

# JOINT WORKSHOP ANNOUNCEMENT

## Approaches for Improving Data and Models To Support Food System Sustainability Modeling

**10-12 September 2014**  
**Discovery Park**  
**Purdue University**  
**West Lafayette, Indiana**

GEOSHARE and CIMSANS  
are pleased to invite you  
to participate in two  
complementary and  
consecutive workshops.

Leaders of the burgeoning  
open data and modeling  
communities will explore  
novel approaches for  
assessing sustainable  
nutrition security (SNS).

Space is limited. To  
submit a nomination for  
attendance, please visit  
[this link](#) by 28 July 2014.

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### Improving Geospatial Data for Decision Making and Discovery in Agriculture, Resources and the Environment (GEOSHARE)

#### 10-11 September 2014

This workshop led by the GEOSHARE team will evaluate methods for improving data to support models that inform government and private industry decision makers about the role of food systems in achieving sustainable nutrition security (SNS). The strengths and weaknesses of input data need to be understood by potential users as well as being easily accessible and openly available in model-friendly formats.

Key questions will include:

- What are the best approaches for identifying the strengths and weaknesses of data sets and for designing improved data products for food system models (e.g. Data Fusion)?
- What institutional principles can be agreed for designing an SNS model-related data validation and endorsement mechanism?
- Can cyber-infra-structure approaches such as GEOSHARE/HUBZero offer multi-stakeholder workgroups with interests in SNS (e.g. CIMSANS and AgMIP) a mechanism to assist making these improvements?

### Improving Food System Sustainability Modeling

#### 11-12 September 2014

This closely related workshop led by the Center for Integrated Modeling of Sustainable Agriculture and Nutrition Security (CIMSANS) team will evaluate methods for improving models that are needed to carry out an SNS assessment. This requires modeling of the natural resources needed for food production (water, weather, soil), the performance of plants (including yield and nutritional composition), animals and the systems they live in (including greenhouse gas emissions) and human responses. Models for each of these exist, but there are gaps (e.g. pests, diseases, ozone, soil fertility, weather variability, consumer preference, and nutrient effects of CO<sub>2</sub>). Attendees will examine recent developments that will allow improvements to be made. The expectation is that participants are either representing open source models or are planning to make their models open source.

Key questions will include:

- What are the most pressing needs for food system model improvements to meet the sustainable nutrition security interests of decision makers from governments, private industry and academia?
- What technologies, approaches and mechanisms will most effectively contribute to these improvements?