

# Overview: Food Security Program at Michigan State University

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Eric W. Crawford, Professor  
Dept. of Agricultural, Food, and Resource Economics  
Michigan State University



## Outline of presentation

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- Background on MSU and visit to Nepal
- Food security projects at MSU/AFRE
- Food Security III cooperative agreement
- Associate awards and related projects
- FSG team and approach/philosophy
- Objectives, research themes, future plans
- Areas of potential relevance to Nepal

# Purpose of visit to Nepal

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- U.S. has committed \$3.5 billion over 3 years to food security programs in Africa, Asia, and Latin America
- This initiative is called “Feed the Future” (FtF)
- It is part of a larger \$20 billion commitment by the G-20 countries to address problems of food insecurity
- The U.S. FtF initiative will concentrate resources on 20 “focus” countries, including Nepal
- MSU asked to contribute to the FtF initiative because of our 30-year history of USAID-funded projects focused on food security
- USAID has asked MSU to expand its project activity in Asia.
- The purpose of our visit is to explore the potential interest of the Government of Nepal and of USAID/Nepal to engage MSU in supporting food security-related programs in Nepal

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# Michigan State University a/

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- MSU was established in 1855 as Michigan Agricultural College
- It is one of the first “land grant” universities
  - In 1862, the Federal Government gave grants of land to each state to fund a college to teach “agricultural and mechanical arts”
  - These colleges were to educate the general population, not just the elite few
- Mission of land grant colleges includes teaching + research + extension
  - Legislation in 1887 established an “agricultural experiment station” in each state, so that teaching of agriculture could be based on scientific knowledge
  - Legislation in 1914 established state extension services so that research results would be provided to farmers. Research and extension managed by college.
- Michigan Agricultural College became Michigan State University in late 1940s, adding many new non-agricultural colleges
- The “land grant mission” has not only remained important, it is currently being pursued at the global level

a/ Adapted from David Schweikhardt, “Michigan State University and the Land Grant Heritage,” presentation to delegation from Mali, April 11, 2010.

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# Food security projects at MSU

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- USAID-funded cooperative agreements housed in Dept. of Ag., Food, & Resource Econ. (AFRE)
  - Food Security in Africa (1983-1992)
  - Food Security II (1993-2002)
  - Food Security III (2003-2012)
- “Food Security Group (FSG)” refers to:
  - \$40 million portfolio of projects in AFRE
  - Food Security III Leader + associate awards (2/3 \$)
  - [Related projects](#) involving same faculty team (1/3 \$)

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# FSG team

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- 2 Co-Directors
- 10 other faculty based in the U.S.
- 7 faculty based overseas
- 12-15 graduate research assistants
- 7 administrative and tech support staff
- Numerous analysts/support staff hired by country offices (Mali, Mozambique, Zambia)

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## Goal and conceptual framework

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- Goal: to integrate applied research findings into policy dialogue and program design to promote agricultural growth as a means to cut hunger and poverty and improve food security
- Strategies are identified within a structural transformation (economic growth) framework
- Single-factor solutions are not adequate: need improved technology, institutions, and policies to address growth and food security challenges

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## FS III Cooperative Agreement

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- Leader award funded by USAID/Washington
- Associate awards from USAID missions (flexible collaborative design; non-competitive)
- Leader award provides core funding for:
  - Management of overall Cooperative Agreement by campus-based team
  - Development of associate awards
  - Cross-cutting research, outreach, and capacity building, drawing on country/regional projects

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## FS III Associate Awards

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- AFR/SD (support to COMESA)
- Mali
- Mozambique
- Zambia
- Past FS III: Mali, West Africa, Malawi
- FSA and FS II country projects: Ethiopia, Rwanda, Senegal, Zimbabwe

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## Related projects

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- Kenya (Egerton/Tegemeo, USAID funding)
- Zambia (SIDA; linked to USAID-funded proj.)
- Gates Foundation (staple food markets)
- COMESA/AAMP (ag. markets; World Bank \$)
- Cotton (World Bank, USAID/WACIP)
- Malawi (SOAS-DfID)—input subsidy impacts
- Syngenta Foundation (econs. of rice & maize)
- Hewlett Foundation (market info., reg'l trade)
- Mozambique (MCC: land, coconut rehab.) [Back](#)

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## FS III approach

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- Demand-driven, collaborative design and implementation (host country, USAID, MSU)
- Policy orientation supported by empirically based research and analysis
- Integration of research, outreach, and capacity building (human, institutional)
- Team approach, including local researchers and analysts (boosts quality and credibility)
- Sustained focus on selected themes and countries/regions, sometimes over 20-25 years

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## FS III Research Themes

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- (1) Improving food systems performance:
  - (a) Farm productivity and technology use
  - (b) Staple food and input markets, market information, market reform, “food sheds” and regional trade
- (2) Improving the food security of vulnerable groups: understanding household income and livelihood dynamics
- (3) Food security interactions with the environment and natural resource management

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## Research themes (1a), cont.

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- Determinants of farm productivity
- Economic returns to agricultural research
- Strategies for soil fertility improvement
- Economic and policy dimensions of increasing fertilizer & improved seed use
- Cash crop/food crop synergies
- Cotton sector development and reform

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## Research themes (1b), cont.

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- Organization & performance of markets for staple foods and horticultural crops
- Design and impacts of market information systems
- Extent and impacts of market reforms
- Determinants of farmer participation in staple food and cash crop markets
- “Food sheds” and regional trade flows

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## Research themes (2), cont.

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- Distribution of household income & assets
- Income and poverty dynamics
- Difficulties of targeting poorest households
- Impacts of ag. growth on nutritional status
- Emergency responses to food insecurity
- Pro-development design of food aid
- Incidence & impacts of HIV/AIDS on ag.

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## Research themes (3), cont.

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- Economics of conservation farming (Zambia, Mozambique)
- Impact of game reserves on rural incomes (Zambia)
- Charcoal subsector study (Zambia)
- Impacts of natural resource management interventions (West Africa)
- Potential for linking to climate change work

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# Agenda for future research

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- Overall theme: successful development transitions and drivers of change.
- Sub-themes:
  - Sustainable increases in productivity
  - Marketing and value chain efficiency
  - Land policy and access
  - Poverty alleviation and safety nets
  - Managing food price and supply instability
  - Building agricultural sector information capacity
- Current/planned expansion of activities:
  - Asia and Central America
  - Collaboration with other MSU areas of strength (nutrition, climate change and land use, water resources)

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# Potential Relevance to Nepal

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- Empirically based, policy-relevant research and outreach:
  - need to create a demand for this among decision makers?
  - strengthening the sources of information on agriculture and rural livelihoods, and the techniques for policy analysis
- Research/outreach themes:
  - economics of irrigation development
  - [input subsidy policies](#) and programs
  - competitiveness of domestic rice production
  - value chain studies of onions, tea, coffee, etc.
  - integrating agriculture and forestry
  - integrating the nutrition and climate change dimensions of food security

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## Potential Relevance to Nepal 2

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- Capacity building
  - university capacity building, in areas of teaching, research and outreach
  - training: long-term, short-term, and in-service
  - mentoring of recent MS/Ph.D. graduates
  - survey research/data collection and analysis methods
  - program evaluation and impact assessment
- Models for sustainable village-level development programs

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## Publications

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- FSG Web site ([www.aec.msu.edu/fs2/index.htm](http://www.aec.msu.edu/fs2/index.htm))
- “Lessons learned” syntheses:
  - Full paper ([www.aec.msu.edu/fs2/papers/idwp101.pdf](http://www.aec.msu.edu/fs2/papers/idwp101.pdf))
  - 4-page brief ([www.aec.msu.edu/fs2/polsyn/number84.pdf](http://www.aec.msu.edu/fs2/polsyn/number84.pdf))
- In-country publication series
- Policy Synthesis briefs
- International Development Papers and Working Papers
- Journal articles, books, etc.

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## Online FSG Resources

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- [Agricultural Market Information Virtual Library](#)
- Survey research [training materials](#)
- [Learning resources](#) for applied food security policy analysis
- [Food Security Information Portal](#) (demo site; includes links to many Web-based research and learning resources)

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## Thank you! Questions?

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## Policy example: fertilizer subsidies

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- Policy issue: Farmers in the Terai cannot compete with heavily subsidized Indian farmers. Should Nepal subsidize fertilizer for its own farmers?
- (Perhaps I am not framing this accurately!)
- Diverse policy goals being addressed: economic, social, political . . .

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## Fertilizer subsidies: lessons learned

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- Fertilizer subsidies have short-run political appeal but problematic long-run record
  - Subsidies tend to create a heavy budget burden
  - Generally not sustainable or cost-effective compared to other ways to boost agricultural productivity (ag. research, roads, markets)
  - Benefits tend to be captured disproportionately by larger, better-off farmers, even if targeted
  - Subsidies undercut private input dealers
  - Subsidies are hard to “exit” from once started
- ([Back](#))

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# Food Security Definition

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- Situation where “people at all times have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996).
- Availability, access (physical, economic), utilization, stability/sustainability ([back](#))