



FEED THE FUTURE

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



Collaborative Research
on Sorghum and Millet

2022 SMIL ANNUAL REVIEW MEETING

Country Level Updates-Ethiopia

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March 21-25, 2022

Virtual



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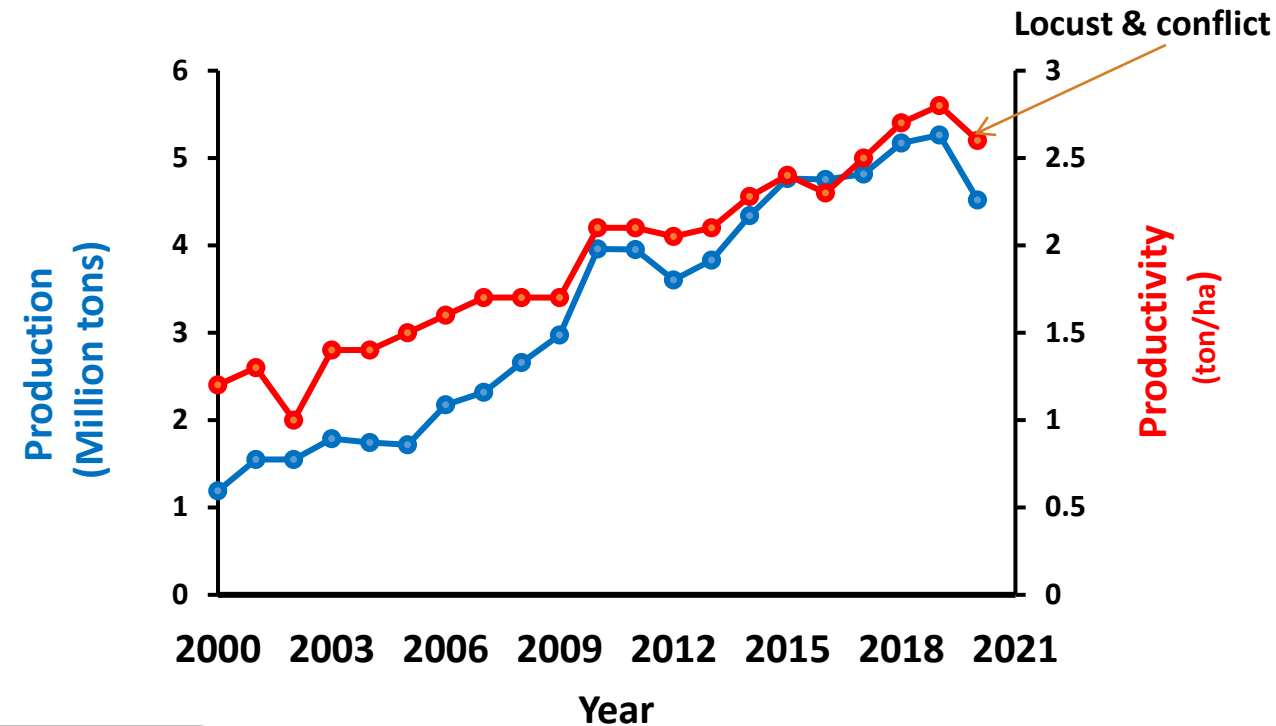
Outline

- Sorghum in Ethiopia
- Summary of SMIL project activities
- Technology development & promotion
- Strategic partnership to accelerate technologies
- Strategies & opportunities to support value chains in Ethiopia



Sorghum in Ethiopia

- Important staple **food & feed** crop
 - Ranks 4th - Tef, Maize & **Wheat**
- Small holder farmers – 4.9 M
- Area – 1.7 M ha
- Production - 4.6 M MT
- Yield – 2.6 t/ha
 - Low by comparison with the crop's potential
- Only **13%** of grain is marketed, & **7%** is processed



Source: CSA, 2021

Summary of SMIL Project Activities

Sub-Projects	Collaborating University	PI	Activities
1. Genetic Improvement of Sorghum for Resistance to Fungal Pathogens	Purdue Uni	Prof. Tesfaye M.	4
2. Advancing improved functionality & protein quality sorghum hybrids for food applications in Ethiopia	Texas A& AM	Prof. Joseph A.	3
3. Genetic Enhancement of sorghum to promote commercial seed supply and grain market development	Purdue Uni	Prof. Gebisa E.	5
Total			13



Research Output

- Two (OPVs & Hybrids) and
 - One forage sorghum varieties
 - Characterization of SMIL core collections (380) for important agronomic traits continued in the target environments
 - Disease (Anthracnose) - Intermediate
 - Drought & Striga - Dry lowland
 - Forage purpose - Dry lowland & Highland
 - High protein digestibility and waxy sorghum are in field evaluation
 - Two promising dual purpose & drought hybrids identified for verification
- Phase 3 & 4 (Registered & scaled in country)
- Phase 2

Technology promotion (Phase 3 & 4)

ESH4



ESH5



Large scale demos (33 ha) of drought tolerant sorghum hybrids in Eastern Ethiopia, Miesso & Babile, October, 2021



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Technology promotion (Phase 3 &4)



Demonstration of released variety (Marara) for mid-altitude areas



Marara mixed with white tef
Ratio 50: 50

Strategic partnership to accelerate the technologies

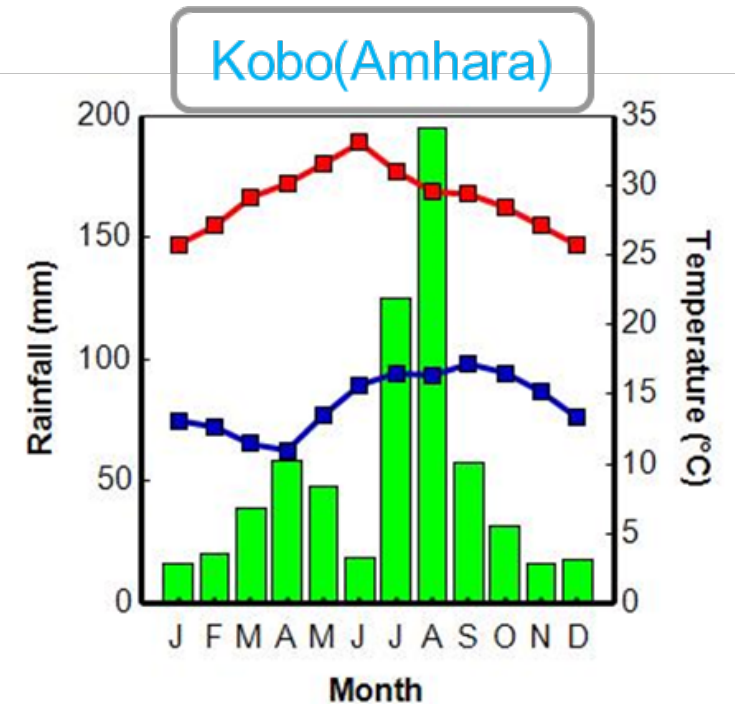
- **Public and private seed sectors involvement in hybrid sorghum**
 - Public sector- Regional seed enterprises
 - Oromia & Amhara regions seed enterprises
 - Private sector
 - ETHIO-AGRI CEFT – Hybrid sorghum seed production
 - Seid Hussien PLC– Hybrid sorghum seed production
 - Farmers cooperatives : Oda-Bultum cooperative
- **Other project funding**
 - BMGF support (ISC & MERCI projects – hybrid sorghum & technical support)
 - IDRC – Canada (OPVs)

Strategies & opportunities to support value chains in Ethiopia

- **Alignment to the vision of national sorghum strategy (2020 – 2030) – SMIL /USAID support**
 - Generate demand-led sorghum technologies that contributes to the improved livelihoods & sustainable development
- **Diversify utilization & expand market**
 - Demand for commercialization of sorghum,
 - sorghum as export crop
 - Industrial use (malt)
 - Enhance use as a feed/fattening
 - Enhance sorghum based food products

Strategies & opportunities to support value chains in Ethiopia

- **Alternative cropping system**
Double Cropping : Legume – Cereals
 - **Mungbean** (cash crop) → Sorghum
- **Additional support to the program**
 - BMGF to modernize the breeding program
 - **Developed well defined Product Profiles**
- **Promotion of finger millet**
 - use as healthy food for lactating women & infants



Challenges

- **Recent conflict**

- Restrict to conduct and monitor research and outreach activities in major sorghum growing & testing sites

- **COVID-19**

- Travel restrictions for Pls & SMIL ME
- Local movement was restricted to implement program

This study is made possible through funding by the Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet through grants from American People provided to the United States Agency for International Development (USAID) under cooperative agreement number AID-OAA-A-13-00047. The contents are the sole responsibility of the authors and do not necessarily reflect the views of USAID or the US Government.

Thank you !



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