Rationale

Agri-food systems are complex and so are the problems that keep them from functioning optimally. Problems have different dimensions (e.g. biophysical, technological, institutional) that are embedded across multiple levels (e.g. farm, community, regional, national). Furthermore, multiple stakeholder groups are affected by the problem and involved in exploring solutions. In such a complex web of dimensions, levels and stakeholders, it is essential to identify entry points for innovation that have a high potential return on investments in terms of achieving development impact, and are supported by different stakeholder groups. RAAIS (Rapid Appraisal of Agricultural Innovation Systems) is a tool that can do this.
Identification of entry points for innovation are often based on pre-determined ideas of what may work best for farmers, the private sector, governments and other stakeholders. These groups are often not consulted during project design and setting AR4D agenda. This leads to only partial understanding of complex problems, or the implementation of activities that do not always respond well to the needs and interests of different stakeholder groups.

RAAIS forms a basis for participatory analysis of complex agricultural problems with different stakeholder groups. Facilitating a process of priority setting provides a basis for informed decisions on what types of research and development interventions can achieve maximum impact in a particular project or program. RAAIS takes into account time, financial and human resource constraints in projects when identifying entry points for innovation.

### Description

RAAIS is a scientific, peer-reviewed methodology that combines qualitative and quantitative data collection techniques (workshops, interviews, questionnaires, secondary data analysis). This allows for critical triangulation and validation of data. RAAIS facilitates interaction between different groups of stakeholders in identifying, analyzing and overcoming constraints in agricultural systems.

RAAIS provides:

1. Scientific analysis of constraints and opportunities for innovation in agri-food systems.
2. A coherent set of entry points for innovation that guide project/program implementation that are supported by stakeholders.
3. A joint baseline for assessing the performance of demand-driven AR4D processes in terms of responding to stakeholder needs, and impacts (see Brief 7).
4. A starting point for MSPs, for example through innovation platforms or learning alliances.

RAAIS provides project developers and implementers with a detailed toolkit to identify entry points for innovation to address complex agricultural problems in agri-food systems. It provides researchers with data on how agricultural problems cut across different dimensions, levels and stakeholder groups. It also provides data on what entry points are most feasible given the time, human and financial resource constraints in a project; which guides investment decisions. RAAIS visualizes relations between constraints faced by different stakeholder groups, which provides a basis for collective action.

RAAIS was developed and tested under the PARASITE program to identify and analyze opportunities for dealing with weeds in rice-based agri-food systems in Benin and Tanzania. RAAIS was further developed and modified for usage in the CGIAR Research Program on Integrated Systems for the Humid Topics (Humidtropics) and guided implementation of research for development (R4D).
activities in Burundi, Cameroon, China, Democratic Republic of Congo (DRC), Ghana, Nigeria and Rwanda (Figure 1). Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) adopted RAAIS to identify entry points for innovation to guide the implementation of their €12 million ‘One World No Hunger’ project in Zambia.

Requirements

RAAIS modules include:

- **RAAIS Lite**: Workshops, training of facilitators data analysis and reporting (US$5,000).
- **RAAIS Complete**: In-depth interviews, surveys and secondary data analysis to validate workshop outcomes and feasibility of entry points for innovation (additional US$15,000 per site including basic analysis and reporting).
- **RAAIS ToC**: Theory of Change (ToC) and participatory development of action plans for implementation of R4D interventions (additional US$5,000 per site).
- **RAAIS Monitoring, Evaluation and Learning (M&E&L)**: Ongoing reflection on implementation of action plans to ensure that outcomes and impacts are achieved (additional US$2,500 per reflection moment).

Combining the four RAAIS modules costs approximately US$25,000 per site: US$22,500 for initial identification of entry points for innovation, and US$2,500 for continued M&E&L. RAAIS Lite provides a good starting point, around which RAAIS modules can build.

**Figure 1: Countries where RAAIS has been used**

- PARASITE Program (Benin and Tanzania)
- Humidtropics (Burundi, Cameroon, China, DRC, Ghana, Nigeria and Rwanda)
- Other Projects (Burundi, Cambodia, DRC, Laos, Nicaragua, Uganda, Vietnam and Zambia)
Acknowledgments:

Capacity development (CapDev) has been identified in CGIAR’s Strategy and Results Framework (SRF) as a strategic enabler of impact for CGIAR and its partners. It goes far beyond the transfer of knowledge and skills through training, and cuts across multiple levels.

This CapDev brief is part of a series of ‘Legacy Products’ developed under the CGIAR Research Program on Integrated Systems for the Humid Tropics (Humidtropics – www.humidtropics.org) to help CGIAR Research Programs integrate key ‘capacity development in systems’ concepts into their work.

We would like to acknowledge Humidtropics and the CGIAR Fund Donors for their provision of core funding without which this work would not have been possible. For a list of Fund Donors please see: www.cgiar.org/who-we-are/cgiar-fund/fund-donors-2.

These CapDev briefs have been developed by representatives of the International Livestock Research Institute (ILRI), the International Institute for Tropical Agriculture (IITA), the International Center for Tropical Agriculture (CIAT), the Royal Tropical Institute (KIT), Wageningen University (WUR), and the CGIAR System Management Office.

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References and resources to draw from:
- A peer reviewed research paper providing the conceptual framework of RAAIS: http://bit.ly/2eDkygT
- Peer reviewed research papers that apply RAAIS: