SPIA evidence, new workplan and panel member nominations

Travis Lybbert
Chair, Standing Panel on Impact Assessment
Professor, Ag & Resource Economics, UC Davis

20th CGIAR System Council Meeting, 13 June 2024
Overview

Based on insights from the 2020 “Shining a Brighter Light” Ethiopia report, funders requested an expansion of SPIA Country Studies. At SC18, System Council approved a new operational model and expanded workplan for SPIA corresponding to this request.

Today:

1. Wrapping up the 2019–2024 workplan
   a) Ethiopia country study: from static ‘reach’ to adoption dynamics
   b) Causal impact evidence: child growth impacts of OFSP in Uganda
   c) Use of evidence: SPIA Fest, 2 Aug 2024 in Delhi as ICAE pre-conference

2. Action requested: Nomination/renewal of SPIA panel members

3. Funding update for SPIA’s SC-approved workplan and model
1. Wrapping up the 2019–2024 workplan
Country studies

What is a SPIA country study?

Reliable estimates of CGIAR reach at system level

- Systematic, comprehensive with \((\text{country} \times \text{CGIAR})\) scope
- Country-level studies in CGIAR priority countries
  - \textbf{Stock take} of all CGIAR-related innovations and policy influences and their documented scaling
  - Measures built into \textit{national representative panel surveys} to provide an initial estimation of reach
  - Towards 2030: Follow-up on \textbf{dynamic changes}, and incorporate innovations from the new portfolio
- System-level evidence in countries with largest CGIAR footprint
SPIA country studies

Ethiopia

From static ‘reach’ to adoption dynamics

2020 report:

• Key innovations from each domain of research (crop improvement, natural resource management, livestock) had scaled
• Many seemingly promising innovations had not scaled

2024 report (forthcoming):

• We measure adoption by the SAME households
• Notable shocks between the two waves of data collection (2018/19 to 2021/22): COVID-19, violent conflict, drought
Dynamic change in estimated reach of innovations
(in millions of rural households)

Lighter shade: 2018/19
Darker shade: 2021/22

Note: Calculation based on logitudinal weights. For Chickpea Kabuli varieties, comparison is between 2015/16 (ESS3) and 2021/22 (ESS5)
Maize DNA: Panel insights

Steady expansion of improved maize and DT maize in particular

**Maize DNA**

<table>
<thead>
<tr>
<th>Household</th>
<th>Village</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drought tolerant maize</td>
<td>Maize - CG germplasm</td>
</tr>
<tr>
<td>2018/19</td>
<td>2021/22</td>
</tr>
<tr>
<td>23.7</td>
<td>75.1</td>
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<tr>
<td>39.6</td>
<td>62.2</td>
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</tbody>
</table>

Only panel sample used. Percent at the household level are weighted sample means using panel weights.
Maize DNA: Panel insights

Steady expansion of improved maize and DT maize in particular

Drought Tolerant Maize (DNA data)

- Wave 4
- Wave 5

Percent at the household level are weighted sample means. Number of observations in parenthesis.
Maize DNA: Panel insights

Steady expansion of improved maize and DT maize in particular

Drought Tolerant Maize (DNA data)

Percent at the household level are weighted sample means.
Number of observations in parenthesis.
Maize DNA: Panel insights

Large decline in genetic purity for both Hybrid and OPV

Decline in genetic purity independent of the source of seed

Sample only includes panel households with DNAFP and CG-germplasm.
Dynamic change in estimated reach of innovations (in millions of rural households)

Lighter shade: 2018/19
Darker shade: 2021/22

Adoption dynamics as springboard for ‘Scaling Stories’

Note: Calculation based on longitudinal weights. For Chickpea Kabuli varieties, comparison is between 2015/16 (ESS3) and 2021/22 (ESS5)
Emerging ‘Scaling Stories’

Taking off

Improved forages

From strength to strength

Improved maize
Crossbred chicken

Fading away

Kabuli chickpea
Emerging ‘Scaling Stories’: Taking off

Improved forages

ILRI’s genebank has been a provider of high-quality forage germplasm in Ethiopia since 1983 – distributing species to private sector, NGOs, government

Elephant grass, Sesbaniya, Alfalfa & Rhodes grasses (promoted by AfricaRising): Number of animal-owning HHs reporting their use quadrupled (from 2.2% in 2018/19 to 9% 2021/22)

Concentrated in Ethiopia’s lowland areas where semi- or full pastoralist livelihoods dominate
Spatial expansion of improved forage adoption

2018/19

2021/22
Emerging ‘Scaling Stories’: Taking off

**Improved forages**

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CGIAR projects kick-started investment by the private sector (e.g. Eden Field Agri-seed and the Ethiopian Seed Enterprise)

*Anatoli Animal Forge and Plant Seed Supply Enterprise*

2018/19: **30** farmers doing seed multiplication

2023: **250** farmers doing seed multiplication
Emerging ‘Scaling Stories’: Strength\(^2\)

**Improved maize**

Unique dataset sheds light on farmer behavior
- 20% of households switch non-CGIAR to CGIAR varieties
- 6% make the opposite switch
- 36% of farmers switched to a more recently-released variety
- 18% of farmers switched to an older variety
- Average of maize varieties on farmers’ fields is still ~20 years

Some more recent breeding improvements not detected
- No evidence of quality protein maize (QPM) varieties on farmers’ fields

Candidate explanations:
- Government distribution of specific varieties in 2020/21
- Farmers adopting based on recent drought experiences
Emerging ‘Scaling Stories’

Taking off
- Improved forages

From strength to strength
- Improved maize
- Crossbred chicken

Fading away
- Kabuli chickpea
Causal impact evidence:

Orange-fleshed sweetpotato, Uganda

**Child growth impacts of long-term large-scale dissemination of orange-fleshed sweetpotato**

- Harvest+ dissemination for more than 10 years
- SPIA country study shows challenges to sustain adoption

**Causal Impact Study**
- Reconstructing dissemination efforts → sticky note map
- Used dissemination rollout and DHS data to test impacts on child growth outcomes

**Results**
- Exposure to OFSP distribution during the first 2 years of childhood leads to improved growth outcomes
Assessing the impacts of international agricultural research: New methods, rigorous evidence, better decisions

2 August 2024 | New Delhi, India
NASC Complex

# SPIAFest
<table>
<thead>
<tr>
<th>Strategies to overcoming constraints to adoption</th>
<th>Long-term large-scale impacts of agricultural innovations</th>
<th>Ethiopia: A country-level approach</th>
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</thead>
<tbody>
<tr>
<td>• Susan Godlonton (Williams College)</td>
<td>• Karl Hughes (ICRAF)</td>
<td>• Frederic Kosmowski (SPIA)</td>
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<tr>
<td>• Shilpa Aggarwal (Indian School of Business)</td>
<td>• Jeffrey Michler (University of Arizona)</td>
<td>• Karen Macours (Paris School of Economics)</td>
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<td>• Rachid Laajaj (University de los Andes)</td>
<td>• Joel Ferguson (UC Berkeley)</td>
<td>• James Stevensson (SPIA)</td>
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<td>• Johanne Pelletier (SPIA)</td>
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<td>Targeting agricultural technology for impact</td>
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<td>Uganda: A country-level approach</td>
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<td>• Ujjayant Chakravorty (Tufts University)</td>
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<td>• Julius Okello (CIP)</td>
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<td>• John Ashton Loeser (World Bank)</td>
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<td>• John Ilukor (World Bank/SPIA)</td>
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<td>• Mai Mahmoud (Tufts University)</td>
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<td>• Enid Katungi (Alliance of Bioversity International and CIAT)</td>
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<td>Environmental impacts of intensification</td>
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<td>Vietnam: A country-level approach</td>
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<td>• Dilini Abeygunawardene (IAMO)</td>
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<td>• Frederic Kosmowski (SPIA)</td>
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<td>• Vijesh Krishna (CIMMYT)</td>
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<td>• Thao Bach (UC Davis)</td>
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<td>• Christopher Barrett (Cornell University)</td>
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<td>• Le, Dung Phuong (Wageningen University /Alliance of Bioversity International and CIAT)</td>
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<td>Agricultural mechanization</td>
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<tr>
<td>• Kanika Mahajan (Ashoka University)</td>
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<td>• Nedumaran Swamikannu (ICRISAT)</td>
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<tr>
<td>• Travis Lybbert (UC Davis/SPIA)</td>
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<td>Plenary Keynote:</td>
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<td>• Douglas Gollin (Tufts University)</td>
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<td>Panel Discussion: Mapping rigorous methods into impactful decisions: Interpretation and use of evidence in agri-food policy</td>
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<tr>
<td>• Jo Puri (IFAD)</td>
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<td>• Johan Swinnen (CGIAR)</td>
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<td>• Maximo Torero (FAO)</td>
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<td>• Prabhu Pingali (Cornell / ICRISAT)</td>
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<td>• J V Meenakshi (Indraprastha Institute of Information Technology, former SPIA Panel member)</td>
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Science Talk: Documenting the reach and impacts of CGIAR related innovations, New approaches and emerging evidence from the Standing Panel on Impact Assessment research portfolio

A CGIAR SCIENCE WEEK SCIENCE TALK

DATE
05.07.24

TIME
02:30 pm > 04:00 pm

LOCATION
United Nations, Conference
2. Panel member renewals and nominations
New panel member nominations

Jennifer Burney, UC San Diego
- PhD in Physics
- Established expertise in remote sensing and earth observation

Susan Godlonton, Williams College/University of Cape Town
- Extensive experience in economics of development, health and labor
- Institutional connections with the Sub-Saharan Africa region

Jenny Aker, Tufts (Cornell) University/Wageningen
- Strong impact assessment expertise, including ICTs and agriculture
- Broad network from her collaborations with CGIAR researchers, NGOs and funders

Renewing
- Sujata Visaria (City, University of London)
- Monica Biradavolu (QualAnalytics)

Continuing
- Kyle Emerick (Tufts)
- Rachid Laajaj (Los Andes)
- Travis Lybbert (UC Davis)
Identifying panel members from global south

Expressions of interest for SPIA country studies expanded the pool

- Four (male) candidates identified:
  - A nutritionist from a university in East Africa
  - An East African economist based at a university in Scandinavia
  - A South Asian economist based at a university in Australia
  - An economist from a university in West Africa

- Nominations paused while proposals for country studies under review
- Aim to nominate 2–3 additional panel members by Nov 2024

Target full panel size: 9 total members (down from 12–13 approved by SC18)
Action requested

As SIMEC endorsed, we request System Council to consider/approve:

• Extension of **Dr. Sujata Visaria** and **Dr. Monica Biradavolu** as SPIA Members for a second 3 year term effective 1 July 2024

• Appointment of **Dr. Jennifer Burney**, **Dr. Susan Godlonton** and **Dr. Jenny Aker** as SPIA Members for 3 year term from 1 July 2024
3. Funding update for SPIA’s SC-approved workplan and model
On 12 May 2023, at SC18, System Council took the following decisions (SC/M18/DP3):

1. Approved Scenario 1 of the new operational model, workplan, and committed multi-year budget (2023–2030) of SPIA, pursuant to paragraph 6.6 of the SPIA terms of reference.

2. Authorized SPIA to receive additional budget allocations through a flexible funding mechanism to supplement pooled funding for the committed multi-year budgets.
Funding the SPIA workplan and model 2023 – 2030

- Initial budget (2023–2030) approved by SC in May 2023 (SC/M18/DP3): $49,492,430
- Cuts, adjustments & shifting Egypt from to stocktake only - Revised budget: $45,479,864

<table>
<thead>
<tr>
<th>SPIA Objectives</th>
<th>Budget 2023 - 2030 (in $)</th>
<th>Original SC approved budget</th>
<th>Adjusted budget w/ cuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Institutionalizing and scaling country-level data on CGIAR reach</td>
<td>32,859,400</td>
<td>29,350,645</td>
<td></td>
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<tr>
<td>2. Expanding and deepening evidence of causal impacts of CGIAR research</td>
<td>9,023,600</td>
<td>9,084,169</td>
<td></td>
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<tr>
<td>3. Strengthening the use of rigorous impact evidence</td>
<td>3,204,200</td>
<td>3,104,200</td>
<td></td>
</tr>
<tr>
<td>4. Program Management</td>
<td>2,442,000</td>
<td>2,187,981</td>
<td></td>
</tr>
<tr>
<td>0. CGIAR Overheads and Hosting Costs</td>
<td>1,963,230</td>
<td>1,752,870</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>49,492,430</td>
<td>45,479,865</td>
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</table>

- Aim to sign contracts with research teams Aug–Dec: 3 year renewable agreements
- Contingent on other funders stepping up, BMGF willing to fund: $6,000,000
- Funding gap to be filled by Pooled (and Bilateral) funds: $39,479,864

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget 2023-2030</th>
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<tbody>
<tr>
<td>2024</td>
<td>$1.9M</td>
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<tr>
<td>2025</td>
<td>$7.1M</td>
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<tr>
<td>2026</td>
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<tr>
<td>2027</td>
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<td>2028</td>
<td>$7.5M</td>
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<td>2029</td>
<td>$6.0M</td>
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<tr>
<td>2030</td>
<td>$5.7M</td>
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Thank you