Objective: Develop the technical skills and institutional capacity required to modernize African food systems.

Background: Africa’s food consumption patterns will change dramatically over the coming decades. Rising urbanization (Figure 1) and growing per capita incomes will translate into dramatically increased demand for processed foods, high-value foods (dairy, meat and fresh fruits and vegetables), packaged convenience foods and prepared foods. As a result the value of marketed and processed foods will grow twice as fast at farm production (Figure 2).

Growing demand for packaged convenience foods will require substantial private sector investment in food processing technology. To scale up processing of cassava, maize, sorghum, yam, and banana products from artisanal to industrial scales, the food industry will need to undertake research on the biochemistry of basic food fermentations and on nutritional outcomes under alternative processing technologies. To fuel necessary productivity increases in Africa’s modernizing food system will require a steady flow of trained scientific and technical skills in support of farm production, feed industries, storage, supply chain management and food processing industries (Figure 3). Looking forward, agricultural training and education institutions will increasingly need to supply technical agribusiness skills to private sector employers (Figure 4).

Activities and Outputs: This program assembles a technical team from several major agricultural universities to produce a series of empirical background studies that will provide evidence necessary for informing capacity development efforts in African food systems. This consortium aims to produce four public-domain outputs, each highlighting a different facet of Africa’s changing food systems, the consequent skill needs in agriculture and agribusiness, and alternative models for training the skilled personnel necessary for modernizing African food systems.

<table>
<thead>
<tr>
<th>Figure 1. Africa’s Growing Urban Population</th>
<th>Figure 2. Consequent Growth in Marketed and Processed Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Graph showing urban population growth" /></td>
<td><img src="image2" alt="Diagram showing growth in consumption, distribution, processing, and marketing" /></td>
</tr>
<tr>
<td>Consumption</td>
<td>Growth multiple*</td>
</tr>
<tr>
<td>Distribution</td>
<td>2050 value/2010 value</td>
</tr>
<tr>
<td>Processing</td>
<td>6 X</td>
</tr>
<tr>
<td>Marketing</td>
<td>3 X</td>
</tr>
<tr>
<td>Farming</td>
<td></td>
</tr>
</tbody>
</table>

*Growth multiple* refers to the ratio of 2050 value to 2010 value.
By the end of this one-year period, the team will have produced and publicly posted the four outputs detailed below.

Output 1. Food System Dynamics in Africa and Consequent Skill Requirements in the Private and Public Sectors
Output 2. Models of University Engagement with Private and Public Sector Employers
Output 3. Existing Capacity of African Tertiary Education: Case studies of African universities with regional footprints
Output 4. Impact of past agricultural institution-building efforts in Africa

**Project Organization and Management**

**NEPAD coordination:**
- NEPAD Planning and Coordinating Agency
- Advisory Board: private agribusiness and agricultural technical institutions with strong interest in human capacity development

**Technical team:**
- Team Leader: Isaac Minde, MSU
- University of Pretoria/Stellenbosch, Faculty of Agriculture and Food Science (Sheryl Hendriks, Johan Kirsten, Ferdinand Meyer, Casper Madakadze, Lulama Traub, Johan van Rooyen)
- Michigan State University (MSU), Colleges of Agriculture and Natural Resources and Veterinary Medicine: (Steven Haggblade, John Kaneene, Isaac Minde, David Tschirley)
- Makerere University, Faculties of Agriculture and Veterinary Medicine: (Bernard Bashaasha, Francis Ejobi, Anthony Mugisha, Johnny Mugisha).

**Funding:** Phase I. IFAD: Eastern and Southern Africa