

## **Case Study Format for FEW Nexus**

### **(Outcome of Food Energy Water Nexus Workshop: System Approaches and Metrics for Evaluation)**

**Baltimore Maryland, October 7-9, 2015**

1. Nature of Case Study:
  - a. Description of system being analyzed
  - b. Relevance of food, energy, and water considerations
  - c. Simplified flow diagram of the system/subsystem
2. Space and Time Boundaries:
  - a. Geographical area
  - b. Supply chain
  - c. Manufacturing or commercial premise
  - d. Time boundary: time frame relevant to the evaluation including that of the impacts on environment, society and economic domains
3. Available Data Sources:
  - a. Population demographics
  - b. Water available and use (municipal, industry, agriculture)
  - c. Primary energy, renewable, electricity—supply and demand
  - d. Agriculture production
  - e. Import and export flows of water, energy food, and other resources along the supply chain
  - f. Highlight missing or poor quality data concerns
4. Identify/Select Scenarios for projections/predictions
  - a. Technology assumptions (e.g. yields, energy efficiency, process technology, IT development)
  - b. Societal change
  - c. Changes in climate, weather, temperature
  - d. Industry growth assumptions and other economic parameters
  - e. Fiscal and regulatory response options
5. Proposed method of system analysis
6. Objective of Case study, e.g.
  - a. To identify priority energy-water, energy-food, water-food, food-energy-water connections, constraints, challenges and solutions
  - b. To develop understanding of priority data needs and limitations
  - c. To identify benefits and limitations of the system analysis methodology and other tools selected
  - d. To identify important discipline knowledge and stakeholder engagement requirements to guide future case studies
7. Case study execution and presentation:
  - a. Project leadership; manpower to be used
  - b. External involvement/participation
  - c. Presentation formation
  - d. timing