Evaluation synthesis: Technical Innovations for Rural Poverty Reduction

107th Session of the Evaluation Committee, 29 October 2019
Global environmental, climate and population challenges present threats to freedom from hunger;

Innovation is a major source of improved productivity and economic growth;

Agenda 2030 - innovation as a cross-cutting element directly relevant to SDGs 1, 2 and contributing to others;

Mainstreamed in IFAD’s policies and strategies - recognised in support for social engineering and institutional arrangements - less is known about technical change;
IFAD’s definition is broad:

A process that adds value or solves a problem in new ways

Technical innovation is the introduction of an idea, practice or object - perceived by an individual or other entity as new or improved.
Number of interventions per technical innovation

- Crop types
- Livestock
- Crop management
- Post-harvest/processing
- Land Mgmt Practices
- Fertilisers/chemicals
- Energy
- Water
- Fisheries
- Seeds
- Other
- Forestry
- Agricultural tools
## Change Typology

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
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<tr>
<td><strong>Productivity enhancement</strong></td>
<td>• Improve returns to land, labor and capital</td>
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<td>• Incremental changes to the farm business</td>
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<td></td>
<td>• Low risk</td>
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<td><strong>Transformative change</strong></td>
<td>• Major change, new enterprise, radically different way of farming</td>
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<td></td>
<td>• Higher risk</td>
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<td><strong>Asset strengthening</strong></td>
<td>• Change capital assets and thereby affect the resources</td>
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<td><strong>Beneficiary health enhancing</strong></td>
<td>• Aimed at reducing drudgery and health</td>
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<td>• Domestic and production level</td>
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• Examples of targeting poorer farmers and women, but most innovations are not specifically targeted;

• Partnerships are important for delivery
  - research entities for crop and livestock enhancements;
  - private sector oriented towards cash crops and product processing;

• Grants play a role in piloting, dissemination and knowledge management in a third of evaluations reviewed.
Effectiveness

• **Most innovations** aim to enhance **productivity** (56%);

  • Innovations focus on lower risk changes to productivity through:
    
    i) New or improved varieties of locally grown crops;
    
    ii) A package of improvements dealing with their management, seeds, use of fertilisers and chemicals, and often water supplies;
    
    iii) Livestock health and husbandry.

• Positive uptake: low-cost, low-input and low tech, accompanied by extension and enabling factors such as access to water and land.
Transformative change

• Positive impact on incomes from transformative diversification - bringing new opportunities but also new risks.
• Innovations improving use of water succeed where technology is low cost and materials readily available.
• Innovations in plant varieties and land management can benefit soil and water conservation and illustrate scope for adaptation to climate change.
  - Fodder plants and trees for grazing and erosion control combined with improved soil structure and fertility;
  - Water harvesting and infiltration can lengthen growing seasons and enable more diverse cropping.
Natural Resource Management & Climate Change

- Transformative innovations have potential to help adaptation – but only 15% of innovations had a positive effect;
- Actual or potential negative environmental outcomes requires careful monitoring.

Women’s empowerment and gender equality

- Water related innovations showed highest success ratio;
- Eco-efficient stoves can be important labour saving technologies with added health benefits.
Key factors for Sustainability

• **Affordability** and **local availability** of the technology as well as **low operation and maintenance costs** both in terms of finance and labour;

• **Long term partnerships** enduring beyond the duration of single projects;

• The **private sector** can fill in gaps where government support is weak;

• Transferring **technical skills** to **local people** and payment for services can help (e.g. artificial insemination, animal health).
Overall conclusions

• **Most technical innovations enhance productivity.** They are **low risk** and well suited to the needs of smallholders.

• **A smaller number** of innovations are transformative - more **risky** and requiring higher investments in resources and knowledge.

• **Impact** tends to come from a **package of innovation** measures, not a single element.

• IFAD’s **portfolio** is very **diverse** with innovations responding to local context and needs – this is a challenge for scaling up.
1. **Enhance focus on transformative practices** within IFAD’s approach to technical innovation while continuing to promote low risk improvements to productivity for the majority of poor smallholder farmers.

2. Systematically **monitor, evaluate and learn** from innovations.

3. Use the forthcoming CLE to explore **IFAD's readiness to promote transformative innovations**.