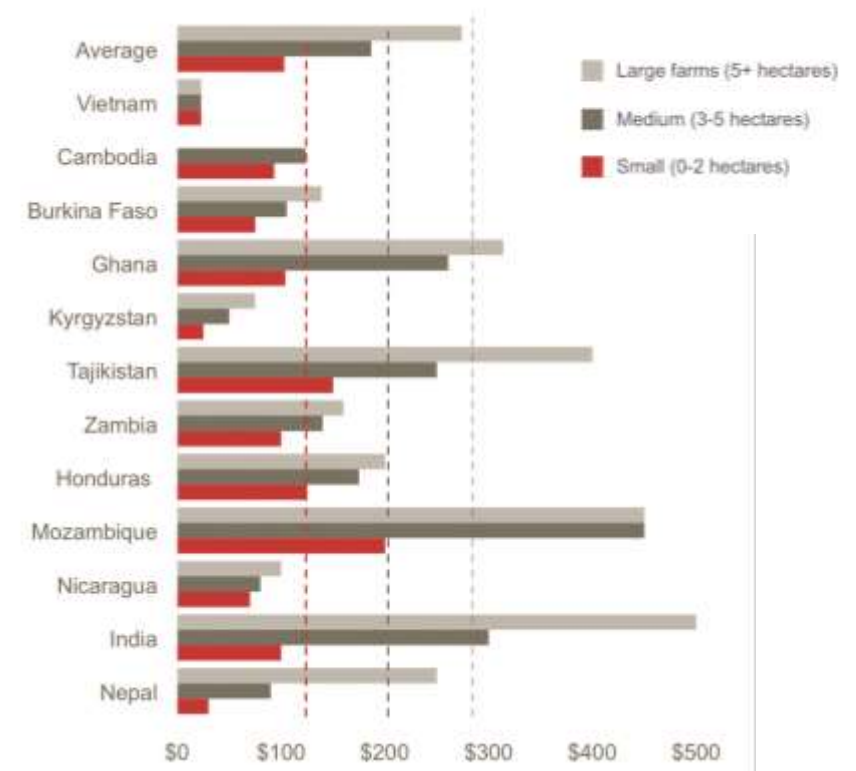


Price

Price & Access to Finance

Market Research Data:

Willingness To Spend



Insight:

Price and availability of financing are among the largest obstacles to accessing irrigation technology.



Price & Access to Finance

Market Research Data:

Key Criteria in Access to Finance



- R Rwanda
- B Bangladesh
- F Burkina Faso
- H Honduras
- I India
- G Ghana
- N Nicaragua

Insight:

Price and availability of financing are among the largest obstacles to accessing irrigation technology.



Insight:

By leveraging agricultural input stores, we can increase the footprint of information and products reaching smallholders.

Distributing to Smallholders

Market Research Data: Where Smallholders Shop

Most Important

Agricultural Input Stores

Head of Coop / Lead Farmer

Somewhat Important

Kiosks / Village Bazaars

Traveling Sales People

NGOs

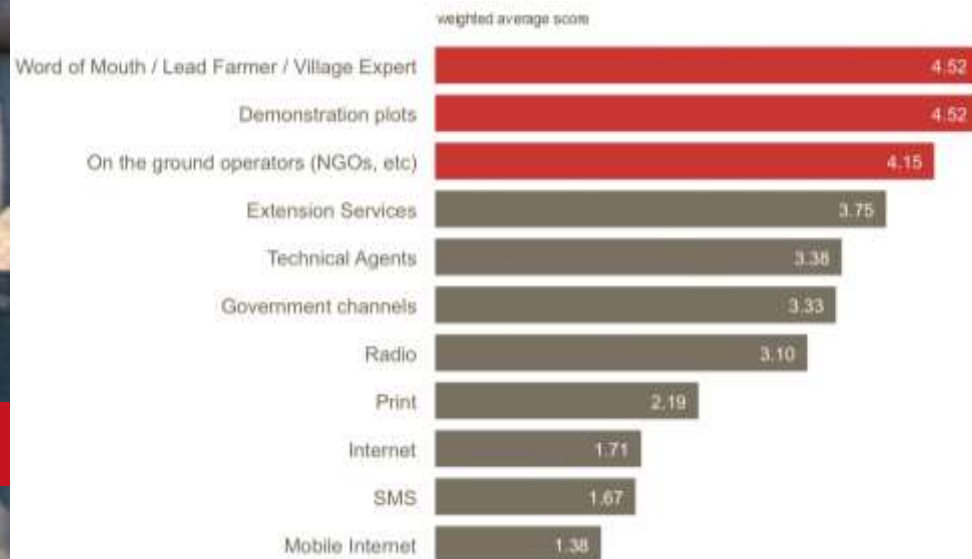
Least Important

Gas Stations



Influencing Smallholders

Market Research Data: Channels That Deliver Influence



Insight:

Word-of-mouth and demonstration plots are the most effective promotional channels.

Scaling Drip By Scaling Micro- entrepreneurs

Insight:

We need to share the burden of risk
with micro-entrepreneurs
in a balanced way
so that everybody wins.

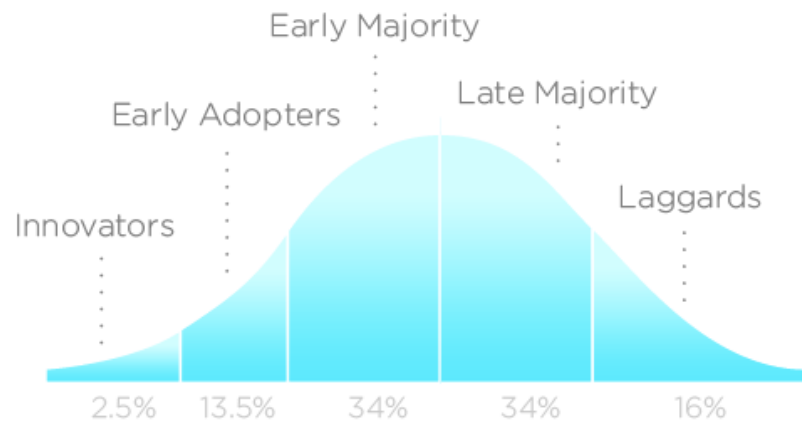




Insights:

Early adopters are good promoters of demonstration farms, but the early majority don't follow automatically

Changing the mindset



INNOVATION ADOPTION LIFECYCLE



Case Study

Insights:

Behaviour change is achieved best in groups:

Women entrepreneur group of coffee cooperative for diversification

Tight Value Chains

35 Million Households
Contract Farming

Loose Value Chains

165 Million Households
Surplus Sold in Informal
Markets

Noncommercial Smallholders

300 Million Households
Subsistence Farming

Smallholders are different

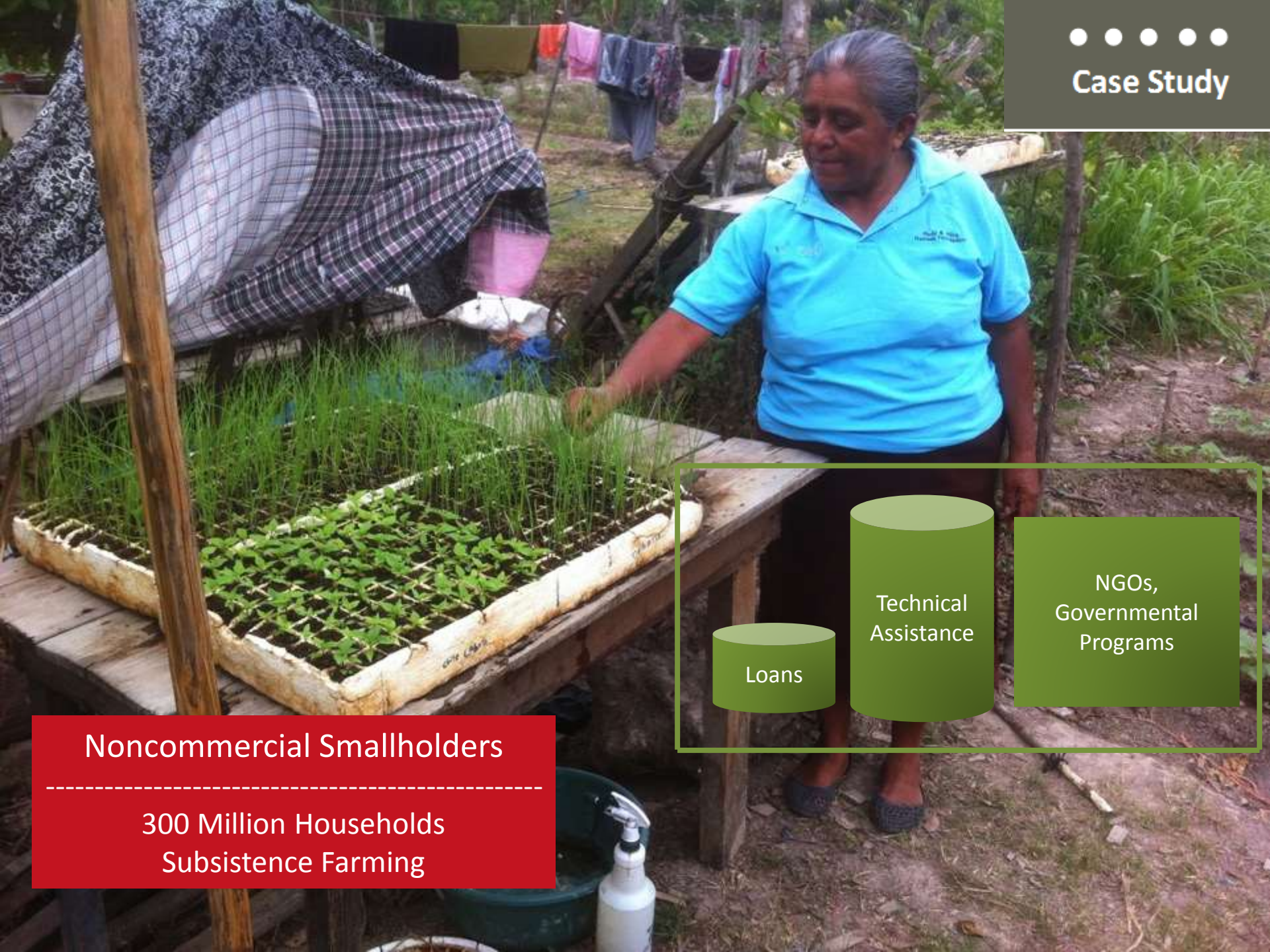
Sources:

- CGAP, 2013.
- iDE Finance Paper, 2015.





Case Study



Noncommercial Smallholders

300 Million Households
Subsistence Farming



Loose Value Chains

165 Million Households
Surplus Sold in Informal Markets

Loans

Technical
Assistance

Joint Liability Groups



Tight Value Chains

35 Million Households
Contract Farming

Loans

Technical
Assistance

Contract Farming

