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Solar Powered Irrigation: LESSONS ON SCALING FOR INCLUSIVE ACCESS

FEED THE FUTURE INNOVATION LAB FOR SMALL SCALE IRRIGATION

Nicole Lefore, The Borlaug Institute at Texas A & M University – Presented on 16 March 2022



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Meet the Assime family in Paga, Ghana



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MARKET SYSTEMS APPROACH



Technology
supply
chain



Finance



Information
access and
Sharing



Markets
and Buyers





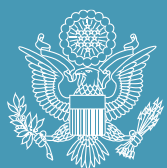
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TECHNOLOGY SUPPLY CHAIN

- 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



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Finance is central to realizing solarized irrigation as a solution for farmers, especially women. But finance is also important to solar pump suppliers.



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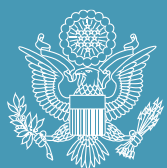
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All the players need more information and more integration – **knowledge and market partnerships are key**

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



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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



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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



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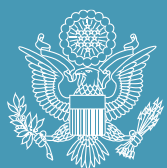


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Thank you!



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