FEED THE FUTURE INNOVATION LAB FOR SMALL SCALE IRRIGATION
Nicole Lefore, The Borlaug Institute at Texas A & M University – Presented on 16 March 2022

Solar Powered Irrigation:
LESSONS ON SCALING FOR INCLUSIVE ACCESS
Meet the Assime family in Paga, Ghana
MARKET SYSTEMS APPROACH

Technology supply chain

Finance

Information access and Sharing

Markets and Buyers
TECHNOLOGY SUPPLY CHAIN

• Pulled in by market demand and not built by public technology promotion
• Companies need water resource and market information
• Companies are taking on multiple roles to build markets and that adds risk
• More successful companies – that offer direct finance to farmers – need more support
• Taxes and tariffs matter to end price
• Quality assurance is needed to protect suppliers and consumers
• Technology supply and repair services should include water storage, pipes, sprinklers, borehole drillers
Finance is central to realizing solarized irrigation as a solution for farmers, especially women. But finance is also important to solar pump suppliers.
All the players need more information and more integration – knowledge and market partnerships are key

Multi-stakeholder platforms facilitate information access and networking

- **Companies**: market segments, water resources, and other players in the equipment supply chain.
- **Farmers**: solar irrigation technology, finance tools, irrigated production, markets and prices…
- **Off-takers and processors**: irrigation benefits and costs
- **Finance actors**: enable investment and risk management
- **Government and research/scientific**: Plan and protect water
Market off-takers, value chain targets are under-explored

- Farmers have markets, but low bargaining power
- Some value chains have high potential but have not been studied
- Climate change is forcing irrigation
WOMEN AS SOLAR PUMP MARKET ACTORS

- Gender inclusive sales and credit teams
- Gender responsive credit worthiness tools
- Credit terms inclusive, flexible
- Inputs bundled under single finance product
- Finance tools adapted for women’s groups
- Partnerships enable agronomic and marketing support
- Engage companies, value chains, public sector and donors through public platforms
Acknowledgement:
We would like to thank USAID and the Feed the Future Innovation Lab for Small Scale Irrigation for support. The presentation represents the views of the researchers and not those of the funding agency. We also extend our appreciation to our private sector partners - PEG Africa (Ghana), Rensys Engineering (Ethiopia), Ecotech Mali and EMICOM (Mali) - for collaborating in the action research, and to the smallholder farmers sharing their experiences.

Visit us at ilssi.tamu.edu

Thank you!