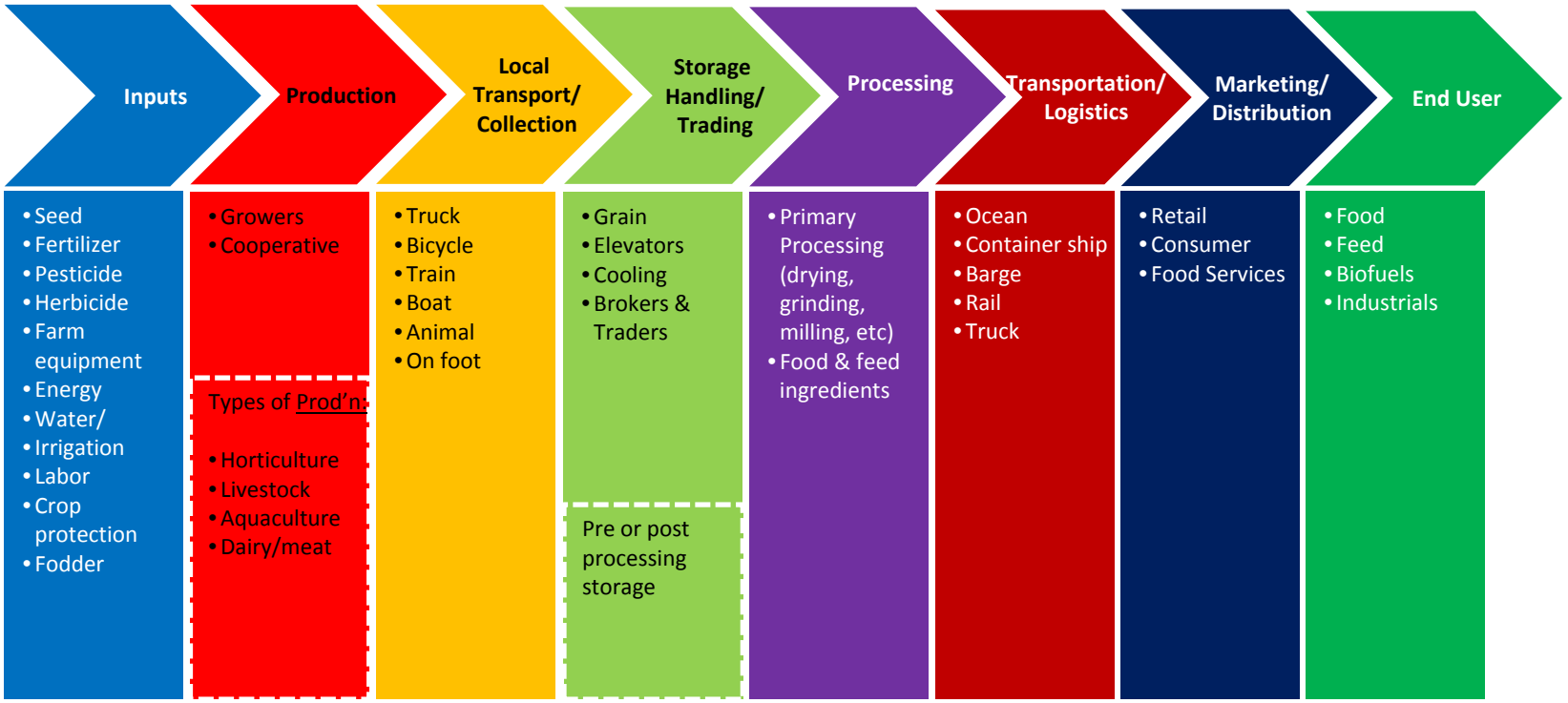
Powering Agriculture

AN ENERGY GRAND CHALLENGE

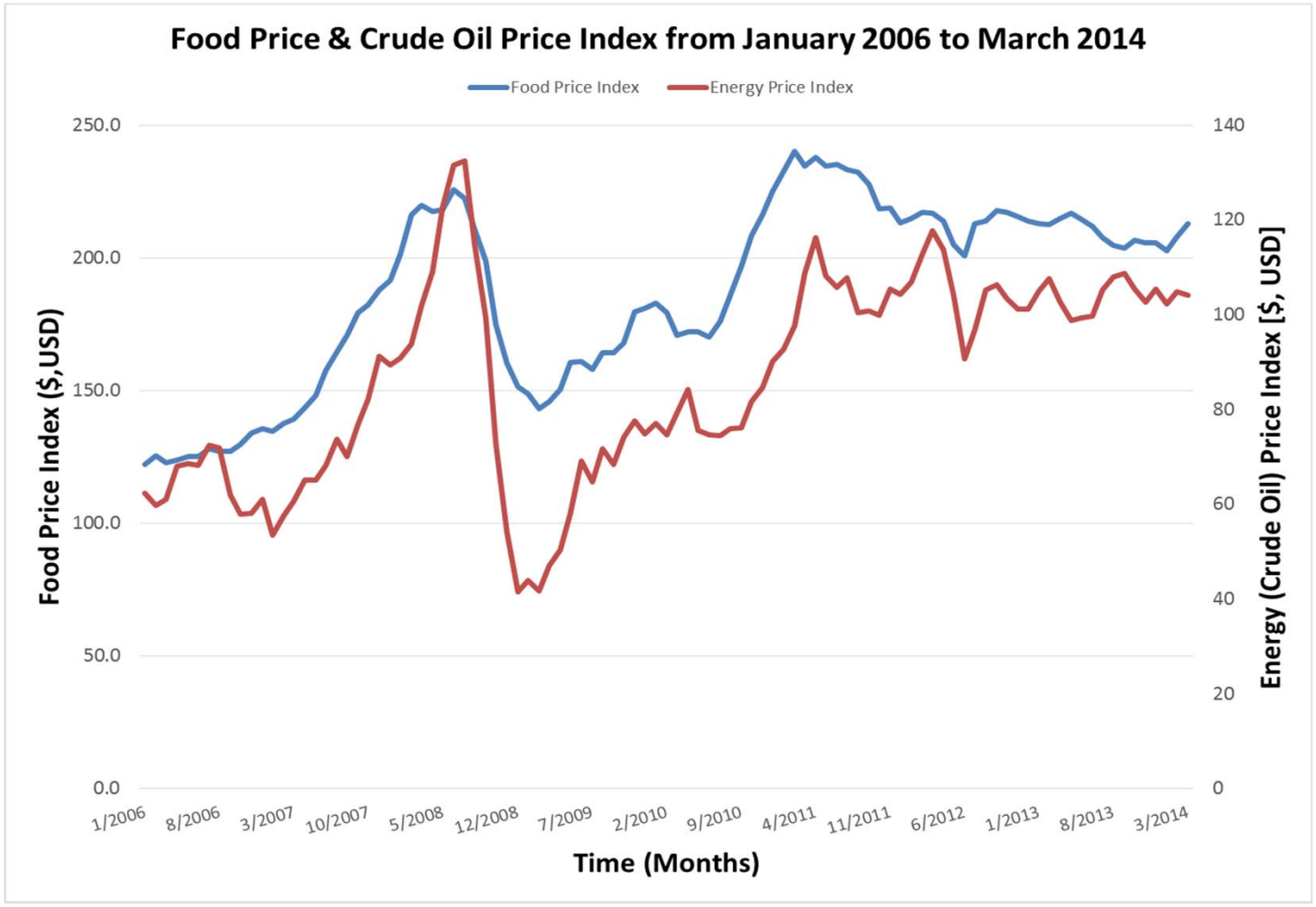
POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

ENERGY IN THE AGRICULTURAL VALUE CHAIN



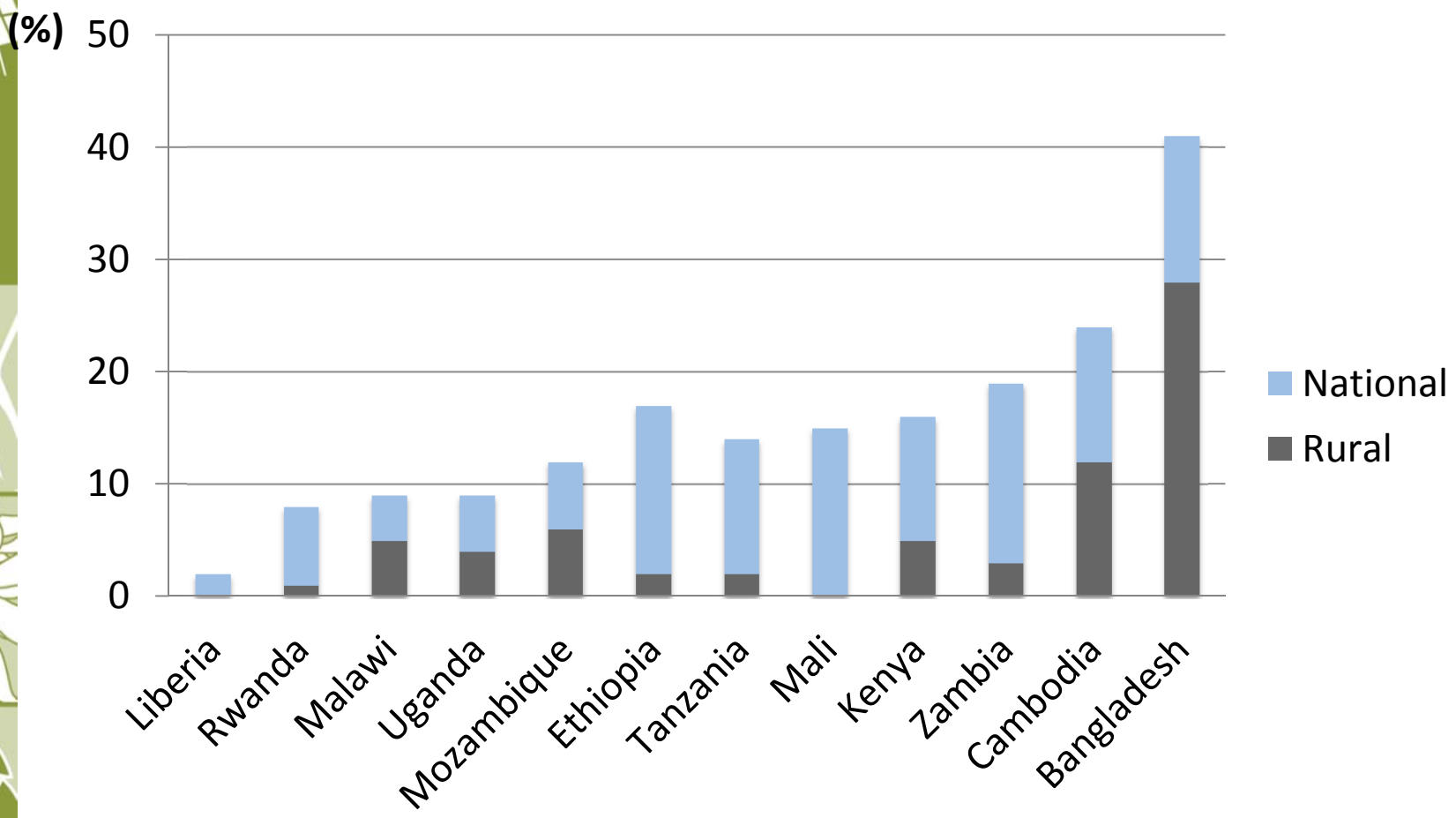
POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

ENERGY AND FOOD PRICE



POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

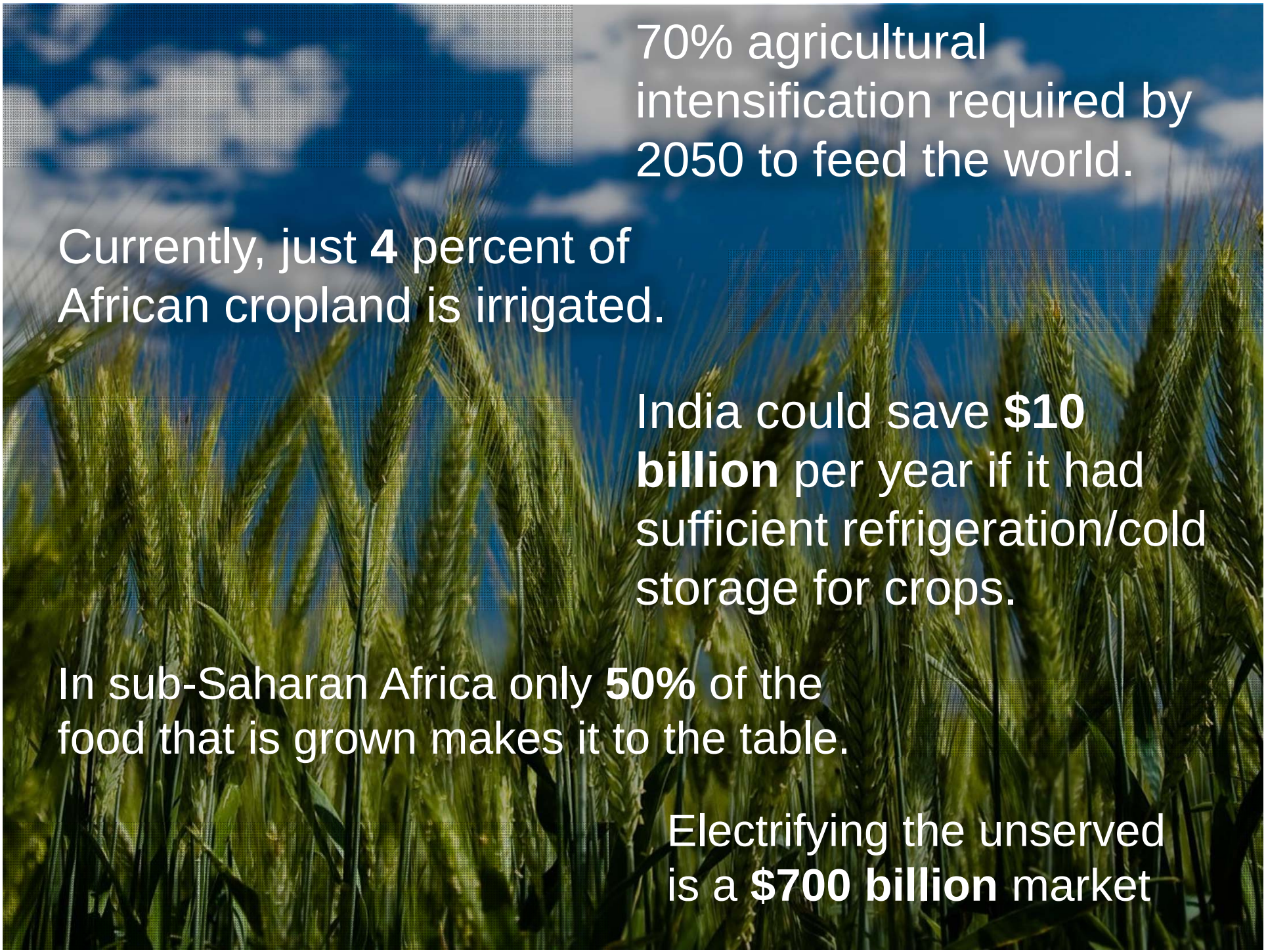
FTF'S ENERGY CHALLENGE



POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

THE CHALLENGE

Millions of farmers and agribusinesses in developing countries lack access to the clean energy services necessary for increasing agricultural productivity.


70% agricultural intensification required by 2050 to feed the world.
Currently, just **4** percent of African cropland is irrigated.
India could save **$10 billion** per year if it had sufficient refrigeration/cold storage for crops.
In sub-Saharan Africa only **50%** of the food that is grown makes it to the table.
Electrifying the unserved is a **$700 billion** market

POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

POWERING AG HELPS SOCIAL ENTERPRISES OVERCOME MARKET BARRIERS

Access to capital

Scattered, rural & poor customers

Market Awareness

Ineffective business models

Ineffective clean technology

POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

INNOVATION LEADS TO IMPACT

Innovative & Appropriate Technology

Irrigation, Cold Storage,

Post-harvest Processing,

Decentralized Power

Impact

Increased Ag. Productivity & Value,

Sustainable Economic Development,

New markets for renewable energy & efficient tech,

Viable rural utilities,

CO_2 mitigation

POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

POWERING AG IS FOUR MUTUALLY REINFORCING PROGRAM COMPONENTS

Early Stage Innovation

- **Global Innovation Calls**
- **Country Specific Calls**
- **Innovation Prizes**

Financing

- **Global Financing Facility**

Mainstreaming and Acceleration

- **Public Private Partnerships**
- **Market Development**

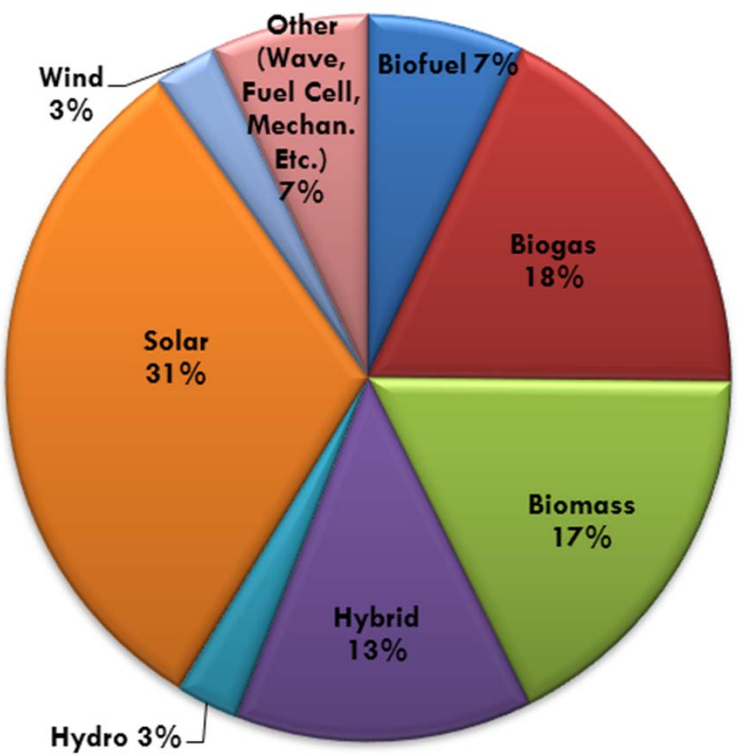
Knowledge Management

- **Results-Based Monitoring**
- **Evaluations / Research / Analysis**
- **Online Knowledge Sharing Platform**

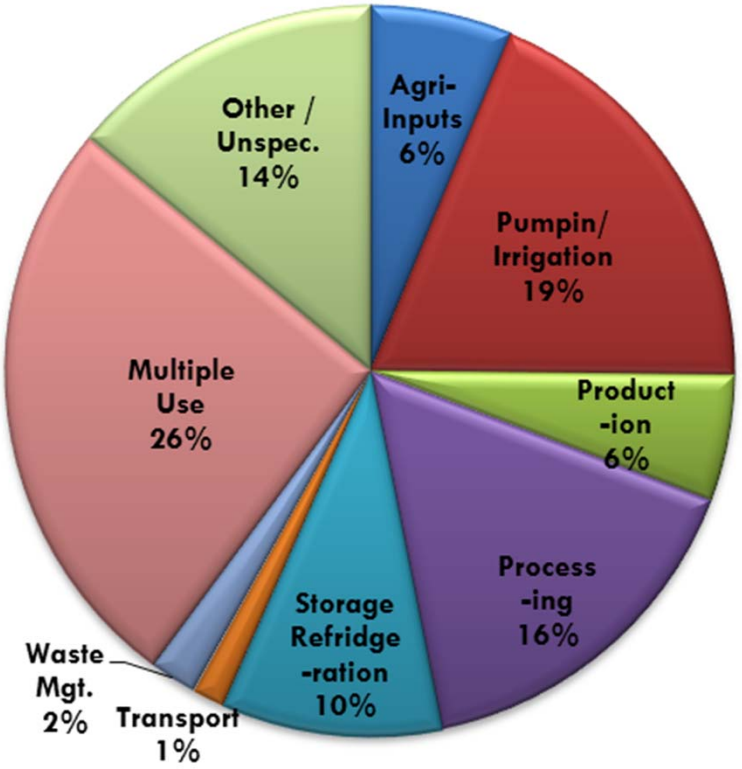
POWERING AGRICULTURE:
AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT

GLOBAL INNOVATION CALL

Clean Energy Type

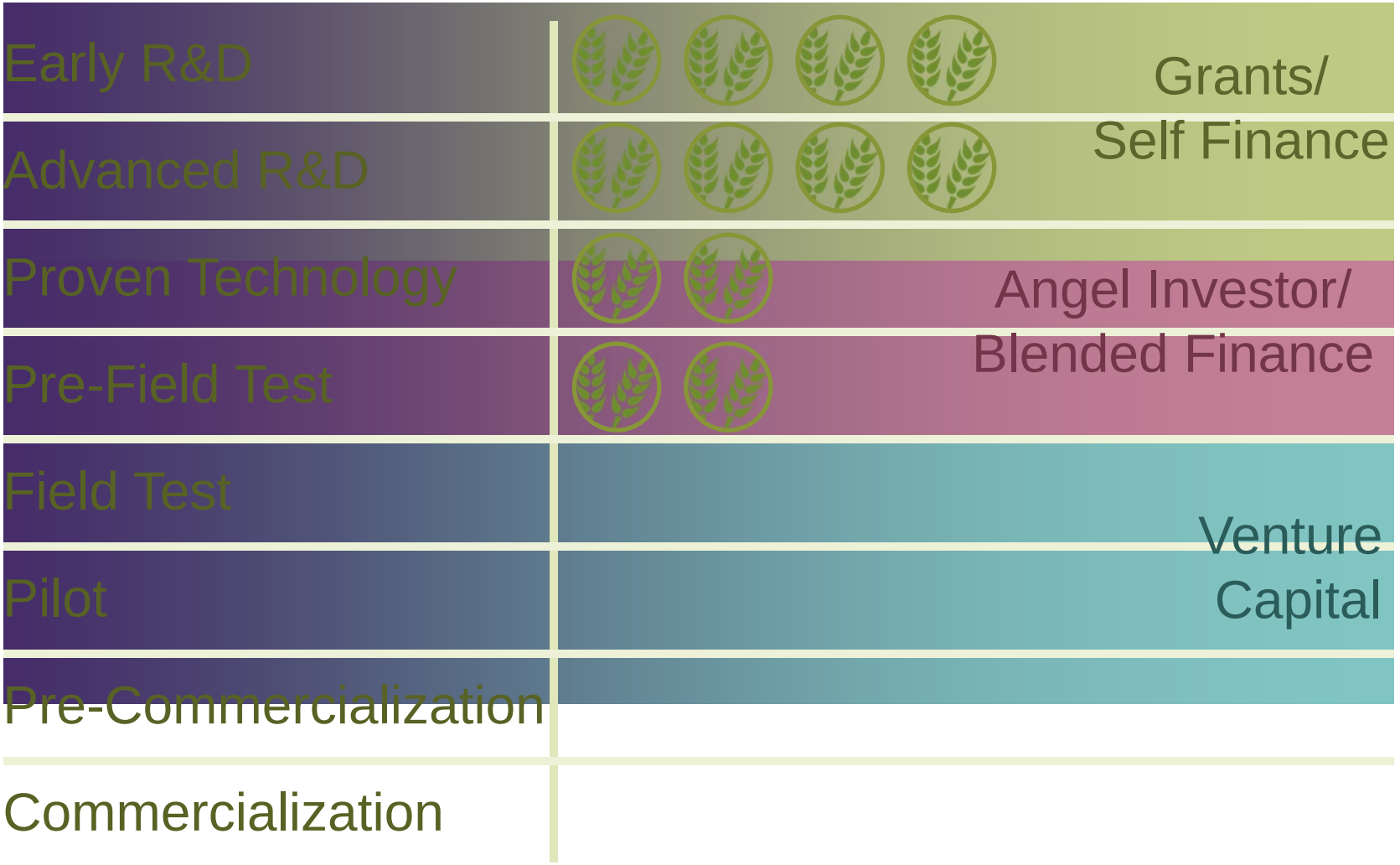


Agricultural Supply Chain Focus



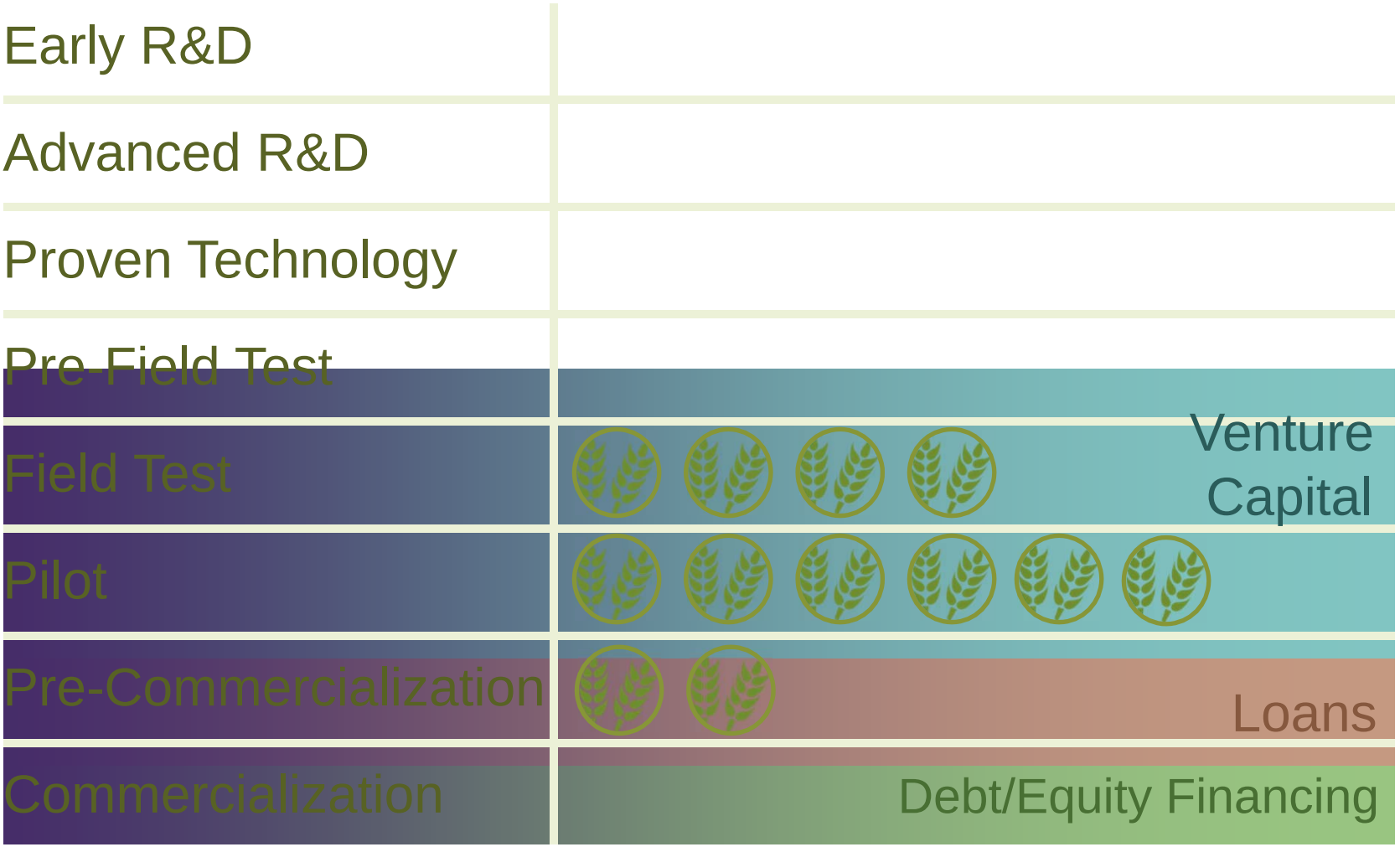
POWERING AGRICULTURE ENERGY GRAND CHALLENGE

Portfolio Position Year 1



POWERING AGRICULTURE ENERGY GRAND CHALLENGE

Expected Portfolio Position Year 3

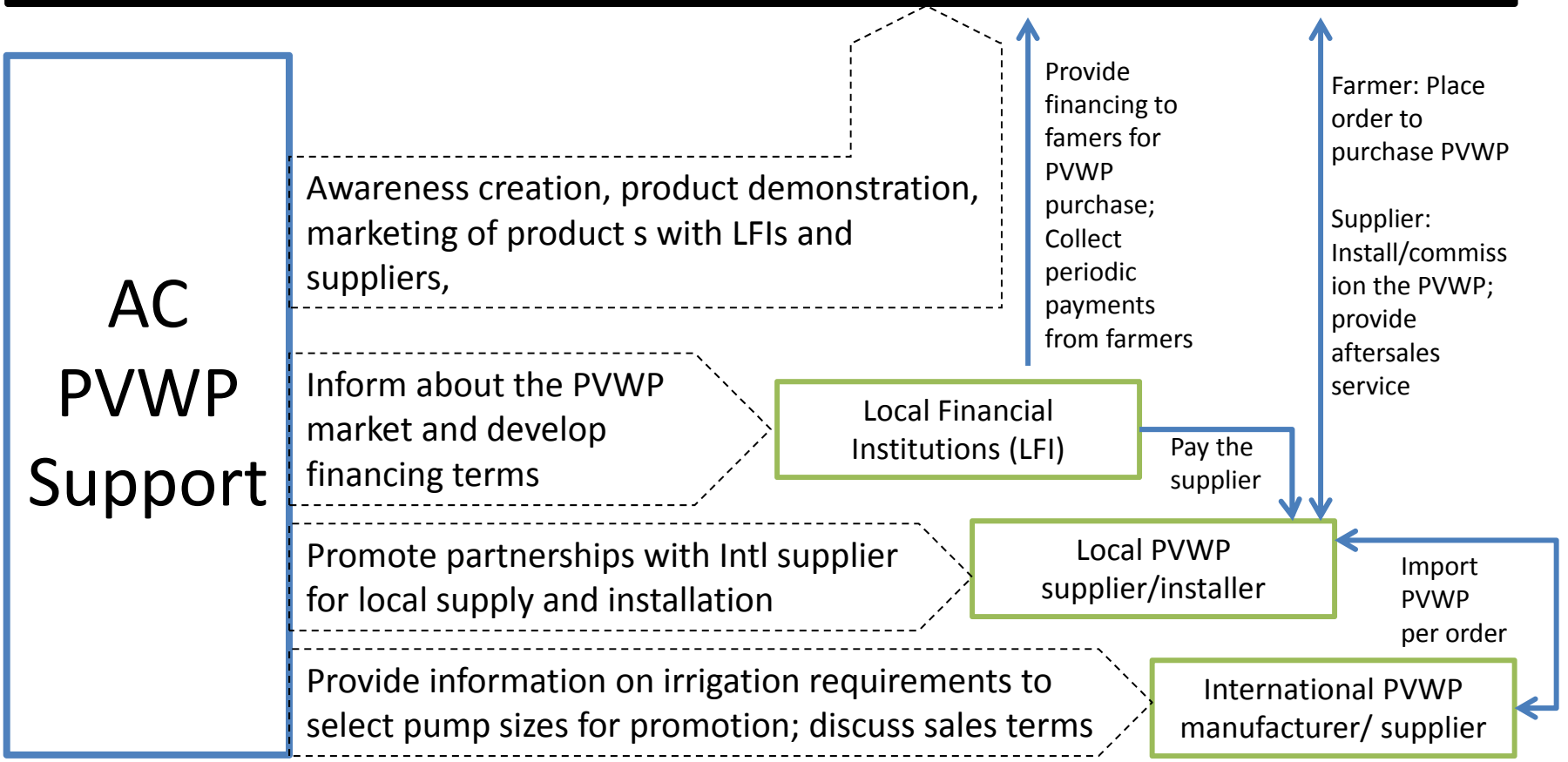


Mainstreaming and Acceleration: Accelerated commercialization of PV water pumps in Nepal (AC PVWP)

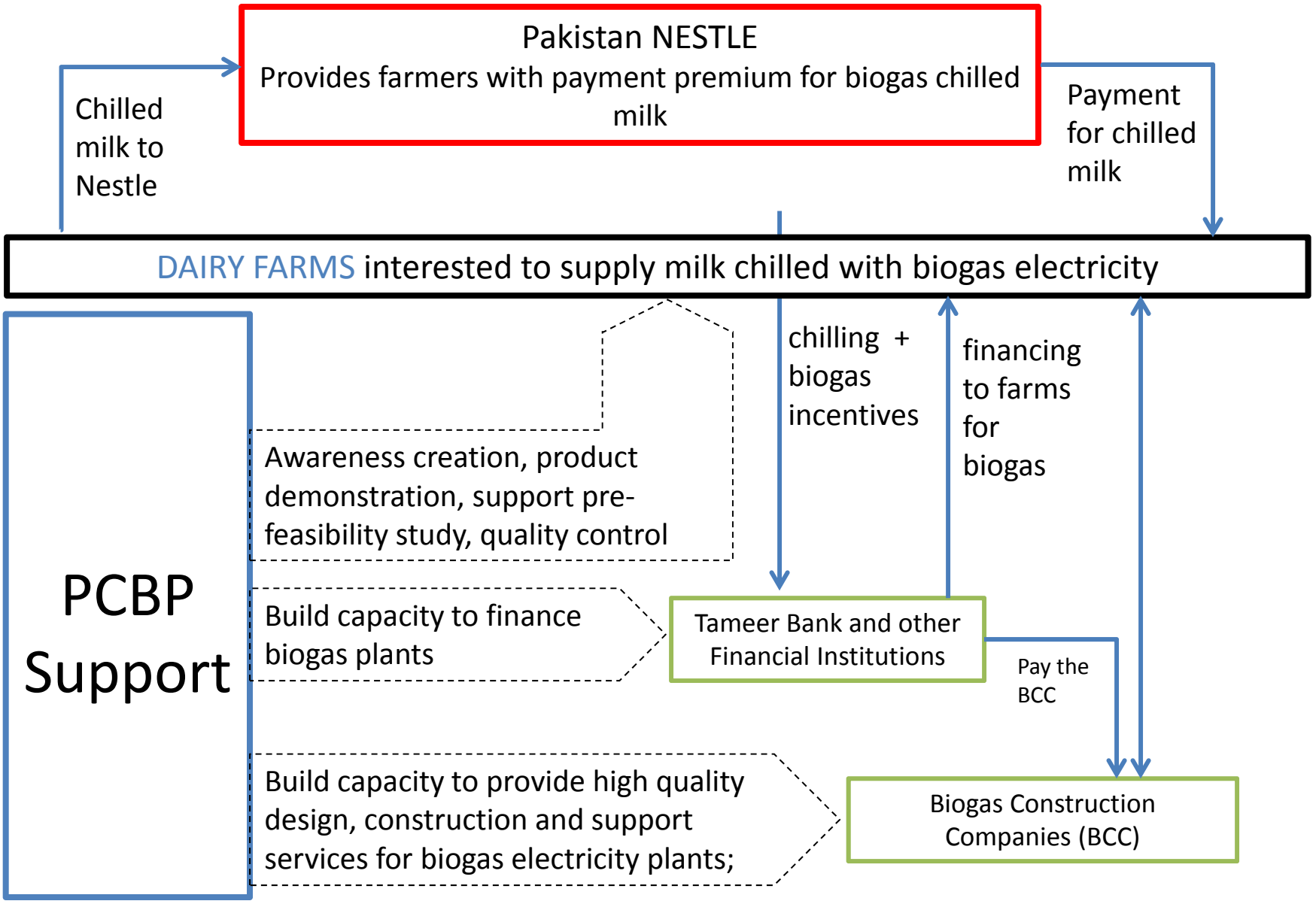
USAID/FTF: KISAN project
Provides value chain support to farmers from improved seeds, fertilizers, trainings to marketing of products; coordination with AC PVWP for PV irrigation

GON: AEPC
Coordination with AC PVWP in promoting PV pumps, quality assurance, achieving NRREP productive use targets, analyzing subsidy requirements

FARMERS interested to expand high value crop farming with year round irrigation



Mainstreaming and Acceleration: Pakistan Commercial Biogas Project (PCBP)



- Multiple technologies exist that are cost competitive, financing/business models challenging
- Complex systems required to achieve scale
- Original innovators often not the ones that bring technology to scale
- Cross sectoral/nexus challenges abound

Powering Ag Opportunities

- Round 2 Global Innovation Call: October 2014
- Public-Private Partnership Call: October 2014

www.poweringag.org

Jeffrey Haeni
jhaeni@usaid.gov