TERMS OF REFERENCE FOR CONSULTANCY SERVICES TO CONDUCT A STUDY ON ESTIMATING INVESTMENT IN INNOVATION FOR SUSTAINABLE AGRICULTURE INTENSIFICATION (SAI).

Title of assignment: Estimating investment in innovation for Sustainable Agriculture Intensification.

Summary:
The International Water Management Institute (IWMI), is contracting consultants on behalf of the international Commission on Sustainable Agriculture Intensification (CoSAI) to conduct a study on estimating investment in innovation for sustainable agriculture intensification (SAI). The study aims to review the recent flows of global public and private investment in agricultural innovation relevant to the Global South, develop a typology of the investments made and estimate how much of this investment promotes SAI. Here, the term ‘innovation’ includes institutional, policy and financial innovations as well as scientific and technological innovations. ‘SAI’ means the transformative changes in agriculture that are urgently required to meet rapidly-increasing global needs for affordable, nutritious, safe and healthy food, while protecting and improving the natural environment, and reducing poverty and social exclusion.

The study is expected to include several case studies which may be specific to countries, major international funders, or themes. The study will be presented to CoSAI Commissioners and other stakeholders as a basis for exploring opportunities for strengthening and reorienting investment in agricultural innovation to promote SAI.

Expected date for commencement of consulting services: 23 July 2020.

Place of assignment: The consultants will work from home. It is expected that the work will be mainly or entirely conducted online, due to the current Covid-19 pandemic.
Background and purpose:
The international Commission on Sustainable Agriculture Intensification (CoSAI) was set up to review investment in innovation for Sustainable Agriculture Intensification (SAI). By SAI, we mean the transformative changes in agriculture that are urgently required to meet rapidly-increasing global needs for affordable, nutritious, safe and healthy food, while protecting and improving the natural environment, and reducing poverty and social exclusion. These are formidable challenges, and it is widely agreed that a major step up in innovations (scientific, technological, institutional, policy and financial) is needed.

The purpose of the study is to review current patterns of investment\textsuperscript{1} in agricultural innovation\textsuperscript{2} for the Global South\textsuperscript{3}, and estimate to what degree such investment promotes SAI or otherwise. The results of the study will be used by CoSAI and partners as a basis for exploring opportunities and making recommendations for strengthening and reorienting investment in agricultural innovation for SAI.

Management and oversight:
CoSAI was initiated and is supported by the CGIAR Research Program on Water Land and Ecosystems (WLE). The study will be managed by the Secretariat of CoSAI, which is based at the headquarters of IWMI in Colombo, Sri Lanka. The consultants will report to Dr Julia Compton, Head of Secretariat, CoSAI.

Oversight of the study will be carried out by a subgroup of CoSAI (the ‘Oversight Group’), comprising the CoSAI Chair and Head of Secretariat and volunteer CoSAI Commissioners. The Oversight Group will review the scope and approach proposed by the successful applicant, in particular in the inception phase; agree any changes in direction that may arise during implementation; and comment on emerging results and prepare draft reports. Final decisions will be communicated by the Secretariat.

Approach and methods:
Questions to be addressed:
1. What are the current patterns of investment in agricultural innovation for the Global South? How is investment allocated, for example (i) between the public and private sectors, and civil society? (ii) between international and national systems? (iii) between different types of funders? (iv) geographically, by country and agroecological region? and (v) by topic? (specific typology to be decided in the inception phase).

2. What proportion of the investment supports or promotes SAI? In what aspects and areas of work?

These questions are based mainly on the analysis of selected case studies.

\textsuperscript{1} The term investment (in innovation) is loosely used here to mean budgets and expenditure. Expenditure data are preferred, when available. Investments in facilities and permanent staff are an important underlying factor, but not the focus of this study.

\textsuperscript{2} For CoSAI, drawing on FAO (2018, p.5), agricultural innovation means: the formal and informal development, and introduction and adoption of new ways of doing things by farmers and others involved in the food system. CoSAI will address innovation in four main areas: science and technology, institutions, finance and policies.

\textsuperscript{3} The term Global South as used here includes Asia (with the exception of Japan, Singapore, and South Korea), Central America, South America, Mexico, Africa, and the Middle East (with the exception of Israel). Current World Bank classification of low- and middle-income countries is available at http://databank.worldbank.org/data/download/site-content/CLASS.xls (accessed on April 26, 2020).
3. What lessons can be learned from the literature review and case studies conducted about the constraints to and opportunities for better-targeted investment in agricultural innovation for SAI? The discussion should draw on literature on the political economy of research and innovation as well as any findings arising from this study. The above questions will be refined, if needed, during the inception phase, taking into account the agreed scope of work and any limitations on data.

**Scope:**

Preliminary scope:

1. Investment in innovation that directly or closely affects agricultural production or production decisions. For example, the study should include investment in digital innovation in agriculture and agricultural extension, but exclude broader investment in digital innovation.
2. Investment in innovation that is directly intended for the Global South. This may come from national or international bodies, the private sector, producers’ associations or other nongovernmental entities. This excludes, for example, upstream research with a global focus, although it may be relevant to the Global South.
3. Investment over the past 10 years (since 2010).
4. Investment by the public and private sectors, and civil society organizations.

Innovation is likely to include the following:

1. Investment in agricultural research and development (including natural resource management).
2. Investment in alternative approaches to technological innovation, e.g., innovation platforms, prizes, grants and incubators, advance market commitments.
3. Investment in innovation in agricultural extension, advisory services and capacity building.
4. Investment in innovation in agricultural and rural policy affecting production decisions, including input and output markets.
5. Investment in innovation in financial instruments and approaches.
6. **Science and innovation policy** relevant to agriculture and food systems.

The final scope of the study will be agreed at the end of the inception phase, taking into account any constraints identified in the inception report.

**Design and methods:**

The consultant will refine the approach to the study in the inception phase. The final approach, tools, methods, schedule, deliverables and budget will be determined in agreement with the Oversight Group.

It is foreseen that the research will have three main components, as outlined below:

---

4 A few studies have specifically looked at the political economy of research decisions in relation to agroecology (e.g., Vanloqueren and Baret 2009; Biovision and IPES-Food Forthcoming).
1. Secondary research to synthesize information from available studies and data on global investment and support to research and innovation related to the Global South, including development of a typology of investments in innovation.

2. A pilot case study covering research and innovation of CGIAR (including its partners in innovation).

3. A minimum of four main case studies, which may include countries (at least two), themes and international funding agencies (at least one).

The main approach is expected to be secondary analysis of existing data sources, together with online surveys, interviews and workshops as outlined in the EOI. It is unlikely that the current global situation with the Covid-19 pandemic will permit face-to-face workshops and interviews during the period of this study. However, if the situation and remaining funding permits, this can be discussed it may be possible to arrange some face-to-face discussions of emerging results (e.g., for country-specific case studies) towards the end of the study period, subject to approval from the Oversight Group.

Case studies:
The case studies may include investment in agricultural innovation with a specific focus on the following:

- Individual countries from the Global South.
- Major funders – multilateral, bilateral and large philanthropic organizations, or private sector actors investing in research and innovation.
- Specific themes: for example, sustainable protein or water-use efficiency.

The selection of case studies will be governed by a set of criteria, which will be agreed between the consultants and the Oversight Group in the inception phase. Below are three important criteria:

- Interest and support for the study in the country or organization(s) considered.
- Availability of data.
- Potential for lessons relevant to others – in particular, positive lessons about integrating SAI principles into investment for innovation.

Other criteria which have been suggested and can be considered (along with others) include the following:

For countries:

- Country size (large).
- Dependence/lack of dependence on external aid for funding innovation.
- Agricultural stage of development / Total factor productivity.
- Geographical diversity.

For funders:

- Existence of independent evaluation and impact assessments.
- Relevance to other funders.

---

5 An initial CGIAR case study could provide an opportunity to pilot some of the methods and approaches. However, data availability for this pilot is still in the process of being confirmed.
Within country and thematic case studies, all possible sources of investment and science/innovation policy should be considered (taking into account data availability), including government, private sector, farmers’ and trade associations, and civil society (excluding small projects).

**Framework of analysis for relevance to SAI:**

For the case studies, CoSAI anticipates that the consultants will analyze data on individual investments, categorize them according to the agreed typology of investments developed during the literature review, and use an agreed framework and metrics to identify the degree to which different aspects of SAI are covered in each investment category examined. The typology and framework will be agreed between the consultants and the Oversight Group during the inception phase.

CoSAI has a broad vision of SAI that encompasses the following objectives:

- Increased availability and broad access to affordable, nutritious, safe and healthy food.
- Improved productivity, efficiency of resource use, and reduced pollution, loss and waste.
- Improved environment (e.g., biodiversity, and soil and water quality). This includes mitigation of climate change and promotion of the ‘One Health’ approach.
- Reduced poverty and increased resilience of livelihoods.
- Improved social inclusion.
- Different levels of analysis: beyond farms to landscapes and food systems (where directly relevant to agricultural production or production decisions).

The framework used for the analysis of relevance to SAI should cover these various aspects. Two potential frameworks to consider/adapt are those used by Musumba et al. (2017) and Biovision (2019).

**Outputs:**

The consultants are expected to produce the following outputs:

1. An inception report in which the consultants outline the aims of the study, scope and definitions; initial typology of investments; frameworks and metrics; proposed approach and case studies; a work plan and budget; a list of critical documents and people to contact; and any remaining areas of uncertainty that need to be resolved during the pilot case study (timing: approximately 2 months after issuing of the consultancy contract).

2. Case study reports (timing: as agreed in the inception phase).

3. A report on the methodology for conducting case studies, in sufficient detail to be used by other researchers (timing: as agreed in the inception phase).

4. Draft and final reports that include answers to the questions to address (see section Approach and methods) at the agreed level of detail and quality, and a stand-alone executive summary. Length and presentation format will be agreed in the inception phase (timing: approximately 10 months after issuing of the consultancy contract).

---

6 These may be, for example, investment projects or research or innovation grants.
5. A database of funding flows (both global and for individual case studies) that underpins the reports. The format and content for this will be agreed in the inception phase. An early version should be shared with the Oversight Group for comments.

6. Communication products, as agreed in the inception phase. These are likely to include: (a) online presentations on the case studies and the final report, made to organizations/entities involved in the case studies and other relevant stakeholders, as well as the CoSAI Commissioners; and (b) content for a blog(s) on the CoSAI website to report the study process and key findings.

**Quality assurance:**
The consultants will be responsible for assuring the quality of the study data to ensure that the figures stated are reliable, estimates and projections are credible, and that any potential limitations of data or calculations used are clearly highlighted. The Oversight Group will discuss and agree expected criteria for quality with the successful applicant in the inception phase, and will oversee the quality of each output.

**Budget and staffing:**
Lump-sum payments will be made against agreed deliverables related to the outputs. A table of deliverables is in Annex 1. This may be revised after the inception phase, within the total agreed budget.

The CoSAI Secretariat will provide one intern/ Research Analyst (RA) (MSc in Agricultural Economics) to work on an up-to-full-time basis (as agreed) with the consultants during the period of the study. Specific tasks and other details regarding the RA’s involvement will be agreed during the inception stage.

The consultants are expected to arrange research partners in case study country(ies) as required (to be agreed during the inception phase).

**Start-up:**
The study will commence as soon as possible after issuing the contract. This is expected to be 23 July 2020. The kick-off meeting with the Oversight Group is expected to be 23 July 2020.
Bibliography

Some relevant studies are listed below for consideration.


## Annex 1 Schedule of deliverables

<table>
<thead>
<tr>
<th>Deliverable(s)</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kickoff Meeting</td>
<td>31 July</td>
</tr>
<tr>
<td>Inception report (final)</td>
<td>31 August</td>
</tr>
<tr>
<td>Draft global estimate model, data folder + 2 case studies (draft)</td>
<td>15 October</td>
</tr>
<tr>
<td>Full set of draft submissions (executive summary, model, report, 5 case studies)</td>
<td>15 November</td>
</tr>
<tr>
<td>Final submissions (executive summary, model, report, 5 case studies, data folder)</td>
<td>15 December</td>
</tr>
</tbody>
</table>