



RESILIENT GRAIN MARKETS: **UNLOCKING AFRICA'S FOOD SECURITY POTENTIAL**

2ND-4TH, OCTOBER 2025 | ZANZIBAR, TANZANIA

Main Session 5

Smart & Seamless Logistics:

**Optimizing Grain Supply Chains from Farm to Regional
and Global Markets**

**Session
Sponsors:**



**Dr. Girmaw
A. Tadesse**

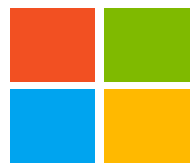
**Manager and Principal
Research Scientist**

Microsoft AI for Good Lab



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AI as a catalyst for unlocking sustainable food security in Africa



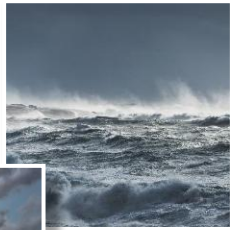
| AI for Good Lab



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Our challenges are growing in scale and complexity

2.2 Billion **690 Million**



people in the
Global South
faced high
climate risk
between
2008 – 2018



Hurricanes, fires, floods and
tornadoes put millions at risk across
the globe and cause trillions in losses



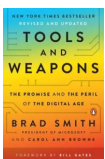
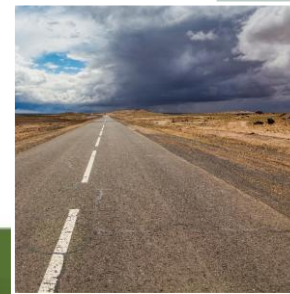
people
went hungry
in 2020
8.9% of
the world's
population



25% of Earth's
species are threatened
with extinction



2.9 Billion
people don't
have internet
access





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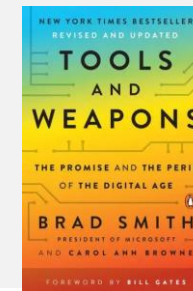
Food security in Africa

307 Million

In 2024, more than 307 million Africans (over 20% of the population) were **chronically** undernourished



Food Security

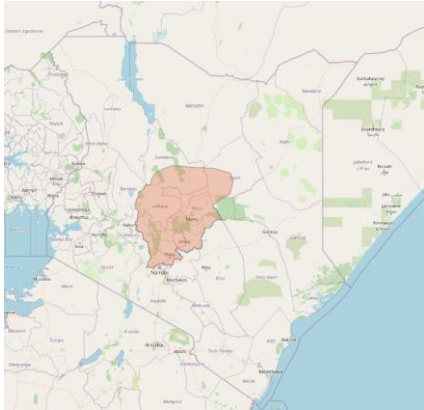


How can AI help?



Selected examples of our projects that employ human-centered AI

1



Food and Water Security

Problem: Rapid expansion and intensification of irrigated agriculture has caused conflicts

The Nature Conservancy



2



Population Mapping

Problem: Where do people live?



IHME

3



Landcover maps

Problem: Compliance to EU Anti-Deforestation Law.



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Possibilities beyond our skies



4



Scaling Fertilizer Recommendations

Problem: Where are the similar croplands?

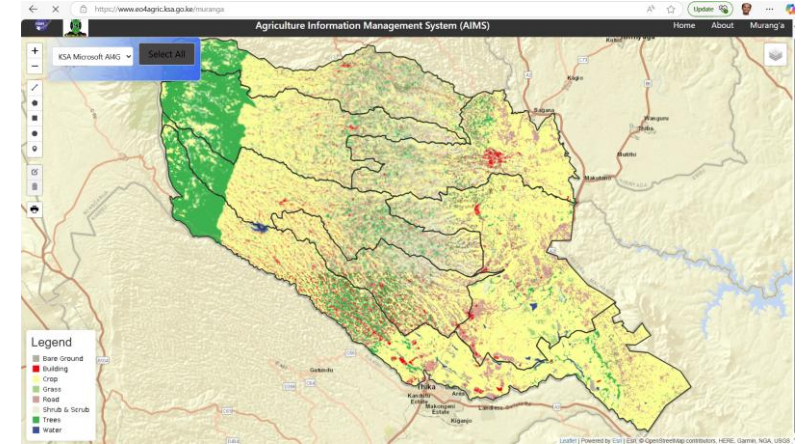




Call for collaboration: Production of Periodic Core Agricultural Data Products

To help address the mentioned challenges in this summit:

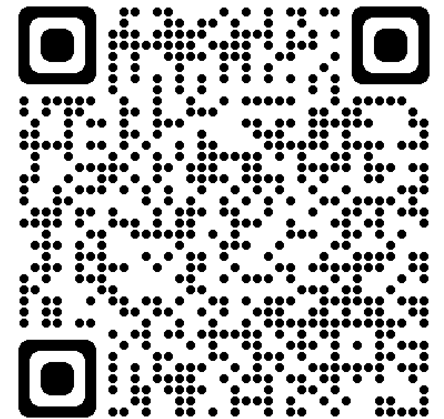
- Post-harvesting waste
- Aflatoxin (pre-harvest contamination)
- Climate change and land degradation
- Logistics (cross-border) issues
- Disaster response and adaptation/mitigation



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More to come ... join us!!



THANK YOU.

