



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Innovation Lab on Small Scale Irrigation (ILSSI)

ILSSI Seminar – IWMI in Accra, Ghana – 26th March 2019



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OVERVIEW

Timeline: **2013-2018/2023**

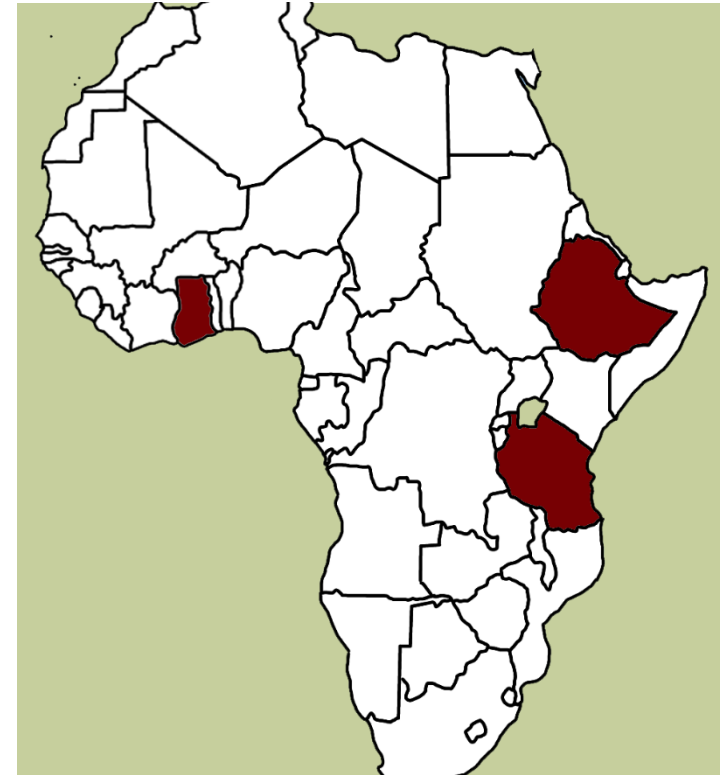
Led by **Borlaug Institute at Texas A&M University**

Partners: **IWMI, IFPRI, ILRI**

Private sector, commercial partner via RFP

Sites: **Ethiopia, West Africa Region, Tanzania, Ghana:**

National – horticulture commercialization
Northern/Upper East – resilience, gender, nutrition, governance



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OUTCOMES/AIMS

- **Strengthened enabling conditions** for scaling to more households
- **Sustained adoption by farmers** of SSI technologies and practices in profitable Value Chains
- **Improved income** of farmers through promising business models
- **Reduced policy and institutional barriers** that constrain adoption
- **Improved planning, resource allocation and monitoring** of SSI
- **Strengthened household and community cooperation** on water management; inclusive to women and resource poor farmers



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KEY MESSAGES FROM PHASE 1

- **High potential for SSI use:** 211,000 ha suitable, ~690,000 smallholders directly benefit, USD 285 million per year
- **Multiple pathways link small-scale irrigation and improved nutrition and food security (nutrition-sensitive intervention):** Irrigators have higher dietary diversity
- SSI can **support resilience** and reduce 'back sliding'
- SSI can be **sustainable using appropriate technologies and practices**
- SSI is **profitable for farmers** (esp. motorized pumps with horticulture)
- **Trade-offs between technologies and practices** in SSI; technologies can be targeted with specific goals (income, consumption, resilience, reduced labor requirements)



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Planning methods for mapping adoption potential and technology suitable areas



Resource sustainability: assessment and planning tools at systems level, tools to improve on-farm water use and conservation agriculture management



Innovative finance options for farmers to purchase or rent SSI technologies



Ways to improve access for women farmers and guidance on achieving greater gender equity from irrigation investments



Innovative business models for increasing access to technologies, e.g. expanding solar irrigation



Advice on high potential in the irrigated fodder value chain

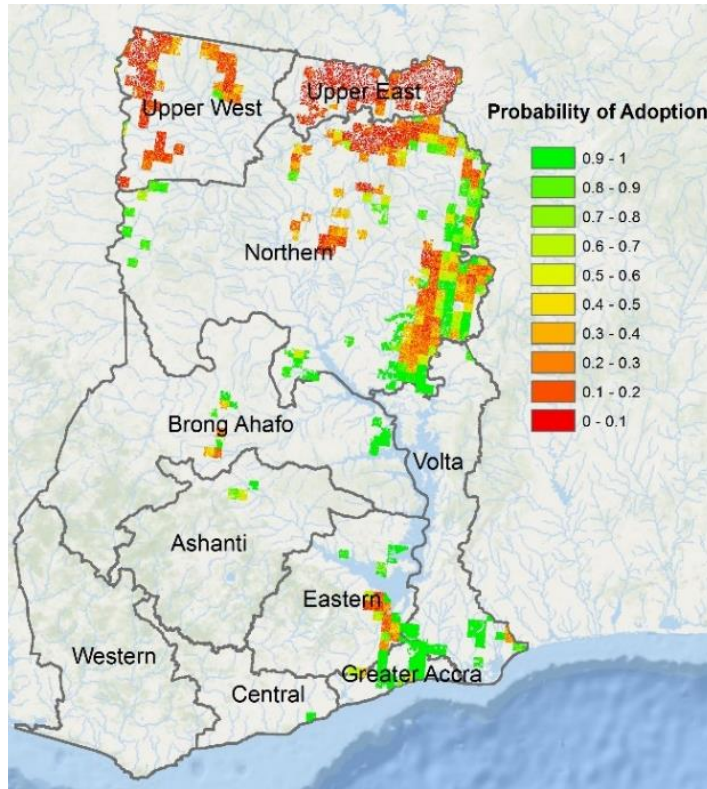


Assessments pointing to highly suitable areas for irrigated home gardens; Good practices in developing irrigated garden projects

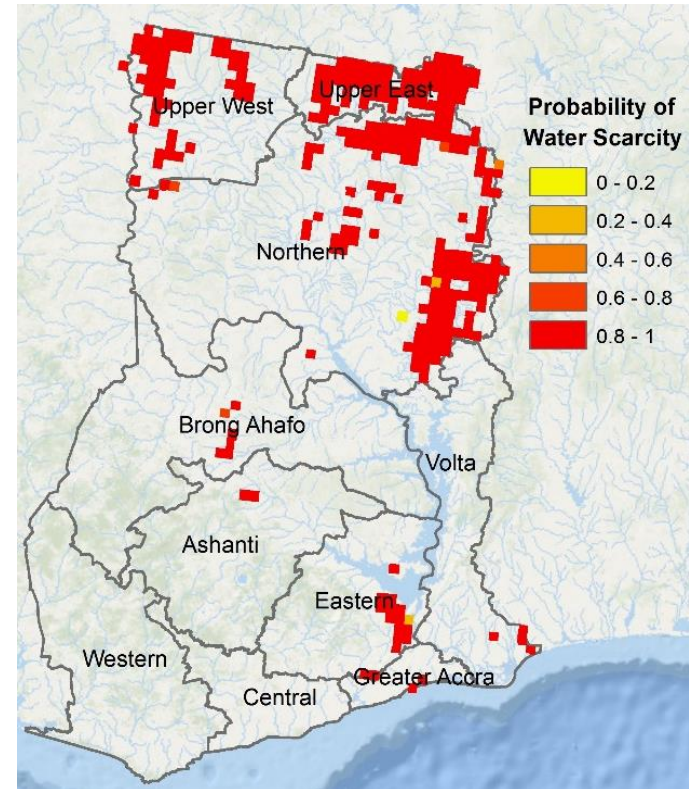




HIGH POTENTIAL AREAS



Adoption probability of small-scale irrigation



Associated water scarcity probability



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BY REGION

Region	Expected adoption area (thousand hectares)	Expected profits received by irrigators (million USD/yr)	Expected beneficiary population (thousands)
Ashanti	5	5	15
Brong Ahafo	16	14	52
Central	1	2	4
Eastern	16	24	54
Greater Accra	3	6	11
Northern	115	133	377
Upper East	20	39	65
Upper West	27	48	89
Volta	7	13	23
Western	0	0	0
Total	211	285	690



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CHALLENGE

Scaling: How to increase use of SSI – improved adoption rates and improved inclusivity of adopters – in an economically and environmentally sustainable way



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ACTIVITIES

Activities

Scaling sustainable SSI

Reducing constraints and strengthening opportunities for access

Identify upscaling opportunities for resilient SSI systems

Identify constraints and assess impact of policy through analyses and dialogue

Identify entry points to reduce supply constraints on irrigation technology markets

Supporting sustainability and resilience

Assess tradeoffs between environmental and human resilience to climate shocks and stressors

Assess approaches to reducing risks associated with irrigation investments

Assess potential for innovative technology and tools

Inclusive and nutrition-sensitive irrigation

Maximize inclusivity

Women's empowerment

Effective governance

Involvement of youth

Analyze institutions and policies, and strengthen governance

Analyze approaches for equity along value chains, focused on women and youth

Assess approaches for more nutrition- and health-sensitive SSI investments



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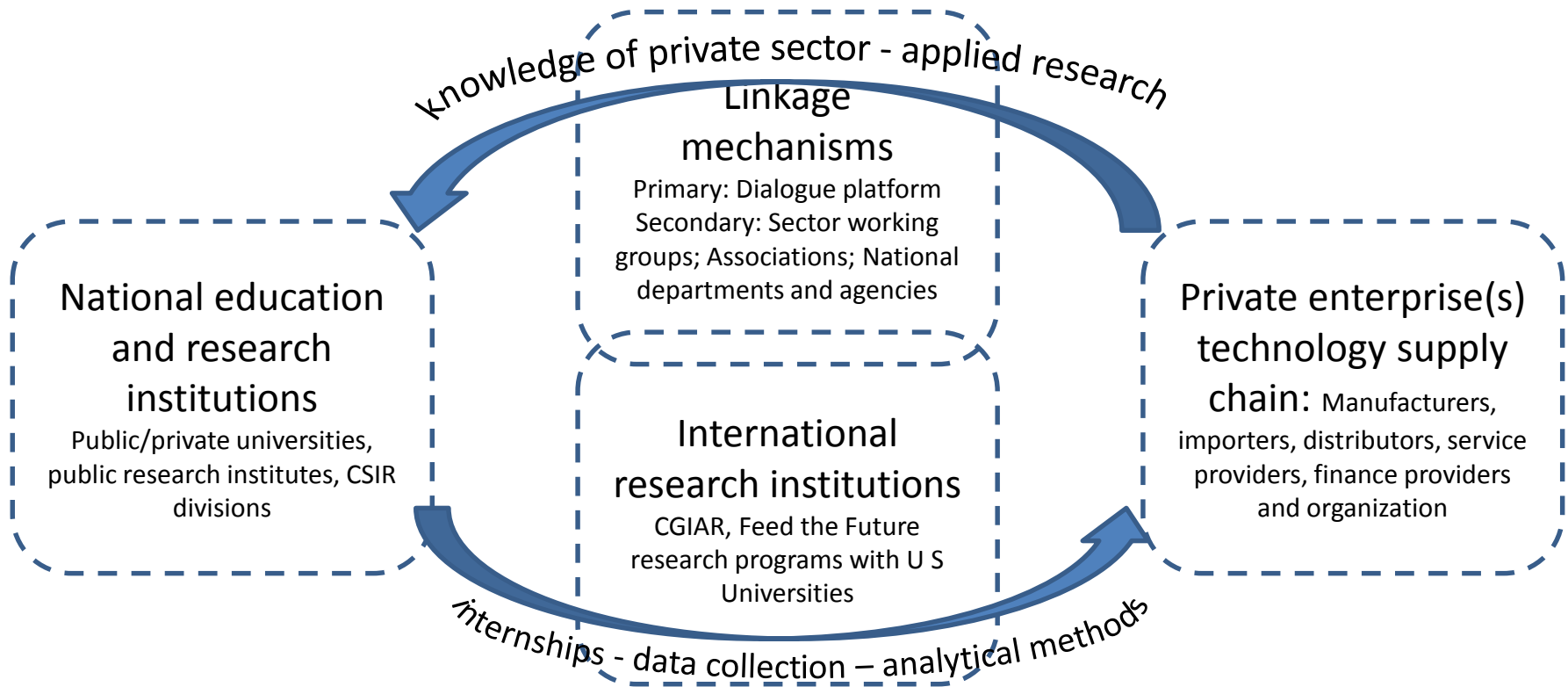
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INTEGRATING RESEARCH AND PRIVATE SECTOR FOR ENHANCED INNOVATION



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ASSUMPTIONS

Opportunities

- Positive policy agenda and existing platforms for exchange
- Institutional reform in the irrigation sector (GIDA)
- Potential to reducing or removing tariffs on irrigation equipment
- Lessons/advancements in agri finance
- Active private sector in agriculture, e.g. contract farming
- Focus on farmer-led irrigation by international development partners
- Existing suitability maps, data and business models
- Scope of expansion: seed, crops not previously irrigated, new crops

Risks

- Market incentives may be weak (e.g. currency)
- Low responsiveness of finance and credit sector to demand
- Potential low incentives to invest by farmers
- Pace of policy change and institutional reform may be behind trends of farmers and private sector
- Infrastructure and markets





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Questions and Feedback



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