USDA Global Food Security Research Strategy
And
Support for Feed the Future

Anita Regmi, Ph.D.
Senior Advisor, Global Food Security
Office of Chief Scientist

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Almost 1 billion people are currently food insecure.

Global population increase to over 9 billion by 2050, diet changes and new industrial uses add additional demands on agricultural production – under limited resources and increased climate variability.

Dual benefits: renewed focus and commitment to agricultural development will

- Contribute to global food security,
- Enhance global agricultural trade,
- Protect agriculture/environment from exotic pests and diseases, and improve quality and safety of food, and
- Improve our collective knowledge
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State of the Science – What We Know

• Food insecurity, food scarcity, and food price volatility will escalate without significant improvements in agricultural productivity.

• A comprehensive approach to agriculture development is required.

• Scientific breakthroughs must be adapted into economically, environmentally & socially sustainable practices.

• Investments to improve agricultural productivity must be long-term and complemented by efforts to improve human capacity in agricultural research, extension and education.

• Agricultural research, education, extension, and development need to focus on women.

Sources: World Bank, National Research Council of the National Academies, International Food Policy Research Institute, FAO’s High Level Expert Forum, and the Chicago Council on Global Affairs
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REE’s Unique Capacity

USDA science combines strong research capability with expertise in institutional capacity building, education and extension.

- Ongoing Dual-use Research & Economic Analyses
- International Research Partnerships
- Agricultural development programs under reimbursable agreements
- Institutional Knowledge
- Historical relationship university system
- Industry partners
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REE Strategy: A focus on “dual-use”

- Research, development, education and extension to sustainably increase productivity, quality and nutritional value
- Research, development, education and extension to minimize human and environmental health risks from agricultural production
- Data development, analysis and dissemination to improve the understanding of agricultural markets and policies
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Leveraging

• **Feed the Future**: USAID-led Whole-of-Government effort to reduce poverty and hunger

• **Other on-going International Partnerships**
  – With our university partners
  – International research centers
  – Other countries
  – AGRA
  – Multilateral institutions and others
  – Private sector
USG FTF Research Strategy Overview

Embraces a comprehensive strategy that is based on strategic partnerships.

Feed the Future Research Strategy

Global Research:
• Productivity
• Production Systems Transformation
• Food Safety & Nutrition

Country-Level Investments:
• Research
• Extension
• Information System Capacity Building
• Policy Analysis
FTF Research Strategy Implementation

• Norman Borlaug Commemorative Initiative

Collaborative research on:

– Wheat rust
– Grain legumes
– Livestock Disease
– Post harvest/food safety

• Improving Agricultural Statistics

• Leveraging our resources to help improve in country capacity:
  extension, SPS, youth development, post harvest, policy environment
How will USDA respond to Forum challenges?

- Forum input very important for USDA

- Coordination in research will be key:
  - OCS enables close collaboration among senior advisors across climate change, global health, food safety, nutrition, bioenergy, and others

- FTF coordination across USDA:
  - Weekly management meetings across mission areas

- Better aligning and leveraging our existing programs
- Accountability and measuring success
Advancing Productivity Frontier

• Expand Genetic Resources Information Network (GRIN) to cover information from other countries, and make the information available for crop/livestock improvement in FTF countries.

• Seek appropriate collaborations on biotic and abiotic stress tolerant/resistant work to transfer/adapt our innovations when relevant in FTF countries.

• Explore our suite of ongoing research, extension & education material to educate proper stewardship and enhancement of soil, water and other natural resources.

• Examine ways of leveraging our knowledge, innovations and research to reduce post-harvest losses
Transforming Key Production Systems

- Working across the USDA, we are currently exploring how we can knit together our existing programs and resources to have a transformative impact on a few selected areas and countries under USDA Action Plan.

- **USDA Office of Technology Transfer** offers a model of transferring technology that is demand/market-driven and sustainable (requires broad partnerships).

- **The National Agricultural Library (NAL)** leads a cross-USG initiative to organize and provide access to transparent, internationally-compatible, quality-controlled, life-cycle data on sustainability in food, agriculture, and forestry supply chains that will benefit producers & global markets.
Transforming Key Production Systems

• We are looking for ways to make the **wealth of information and expertise in USDA more accessible** to other researchers, extension providers, and educators around the world.

• USDA funds intramural and extramural **researchers** to enhance the productivity, societal & environmental benefits, and economic viability of food/agriculture systems by:
  
  • Improving the performance of **transformative systems**: agroforestry, organic, integrated crop/livestock, alternative livestock, perennials-based systems, etc. (NRC, 2010); and

  • Improving the performance of **management practices** in: crop/diversity, soil, water, nutrients, weeds/pests/disease, animal production efficiency, and animal welfare/health

• USDA funds **extension providers and educators** to transfer knowledge and adapt research to make it applicable for producers and future producers
Enhanced Food Safety & Nutrition

• Nutrition education (new plate)
• Productivity of micro-nutrient rich food
• Biofortification of staple crops
• More nutritious food aid
• Better forecasting/improved data
• Reduce/eliminate mycotoxin contamination
• Education/training material
Cross-cutting challenges

• Working across mission areas and initiatives: FTF, GHI, CC, LEDS, PFG and others.

• Working with partners beyond USDA to create synergies and do more with less.

• Working with our partners (particularly in US universities) we have a track record of very successful models: extension, youth development, education, market information and others.
In conclusion

• We all share a common goal: a path forward that brings all of our collective powers to bear, focused on the best science available for improving/ensuring global food security.

• We also know research and its application take time.

• Going forward, USDA will continue to look to working with universities, with USAID and with all in-country stakeholders.

• This work is important but won’t always be easy,

• We have much to offer and to learn from each other and we will explore together the best mechanisms for leveraging our collective resources.