

Towards a food secure  
future: Lessons from  
CIFSRF and beyond Final  
event report annexes

October 2-4, 2018 - Ottawa, Canada

# Table of contents

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Table of contents.....	1
Annex 1. Agenda .....	2
Annex 2: Roundtable discussions feedback.....	6
Session 1: Sustainable Agricultural Production .....	6
Session 2: Nutrition and Health Outcomes.....	7
Session 3: Market Access and Income.....	9
Session 4: Collaborative Partnerships .....	10
Session 5: Scaling up innovations for impact .....	11
Session 6: Gender equality in agriculture and food security .....	12
Annex 3. Projects posters .....	13
Annex 4. Communications products for the event .....	51
Annex 5. Evaluation responses .....	64
Overall survey results .....	64
Survey comments.....	76
Annex 6. Select photos from the event .....	103
VIP event.....	103
Main event.....	104
Market place exhibit.....	105
Photo booth.....	106
iQiosk .....	107

# Annex 1. Agenda

## AGENDA Towards a food secure future: Lessons from CFSRF and beyond

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International Development Research Centre  
Centre de recherches pour le développement international

Canada

## Wednesday, October 3, 2018

8:30 – 9:00	Registration		
9:00 – 10:30	<p><b>Official welcome and CFSRF's story</b> Kamal Khera, Parliamentary Secretary to the Minister of International Development Jean Label, President of IDRC Dominique Charron, Director, Agriculture and Environment, IDRC</p> <p><b>Masters of Ceremony:</b> Renaud De Plaen, Program leader for CFSRF and Agriculture and Food Security, IDRC Frank Schneider, Deputy director, Environment and Climate Action, Global Affairs Canada</p>		
10:30 – 10:40	Break		
10:40 – 12:00	<p><b>Session 1: Sustainable agricultural production</b> <b>Facilitator:</b> Innocent Butare, CFSRF Senior program specialist, IDRC</p> <table border="0"> <tr> <td> <p><b>CFSRF project experts:</b> Roshan Pudasani, former Principal Investigator (Nepal, Sustainable Agriculture Kits) Alfred Kojo Yeboah, former Project coordinator (Ghana, ICT extension services) David Wallace, former Principal Investigator (South Africa, livestock vaccine)</p> </td> <td> <p><b>Panel Experts:</b> Isabelle Vandeplas, Program development officer, CECI Etienne Hainzelin, President's advisor, CIRAD</p> </td> </tr> </table>	<p><b>CFSRF project experts:</b> Roshan Pudasani, former Principal Investigator (Nepal, Sustainable Agriculture Kits) Alfred Kojo Yeboah, former Project coordinator (Ghana, ICT extension services) David Wallace, former Principal Investigator (South Africa, livestock vaccine)</p>	<p><b>Panel Experts:</b> Isabelle Vandeplas, Program development officer, CECI Etienne Hainzelin, President's advisor, CIRAD</p>
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12:00 – 12:15	<p><b>In our words: A farmer's perspective</b> Sao Tha from Trameng village, Cambodia (homestead food production)</p>		
12:15 – 13:00	Lunch		
13:00 – 14:20	<p><b>Session 2: Nutrition and health outcomes</b> <b>Facilitator:</b> Annie Wesley, CFSRF Senior program specialist, IDRC</p> <table border="0"> <tr> <td> <p><b>CFSRF project experts:</b> Sue Horton, former Principal Investigator (Tanzania, fortified oil) Nguyen Do Huy, former Principal Investigator (Vietnam, food processing) Teresa Mosquera, former Principal Investigator (Colombia, potatoes)</p> </td> <td> <p><b>Panel experts:</b> Paula Tenaglia, Director of Operations, Action Against Hunger Lynette Neufeld, Director, Knowledge Leadership, Global Alliance for Improved Nutrition</p> </td> </tr> </table>	<p><b>CFSRF project experts:</b> Sue Horton, former Principal Investigator (Tanzania, fortified oil) Nguyen Do Huy, former Principal Investigator (Vietnam, food processing) Teresa Mosquera, former Principal Investigator (Colombia, potatoes)</p>	<p><b>Panel experts:</b> Paula Tenaglia, Director of Operations, Action Against Hunger Lynette Neufeld, Director, Knowledge Leadership, Global Alliance for Improved Nutrition</p>
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14:20 – 14:30	<p><b>In our words: An emerging researcher's perspective</b> Alejandra Álvarez, Researcher from Colombia (potatoes)</p>		
14:30 – 14:50	Break		
14:50 – 15:05	<p><b>In our words: A farmer's perspective</b> Ana Aguilera Paticu from Yapacani, Bolivia (fish for food)</p>		
15:05 – 16:25	<p><b>Session 3: Market access and income for small-scale farmers</b> <b>Facilitator:</b> Marwan Owaygen, Senior program specialist, IDRC</p> <table border="0"> <tr> <td> <p><b>CFSRF project experts:</b> Gregor Reid, former Principal Investigator (Africa, fermented foods) Karthikeyan Muniappan, former Principal Investigator (India, small millets) Clement Adebooye, former Principal Investigator (West Africa, fertilizer micro-dosing)</p> </td> <td> <p><b>Panel experts:</b> Anne Mbaabu, Director, Market access program, AGRA Gifty Blekpe, Women's empowerment program coordinator, CARE Ghana</p> </td> </tr> </table>	<p><b>CFSRF project experts:</b> Gregor Reid, former Principal Investigator (Africa, fermented foods) Karthikeyan Muniappan, former Principal Investigator (India, small millets) Clement Adebooye, former Principal Investigator (West Africa, fertilizer micro-dosing)</p>	<p><b>Panel experts:</b> Anne Mbaabu, Director, Market access program, AGRA Gifty Blekpe, Women's empowerment program coordinator, CARE Ghana</p>
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16:25 – 17:00	<p><b>Closing remarks</b> Renaud De Plaen, Program leader for CFSRF and Agriculture and Food Security, IDRC Frank Schneider, Deputy Director, Environment and Climate Action, Global Affairs Canada</p>		

# AGENDA

## Towards a food secure future: Lessons from CIFS RF and beyond

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## Thursday, October 4, 2018

8:30 – 9:00	Registration		
9:00 – 9:30	<p><b>Welcoming remarks</b> Santiago Alba Corral, Associate director, Agriculture and Food Security, IDRC</p> <p><b>Masters of Ceremony:</b> Renaud De Plaen, Program leader for CIFS RF and Agriculture and Food Security, IDRC Frank Schneider, Deputy Director, Environment and Climate Action, Global Affairs Canada</p>		
9:30 – 10:50	<p><b>Session 4: Collaborative Partnerships</b> <b>Facilitator:</b> Wendy Manchur, CIFS RF program officer, IDRC</p> <table border="0"> <tr> <td> <p><b>CIFS RF project experts:</b> Hortense Atta Diallo, former Principal investigator (Ivory Coast, coconut) Andrew Potter, former Principal investigator (Kenya, CBPP vaccine) Jayasankar Subramanian, former Principal investigator (India, Kenya, Sri Lanka, Tanzania, Trinidad and Tobago, nanotechnology)</p> </td> <td> <p><b>Panel Experts:</b> Anne Gaboury, President and CEO, Développement international Desjardins Ignacia Fernandez, Executive director, RIMISP</p> </td> </tr> </table>	<p><b>CIFS RF project experts:</b> Hortense Atta Diallo, former Principal investigator (Ivory Coast, coconut) Andrew Potter, former Principal investigator (Kenya, CBPP vaccine) Jayasankar Subramanian, former Principal investigator (India, Kenya, Sri Lanka, Tanzania, Trinidad and Tobago, nanotechnology)</p>	<p><b>Panel Experts:</b> Anne Gaboury, President and CEO, Développement international Desjardins Ignacia Fernandez, Executive director, RIMISP</p>
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10:50 – 11:00	Break		
11:00 – 11:10	<p><b>In our words: An emerging researcher's perspective</b> Hussien Mohammed Beshir, Researcher from Ethiopia (pulses)</p>		
11:10 – 12:10	Exhibition and Marketplace		
12:10 – 13:10	Lunch		
13:10 – 13:25	<p><b>In our words: A farmer's perspective</b> Viola Winnie Busingye from Uganda (fermented foods)</p>		
13:25 – 14:45	<p><b>Session 5: Scaling up innovations for impact</b> <b>Facilitator:</b> Marco Rondon, Senior program specialist, IDRC</p> <table border="0"> <tr> <td> <p><b>CIFS RF project experts:</b> Pierre Akponikpe, former Principal investigator (West Africa, fertilizer micro-dosing) Meena Jadhav, former State program manager (India, double fortified salt) Andrew Msolla, former Principal investigator (Tanzania, legumes)</p> </td> <td> <p><b>Panel experts:</b> Richard Kohl, Strategy and scale expert, CLSS Seerp Wigboldus, Senior advisor and researcher, Wageningen University Centre for Development Innovation</p> </td> </tr> </table>	<p><b>CIFS RF project experts:</b> Pierre Akponikpe, former Principal investigator (West Africa, fertilizer micro-dosing) Meena Jadhav, former State program manager (India, double fortified salt) Andrew Msolla, former Principal investigator (Tanzania, legumes)</p>	<p><b>Panel experts:</b> Richard Kohl, Strategy and scale expert, CLSS Seerp Wigboldus, Senior advisor and researcher, Wageningen University Centre for Development Innovation</p>
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14:45 – 15:00	Break		
15:00 – 15:10	<p><b>In our words: An emerging researcher's perspective</b> Crystal Karakochuk from Nepal (Sustainable Agriculture Kits)</p>		
15:10 – 16:30	<p><b>Session 6: Gender equality in agriculture and food security</b> <b>Facilitator:</b> Jemimah Njuki, Senior program specialist, IDRC</p> <table border="0"> <tr> <td> <p><b>CIFS RF project experts:</b> Ramona Ridolfi, Gender expert (Cambodia, homestead food production) Carol Henry, former Principal investigator (Ethiopia, pulses) Veronica Hinojosa, Gender expert (Bolivia, fish for food)</p> </td> <td> <p><b>Panel experts:</b> Franz Wong, Senior advisor, KIT Royal Tropical Institute Sonia Laszlo, Director of the Institute for the Study of International Development, McGill University Sophia Huyer, Gender and social inclusion research leader, CGIAR</p> </td> </tr> </table>	<p><b>CIFS RF project experts:</b> Ramona Ridolfi, Gender expert (Cambodia, homestead food production) Carol Henry, former Principal investigator (Ethiopia, pulses) Veronica Hinojosa, Gender expert (Bolivia, fish for food)</p>	<p><b>Panel experts:</b> Franz Wong, Senior advisor, KIT Royal Tropical Institute Sonia Laszlo, Director of the Institute for the Study of International Development, McGill University Sophia Huyer, Gender and social inclusion research leader, CGIAR</p>
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16:30 – 17:00	<p><b>Reflections drawing from group discussion summaries</b> Santiago Alba Corral, Associate director, Agriculture and Food Security, IDRC</p> <p><b>Closing remarks:</b> Caroline Leclerc, Assistant Deputy Minister, Global Affairs Canada Dominique Charron, Director, Agriculture and Environment, IDRC</p>		

## PROGRAMME

### Vers la sécurité alimentaire : tirer des leçons du FCRSAI

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Canada

## Mercredi 3 octobre 2018

8 h 30 à 9 h 00 Inscription

9 h 00 à 10 h 30 **Mot de bienvenue et historique du programme FCRSAI**  
Kamal Khera, Secrétaire parlementaire de la ministre du Développement international  
Jean Lebel, Président du CRDI  
Dominique Charron, Directrice, Agriculture et Environnement, CRDI

**Maîtres de cérémonie :**

Renaud De Plaen, Chef de programme FCRSAI et d'Agriculture et sécurité alimentaire, CRDI  
Frank Schneider, Directeur adjoint, Environnement et action pour le climat, Affaires mondiales Canada

10 h 30 à 10 h 40 Pause

10 h 40 à 12 h 00 **Session 1 : Production agricole durable**  
**Animateur :** Innocent Butare, Spécialiste de programme principal FCRSAI, CRDI

**Experts des projets FCRSAI :**

Roshan Pudaisani, ancien Chargé de projet  
(Népal, trousseaux d'agriculture durable)  
Alfred Kojo Yeboah, ancien Chargé de projet  
(Ghana, services de vulgarisation TIC)  
David Wallace, ancien Chargé de projet  
(Afrique du Sud, vaccin pour le bétail)

**Experts du panel :**

Isabelle Vandeplas, Agente de développement  
du programme, CECI  
Etienne Hainzelin, Conseiller du président, CIRAD

12 h 00 à 12 h 15 **Notre point de vue : Agriculteurs**  
Sao Tha du village Trameng, Cambodge (production alimentaire familiale)

12 h 15 à 13 h 00 Dîner

13 h 00 à 14 h 20 **Session 2 : Résultats en matière de nutrition et de santé**  
**Animatrice :** Annie Wesley, Spécialiste de programme principal

**Experts des projets FCRSAI :**

Sue Horton, ancienne Chargée de projet  
(Tanzanie, huile fortifiée)  
Nguyen Do Huy, ancien Chargé de projet  
(Vietnam, préparation des aliments)  
Teresa Mosquera, ancienne Chargée de projet  
(Colombie, pommes de terre)

**Expertes du panel :**

Paula Tenaglia, Directrice des opérations,  
Action contre la faim  
Lynette Neufeld, Directrice, Leadership des  
connaissances, Global Alliance for Improved  
Nutrition

14 h 20 à 14 h 30 **Notre point de vue : chercheurs émergents**  
Alejandra Álvarez de Colombie (pommes de terre)

14 h 30 à 14 h 50 Pause

14 h 50 à 15 h 05 **Notre point de vue : agriculteur**  
Ana Aguilera Paticú de Yapacani, Bolivie (poisson pour la vie)

15 h 05 à 16 h 25 **Session 3 : Accès aux marchés et revenus des petits exploitants agricoles**  
**Animateur :** Marwan Owaygen, Spécialiste de programme principal, CRDI

**Experts des projets FCRSAI :**

Gregor Reid, ancien Chargé de projet  
(Afrique, aliments fermentés)  
Karthikeyan Muniappan, ancien Chargé de projet  
(Inde, petits millets)  
Clement Adebooye, ancien Chargé de projet  
(Afrique de l'Ouest, micro-dosage d'engrais)

**Expertes du panel :**

Anne Mbaabu, Directrice, Programme d'accès  
au marché, AGRA  
Gifty Blekpe, Coordinatrice du programme  
d'autonomisation des femmes,  
CARE Ghana

16 h 25 à 17 h 00 **Mot de la fin**  
Maîtres de cérémonie :  
Renaud De Plaen, Chef de programme FCRSAI et d'Agriculture et sécurité alimentaire, CRDI  
Frank Schneider, Directeur adjoint, Environnement et action pour le climat, Affaires mondiales Canada

# PROGRAMME

## Vers la sécurité alimentaire : tirer des leçons du FCRSAI

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#fcrsai



## Jeudi 4 octobre 2018

**8 h 30 à 9 h 00** Inscription

**9 h 00 à 9 h 30** **Mot de bienvenue**

Santiago Alba Corral, Directeur associé, Agriculture et sécurité alimentaire, CRDI

**Maitres de cérémonie :**

Renaud De Plaen, Chef de programme FCRSAI et de Agriculture et sécurité alimentaire, CRDI  
Frank Schneider, Directeur adjoint, Environnement et action pour le climat, Affaires mondiales Canada

**9 h 30 à 10 h 50** **Session 4 : Partenariats collaboratifs**

**Animatrice :** Wendy Manchur, Agente de programme FCRSAI, CRDI

**Experts des projets FCRSAI :**

Hortense Atta Diallo, ancienne Chargée de projet (Côte d'Ivoire, noix de coco)  
Andrew Potter, ancien Chargé de projet (Kenya, vaccin contre la pleuropneumonie contagieuse des bovins)  
Jayasankar Subramanian, ancien Chargé de projet (Inde, Kenya, Sri Lanka, Trinité et Tobago, Tanzanie, nanotechnologie)

**Expertes du panel :**

Anne Gaboury, Présidente et directrice générale, Développement international Desjardins  
Ignacia Fernandez, Directrice exécutive, RIMISP

**10 h 50 à 11 h 00** Pause

**11 h 00 à 11 h 10** **Notre point de vue : chercheurs émergents**

Hussien Mohammed Beshir, Chercheur d'Éthiopie (légumineuses)

**11 h 10 à 12 h 10** Marché du FCRSAI – Café mondial

**12 h 10 à 13 h 10** Dîner

**13 h 10 à 13 h 25** **Notre point de vue : agriculteurs**

Viola Winnie Busingye de Ouganda (aliments fermentés)

**13 h 25 à 14 h 45** **Session 5 : Applications à grande échelle des innovations en vue d'un impact accru**

**Animateur :** Marco Rondon, Spécialiste de programme principal, CRDI

**Experts des projets FCRSAI :**

Pierre Akponikpe, ancien Chargé de projet (Afrique de l'Ouest, micro-dosage d'engrais)  
Meena Jadhav, ancienne directrice du programme d'Etat (Inde, sel doublement enrichi)  
Andrew Msolla, ancien Chargé de projet (Tanzanie, légumes)

**Experts du panel :**

Richard Kohl, Expert en stratégie et échelle, CLSS  
Seerp Wigboldus, Conseiller principal et chercheur, Centre pour l'innovation en développement, Université Wageningen

**14 h 45 à 15 h 00** Pause

**15 h 00 à 15 h 10** **Notre point de vue : chercheurs émergents**

Crystal Karakochuk, Chercheur du Népal (trousses d'agriculture durable)

**15 h 10 à 16 h 30** **Session 6 : Égalité des sexes en agriculture et sécurité alimentaire**

**Animatrice :** Jemimah Njuki, Spécialiste de programme principal, CRDI

**Expertes des projets FCRSAI :**

Ramona Ridolfi, Experte en genre (Cambodge, production alimentaire familiale)  
Carol Henry, ancienne Chargée de projet (Éthiopie, légumineuses)  
Veronica Hinojosa, Experte en genre (Bolivie, poisson pour la vie)

**Experts du panel :**

Franz Wong, Conseiller principal, KIT Royal Tropical Institute  
Sonia Laszlo, Directrice de l'Institut pour l'étude du développement international, Université McGill  
Sophia Huyer, Responsable de la recherche sur le genre et l'inclusion sociale, CGIAR

**16 h 30 à 17 h 00** **Réflexions à partir des résumés des discussions de groupe**

Santiago Alba Corral, Directeur associé, Agriculture et sécurité alimentaire, CRDI

**Mot de la fin :**

Caroline Leclerc, Sous-ministre adjointe Affaires mondiales Canada  
Dominique Charron, Directrice, Agriculture et environnement, CRDI

## Annex 2: Roundtable discussions feedback

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Participants from approximately 20 tables provided feedback on the six sessions. Rapporteurs were tasked with following:

- Observe the table discussion and capture four or five key messages or ideas that emerge.
- When you hear a particularly compelling message or idea, submit it on the Poll everywhere site to be shared via the screens in the room.

The discussion, synthesized below, aimed to address two key questions in relation to the session's thematic area:

- What is new or innovative and how can this be applied?
- What are the gaps and/or next steps for the future?

### Session 1: Sustainable Agricultural Production

#### Session Abstract:

Sustainable intensification, which focuses on increasing productivity per unit area, plays a central role in sustainable agricultural production. Innovations in this area must be socially acceptable, environmentally friendly, and economically affordable and viable, especially for smallholder farmers with limited resources. This session features stories of success and impact and explores pathways and constraints for the wide-scale adoption of innovations that improve sustainable agricultural production.

#### Question 1. What is new or innovative and how can this be applied?

- The formulation of a 'package' approach: Using existing and/or new innovations alongside extension services to add value for smallholder farmers in their adoption of these platforms. This includes using participatory approaches in building partnerships, to better integrate smallholder farmers in the decision-making process and adapt content, tone, and focus to incorporate gender-specific needs and concerns.
  - At the project level: using information networks and the internet to catalyze support for the dissemination of packages facilitates overall access, greatly expanding potential adoption.
  - i.e. Bundled vaccination for simplified usage, ag kits for context-specific needs, ICT bundles for greater production management etc.
- One key element is ensuring that producers are well integrated into their respective value chains. It is integral that as industries evolve, research supports market access and private-sector engagement for better integration (i.e. the agri-business approach).
- Clarity and simplicity in platform development, testing, dissemination, and adoption is essential for improving adoption rates among small-scale farmers.
- Leveraging existing systems to scale technologies and solutions (i.e., both Ghana + Nepal).
- There are challenges posed when seeking to ensure the sustainability of technology-focused solutions; however, capacity-building among all actors represents one strong pathway towards lasting impact.

- Researchers engaging in partnerships to build local capacity is a unique aspect of CIFSRF—and of IDRC in general—though this is notably not otherwise a common practice.

## Question 2. What are the gaps and/or next steps for the future?

### Gaps:

- Clarity on:
  - The value of high-input farming vs. sustainable farming practices to address food insecurity.
  - Utilization of traditional knowledge in research programming.
  - CIFSRF research projects - the research and development synergies.
  - Terms used: most notably, rural populations and gender.
- Challenges in addressing:
  - ecological diversification research.
  - **Part 1:** social and economic barriers to scaling and the unintended consequences of tested interventions - can these issues also be addressed through technological innovation?
  - Sustainability of technologies and information for 'end-users' after adoption, and scaling (Scaling of projects in terms of willingness to pay among farmers, and the economic environment that sustains that willingness).

### Next Steps:

- A strong need for reflexivity of research programming to adapt to potential risks at the household level (i.e., roles and decision-making processes).
- Potentially, integrating community groups to manage/share technologies and information.
- Adoption isn't just face value, really adopters also adapt/innovate as they take up the innovation and can be incorporated to guide the development of new approaches.
- **Part 2:** The barriers for ICT projects in terms of social and economic barriers preventing access to technology and information, and how those socio-economic barriers could be addressed through both technical and social solutions (i.e. hand crank radios as technical solutions and listening groups as community-based solutions to exclusion barriers).
- Leveraging partners' institutional knowledge to incorporate comprehensive, country-specific perspectives in research programming helps ensure potential transferability and regional/local contextual relevance.
- There is no one solution for the challenge of food insecurity, so continued consideration of systems embracing greater interconnectedness will help.
- Knowing that each solution won't be applicable everywhere but having the information available everywhere would be useful - comprehensive database, scaling up internet service.

## Session 2: Nutrition and Health Outcomes

### Session Abstract:

A sustainable shift towards nutrition-sensitive agriculture and food systems promotes healthy diets and contributes to tackling the intergenerational cycle of malnutrition among children, adolescent girls, and women. CIFSRF projects used multiple pathways to scale up nutrition impacts. This session will highlight the research findings and development outcomes from these projects, and it will identify



lessons and applications that facilitate the consumption of nutritious foods among women, girls, and young children.

### Question 1. What is new or innovative and how can this be applied?

- The complementarity of nutrition and agriculture focused programming.
- Knowledge generation that strongly demonstrate the potential to address nutritional challenges through a combination of:
  - Bio-intensification in crop production and in some cases, micronutrient fortification during processing.
  - Nutrition education with a multiplicity of intervention approaches to diet diversification.
  - Addressing structural barriers to behaviour change and gender relations at varying scales, with particular attention to maternal and child health.
  - Participatory integration of farmers, households, and communities as change agents, with particular respect for indigenous crops and knowledge.

### Question 2. What are the gaps and/or next steps for the future?

#### Gaps:

- Clarity on:
  - Understanding where we want to go, what is achievable and conceivable in short project cycles.
  - Rules of engagement between public and private sector in market for goods which address health and nutrition.
  - What policy tools can and/or should be used to promote more nutritious foods.
- Challenges in addressing:
  - The role of the state and accessing policy-makers to facilitate the scaling up of nutrition.
  - The baseline to gather evidence on the interventions being used and whether if they work.
  - A more robust education program and support for women as agents of change to champion better nutrition.
  - A balance between identifying needs of communities yet ensuring the longevity of an initiative and that it is 'pro-poor'.

#### Next Steps:

- Need for research to look at trend for fortification, at the intersection of agriculture and nutrition, in countries where a policy framework does not exist - at varying scales.
- Aggregated analysis of factors that can impede sustainable agricultural production and better nutritional outcomes.
- Scaling strategy has to be driven by demand/policy which are especially harder when benefit is less obvious.
- Need for long term timelines for impact of nutrition interventions, outside of a project cycle
  - I.e. Replacement in diets - if you are introducing potatoes, or fish, it is important to measure and assess the food composition of the basket of the family - is the intervention adding value to the diet? (In terms of micronutrients, diversity, etc.).

- Shifting towards a more integrative approach with agriculture as prevention (primary care) and nutrition as reaction (emergency room):
  - One pathway, continue diversified production to facilitate diversified diets.
- Full cost accounting: health externalities, environmental externalities of less nutritional processed food should be considered, and social cost of exploitative labour in commercial production.
- Need for a human rights lens on nutrition and the whole food system.
- Consider the role of conflict in achieving nutrition in conflict-affected region.

## Session 3: Market Access and Income

### Session Abstract:

Access to markets is central to the development of value chains and for meeting the needs of global food security. Market access can also improve incomes and create opportunities for rural employment. Agriculture-related innovations need to involve economically viable business models based on value chains to achieve impact at scale. This session will present three business models that were piloted and scaled up to enhance nutrition and boost incomes in Africa and Asia.

### Question 1. What is new or innovative and how can this be applied?

- **A systems** approach to value chains by focusing on non-traditional financial inclusion services such as supporting market systems and processing.
- It is not always about new ideas but about renovating previous ones with a new approach.
- Remarkable how many health impacts depend on and impact nutrition/micronutrient uptake.
  - e.g. yogurt fermentation project managing sanitation/aflatoxins and e. coli in the containers it is sold in; millets explicitly put on the table the consequences of the double burden of malnutrition.
- We tend to look for exogenous solutions, yet solutions are sometimes available locally:
  - e.g. indigenous vegetables.
- Discussion around finance tools are really important: not just for beneficiaries through micro-finance but for other actors in the value chain.

### Question 2. What are the gaps and/or next steps for the future?

#### Gaps:

- Clarity on:
  - Common understanding around what market access entails.
  - How to make an intervention culturally relevant, especially when scale, with particular focus on gender related interventions that address capacities for participation.
  - The role of cooperatives? especially for gender entry point.
  - The incorporation of sustainability within value chain analyses.
    - I.e. Negotiating interest rates with the farmers and financial institutions, interest has gone up to 33% - are financial institutions willing to still give resources to farmers at a reasonable interest rate?
- Challenges in addressing:
  - Comprehensive analysis of input and output markets.
  - Appropriate multidisciplinary teams in market access and income focused programming within agricultural research.

### Next Steps:

- Multiple interventions in the value chain and a stronger look at system perspective that takes in different players in the whole system-- policy makers, private sector.
- Understand price signals, competitiveness of innovation, consumer preferences, economic constraints-- this is important to understand whether end-users can realistically invest in a technology.
- Need to have a mechanism to lower the risk (through international partnerships, organizations reduce the risk for the MFI).
- Safeguards need to be formalized in order support the sustainability for smallholders beyond project life cycles.
- I.e. Flexibility of lowered interest rate.
- Shifting market outcome for smallholder farmers by integrating capacity building support to negotiate and advocate for themselves.

## Session 4: Collaborative Partnerships

### Session Abstract:

Funding, supporting, and conducting multi-sectoral and multidisciplinary development research demands strong partnerships that address the complexities and challenges of food security and nutrition while operating within specific economic, political, cultural, and social structures. This session will explore the challenges and key ingredients to successful collaborative partnerships for development from a range of research disciplines and sectors in the South and North.

### Question 1. What is new or innovative and how can this be applied?

- Policy dialogue between stakeholders can lead to a better understanding and agreement from inception.
- CIFSRF has managed to leverage existing communication channels by partnering with expert stakeholders from government, institutions, local knowledge experts, and NGOs who are empowered to collectively disseminate progress and results of their various networks.
- Partnerships are difficult to build yet CIFSRF has built capacities for smallholder farmers to champion opportunities and build their own networks.
- Trajectories of innovation and scale-up process are not simple to navigate yet bringing the right actors to the table have demonstrated broader networks being built and generate new opportunities for sustainability.
- Through an adaptive management approach, the introduction of new partners over time, as needed, can be beneficial.
- By partnering and developing institutional capacity AND policies over time has the potential to secure the benefits of an innovation.
- Synchronizing the goals of the research teams and the partners on the ground such as the Private Sector, NGOs, and civil society can ensure continuity of goals.
- It is important to view partnerships that are inclusive so that farmers can act as a partner and foster ownership of decision making process throughout project lifecycles.

### Question 2. What are the gaps and/or next steps for the future?

#### Gaps:

- Clarity on:

- The ethical implications of seeking changes in regulatory frameworks in countries that do not have strong frameworks.
- Types of roles and responsibilities of partners in such an evolving environment.
- Challenges in addressing:
  - Cross-discipline synergies are important but remain a new territory we still don't understand enough about in terms of effective modalities.
  - Finding the best industry partner, for the right context, at the right time, and how to negotiate and parlay with industry.
  - Coordination and conflicts in partnership building processes and sustainability.
  - Building partnerships can also slow the process down, which is a challenge in a time-limited project.
  - Breaking the reward bias.

#### Next Steps:

- Imperative to consider partnership and collaboration as a science- the science of how to build collaboration with different partners in terms of timing of partnerships, who is involved, etc. which will require robust monitoring, evaluation, and reporting.
- More transparency in sharing failures, challenges, and what didn't work in partnership building to effectively strategize future relationships.
- Prioritizing financial planning and investment alongside the private sector at the inception has demonstrated strong partnerships through capacity building rather than anecdotal subsidization processes to financial models for small holders.
  - Working with financial institutions can be really innovative and facilitate scale up.
- Recommendation to build into the proposal capacity-building on transdisciplinary best practices for building and managing multi-country, multi-stakeholder partnerships.
- Creating spaces by financially supporting the convening of partners for goal alignment in programming.

## Session 5: Scaling up innovations for impact

### Session Abstract:

Scaling up promising innovations in the food and agriculture sector has become an important strategy to generate greater benefits from investments, particularly to reach large numbers of people across geographical spaces. This session will discuss the various scaling up approaches and pathways CIFSRF undertook that led to the adoption of proven innovations. This session will explore the key enabling factors and constraints that support or limit the scaling up of innovations and the remaining gaps will be discussed.

### Question 1. What is new or innovative and how can this be applied?

- **Part 1:** Innovation of scaling a methodology, for example with the transfer of technology of the double fortification of salt for greater distribution in India.
- The potential role of the public sector to help scale innovations.
- By targeting early adopters, which has been shown to work well in Canada, can provide a "jump-start"

- There is a strong need for research on pathways to scaling justice and how to target the most marginalized in the scaling process. For IDRC, conducting research on scaling science and the optimal scale and moral justification has been an area of focus.
- By focusing on multiple technologies or approaches to help scale impacts- CIFSRF has shown a multifaceted approach can be successful.
- The idea of looking at the kernel of the innovation such as demand driven scaling through secondary adopters, can create opportunities to scale up and out.

## Question 2. What are the gaps and/or next steps for the future?

### Gaps:

- Clarity on:
  - How to define early adopters when wanting to scale up.
  - Potential trade-offs of scaling, in particular: objectives, power, and ethical implications when scaling.
  - On the right time or opportunities for scaling up.
  - Understanding aspects of scaling up in a social way.
  - How policy can support or hinder scaling.
- Challenges in addressing:
  - Capacity for adapting to changes (e.g. climate changes, political changes, changes in research, etc.) that drive conditions for scaling up.
  - Gender implications and existing power structures in designing and implementing scaling processes.
  - Reconciling varying objectives of partners involved in programming.
  - Avoid creating monopolized markets.

### Next Steps:

- **Part 2:** The imperative to be able to identify what is scalable within an innovation.
- Consider intersectionality in scale up analysis.
- A potential way to scale up is to use small scale approaches in various locations.
- Utilization of impact studies of identified interventions, at various levels, to better understand the how/when/if to scale up.
- When scaling-up, ensure that even small problems are considered and/or mitigated as they can be very important to scaling up processes.

## Session 6: Gender equality in agriculture and food security

### Session Abstract:

Gender equality and the empowerment of women is critical to the achievement of food and nutrition security. In the least developed countries, 79% of women identify agriculture as their primary source of income, yet women in the agricultural sector lack access and control over assets. Addressing these gender barriers and the underlying social and gender norms that contribute to them can encourage the empowerment of women, increase productivity, and improve food and nutrition security for all. This session will explore key lessons learned by CIFSRF on gender integration and achieving gender equality outcomes.

### Question 1. What is new or innovative and how can this be applied?

- **Part 1:** Distribution can be challenging, especially in rural areas.
- That gender integration was embedded within the CIFS RF programming and ensuring that a gender analysis being conducted to capture lessons learned.
- “The ability to act on choices” serving as a test sentence to identify what it really means to empower women using a gender approach and to evaluate the impact of initiatives.
- Transformative changes and empowerment require critical analysis of power relations--as people do not give up power easily.

### Question 2. What are the gaps and/or next steps for the future?

#### Gaps:

- Clarity on:
  - Consistency in having clear definitions of what concepts mean to not have them be lost in interpretation and have all stakeholders involved to have the same level of clarity.
  - Social fabric in highly context specific fora and the societal difference that require accurate clarity.
- Challenges in addressing:
  - The awareness of social and cultural contexts and norms when seeking to engage in gender transformative approaches.
  - Development trainings that fail to understand power imbalances and inequalities between different groups of women.
  - Building a critical mass and create opportunities to hear women’s perspectives and concerns - pros and cons to quota / affirmative action approach and supporting women to take a leadership role.
  - equality versus equity.

#### Next Steps:

- **Part 2:** empowering women to become distributors and foster opportunities for women's economic empowerment.
- The importance of measuring choices made at the qualitative level alongside sex-disaggregated data collection.
- Must be intentional with rigorous analysis of data giving attention to women’s assessment and perspective of the change.
- Intentional integration to shift gendered roles through participatory action and consultation to shift perceptions and household practices.
- Taking a diversity of approaches when indicating gender to see the effectiveness of the different approaches.

## Annex 3. Projects posters

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Project posters (English and French) highlight key information on:

- The challenges addressed by the project.
- Innovations developed.
- Key results.
- Project information at a glance.
- Partners.

# Fighting lethal yellowing disease for coconut farmers

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

Lethal yellowing (LY) disease had already killed more than 8% of coconut groves in Côte d'Ivoire's Grand-Lahou region when it was detected in 2014. Without prompt action to contain the disease, which is caused by a bacterial parasite, LY was forecast to decimate Côte d'Ivoire's coconut crop, and plantations in West Africa at large, by 2020.

Coconut is the most important crop along West Africa's coastal belt, and Côte d'Ivoire's economy is heavily dependent on coconuts for jobs. Therefore, losses caused by LY severely affect the livelihoods and nutrition of farming households.

## Innovations

The research led to the development of:

- Diagnostic tools to quickly detect the disease
- Practical and sustainable field practices to control the spread of LY
- A healthy coconut seed supply to reduce occurrence of the disease

## Key results

Farmers were empowered with the knowledge and tools to:

- Detect, identify, and control the lethal bacterium
- Generate revenue from other crops, such as cassava
- Share information to support stakeholders, such as women's organizations, in controlling LY

Major breakthroughs of the research included the identification of:

- Phytoplasma, the bacterial parasite that causes LY
- Weeds on coconut farms that host the phytoplasma
- A leafhopper insect that may transmit the disease between coconut palms



The project supported field schools, plant clinics, and women's groups that:

- Provided training and advice on coconut farming and maintenance
- Established new income-generating activities for farmers, including processing coconut products

## At a glance

	2,500 farmers and 180 extension agents were trained to detect the disease and improve farming techniques
	300 women's group members in six villages planted cassava as a new source of income
	64% increase in the number of coconut products available at eight coconut fairs

## Partners

- Canada: Sporometrics
- Côte d'Ivoire: National Centre for Agronomic Research; University of Nangui Abrogoua



# Lutte contre le jaunissement mortel du palmier pour les cultivateurs de noix de coco

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

Le jaunissement mortel du palmier (JMP) avait déjà tué plus de 8 % des cocoteraies dans le département de Grand-Lahou, en Côte d'Ivoire, lorsqu'il a été identifié en 2014. Sans une intervention rapide pour endiguer la maladie due à un parasite bactérien, le JMP aurait entièrement décimé les plantations ivoiriennes de cocotiers et, plus généralement, d'Afrique de l'Ouest, d'ici 2020.

La noix de coco est l'une des principales cultures du littoral ouest-africain et l'économie ivoirienne dépend largement de ce secteur pour la création d'emplois. C'est pourquoi les pertes causées par le JMP ont affecté les moyens de subsistance et la nutrition de nombreux ménages agricoles.

## Innovations

Les recherches ont permis les développements suivants :

- Des outils de diagnostic pour une identification rapide de la maladie.
- Des approches pratiques et durables sur le terrain pour contrôler la propagation du JMP.
- Un approvisionnement en semences de cocotier saines pour réduire l'occurrence de la maladie.

## Principaux résultats

Les agriculteurs ont acquis des connaissances et reçu des outils pour :

- Détecter, identifier et contrôler la bactérie mortelle.
- Générer des revenus à partir d'autres cultures, comme le manioc.
- Partager des informations pour soutenir les acteurs de la lutte contre le JMP, tel que les organisations de femmes.

Les recherches ont permis d'identifier :

- Le phytoplasme – un parasite bactérien – responsable du JMP.
- Les mauvaises herbes porteuses du phytoplasme dans les cocoteraies.
- Un insecte de type cicadelle qui pourrait transmettre la maladie d'un cocotier à l'autre.

Le projet a soutenu des fermes-écoles, des cliniques phytosanitaires et des groupes de femmes qui ont :

- Dispensé des formations et des conseils sur la culture et l'entretien des noix de coco.



©OWNY

- Mis en place de nouvelles activités génératrices de revenus pour les agriculteurs, notamment la transformation de produits de la noix de coco.

## En bref

	2 500 agriculteurs et 180 vulgarisateurs ont été formés à détecter la maladie et améliorer les techniques agricoles.
	300 membres de groupes de femmes dans six villages ont planté du manioc pour créer une nouvelle source de revenus.
	Le nombre de produits à base de noix de coco disponibles dans les « foires à la noix de coco » a augmenté de 64 %.

## Partenaires

- Canada : Sporometrics
- Côte d'Ivoire : Centre national de recherche agronomique (CNRA); Université Nangui Abrogoua



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Le FCRSAI est un programme du Centre de recherches pour le développement international (CRDI) avec le soutien financier du gouvernement du Canada par l'entremise d'Affaires mondiales Canada. [crdi.ca/fcrsai](http://crdi.ca/fcrsai)

## The challenge

Chronic micronutrient deficiencies lead to stunted growth, increased susceptibility to disease, and greater risk of birth defects. In Tanzania, one-third of all children and 37% of women lack vitamin A. This deficiency can be particularly disastrous for children, who are at risk of developing xerophthalmia, an illness that can ultimately lead to blindness.

Refined sunflower oil fortified with vitamin A is sold in large urban centres, but there was no evidence that it was technically feasible or sustainable to fortify, produce, and sell crude sunflower oil on a smaller scale. The Masava project enabled producers in the Manyara and Shinyanga regions, rural areas where there are particularly high rates of vitamin A deficiency, to fortify and sell sunflower oil to reach the most vulnerable people.

## Innovations

The research led to the development of:

- Technology to fortify crude sunflower oil with vitamin A
- Mobile phone e-voucher discounts for consumers
- E-wallet discounts managed by retailers to sell the fortified oil at a reduced price, resulting in higher sales
- Behaviour change communication activities to explain the health benefits of fortified oil

## Key results

Reducing micronutrient deficiencies:

- Consumption of fortified oil was strongly associated with a reduction in vitamin A deficiency
- Project results will inform national food and nutrition policies

Stimulating consumer demand and accessibility:

- Selling small scoops of oil from larger containers improved accessibility for the poorest households
- The e-wallet retailer discount eliminated the need for consumers to own a mobile phone, improving women's access to reduced prices






STEVE SLIGINA

Project researchers discovered that:

- Producing and selling fortified crude sunflower oil in rural areas is both technically feasible and profitable

## At a glance

	Three small and medium-sized millers produced and sold over 142,000 litres of fortified sunflower oil
	319 retailers sold the oil directly to consumers
	Up to 500,000 rural poor Tanzanians reached with the new fortified oil

## Partners

- Canada: University of Waterloo; Mennonite Economic Development Associates
- Tanzania: Sokoine University of Agriculture

# Promouvoir l'huile de tournesol enrichie localement en Tanzanie

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

En Tanzanie, les carences chroniques en micronutriments sont à l'origine de retards de croissance, d'une vulnérabilité accrue aux maladies et d'un plus grand risque d'anomalies congénitales. On rapporte une carence de vitamine A chez un tiers des enfants et 37 % des femmes dans le pays. Ce problème peut s'avérer particulièrement dangereux pour les enfants qui risquent de développer une xérophtalmie, une maladie pouvant entraîner la cécité.

Bien que l'huile de tournesol enrichie en vitamine A soit en vente dans les grands centres urbains, aucune donnée probante n'indiquait qu'il était techniquement faisable ou durable d'enrichir, produire ou vendre de l'huile de tournesol non-raffinée à plus petite échelle. Le projet Masava a permis aux producteurs des régions de Manyara et Shinyanga, où l'on observe des taux particulièrement élevés de carence en vitamine A, fortifier et commercialiser l'huile de tournesol dans les zones rurales, afin d'atteindre les personnes les plus vulnérables.

## Innovations

Les recherches ont permis les développements suivants :

- La technologie pour enrichir de vitamine A l'huile de tournesol brute.
- Des bons de réduction électroniques, accessibles sur un téléphone portable, pour les consommateurs.
- Des remises gérées par les détaillants, au moyen d'un portefeuille électronique, pour vendre l'huile enrichie à prix réduits, avec pour résultat une hausse des ventes.
- Des activités de communication expliquant les bénéfices pour la santé de l'huile enrichie, afin de modifier les habitudes alimentaires.

## Principaux résultats

Réduction des carences en micronutriments :

- La consommation d'huile enrichie a clairement été associée à une réduction des carences en vitamine A.
- Les résultats du projet orienteront les politiques alimentaires et nutritionnelles nationales.

Renforcement de la demande des consommateurs et de l'accessibilité :

- La vente de petites quantités d'huile à partir de contenants plus grands l'a rendue plus accessible pour les ménages les plus pauvres.



- Les remises gérées par les détaillants au moyen d'un portefeuille électronique ont contourné la nécessité pour les consommateurs de posséder un téléphone portable, améliorant ainsi l'accès des femmes aux prix réduits.

Les chercheurs actifs dans ce projet ont découvert que :

- La production et la vente d'huile de tournesol brute enrichie dans les zones rurales sont techniquement faisables et rentables.

## En bref

	Trois petites et moyennes entreprises d'extraction d'huile ont produit et vendu plus de 142 000 litres d'huile de tournesol enrichie.
	319 détaillants ont vendu l'huile directement aux consommateurs.
	Jusqu'à 500 000 habitants pauvres des zones rurales de Tanzanie ont bénéficié de la nouvelle huile enrichie.

## Partenaires

- Canada : Université de Waterloo; Mennonite Economic Development Associates
- Tanzanie : Sokoine University of Agriculture

# Népal : des troussees d'agriculture durables pour les agriculteurs sur terrasse

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

Plus de 13 millions de Népalais dépendent de la culture de petites parcelles en terrasse dans les régions où les rendements agricoles sont faibles et où l'insécurité alimentaire est élevée. La pénibilité du travail des femmes dans ces exploitations agricoles, qui implique la plantation et le désherbage à la main, est encore accentuée par la désertion des hommes du secteur de l'agriculture et par la géographie contraignante du Népal. Bien qu'il existe des innovations pour alléger les corvées agricoles, elles sont généralement inaccessibles aux agriculteurs sur terrasse népalais démunis du fait de la quasi-inexistence de réseaux de distribution dans les régions reculées où ils vivent.

## Innovations

Les recherches ont permis les développements suivants :

- Des troussees agricoles durables innovantes, incluant des semences à bas coût et des batteuses à millet.
- Un modèle de distribution des troussees agricoles durables par des détaillants locaux.
- Des parcelles de démonstration pour expliquer les bonnes pratiques agricoles, accompagnées de dépliants illustrés afin d'améliorer les connaissances agricoles des petits exploitants.

## Principaux résultats

Les agriculteurs ont gagné en autonomie grâce à :

- Des troussees agricoles durables innovantes et faciles d'emploi, tel que serres en plastique et des gants de jardinage.
- Des livres illustrés visant à présenter les bonnes pratiques agricoles.
- La vente des troussees agricoles durables innovantes par des détaillants locaux, comme des magasins d'alimentation ou des quincailliers.

Les résultats ont contribué à promouvoir :

- De nouvelles techniques de culture des légumes, telles que les cultures intercalaires et la plantation d'ignames dans des sacs adossés aux murets des terrasses.
- Des pratiques qui améliorent la qualité du fumier afin d'augmenter les nutriments contenus dans le sol et de renforcer la production.
- L'utilisation généralisée et correcte des technologies associées aux troussees agricoles durables.






ROSHANI PUDASANI

Impacts sur les rendements et les revenus :

- Les revenus nets des agriculteurs ont augmenté de 33 % à 137 % grâce à la culture intercalaire de légumes avec du maïs, du millet, du blé, et de la moutarde.
- L'amélioration de la qualité du fumier a permis d'augmenter les rendements de 11 % en moyenne.
- Grâce aux serres incluses dans les troussees agricoles durables, les revenus saisonniers ont augmenté de 100 à 250 \$ CA.

## En bref

	Plus de 60 000 agriculteurs ont bénéficié des troussees d'agriculture durables innovantes.
	79 % des agriculteurs ayant bénéficié des troussees d'agriculture durables étaient des femmes.
	56 445 troussees d'agriculture durables ont été vendues par des détaillants locaux.

ROSHANI PUDASANI

## Partenaires

- Canada : Université de Guelph
- Népal : Local Initiatives for Biodiversity, Research, and Development; Anamolbiu Private Limited



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## The challenge

More than 13 million Nepalese depend on farming small terraced plots in regions where crop yields are low and food insecurity is high. Women's tedious work on these farms, which requires planting and weeding by hand, is exacerbated by dwindling male farm labour and Nepal's harsh geography. Although innovations to reduce farm drudgery exist, they are usually inaccessible to poor terrace farmers because distribution networks are almost non-existent in the remote regions where they live.

## Innovations

The research led to the development of:

- Sustainable agriculture kit (SAK) innovations, such as low-cost seeds and millet threshers
- A distribution model for SAK innovations through local retailers
- Demonstration plots to explain best farming practices and graphic flyers to improve agricultural knowledge

## Key results

Farmers were empowered through:

- Easy-to-use SAK innovations, such as plastic greenhouses and garden gloves
- Picture books created to show best farming practices
- Local retailers, such as food and hardware dealers, selling SAK innovations

Outputs helped to promote:

- New techniques for growing vegetables, such as intercropping and planting yams in sacks against terrace walls
- Practices that increase the quality of manure in order to enhance soil nutrients and production
- The widespread and correct use of SAK technologies



REOCHAN PUDGANI

Impacts for yields and incomes:

- Farmers increased their net incomes by 33-137% when intercropping legumes with maize, millet, wheat, and mustard
- Improved manure led to yield increases of 11% on average
- SAK greenhouses increased seasonal incomes by CA\$ 100-250

## At a glance

	More than 60,000 farmers were reached with SAK innovations
	79% of farmers using SAK innovations were women
	56,445 SAK innovations were sold by local retailers

REOCHAN PUDGANI

## Partners

- Canada: University of Guelph
- Nepal: Local Initiatives for Biodiversity, Research and Development; Anamolbiu Private Limited

## The challenge

Post-harvest losses of mangoes in India and Sri Lanka alone are as high as 40% annually (estimated to cost more than CA\$803 million per year). Delaying the ripening of fruits has the potential to increase the incomes of farmers in these countries.

## Innovations

The research led to the development of nine innovative ways of using a biodegradable nanotechnology solution called "enhanced freshness formulation" (EFF) that optimized the use of hexanal, a naturally occurring plant extract that inhibits ripening and spoiling. For example:

- Sprays and dips that delay ripening and increase fruit shelf life
- Smart packaging materials, such as wrappers and sachets, to protect fruit during shipping

## Key results

Major breakthroughs included:

- Extending mango shelf life by 2-3 weeks
- Producing approximately 5 kg more fruit per tree
- Reducing produce losses during transfer to markets by 10-12%
- Signing a Memorandum of Understanding and developing a business model to expand the production and distribution of EFF in India's Tamil Nadu State

Impacts on incomes:

- Improved fruit supply management enabled 51% of farmers in India to fetch a premium price for their EFF-treated mangoes and bananas
- The availability of fruits for an extended time allowed for 12-17 days of additional employment during the harvest season, especially for women






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Adding value through training:

- Hands-on training provided skills for farmers to produce value-added fruit products such as pickles and jams, increasing household incomes by 10%
- Sri Lankan farmers were trained in banana fibre production to generate an eco-friendly packing alternative to Styrofoam

## At a glance

	EFF technology delayed fruit harvests by up to two weeks
	More than 12,000 farmers in India are already using EFF products
	EFF decreased disease incidence in bananas, mangoes, and papayas by 80%

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## Partners

- Canada: University of Guelph
- India: Tamil Nadu Agricultural University
- Sri Lanka: Industrial Technology Institute

# Améliorer la conservation des fruits grâce aux nanotechnologies

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

En Inde et au Sri Lanka, plus de 40 % des mangues sont perdues après récolte chaque année (soit une perte estimée de 803 million \$ CA par an). Retarder la maturation des fruits permettrait d'augmenter les revenus des agriculteurs de ces pays.

## Innovations

Neuf façons innovantes d'utilisation d'une solution nanotechnologique biodégradable appelée « *enhanced freshness formulation* » (EFF), qui a optimisé l'utilisation d'hexanal. Ce composé organique sécrété naturellement par les végétaux freine la maturation et le pourrissement. Les innovations liées à l'EFF incluent :

- Des traitements par vaporisation et par immersion qui retardent la maturation et augmentent la durée de conservation des fruits.
- Des matériaux de conditionnement intelligents – comme des papiers d'emballage et des sachets – pour protéger les fruits durant l'expédition.

## Principaux résultats

Principales avancées :

- Le prolongement de la durée de conservation de mangues de 2-3 semaines.
- La production d'environ 5 kg de fruits supplémentaires par arbre.
- La diminution de 10-12 % des pertes de fruits durant l'acheminement vers les marchés.
- La signature d'un protocole d'entente et le développement d'un modèle commercial en vue de produire et de distribuer l'EFF à plus grande échelle dans l'État du Tamil Nadu, en Inde.

Impacts sur les revenus :

- L'amélioration de la gestion de l'approvisionnement en fruits a offert à 51 % des agriculteurs indiens la possibilité d'obtenir un prix plus élevé pour leurs bananes et mangues traitées à l'EFF.
- La disponibilité des fruits pendant une période prolongée a apporté 12 à 17 jours d'emploi supplémentaires durant la période de récolte, en particulier pour les femmes.

Valeur ajoutée par la formation :



- Les agriculteurs sri lankais ont été formés en production de fibre de bananier, afin d'offrir une alternative écologique à l'emballage au polystyrène.



IDRC/ARTIV

- Des formations pratiques ont fourni aux agriculteurs des compétences pour la production d'aliments à valeur ajoutée à base de fruits, tel que des marinades et des confitures, augmentant ainsi les revenus des ménages de 10 %.

## En bref

	La technologie EFF a permis de retarder la récolte des fruits jusqu'à deux semaines supplémentaires.
	En Inde, plus de 12 000 agriculteurs utilisent déjà des produits EFF.
	L'EFF a permis de réduire de 80 % l'incidence des maladies dans les bananes, les mangues et les papayes.

## Partenaires

- Canada : Université de Guelph
- Inde : Tamil Nadu Agricultural University
- Sri Lanka : Industrial Technology Institute



Le FCRSAI est un programme du Centre de recherches pour le développement international (CRDI) avec le soutien financier du gouvernement du Canada par l'entremise d'Affaires mondiales Canada. [crdi.ca/fcrsai](http://crdi.ca/fcrsai)

# Fertilizer micro-dosing for enhanced indigenous vegetable production in West Africa

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

Smallholder rural farmers in Nigeria and Benin, particularly women, rely on indigenous vegetables rich in vitamins and nutrients to complement their families' daily diet. However, a combination of poor soil fertility, land degradation, and water scarcity in West Africa has resulted in low yields and poor-quality crops, which limits economic opportunities and threatens food security. Finding ways to increase the production and consumption of underused yet highly nutritious vegetables — and scaling these methods — could therefore go a long way towards improving nutrition and income security.

## Innovations

The research led to the development of:

- A scale-up approach called the MicroVeg Innovation Platform (IP)
- Fertilizer micro-dosing technology
- Innovative capillary irrigation system

## Key results

Impacts from improved practices:

- When combined with manure, micro-dosing produced enough soil macronutrients for sustainable vegetable cultivation
- The production of indigenous vegetables doubled
- Irrigation conserved up to 7.4 million litres of water/hectare each growing season

Major breakthroughs of the IP:

- Connected farmers, processors, policymakers, and financial institutions to address farmer concerns related to low production
- Improved farming practices, such as irrigation, were scaled out to rural farmers
- Innovative methods for incorporating indigenous vegetables into daily diets communicated to farmers



ERIC BARBERY

Benefits for women and youth:

- 112,870 students joined Young Scientists Vegetable Clubs to be trained in production technologies
- 10,000 youth integrated into the vegetable value chain to become successful producers
- 3,771 women trained to produce value-added innovations such as vegetable-enhanced products ranging from syrups to breads

## At a glance

	337,931 farmers reached with new technologies and improved practices
	Land area under vegetable production increased by 768% in Nigeria
	Revenue from indigenous vegetables increased by 120% in Nigeria and 90% in Benin

ERIC BARBERY

## Partners

- Canada: University of Saskatchewan; University of Manitoba
- Nigeria: Osun State University; Obafemi Awolowo University
- Benin: University of Parakou



CIFSRF is a program of Canada's International Development Research Centre (IDRC) undertaken with the financial support of the Government of Canada, provided through Global Affairs Canada. [idrc.ca/cifsrff](http://idrc.ca/cifsrff)



# Microdosage des engrais pour une production améliorée des légumes indigènes en Afrique de l'Ouest

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAl)

## Le défi

Les petits exploitants agricoles des zones rurales du Nigéria et du Bénin, et plus particulièrement les femmes, dépendent de la culture de légumes indigènes riches en vitamines et nutriments pour compléter l'alimentation quotidienne de leur famille. Or, en Afrique de l'Ouest, la faible fertilité des sols, combinée à la dégradation des terres et au manque d'eau, a engendré de mauvais rendements et des cultures de piètre qualité. Ceci s'est traduit par une limitation des occasions économiques et une menace pour la sécurité alimentaire. Trouver des méthodes permettant d'augmenter la production et la consommation de légumes sous-utilisés mais hautement nutritifs – et appliquer ces solutions à grande échelle – pourrait donc améliorer sensiblement la nutrition et la sécurité financière de ces communautés.

## Innovations

Les recherches ont permis les développements suivants :

- Une approche de mise à l'échelle appelée plateforme d'innovation (PI) MicroVeg.
- Une technologie de microdosage des engrais.
- Un système innovant d'irrigation par capillarité.

## Principaux résultats

Impacts de l'amélioration des pratiques :

- Combiné à l'utilisation de fumier, le microdosage d'engrais a produit suffisamment de macronutriments dans le sol pour permettre la culture durable des légumes.
- La production de légumes indigènes a doublé.
- L'irrigation a permis d'économiser jusqu'à 7,4 millions de litres d'eau par hectare à chaque saison agricole.

Principales réalisations de la plateforme d'innovation :

- La plateforme a mis en contact des agriculteurs, des transformateurs, des décideurs politiques et des institutions financières afin de répondre aux préoccupations des agriculteurs concernant leur faible production.
- Des pratiques agricoles améliorées, tel que l'irrigation, ont été adoptées par des agriculteurs ruraux.
- Des méthodes innovantes pour incorporer les légumes indigènes à l'alimentation quotidienne ont été communiquées aux agriculteurs.






IDRC/AFRIWAY

Bénéfices pour les femmes et les jeunes :

- 112, 870 étudiants ont rejoint des organisations appelées Young Scientists Vegetable Clubs pour être formés aux technologies de production.
- 10 000 jeunes ont été intégrés à la chaîne de valeur des légumes en vue de devenir des producteurs prospères.
- 3 771 femmes ont été formées à la fabrication de produits à valeur ajoutée innovants, tel que des pains et des sirops enrichis en légumes.

## En bref

	337 931 agriculteurs ont bénéficié de nouvelles technologies et pratiques améliorées.
	La superficie des terres consacrées à la culture des légumes a augmenté de 768 % au Nigéria.
	Les revenus tirés de la commercialisation des légumes indigènes ont augmenté de 120 % au Nigéria et de 90 % au Bénin.

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## Partenaires

- Canada : Université de la Saskatchewan; Université du Manitoba
- Nigéria : Osun State University; Obafemi Awolowo University
- Bénin : Université de Parakou



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## The challenge

Investments in child health in Ethiopia have contributed to a significant decline in the number of deaths of infants and young children over the past 20 years, but challenges still exist. Ethiopia ranks fifth globally in terms of stunting, while anemia affects nearly 37% of children under five. In addition, livelihoods and diets in Ethiopia's southern highlands are heavily dependent on cereal and root crops, which contain minimal protein and deplete soil nutrients. To address these challenges, the project aimed to identify approaches to increase farmer adoption of nutritious pulse varieties and encourage families to integrate pulses into their daily diets.

## Innovations

The research led to the development of:

- A training approach to scale up the production of pulse crops that build soil health
- Nutrition education and radio broadcasts to inform farmers of the benefits of pulses
- A small business (micro-franchising) model to market and popularize pulse products

## Key results

Increased farmer productivity and incomes:

- Chickpea yields increased from 2 to 2.5 tons/hectare and common bean yields from 1.2 to 1.5 tons/hectare
- Cereal and pulse crops were grown together to improve soil health and yields

Women were empowered through:

- Training in agronomic practices and the establishment of cooperatives to sell nutritious pulses and seeds
- Micro-franchises that employed and trained women in the production and marketing of pulse products
- Pulse-nutrition education, which benefited more than 23,000 women-headed farm households



PETER WIGGERS/PICTURES

Pulses were popularized by:

- A local processing company that developed blended cereal-pulse food products to be sold by the micro-franchises
- 3,810 pulse processing guides that were disseminated to households
- Policy promotion of a double cropping model, whereby farmers grow cereals and pulses on the same land

## At a glance

	Radio broadcasts about pulse nutrition reached more than 246,500 households
	35,000 consumers introduced to pulse-rich food products by women's micro-franchises
	52 villages benefitted from pulse cooking demonstrations

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## Partners

- Canada: University of Saskatchewan
- Ethiopia: Hawassa University

# Diffuser à plus grande échelle les innovations concernant les légumineuses dans le sud de l'Éthiopie

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

Les investissements dans la santé des enfants en Éthiopie ont contribué à une baisse significative du nombre de décès chez les nourrissons et les enfants en bas âge au cours des vingt dernières années, mais certains défis persistent. L'Éthiopie occupe la cinquième position dans le monde en termes de retard de croissance, tandis que l'anémie affecte près de 37 % des enfants âgés de moins de cinq ans. En outre, les moyens de subsistance et les régimes alimentaires dans les régions montagneuses du sud de l'Éthiopie reposent majoritairement sur les céréales et les légumes-racines, qui contiennent peu de protéines et épuisent les réserves de nutriments présents dans le sol. Pour relever ces défis, le projet a tenté des approches pour encourager les agriculteurs à cultiver davantage de variétés nutritives de légumineuses et inciter les familles à intégrer celles-ci dans leur alimentation quotidienne.

## Innovations

Les recherches ont permis les développements suivants :

- L'adoption d'une approche pédagogique visant à accroître la production de légumineuses qui améliorent la santé du sol.
- Une formation à l'éducation nutritionnelle et la diffusion d'émissions à la radio afin d'informer les agriculteurs sur les bénéfices des légumineuses.
- L'élaboration d'un modèle de petite entreprise (micro-franchise) pour commercialiser et populariser les produits à base de légumineuses.

## Principaux résultats

Augmentation de la productivité et des revenus des agriculteurs :

- Les récoltes de pois chiches sont passées de 2 à 2,5 tonnes par hectare et celles de haricots communs de 1,2 à 1,5 tonne par hectare.
- Les céréales et les légumineuses ont été cultivées ensemble pour améliorer la santé des sols et les rendements.

Les femmes ont gagné en autonomie grâce à :

- Des formations aux pratiques agronomiques et l'établissement de coopératives pour vendre des légumineuses nutritives et des semences.
- Des micro-franchises qui ont employé et formé des femmes en production et commercialisation des produits à base de légumineuses.



PETER WILGERS/PANOS PICTURES

- Une éducation à la nutrition à base de légumineuses, dont ont bénéficié plus de 23 000 ménages agricoles dirigés par des femmes.

Les légumineuses ont été popularisées par :

- Une entreprise locale de transformation qui a développé des produits alimentaires à base d'un mélange de céréales et de légumineuses commercialisé par les micro-franchises.
- 3 810 guides de transformation des légumineuses distribués aux ménages.
- La promotion d'un modèle de double culture incitant les agriculteurs à cultiver des céréales et des légumineuses dans un même champ.

## En bref

	Les émissions de radio sur la nutrition à base de légumineuses ont pu être écoutées par 246 500 ménages.
	35 000 consommateurs ont découvert des produits alimentaires riches en légumineuses grâce aux micro-franchises gérées par des femmes.
	52 villages ont bénéficié de démonstrations sur la préparation des légumineuses.

PANOS PICTURES

## Partenaires

- Canada : Université de la Saskatchewan
- Éthiopie : Hawassa University



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# Building successful fishing and aquaculture businesses in the Bolivian Amazon

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

More than 50% of households in the flood-prone Bolivian Amazon are food insecure. Despite the more than 800 freshwater fish species in the region, fish consumption in Bolivia is among the lowest worldwide.

To take advantage of this local resource — which is also a valuable source of protein, healthy fatty acids, and micronutrients — the project strengthened family-run aquaculture of the native pacu and tambaqui species (*Colossoma macropomum* and *Piaractus brachypomus*) and small-scale commercial and indigenous fisheries of the large and invasive paiche (*Arapaima gigas*). Stakeholders worked to resolve key bottlenecks to improve the commercial viability of these fish value chains.

## Innovations

The research led to the development of:

- A national law on sustainable fisheries and aquaculture to help regulate fishing and fish farming activities in Bolivia
- Training programs for improved pond management, fish hygiene, and handling practices
- A fish leather value chain

## Key results

New markets for fishers and fish producers:

- Families involved in fish farming increased from 937 in 2015 to 1,757 in 2018
- 379 indigenous fishers increased their incomes by 47.5% through paiche meat sales
- 780 m<sup>2</sup> of fish leather was produced and sold in 2017

Outcomes for fish consumption:

- Fish farming families increased their consumption by 12 kg/year



- National consumption of paiche increased by 20.8% and by 37.9% for pacu

Building local and national capacity to support fishers and fish farmers:

- Financial instruments such as loan guarantees are targeting women fish farmers and indigenous groups
- New fish handling and hygiene standards developed with the national Food Safety Authority

## At a glance

	Pacu production increased six-fold, from 811 to 4,805 tons/year between 2015 and 2018
	254 loans worth CA\$1.84 million disbursed to 196 clients in fish value chains
	1.2 tons of paiche skins used in the leather value chain per month

## Partners

- Canada: World Fisheries Trust; University of Victoria
- Bolivia: Asociación Faunagua; Centro de Promoción Agropecuaria Campesina; Centro de Investigación y Desarrollo Regional; IMG Consulting SRL



CIFSRF is a program of Canada's International Development Research Centre (IDRC) undertaken with the financial support of the Government of Canada, provided through Global Affairs Canada. [idrc.ca/cifsrff](http://idrc.ca/cifsrff)

# Développer des entreprises de pêche et d'aquaculture prospères en Amazonie bolivienne

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAl)

## Le défi

Plus de 50 % des ménages en Amazonie bolivienne, une zone propice aux inondations, se trouvent en situation d'insécurité alimentaire. Bien qu'il existe plus de 800 espèces de poisson d'eau douce dans la région, la consommation de poisson en Bolivie compte parmi les plus faibles au monde.

Pour tirer profit de cette ressource locale – qui est aussi une excellente source de protéines, d'acides gras sains et de micronutriments – le projet a renforcé l'aquaculture familiale des espèces indigènes de pacu et de tambaqui (*Colossoma macropomum* et *Piaractus brachipomus*) et les petites pêcheries commerciales et autochtones de paiche (*Arapaima gigas*), une espèce de gros poisson invasif. Les intervenants se sont employés à lever les principaux obstacles afin d'améliorer la viabilité commerciale de ces chaînes de valeur.

## Innovations

Les recherches ont permis les développements suivants :

- Une loi nationale sur la pêche et l'aquaculture durables pour aider à réglementer les activités de pêche et de pisciculture en Bolivie.
- Des programmes de formation sur la gestion améliorée des bassins, l'hygiène du poisson et les pratiques de manipulation.
- Une chaîne de valeur pour le cuir de poisson.

## Principaux résultats

Nouveaux marchés pour les pêcheurs et producteurs de poisson :

- Les familles oeuvrant dans la pisciculture sont passées de 937 en 2015 à 1 757 en 2018.
- 379 pêcheurs autochtones ont augmenté leurs revenus de 475 % grâce à la vente de paiche.
- 780 m<sup>2</sup> de cuir de poisson ont été produits et vendus en 2017.

Développement des capacités locales et nationales pour soutenir les pêcheurs et les pisciculteurs :

- Des instruments financiers, tels que des garanties de prêt, ciblent les piscicultrices et les groupes autochtones.
- De nouvelles normes relatives à l'hygiène et à la manipulation des poissons ont été élaborées avec l'autorité nationale de la sécurité alimentaire.



FCRSAl

Résultats en termes de consommation de poisson :

- Les familles actives dans la pisciculture ont augmenté leur consommation de 12 kg par an.
- La consommation nationale de paiche a augmenté de 20,8 % et celle de pacu de 379 %.

## En bref

	La production de pacu a été multipliée par six, passant de 811 tonnes par an à 4 805 tonnes par an entre 2015 et 2018.
	254 prêts d'une valeur de 1,84 million \$ CA ont été octroyés à 196 clients des chaînes de valeur du poisson.
	1,2 tonnes de peau de paiche a été utilisée dans la chaîne de valeur du cuir chaque mois.

## Partenaires

- Canada : World Fisheries Trust; Université de Victoria
- Bolivie : Asociación Faunagua; Centro de Promoción Agropecuaria Campesina; Centro de Investigación y Desarrollo Regional; IMG Consulting SRL

# Expanding adoption of nutritious, disease-resistant potatoes in Colombia

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

The potato is one of Colombia's most important food staples and a source of low-cost calories for families. However, yellow potato varieties grown in Colombia are low-yielding and highly susceptible to fungal disease. Most families own small farms, therefore planting high-yielding, disease-resistant potato varieties is vital to ensure a sufficient harvest for both consumption and sale. To address these challenges, the project has collaborated to develop new potato varieties and nutrition interventions that alleviate malnutrition and improve food security for millions of Colombian consumers.

## Innovations

The research led to the development of:

- Three new potato varieties that are highly nutritious, more disease-resistant, and higher yielding than traditional varieties
- Sustainable seed production model to increase availability of high-quality seeds
- Creation of communal gardens (*shagras*)

## Key results

Enhanced health and nutrition:

- The new potatoes contain twice as much protein and nearly 20% more iron and zinc than traditional varieties
- The number of households classified as food secure increased from 19% to 59%
- 2,589 children under five had recovered from mild or moderate anemia when tested at the end of the project in 2017

Increased community capacities:

- 16 family farming community schools formed to provide potato production information
- 286 individuals received leadership training in food security, nutrition, and food sovereignty
- 160 families learned how to produce healthy, indigenous crops through the *shagras*






ERIC BARTWY

Improved access to markets and incomes:

- Seven groups of rural entrepreneurs established to produce and sell high-quality potato seed
- 297 tons of seeds produced and commercialized
- Farmers growing the new potato varieties increased their incomes by 18%

## At a glance

	Sales of the new potato varieties exceeded all expectations to reach 6.5 million consumers
	40% yield increase achieved from the new varieties
	70% of participating households improved their nutrition and health

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## Partners

- Canada: McGill University
- Colombia: Universidad Nacional de Colombia



CIFSRF is a program of Canada's International Development Research Centre (IDRC) undertaken with the financial support of the Government of Canada, provided through Global Affairs Canada. [idrc.ca/cifsrff](http://idrc.ca/cifsrff)

# Promouvoir la culture de pommes de terre nutritives et résistantes aux maladies en Colombie

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAl)

## Le défi

La pomme de terre est l'une des principales denrées de base en Colombie et une source de calories peu coûteuse pour les familles. Cependant, les variétés de pomme de terre à chair jaune cultivées en Colombie n'ont qu'un faible rendement et sont très vulnérables aux maladies fongiques. Dans la mesure où la plupart des familles possèdent de petites exploitations agricoles, il est essentiel de pouvoir planter des variétés de pomme de terre à haut rendement et résistantes aux maladies pour assurer une récolte suffisante, tant pour la consommation privée que pour la vente. Afin de répondre à ces défis, le projet a travaillé au développement de nouvelles variétés de pommes de terre et d'interventions nutritionnelles qui réduisent les taux de malnutrition et améliorent la sécurité alimentaire de millions de consommateurs colombiens.

## Innovations

Les recherches ont permis les développements suivants :

- Trois nouvelles variétés de pomme de terre hautement nutritives, davantage résistantes aux maladies et à plus haut rendement que les variétés traditionnelles.
- Un modèle de production de semences durable pour augmenter la disponibilité des semences de haute qualité.
- La création de jardins communautaires (*shagras*).

## Principaux résultats

Amélioration de la santé et de la nutrition :

- Les nouvelles pommes de terre contiennent deux fois plus de protéines et près de 20 % de fer et de zinc en plus que les variétés traditionnelles.
- Le nombre de ménages catégorisés comme « en situation de sécurité alimentaire » est passé de 19 à 59 %.
- 2 589 enfants âgés de moins de cinq ans qui souffraient d'anémie légère ou modérée se sont rétabli d'après un test de dépistage effectué à la fin du projet, en 2017.

Renforcement des capacités communautaires :

- 16 écoles communautaires d'agriculture familiale ont été créées afin de fournir des informations sur la production de pommes de terre.
- 286 personnes ont suivi une formation au leadership en matière de sécurité alimentaire, de nutrition et de souveraineté alimentaire.






DIAGRAMA

- 160 familles ont appris, au sein des *shagras*, à cultiver des plantes saines et indigènes.

Amélioration de l'accès au marché et des revenus :

- Sept groupes d'entrepreneurs ruraux ont été créés pour produire et vendre des semences de pomme de terre de haute qualité.
- 297 tonnes de semences ont été produites et commercialisées.
- Les revenus des agriculteurs qui cultivent les nouvelles variétés de pomme de terre ont augmenté de 18 %.

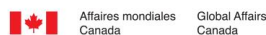
## En bref

	Les ventes des nouvelles variétés de pomme de terre ont dépassé les attentes et ont atteint 13 millions de consommateurs.
	Les rendements ont augmenté de 40 % grâce aux nouvelles variétés.
	70 % des ménages participants ont vu leur nutrition et leur santé s'améliorer.

PHOTOGRAPHIE: JEFFREY M. HARRIS

## Partenaires

- Canada : Université McGill
- Colombie : Universidad Nacional de Colombia



Le FCRSAI est un programme du Centre de recherches pour le développement international (CRDI) avec le soutien financier du gouvernement du Canada par l'entremise d'Affaires mondiales Canada. [crdi.ca/fcrsai](http://crdi.ca/fcrsai)

## The challenge

Rural smallholder farmers are the backbone of many sub-Saharan African countries, including Kenya, where women run 80% of these farms. However, fragmented, informal, and unreliable retail networks make it difficult for farmers to access the advice and high-quality agricultural inputs they need to thrive. Nevertheless, agro-dealers fear losing money if they set up village shops to serve low-income farmers.

The founders of Farm Shop, a franchising social enterprise in Kenya, have worked to modernize the agro-distribution network and transform it into a self-sustaining supply chain. The company has set up stores to provide rural farmers with affordable and reliable access to agricultural education and to inputs such as seeds, fertilizer, and animal feed, which has improved their incomes.



## Innovations

The research led to the development of:

- 114 Farm Shops that sell quality agricultural products
- Village hubs at the Farm Shops where farming best practices are demonstrated
- Improved inventory management, financial management, and quality control for the shops

## Key results

Enhanced yields and production savings:

- Increased the milk production of local farmers by 1.2 litres daily
- Reduced costs, because Farm Shop sources products directly from leading agricultural suppliers

Increased access to inputs and training:

- The availability of 850 high-quality and affordable products, such as seeds and animal feed
- Training in best agronomic practices, such as crop and livestock management

- Employment skills such as bookkeeping and customer service

Women were empowered by:

- Better access to credit and closer proximity to shops
- Training sessions held at convenient times
- Farm Shop employment policies that promoted gender equality

## At a glance

	34,998 smallholder farmers served by Farm Shops
	51% of franchisees are women and 54% of shop assistants are women
	Of the 114 Farm Shops opened across Kenya, 75 are profitable (over 75%)

## Partners

- Canada: Cape Breton University
- Kenya: Farm Shop



# Offrir un accès aux intrants agricoles à plus grande échelle au Kenya

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

Les petits producteurs des zones rurales sont les piliers de nombreux pays d'Afrique subsaharienne, notamment au Kenya, où 80 % de ces exploitations sont dirigées par des femmes. Cependant, la fragmentation, le manque de fiabilité et le caractère informel des réseaux de commerces de détail rends difficile l'accès des agriculteurs aux conseils et aux intrants agricoles de haute qualité dont ils ont besoin pour développer leurs activités. Or, les négociants agricoles craignent de perdre de l'argent s'ils créent des magasins de proximité pour servir les agriculteurs à faible revenu.

Les fondateurs de Farm Shop, une entreprise sociale kényane de franchisage, se sont employés à moderniser le réseau de distribution agricole pour en faire une chaîne d'approvisionnement autonome. La société a ouvert des magasins afin que les agriculteurs des zones rurales puissent avoir accès, à un coût abordable, à de la formation agricole et à des intrants tels que les semences, les engrais et les aliments pour animaux. Cette initiative a permis d'améliorer les revenus de petits agriculteurs.

## Innovations

Les recherches ont permis les développements suivants :

- La création de 114 magasins Farm Shop franchisés qui vendent des produits agricoles de qualité.
- L'intégration de centres villageois dans ces magasins pour la démonstration des meilleures pratiques agricoles.
- L'amélioration de la gestion des stocks, de la gestion financière et du contrôle de la qualité pour les magasins.

## Principaux résultats

Amélioration des rendements et réduction des coûts de production :

- Augmentation de la production laitière des agriculteurs locaux de 1,2 litre par jour.
- Réduction des coûts, car Farm Shop s'approvisionne directement auprès des principaux fournisseurs agricoles.

Accès amélioré aux intrants et à la formation :

- Accès à 850 produits de haute qualité à un prix abordable, tels que les semences et les aliments pour animaux.
- Formation aux meilleures pratiques agronomiques, telles que la gestion des cultures et du bétail.



- Compétences professionnelles, notamment dans le domaine de la comptabilité et du service à la clientèle.

Les femmes ont gagné en autonomie grâce à :

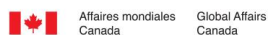
- Un meilleur accès au crédit et une plus grande proximité des magasins.
- Des séances de formation organisées à des moments opportuns.
- La politique d'emploi de Farm Shop, qui favorise l'égalité entre les sexes.

## En bref

	34 998 petits exploitants agricoles desservis par les magasins franchisés Farm Shop.
	51 % des franchisés sont des femmes et 54 % des vendeurs sont des femmes.
	Sur les 114 magasins Farm Shop ouverts au Kenya, 75 sont rentables (plus de 75 %).

## Partenaires

- Canada : Université du Cap-Breton
- Kenya : Farm Shop



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## The challenge

Improved technologies and practices for growing common beans, groundnuts, soybeans, and other legumes offer a cost-effective approach to enhance food and nutrition security and increase soil fertility. Despite the well-documented advantages of improved legume practices, such as intercropping, their use remains low in Tanzania. The main hurdles to their adoption are the lack of information available to farmers, failure to establish effective national extension services, and inaccessibility to high-quality seeds and fertilizers.

## Innovations

The research led to the development of:

- A multimedia campaign to improve legume technology adoption
- An interactive radio series to provide mentoring in legume production
- An “agro-dealer hub” model to provide inputs locally

## Key results

Successes of the multimedia approach:

- Six radio series reached an estimated 508,000 farming family members
- *Shujaaz* comics reached an estimated 75,000 young people
- 11,000 copies of support materials distributed to promote good agronomic practices

The adoption of better practices:

- An estimated 128,589 family members have begun using at least one improved practice (e.g. optimum row spacing or fertilizer application rate)
- 1,920 farmers attended field days demonstrating optimal legume production
- Influenced policies to improve seed variety registration, cut input costs, and expand community-based seed systems



IDRC/EARTRY

Influencing input management:

- Tanzania’s Agricultural Seed Agency is now stocking seeds for soybean and common bean varieties
- The African Fertilizer and Agribusiness Partnership developed an agro-dealer hub and trained 75 agro-dealers in business management
- Local companies now distribute soil inoculants to improve yields and nitrogen fixation

## At a glance

	An estimated 655,662 farming family members reached through the campaign
	11.8 tons of soybean seed and 8 tons of common bean seed produced
	19.6% of farmers reached have adopted improved practices

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## Partners

- Canada: Farm Radio International
- South Africa: African Fertilizer and Agribusiness Partnership
- UK: Centre for Agriculture and Biosciences International

# Intensifier la diffusion de technologies améliorées pour la culture des légumineuses en Tanzanie

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

Les technologies et les pratiques améliorées pour la culture du haricot, de l'arachide, du soja et d'autres légumineuses permettent, avec une approche peu coûteuse, d'améliorer la sécurité alimentaire et nutritionnelle et d'accroître la fertilité des sols. Même si les avantages des pratiques améliorées de culture des légumineuses – telles que les cultures intercalaires – sont désormais bien documentés, leur utilisation reste limitée en Tanzanie. Les principaux obstacles à leur adoption sont le manque d'informations accessibles aux agriculteurs, l'incapacité à mettre en place des services nationaux de vulgarisation efficaces et l'inaccessibilité des semences et des engrais de haute qualité.

## Innovations

Les recherches ont permis les développements suivants :

- Une campagne multimédia afin d'accroître l'adoption des technologies pour la culture des légumineuses.
- Une série d'émissions radio interactives pour offrir un soutien sous forme d'accompagnement à la production de légumineuses.
- Un modèle de « centre de négoce agricole » pour la fourniture d'intrants au niveau local.

## Principaux résultats

Adoption à plus grande échelle des meilleures pratiques :

- Selon les estimations, 128 589 membres de familles d'agriculteurs ont commencé à adopter au moins une pratique améliorée (espacement des rangs ou taux d'application d'engrais optimum, par exemple).
- 1 920 agriculteurs ont assisté à des journées de démonstration sur la production optimale de légumineuses sur le terrain.
- Des politiques influencées pour l'amélioration de l'enregistrement des variétés de semences, de réduction des coûts d'intrants et de diffusion à plus grande échelle des systèmes semenciers communautaires.

Influencer la gestion des intrants :

- L'Agence tanzanienne des semences agricoles (ASA) stocke actuellement des semences de soja et de variétés de haricots auxquelles les agriculteurs n'avaient pas accès auparavant.
- L'African Fertilizer and Agribusiness Partnership a mis en place un centre de négoce agricole et a formé 75 négociants agricoles à la gestion d'entreprise.



IDRC/ARTIF

- Les entreprises locales distribuent maintenant des inoculants de légumineuses pour améliorer les rendements et la fixation de l'azote.

Succès de l'approche multimédia :

- Six émissions radio ont été écoutées par environ 508 000 membres de familles d'agriculteurs.
- Les bandes dessinées *Shujaaz* ont touché environ 75 000 jeunes.
- 11 000 exemplaires de documents explicatifs, destinés à promouvoir les bonnes pratiques agronomiques, ont été distribués.

## En bref

	Selon les estimations, 655 662 membres de familles d'agriculteurs ont été sensibilisés par le biais de la campagne.
	11,8 tonnes de graines de soja et 8 tonnes de graines de haricot ont été produites.
	19,6 % des agriculteurs ciblés ont adopté des pratiques améliorées.

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## Partenaires

- Canada : Radios rurales internationales
- Afrique du Sud : African Fertilizer and Agribusiness Partnership
- Royaume-Uni : Centre for Agriculture and Biosciences International



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# Reducing barriers to small millets production and consumption in India

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

A lack of dietary diversity has contributed to malnutrition and the prevalence of obesity-related diseases, such as diabetes, in many South Asian countries. One solution is to promote the increased consumption of small millets, a climate resilient and gluten-free "superfood". However, compared to crops such as rice, the production and consumption of small millets in India is low, mainly due to poor consumer awareness of the health benefits, inadequate or inefficient processing facilities for millet, and policy neglect.

## Innovations

The research led to the development of:

- Equipment to efficiently de-hull and process small millets
- Business models to increase manufacturers' capacity to produce and sell processing equipment
- Nutritious millet-based products

## Key results

Increased capacity to operate equipment:

- Modified equipment is safer and easier to use
- 33 village-level processors, 25 small-scale processors, and 198 prospective buyers trained in equipment use
- 173 small millets processors purchased equipment from manufacturers

Public acceptance of small millets increased:

- Policy support helped raise awareness of the health benefits of millets and strengthened the role of women and farming communities in emerging millet value chains
- 130 tons of millet rice was supplied by women's organizations to their members
- 30 food enterprises increased their sales by more than 15%



DRG/BARNAV

Business models scaled small millets production:

- Supported equipment manufacturers with product improvements and links to buyers
- Prioritized knowledge transfer to facilitate the use of processing equipment, resulting in the restoration of 19 defunct processing units by local communities

## At a glance




	Approx. 1,105 tons of millet rice and grits reached 288,500 consumers
	Processing equipment demonstrations were held in 20 locations
	The health benefits of small millets reached 200,000 people via radio, TV, and text

PHOTO: DRG/BARNAV

## Partners

- Canada: McGill University
- India: DHAN Foundation



CIFSRF is a program of Canada's International Development Research Centre (IDRC) undertaken with the financial support of the Government of Canada, provided through Global Affairs Canada. [idrc.ca/cifsr](http://idrc.ca/cifsr)

# Diminuer les obstacles à la culture et à la consommation de millet en Inde

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

Dans de nombreux pays d'Asie du Sud, le manque de diversité alimentaire est une des causes de malnutrition et de prévalence de maladies liées à l'obésité, comme le diabète. Pour y remédier, une solution consiste à encourager la consommation de millet, un « superaliment » sans gluten et résistant au climat. Toutefois, par rapport à la culture du riz, la production et la consommation du millet sont relativement faibles en Inde. En cause : le manque de sensibilisation à ses bienfaits pour la santé, l'absence de centres de transformation de millet appropriés et le désintérêt des responsables politiques pour cette céréale.

## Innovations

Les recherches ont permis les développements suivants :

- Des machines permettant un décorticage et une transformation efficaces du millet.
- Des modèles commerciaux visant à renforcer la capacité des fabricants à produire et à vendre du matériel et des machines de transformation.
- Des produits nutritifs à base de millet.

## Principaux résultats

Capacité accrue d'utilisation des nouveaux équipements :

- Les nouveaux équipements sont plus sûrs et plus faciles d'emploi.
- 33 transformateurs villageois, 25 petits transformateurs et 198 acheteurs potentiels ont été formés à l'utilisation des équipements.
- 173 transformateurs de millet ont acheté l'équipement auprès des fabricants.

Meilleure acceptation du millet chez les consommateurs :

- Le soutien politique a permis de mieux sensibiliser les consommateurs aux bienfaits du millet pour la santé et de renforcer le rôle des femmes et des communautés agricoles dans les chaînes de valeur émergentes du millet.
- Les organisations de femmes ont fourni 130 tonnes de grains de millet à leurs membres.
- 30 entreprises alimentaires ont augmenté leurs ventes de plus de 15 %.






IDEZBARAKY

Modèles commerciaux adaptés à la production de millet :

- Soutien aux fabricants d'équipement sous forme d'améliorations du produit et de promotion des liens avec les acheteurs.
- Priorité donnée au transfert de connaissances afin de faciliter l'utilisation de l'équipement de transformation, ce qui a permis la réhabilitation, par les communautés locales, de 19 unités de traitement et de transformation abandonnées.

## En bref

	288 500 consommateurs ont pu se procurer environ 1,105 tonnes de grains ou de farine de millet.
	Des démonstrations de l'équipement de transformation ont été organisées sur 20 sites.
	Plus de 200 000 personnes ont été sensibilisées aux bienfaits du millet pour la santé au moyen des messages à la radio, à la télévision et dans la presse écrite.

## Partenaires

- Canada : Université McGill
- Inde : DHAN Foundation



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# Achieving impact at scale through ICT-enabled extension services in Ghana

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

Smallholder producers manage more than 70% of Ghana's farms but achieve only half of their potential yields. There is an urgent need for increased access to agricultural extension and advisory services by smallholder farmers, particularly women. However, public sector services in Ghana have become financially unsustainable and they are not widely available. As such, millions of smallholder farmers are denied the opportunity to learn and apply improved agronomic practices that would enhance productivity and household food security.

## Innovations

The research led to the development of:

- SmartEx, a mobile app that links farmers with agricultural advice, inputs, and markets
- Interactive agricultural radio programs to enhance farmer knowledge
- Policy papers with recommendations for transforming extension services

## Key results

Enhanced support services:

- Field agents access the app via tablets to rapidly connect farmers to trusted information, resources, and financial services
- The app connects farmers with business owners who provide agricultural inputs and services on credit to farmers
- Agents reached more than 14,100 farmers with information about higher yielding technologies and agricultural advice

Reaching smallholders at scale:

- 575 agricultural radio programs increased farmer knowledge of improved farming practices
- Radio was effective for reaching older farmers who are less likely to use phones
- 11 community listening groups extended radio access for women



ALFRED YEBE/GRAMEEN FOUNDATION GHANA

Informing public policy:

- Four policy papers recommended a more demand-driven approach to service provision by the private sector
- The government created a national register of private extension service providers
- The register is a first step toward extending private sector provision of advisory services

## At a glance

	91% of farmers indicated a willingness to pay for agricultural advisory and support services
	Almost 175,000 farmers adopted improved technologies or farm management practices
	Improved maize practices resulted in an average production increase of 229.9%

PHOTO: YEBE/GRAMEEN FOUNDATION GHANA

## Partners

- Canada: Farm Radio International
- Ghana: Grameen Foundation USA

# De meilleurs résultats grâce aux services de vulgarisation basés sur les TIC au Ghana

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

Plus de 70 % des exploitations agricoles du Ghana sont gérées par des petits producteurs, mais ceux-ci n'obtiennent que la moitié de leurs rendements potentiels. Il est urgent d'augmenter l'accès aux services de conseils et de vulgarisation agricoles des petits exploitants, et en particulier des femmes. Néanmoins, au Ghana, les services du secteur public ne sont plus viables financièrement et ne sont pas suffisamment disponibles. De ce fait, des millions de petits exploitants se trouvent privés d'un accès à l'apprentissage et aux pratiques agricoles améliorées qui pourraient renforcer leur productivité et la sécurité alimentaire de leur ménage.

## Innovations

Les recherches ont permis les développements suivants :

- Une application mobile, SmartEx, qui facilite l'accès des agriculteurs aux conseils agricoles, aux intrants et aux marchés.
- Des émissions interactives à la radio qui renforcent les connaissances des agriculteurs.
- Des documents d'orientation avec des recommandations pour transformer les services de vulgarisation.

## Principaux résultats

Services de soutien améliorés :

- Les agents de terrain accèdent à l'application au moyen des tablettes pour fournir rapidement aux agriculteurs des informations fiables, des ressources et des services financiers.
- L'application met les agriculteurs en contact avec des gérants d'entreprise qui fournissent des intrants et services agricoles à crédit aux agriculteurs.
- Les agents ont fourni à plus de 14 100 agriculteurs des informations sur les technologies permettant d'augmenter les rendements et des conseils agricoles spécifiques au contexte.

Large couverture des petits exploitants :

- 575 émissions à la radio ont renforcé les connaissances des agriculteurs au sujet des pratiques agricoles améliorées.
- La radio a été un outil efficace pour atteindre les agriculteurs plus âgés, moins susceptibles d'utiliser un téléphone.
- 11 groupes d'écoute communautaires ont élargi l'accès des femmes à la radio.



ALFRED YEBORAKI/Grameen Foundation Ghana

Orientation des politiques publiques :

- Quatre documents d'orientation ont recommandé que le secteur privé adopte une approche davantage axée sur la demande en matière de fourniture de services.
- Le gouvernement a créé un registre national des fournisseurs privés de services de vulgarisation.
- Ce registre constitue une première étape dans l'élargissement de la fourniture de services de conseils par le secteur privé.

## En bref

	91 % des agriculteurs se sont dit prêts à payer pour des services de soutien et de conseils agricoles.
	Près de 175 000 agriculteurs ont adopté des pratiques de gestion agricole ou des technologies améliorées.
	Les pratiques améliorées de culture du maïs ont eu pour résultat une hausse moyenne de la production de 229,9 %.

## Partenaires

- Canada : Radios rurales internationales
- Ghana : Grameen Foundation USA



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# Scaling up small-scale fortified food processing in Vietnam

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

Despite remarkable socio-economic growth over the past two decades, Vietnam continues to face significant problems with food insecurity and chronic malnutrition among women and children, particularly in the remote northern provinces. Combating child malnutrition is a policy priority, with two models showing great promise: the development of ready-to-use fortified foods and health counselling on feeding practices for infants and young children. However, to sustainably scale these models, barriers must be overcome to connect women farmers with buyers, increase food processing capacities, and improve local distribution of fortified foods.

## Innovations

The research led to the development of:

- Viable commercial supply chains for rural women farmers
- A sustainable model to locally produce and market fortified foods
- Public policies and programs that prioritize food security

## Key results

Enhanced opportunities along the value chain:

- Capacity to produce 100 tons of fortified instant rice porridge and 2 million packets of vegetable powder annually by a small-scale food processing factory
- The factory committed to purchase produce from 17 smallholder families
- Partnership formalized between the National Institute of Nutrition and a local businesswoman to produce porridge fortified with iron and zinc

Improved food and nutrition security:

- 2,899 kg of fortified porridge provided to 2,550 school children
- 10% increase in the consumption of iron-rich complementary foods
- Anemia reduced by 45% among children



Influencing local diets:

- 15 nutrition counselling centres established to train mothers in feeding practices for young children
- 20,000 women reached through nutrition counselling, training workshops, and marketing events
- Family nutrition counselling sessions have benefitted 22,248 children under two

## At a glance

	450 women farmers trained in agricultural practices for fortified food production
	28,133 sachets of fortified porridge sold at marketing events
	Consumers of fortified products reported an 81-92% satisfaction rate

## Partners

- Canada: Ryerson University
- Vietnam: National Institute of Nutrition



# Élargir la transformation à petite échelle de denrées alimentaires enrichies au Vietnam

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

Malgré une croissance socio-économique remarquable au cours des vingt dernières années, le Vietnam reste confronté à d'importants problèmes en matière d'insécurité alimentaire et de malnutrition chronique des femmes et des enfants, plus particulièrement dans les provinces isolées du Nord du pays. La lutte contre la malnutrition chez les enfants est une priorité politique et deux modèles affichent des résultats très prometteurs : le développement d'aliments enrichis prêts à l'emploi et la fourniture de conseils pour l'alimentation des nourrissons et des enfants en bas âge. Cependant, afin de pouvoir amplifier durablement la mise en pratique de ces modèles, il est nécessaire de mettre les agricultrices en contact avec des acheteurs, d'accroître les capacités de transformation alimentaire et d'améliorer la distribution locale d'aliments enrichis.

## Innovations

Les recherches ont permis les développements suivants :

- Des chaînes d'approvisionnement commerciales viables pour les agricultrices en milieu rural.
- Un modèle durable pour produire et commercialiser localement des aliments enrichis.
- Des politiques et programmes publics qui accordent la priorité à la sécurité alimentaire.

## Principaux résultats

Amélioration des occasions tout au long de la chaîne de valeur :

- Il est désormais possible de produire 300 kg de bouillie améliorée prête à l'emploi et 10 000 sachets de poudre de légumes enrichis par jour.
- L'usine s'est engagée à acheter des produits à 17 familles de petits exploitants.
- Un partenariat a été noué entre le National Institute of Nutrition et des femmes d'affaires locales pour produire de la bouillie enrichie en fer et en zinc.

Sécurité alimentaire et nutritionnelle renforcée :

- 2 899 kg de bouillie enrichie fournis à 2 550 écoliers.
- Hausse de 10 % de la consommation d'aliments complémentaires riches en fer.
- Réduction de 45% des taux d'anémie chez les enfants.



IDRC/ARF/AF

Influence sur les régimes alimentaires locaux :

- 15 centres de conseil nutritionnel ont été créés pour former les mères aux bonnes pratiques alimentaires pour les enfants en bas âge.
- Les conseils nutritionnels, les ateliers de formation et les événements promotionnels ont permis de toucher 20 000 femmes.
- Les séances offrant des conseils nutritionnels aux familles ont bénéficié à 14 438 enfants de moins de deux ans.

## En bref

	450 agricultrices ont été formées aux pratiques agricoles en vue de la production de denrées enrichies.
	28 133 sachets de bouillie enrichie ont été vendus lors d'événements promotionnels.
	Les consommateurs de produits enrichis ont exprimé un taux de satisfaction de 81 à 92 %.

## Partenaires

- Canada : Université Ryerson
- Vietnam : National Institute of Nutrition



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# Scaling up the production and distribution of fortified salt in India

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

Iron deficiency is the most widespread form of malnutrition and afflicts nearly 2 billion people globally. In many developing countries, severe iodine and iron deficiencies compromise the health and cognitive skills of women and can cause mental impairment in newborns. In India, iron deficiency is to blame for more than 200,000 maternal deaths each year. The rates of anemia in the country are also staggering, with 53% of women aged 15-49 and 58% of children aged 6-49 months suffering from the condition.

## Innovations

The research led to the development of:

- A commercial facility to produce double-fortified salt (DFS), which is salt fortified with iron and iodine
- New technical standards for DFS production
- A technology that uses microencapsulation to produce the iron premix for DFS

## Key results

Strong government backing:

- With subsidies from Uttar Pradesh, Jharkhand, and Madhya state governments, DFS is half the price of iodized salt
- Policymakers created a technical standard to promote DFS within state programs
- All schools have been instructed to include DFS in midday meals

Increased production capacity of DFS:

- Leading salt producers have built the capacity of their facilities to manufacture DFS at scale
- A commercial plant was built to produce enough iron premix for 300,000 tons of DFS annually
- Nearly 60 million 1 kg bags of DFS produced and distributed through local shops






DIK/BARTNY

Spreading the message:

- 8,500 shop owners were trained on the health benefits of DFS
- More than 10,000 women health workers were trained to promote DFS
- Over 10 billion meals have been cooked using DFS

## At a glance

	Adding iron to salt costs less than CA\$ 0.25 per person per year
	DFS is being distributed to more than 50 million people in three Indian states
	100% of the DFS stocks in stores are sold each month

## Partners

- Canada: University of Toronto
- India: St. John's Research Institute



CIFSRF is a program of Canada's International Development Research Centre (IDRC) undertaken with the financial support of the Government of Canada, provided through Global Affairs Canada. [idrc.ca/cifsrff](http://idrc.ca/cifsrff)

# Accroître la production et la distribution de sel enrichi en Inde

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

La carence en fer est la forme de malnutrition la plus répandue et affecte près de 2 milliards de personnes dans le monde. Dans un grand nombre de pays en développement, de graves carences en iode et en fer menacent la santé et les capacités cognitives des femmes. Ces carences peuvent aussi être à l'origine de déficiences mentales chez leurs bébés. En Inde, les carences en fer sont responsables de plus de 200 000 décès maternels chaque année. Les taux d'anémie dans le pays sont également considérables : 53 % des femmes entre 15 et 49 ans et 58 % des enfants entre 6 et 49 mois en sont atteints.

## Innovations

Les recherches ont permis les développements suivants :

- Une usine commerciale de production de sel doublement enrichi (SDE), c'est-à-dire enrichi en fer et en iode.
- De nouvelles normes techniques pour la production de sel doublement enrichi.
- Une technologie qui utilise la microencapsulation pour produire le prémélange de fer pour le sel doublement enrichi.

## Principaux résultats

Solide soutien gouvernemental :

- Grâce aux subventions des gouvernements des États de l'Uttar Pradesh, du Jharkhand et du Madhya Pradesh, le sel doublement enrichi coûte la moitié du prix du sel iodé.
- Les décideurs politiques ont introduit une norme technique pour promouvoir le sel doublement enrichi dans les programmes des États.
- Toutes les écoles ont reçu l'instruction d'inclure du sel doublement enrichi dans les dîners.

Hausse des capacités de production du sel doublement enrichi :

- Les principaux producteurs de sel ont développé les capacités de leurs usines en vue d'une production de sel doublement enrichi à plus grande échelle.
- Une usine commerciale a été créée pour produire suffisamment de prémélange de sel afin de fabriquer 300 000 tonnes de sel doublement enrichi chaque année.
- Près de 60 millions de sacs de 1 kg de sel doublement enrichi ont été produits et distribués dans des boutiques locales.






DFP/BANGAY

Diffusion du message :

- 8 500 commerçants ont été formés aux bénéfices du sel doublement enrichi pour la santé.
- Plus de 10 000 travailleuses de la santé ont été formées en vue de promouvoir le sel doublement enrichi.
- Plus de 10 milliards de repas ont été cuisinés avec du sel doublement enrichi.

## En bref

	Ajouter du fer au sel coûte moins de 0,25 \$ CA par personne et par an.
	Du sel doublement enrichi est distribué à plus de 50 millions de personnes dans trois États indiens.
	100 % des stocks de sel doublement enrichi dans les magasins sont vendus chaque mois.

## Partenaires

- Canada : Université de Toronto
- Inde : St. John's Research Institute

# Développer les exploitations familiales pour l'avenir au Cambodge

FONDS CANADIEN DE RECHERCHE SUR LA SÉCURITÉ ALIMENTAIRE INTERNATIONALE (FCRSAI)

## Le défi

La plupart des Cambodgiens vivant en milieu rural dépendent de l'agriculture de subsistance pour nourrir leur famille, mais la mauvaise utilisation des sols, la dépendance à l'égard de l'agriculture pluviale et le manque d'infrastructures de transformation agricole favorisent les pénuries saisonnières de denrées alimentaires. Pour y remédier, le projet s'est concentré sur un modèle de production alimentaire de subsistance améliorée (PASA), axé sur une formation des agricultrices à l'entrepreneuriat, à des pratiques agricoles améliorées et à l'éducation nutritionnelle.

Il a aussi fallu aborder les défis liés aux inégalités entre les sexes, à la saisonnalité et au manque de marchés pour les excédents agricoles.

## Innovations

Les recherches ont permis les développements suivants :

- Un modèle éprouvé de mise à l'échelle et de renforcement de la production alimentaire de subsistance.
- Des directives relatives aux bonnes pratiques d'aquaculture.
- Un manuel de formation amélioré pour aborder les inégalités entre les sexes.

## Principaux résultats

Élargissement de l'adoption du modèle PASA :

- 232 fermes villageoises modèles ont été créées dans quatre provinces.
- 3 656 ménages participants se sont lancés dans le maraîchage, l'élevage de volaille ou l'aquaculture.
- 96 % des ménages participants ont créé des potagers et la grande majorité ont adopté des pratiques améliorées pour économiser l'eau et préserver les sols.

Hausse de la productivité des exploitations familiales :

- Le modèle PASA a permis d'augmenter de 40 % la productivité agricole des ménages.
- Les familles participantes ont gagné 375 \$ CA de revenus bruts par an.
- Les améliorations apportées aux opérations en éclosion ont permis d'augmenter la production d'alevins de 30 %.



IDRC/GRAPV

Amélioration de la santé et de la sécurité alimentaire des ménages :

- La sécurité alimentaire des ménages ruraux participants est passée de 26 % à 72 %.
- La diversité de régime alimentaire favorisée par le modèle PASA a amélioré l'apport en micronutriments.
- 14 % de ménages supplémentaires ont commencé à utiliser une source d'eau et des infrastructures sanitaires améliorées.

## En bref




	28 000 kg de poisson et 260 000 œufs de poule ont été produits par les ménages participants.
	6 millions de kg de fruits et légumes ont été inclus dans la chaîne d'approvisionnement locale grâce au modèle PASA.
	À la fin du projet, 90 % des décisions liées à l'agriculture étaient prises par les femmes.

PHOTO: HENRI COOPER/REUTERS

## Partenaires

- Canada : Université de la Colombie-Britannique
- Cambodge : Helen Keller International



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## The challenge

Most rural Cambodians depend on subsistence agriculture to feed their families, but poor land use, dependence on rain-fed agriculture, and a lack of agro-processing infrastructure contribute to seasonal food shortages. To counter these issues, this project focused on an enhanced homestead food production (EHFP) model to provide women farmers with inputs and training on improved agricultural practices, entrepreneurship skills, and nutrition education.

Challenges related to gender inequalities, seasonality, and the lack of markets for surplus produce were also addressed.

## Innovations

The research led to the development of:

- A proven model to scale and enhance homestead food production
- Aquaculture best practice guidelines
- A refined training manual to address gender inequalities

## Key results

Scaling adoption of the EHFP model:

- 232 model village farms were established in four provinces
- 3,656 participating households took up vegetable gardens, poultry rearing, or fish ponds
- 96% of participating households established vegetable gardens, and the vast majority adopted improved practices for water and soil conservation

Increased productivity of family farms:

- The EHFP model helped raise agricultural productivity of households by 40%
- Participating families gained CA\$375 per year in gross income
- Enhancements to hatchery operations increased fingerling production by 30%






IDRC/BARTNY

Improved household health and food security:

- Food security for participating rural households increased from 26% to 72%
- Dietary diversity promoted by the EHFP model improved micronutrient intake
- 14% more households have started using an improved water source and sanitation facilities

## At a glance

	28,000 kg of fish and 260,000 poultry eggs were produced by participating households
	The EHFP model contributed 6 million kg of fruit and vegetables to the local supply chain
	At the end of the study, 90% of the decisions related to farming were made by women

© 2019 IDRC/Photo: IDRC/BARTNY

## Partners

- Canada: University of British Columbia
- Cambodia: Helen Keller International

## The challenge

Most yogurt in eastern Africa is produced using large-scale fermentation technologies to target urban consumers. Small dairy farmers are rarely involved and the rural markets that would benefit from probiotic strains — to improve weight gain among the malnourished, reduce skin rashes, fight diarrhea, enhance immunity in HIV patients, and reduce adsorption of heavy metals and aflatoxins — are not being reached.

To improve availability for rural consumers, researchers developed a one-gram sachet of freeze-dried bacteria that does not require refrigeration and produces 100 litres of yogurt within 24 hours. This project scaled the use of the sachets in rural Kenya, Tanzania, and Uganda using an innovative business model.

## Innovations

The research led to the development of:

- A business model for local production, distribution, and consumption of affordable probiotic fermented foods
- New probiotic products

## Key results

Nutritious diets for children:

- 20 early childhood development centres in Kenya are producing probiotic fermented porridge and serving 1,200 children daily. The model will be scaled to reach 3 million children
- A study showed that yogurt consumption increased weight and decreased skin rashes among Ugandan and Tanzanian students

Increased production of probiotic yogurt:

- 262 production units in Kenya, Tanzania, and Uganda produce over 45,000 litres of probiotic yogurt weekly
- 60 youth groups will be trained to produce and market probiotic yogurt in Tanzania and Uganda



IDRC/ARIP/RY

Partnerships for project sustainability:

- Jomo Kenyatta University will promote the consumption of probiotic fermented porridge in schools in five Kenyan counties
- In collaboration with Heifer International, the Lutheran World Federation and Finn Church Aid established production units serving refugee camps in Uganda

## At a glance

	258,000 consumers in Kenya, Tanzania, and Uganda are eating probiotic yogurt
	Selling one litre of probiotic yogurt in Uganda is three times more profitable than fresh milk
	Women lead 74% of production units

PHOTO: J. K. MURRAY/ARIP/RY

## Partners

- Canada: Western University
- Kenya: Jomo Kenyatta University of Agriculture and Technology
- Netherlands: Yoba for Life Foundation
- Tanzania and Uganda: Heifer International

## Le défi

En Afrique orientale, la majorité des yogourts sont produits en utilisant des technologies de fermentation à grande échelle ciblant les consommateurs en milieu urbain. Les petits producteurs laitiers sont rarement impliqués et les marchés ruraux qui tireraient profit des souches probiotiques (pour favoriser le gain de poids des personnes souffrant de malnutrition, diminuer les éruptions cutanées, combattre la diarrhée, renforcer l'immunité chez les patients infectés par le VIH et atténuer l'absorption de métaux lourds et d'aflatoxines) n'en bénéficient pas.

Pour améliorer l'accessibilité auprès des consommateurs ruraux, les chercheurs ont créé un sachet d'un gramme de bactéries lyophilisées qui ne nécessite pas de réfrigération et produit 100 litres de yogourt en 24 heures. Ce projet a permis l'utilisation à grande échelle des sachets dans les régions rurales du Kenya, de la Tanzanie et de l'Ouganda grâce à un modèle d'affaires novateur.

## Innovations

Les recherches ont permis les développements suivants :

- Un modèle d'affaires pour la production, la distribution et la consommation à l'échelle locale d'aliments fermentés probiotiques peu coûteux.
- De nouveaux produits probiotiques.

## Principaux résultats

Régimes alimentaires nutritifs pour les enfants :

- Au Kenya, 20 centres de développement de la petite-enfance produisent du gruau probiotique fermenté et en servent à 1 200 enfants par jour. Le modèle sera reproduit à grande échelle afin de toucher trois millions d'enfants.
- Une étude a montré que la consommation de yogourt avait permis le gain de poids et la diminution des éruptions cutanées chez les élèves de l'Ouganda et de la Tanzanie.

Production accrue de yogourt probiotique :

- Au Kenya, en Tanzanie et en Ouganda, 262 unités de production produisent plus de 45 000 litres de yogourt probiotique par semaine.
- Une formation sur la production et la commercialisation du yogourt probiotique sera donnée à 60 groupes de jeunes en Tanzanie et en Ouganda.



DFP/UNFP/AF

Partenariats pour la durabilité du projet :

- L'Université Jomo Kenyatta fera la promotion de la consommation de gruau fermenté probiotique dans les écoles de cinq comtés du Kenya.
- En collaboration avec Heifer International, la Lutheran World Federation and Finn Church Aid a établi des unités de production pour desservir les camps de réfugiés en Ouganda.

## En bref

	258 000 consommateurs au Kenya, en Tanzanie et en Ouganda mangent du yogourt probiotique.
	En Ouganda, la vente d'un litre de yogourt probiotique est trois fois plus rentable que la vente d'un litre de lait frais.
	Les femmes dirigent 74 % des unités de production.

DFP/UNFP/AF

## Partenaires

- Canada : Université Western
- Kenya : Université d'agriculture et de technologie Jomo Kenyatta
- Pays-Bas : Yoba for Life Foundation
- Tanzanie et Ouganda : Heifer International



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# Des vaccins innovants contre les maladies virales du bétail en Afrique

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

L'élevage est une industrie essentielle en Afrique, car elle est la source de produits alimentaires et d'origine animale destinés à la consommation locale et à l'exportation. Toutefois, la croissance de l'industrie est freinée par les maladies infectieuses virales qui tuent annuellement jusqu'à 25 % du bétail dans l'ensemble de l'Afrique. Il existe des vaccins contre de nombreuses maladies, mais leur coût et leur méthode de distribution en empêchent souvent l'utilisation généralisée, en particulier dans les zones rurales isolées.

Un projet antérieur du FCRSAI a permis de mettre au point des vaccins à dose unique abordables et résistants à la chaleur pour protéger les bovins, les ovins et les caprins contre cinq maladies courantes, mais les vaccins devaient être perfectionnés et mis à l'essai avant de pouvoir être reproduits à grande échelle. En plus de la mise à l'essai, les responsables du projet ont collaboré avec les organismes gouvernementaux et les entreprises pour faciliter l'obtention de licence, la fabrication et la distribution des vaccins.

## Innovations

Les recherches ont permis les développements suivants :

- Des vaccins candidats novateurs qui peuvent être facilement fabriqués.
- Un moyen abordable, sécuritaire et efficace offert aux éleveurs pour protéger leurs bétails contre les maladies infectieuses.

## Principaux résultats

La fabrication des vaccins pour le bétail est passée à grande échelle en effectuant ce qui suit :

- Optimisation de la production à petite échelle pour obtenir un rendement comparable à celui de la production commerciale.
- Amélioration des plateformes technologiques en établissant des stocks de vaccins et en mettant à l'essai les procédures d'exploitation normalisées, le contrôle de la qualité et la stabilité.
- Réalisation d'un essai de l'innocuité et de l'efficacité de deux vaccins, une condition préalable à l'obtention d'un permis pour réaliser la prochaine étape des essais sur le terrain.

Les exigences en matière de sécurité et de réglementation ont été influencées par ce qui suit :

- Un rapport des exigences réglementaires et des politiques relatives aux vaccins issus de microorganismes génétiquement modifiés.






FCRSAI/AFRIF

- Un examen du contexte réglementaire, politique et législatif national et régional à l'égard des vaccins.

Les intervenants pertinents ont participé comme suit :

- Organisation d'un atelier en Afrique du Sud pour lier les producteurs et les marchés et formuler des recommandations pour renforcer l'engagement des éleveurs à chaque étape de la chaîne de valeur des vaccins.

## En bref

	Plus de 288 éleveurs et de praticiens en santé animale ont reçu une formation sur les soins à donner aux animaux et sur l'utilisation des vaccins.
	97 % des éleveurs ayant participé au sondage ont exprimé le désir d'avoir des vaccins qui protègent leurs animaux contre de multiples maladies.
	6 rapports d'études socio-économiques ont été commandés pour la recherche de vaccins pour le bétail.

## Partenaires

- Canada : Université de l'Alberta
- Afrique du Sud : Agricultural Research Council



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## The challenge

Animal husbandry is a critical industry in Africa that provides food and animal products for local use and export. However, the industry's growth is hindered by infectious viral diseases that kill up to 25% of livestock Africa-wide on an annual basis. Vaccines are available for many of these diseases, but their cost and delivery methods impede widespread use, especially in isolated rural areas.

A previous CIFS RF project developed inexpensive and heat-stable single-shot vaccines to protect cattle, sheep, and goats against five common diseases, but the vaccines required refinement and testing before they could be scaled. In addition to testing, this project worked with government agencies and companies to facilitate licensing, manufacturing, and distribution of the vaccines.

## Innovations

The research led to the development of:

- Candidate novel vaccines that can be easily manufactured
- An affordable, safe, and effective way for farmers to protect livestock from infectious diseases

## Key results

Livestock vaccine manufacturing was scaled by:

- Optimizing small-scale production to achieve vaccine yields comparable to commercial production
- Improving technology platforms by establishing vaccine stocks and testing standard operating procedures, quality control, and stability
- Completing a safety and efficacy trial for two vaccines, a prerequisite for obtaining a permit to conduct the next stage of field trials

Safety and regulatory requirements influenced by:

- A report on the regulatory requirements and policies for genetically modified microorganism vaccines



- A review of national and regional regulatory, policy, and legislative environments for vaccines

Relevant stakeholders engaged through:

- A workshop in South Africa that linked producers to markets and made recommendations for strengthening farmer involvement at all stages of the vaccine value chain

## At a glance

	Over 288 farmers and healthcare practitioners trained in livestock care and vaccine use
	97% of livestock farmers surveyed desired vaccines to protect against multiple diseases
	6 reports on socio-economic studies commissioned for livestock vaccine research

## Partners

- Canada: University of Alberta
- South Africa: Agricultural Research Council

# Development of a vaccine for contagious bovine pleuropneumonia

CANADIAN INTERNATIONAL FOOD SECURITY RESEARCH FUND (CIFSRF)

## The challenge

Contagious bovine pleuropneumonia (CBPP) is a highly contagious respiratory disease of cattle that has serious economic and trade consequences across Africa. The bacterial infection affects the livestock of 24 million African farmers, with losses of more than CA\$78 million annually. Although a CBPP vaccine exists, it is only effective in 22% of cattle.

Canadian and Kenyan researchers developed three promising vaccine candidates in a previous CIFSRF project. Further studies were required to determine which candidate offered the greatest protection against CBPP and which could be mass produced most effectively.

## Innovations

The research led to the development of:

- A CBPP vaccine that can be rapidly produced by manufacturers and easily used by farmers

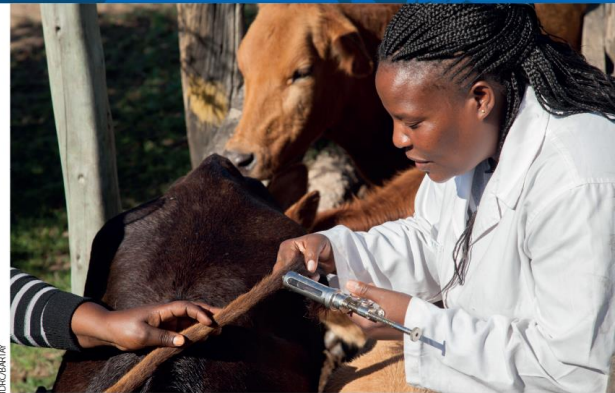
## Key results

Manufacturing at scale:

- A product development centre was launched in Kenya and equipped to produce recombinant antigens and analytical reagents for the vaccine. Staff were trained to produce the antigens in-country
- A licensing agreement for commercial production and marketing of the vaccine was finalized

Increasing control of CBPP:

- CBPP control strategy and contingency plan developed for Kenya and national training on CBPP surveillance provided
- E-voucher system for tracking vaccine use was set up and tested
- A machine was acquired that speeds up diagnosis, reduces the number of false positives, lowers treatment costs, and improves surveillance and control programs





- Results of the vaccine trial presented to regulatory authorities in the country and region

Overcoming social and economic barriers:

- Most livestock owners now perceive vaccination as the only effective control measure for CBPP following awareness campaigns
- National and sub-national authorities in Laikipia, Kenya, created a high-impact awareness campaign to communicate the risk of CBPP to farmers

## At a glance

	One vaccine was patented and licensed for commercial production
	Laboratory trials showed the new vaccine to be 81% effective

## Partners

- Canada: University of Saskatchewan
- Kenya: Kenya Agricultural and Livestock Research Organization

# Mise au point d'un vaccin contre la péripneumonie contagieuse bovine

FONDS CANADIEN DE RECHERCHE  
SUR LA SÉCURITÉ ALIMENTAIRE  
INTERNATIONALE (FCRSAI)

## Le défi

La péripneumonie contagieuse bovine (PPCB) est une maladie respiratoire très contagieuse des bovins qui a de graves conséquences sur l'économie et le commerce en Afrique. Cette infection bactérienne touche le bétail de 24 millions d'agriculteurs africains et entraîne des pertes de plus de 78 millions de CAD par année. Bien qu'il existe déjà un vaccin contre la PPCB, son efficacité se limite à 22 % du bétail.

Des chercheurs canadiens et kényans ont mis au point trois vaccins-candidats prometteurs dans le cadre d'un précédent projet du FCRSAI. D'autres études ont été nécessaires pour déterminer quel vaccin-candidat offrait la meilleure protection contre la PPCB et lequel pourrait être produit à l'échelle industrielle le plus efficacement.

## Innovations

Les recherches ont permis les développements suivants :

- Un vaccin contre la PPCB pouvant être produit rapidement par des fabricants et utilisé facilement par les agriculteurs

## Principaux résultats

Fabrication à grande échelle :

- Un centre de développement de produits qui a ouvert ses portes au Kenya est en mesure de produire les antigènes recombinants et les réactifs analytiques nécessaires à la production de vaccin. Le personnel a été formé afin que les antigènes puissent être produits au Kenya.
- Un contrat de licence visant la production commerciale et la commercialisation du vaccin a été délivrée.

Accroître le contrôle de la PPCB :

- Une stratégie de contrôle de la PPCB et un plan d'urgence associé ont été mis au point pour le Kenya, et une formation sur la surveillance de la PPCB a été donnée à l'échelle nationale.
- Un système électronique de bons de vaccination a été mis en place et testé.
- Un appareil a été acheté qui permet d'accélérer le diagnostic, de réduire le nombre de faux positifs, d'abaisser le coût du traitement, et d'améliorer les programmes de surveillance et de contrôle.
- Les résultats de la mise à l'essai du vaccin ont été soumis aux autorités réglementaires du pays et de la région.



IDRC/ARTW

Abattre les barrières sociales et économiques :

- La majorité des propriétaires de bétail considèrent maintenant la vaccination comme étant la seule mesure de contrôle efficace de la PPCB.
- Les autorités nationales et sous-nationales du Laikipia, au Kenya, ont élaboré une campagne de sensibilisation percutante pour communiquer aux agriculteurs les risques associés à la PPCB.

## En bref



	Un vaccin a été breveté et homologué aux fins de production commerciale.
	Les essais en laboratoire ont démontré que l'efficacité du nouveau vaccin est de 81 %.

PHOTO: ILLUSTRATION BY GETTY IMAGES

## Partenaires

- Canada : Université de la Saskatchewan
- Kenya : Kenya Agricultural and Livestock Research Organization



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## Annex 4. Communications products for the event

### Save the date postcard

Save the date for CIFS RF's closing event!



Towards a food-secure future: Lessons from CIFS RF and beyond

October 3 & 4, 2018  
Ottawa, Canada

Celebrating nine years of innovation and discovery at a special closing event for the Canadian International Food Security Research Fund (CIFS RF)

By invitation only.

Learn more about the fund's achievements and impact: [www.idrc.ca/cifsr](http://www.idrc.ca/cifsr)

Email: [cifsr@idrc.ca](mailto:cifsr@idrc.ca)



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International Development Research Centre  
Centre de recherches pour le développement international

Canada

À votre calendrier! L'événement de clôture du programme FCRSAI



Vers la sécurité alimentaire : tirer des leçons du FCRSAI et regarder vers l'avenir

Le 3 et 4 octobre 2018  
Ottawa, Canada

Souligner les répercussions et les leçons tirées de la recherche sur le développement réalisée sur neuf ans grâce au Fonds canadien de recherche sur la sécurité alimentaire internationale (FCRSAI).

Sur invitation seulement.

Apprenez-en plus sur les réalisations et l'impact du Fonds : [www.crdi.ca/FCRSAI](http://www.crdi.ca/FCRSAI)

Courriel: [cifsr@idrc.ca](mailto:cifsr@idrc.ca)



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Centre de recherches pour le développement international

Canada

# Invitation

## Towards a food secure future: Lessons from CIFSRF and beyond



On October 3 & 4, 2018, join us in celebrating nine years of innovation and discovery at a special event for the Canadian International Food Security Research Fund (CIFSRF).

Learn more about the fund's achievements and impact: [www.idrc.ca/cifsrf](http://www.idrc.ca/cifsrf).



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Centre de recherches pour le développement international

Canada

## Vers la sécurité alimentaire : tirer des leçons du FCRSAI



Le 3 et 4 octobre 2018, on souligne les répercussions et les leçons tirées de la recherche sur le développement réalisée sur neuf ans grâce au Fonds canadien de recherche sur la sécurité alimentaire internationale (FCRSAI).

Apprenez-en plus sur les réalisations et l'impact du Fonds : [www.crdi.ca/FCRSAI](http://www.crdi.ca/FCRSAI).



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Centre de recherches pour le développement international

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## Social media toolkit

IDRC/CIFSRF webpage: <https://www.idrc.ca/en/initiative/canadian-international-food-security-research-fund>

### Hashtags:

event hashtags:

#CIFSRF #FCRSAI  
#FoodSecureFuture

Session hashtags:

Session 1: #SustainableAg  
Session 2: #nutrition  
Session 3: #markets #MarketAccess  
Session 4: #r4d #partnerships  
Session 5: #scalingup #impact  
Session 6: #genderequality #WomenInAg

### Twitter handles:

- @CanadaDev
- @DevCanada
- @afs\_asa
- @GAINalliance
- @olabimfolu
- @acfcanda
- @GNCGeNeVA
- @UNICeF
- @CeCI\_Canada
- @AGRAAlliance
- @Cirad
- @CareGhana
- @ODIdev
- @DeloitteCanada
- @Rimisp
- @ISID\_McGill
- @100KIT
- @FAO
- @LargeScaleChng
- @WUR
- @CDIwageningenUR
- @Peces\_Vida
- IDRC network
  - @salbaco
  - @CharronIDRC
  - @\_JeanLebel
  - @jemimah\_njuki
  - @innocentbutare
  - @WManchur
  - @IDRC\_AFRIQUE
  - @IDRC\_CRDI

## Tweets by WReNmedia

### Session 1: sustainable agriculture

#### Nepal terrace farms



We're talking more about the project's innovations and impacts now at our 'Towards a #FoodSecureFuture' event. <https://bit.ly/1UvwF9U> #CIFSRF

In Nepal, #CIFSRF has reached more than 60,000 farmers with sustainable agriculture innovations like low-cost seeds & millet threshers. <https://bit.ly/1UvwF9U> #FoodSecureFuture

#### extension services in Ghana

ICT-enabled extension services in Ghana have improved maize production by 229.9%. <https://bit.ly/1UvwF9U> #CIFSRF #FoodSecureFuture





A #CIFSRF project in Ghana has developed a mobile app that links farmers with agricultural advice, inputs & markets. Find out more here: <https://bit.ly/2NpMW8N> #FoodSecureFuture

Single dose vaccines



Animal husbandry is a critical industry in Africa. #CIFSRF have trained 288 farmers and animal healthcare practitioners in livestock care & vaccine use. <https://bit.ly/1UvwF9U> #FoodSecureFuture



DYK infectious viral diseases kill up to 25% of African livestock each year? #CIFSRF research has developed a vaccine to protect against 5 common diseases. <https://bit.ly/2N5jfVm>

Facilitator: @innocentbutare

experts/Organizations: @lmsibanda @isaluki @CeCI\_Canada @Cirad @AGRAAlliance

**Session 2: improved nutrition**

Tanzania sunflower oil

HAPPeNING NOW at #CIFSRF Towards a #FoodSecureFuture event: discussions about locally fortified sunflower oil reducing vitamin A deficiency in Tanzania. <https://bit.ly/1UvwF9U>





Up to 500,000 poor rural Tanzanians have been reached with locally fortified sunflower oil.

#CIFSRF



Food processing Vietnam



DYK 1/3 of all children & 37% of women lack vit A in Tanzania? #CIFSRF is working to scale up accessibility of fortified & nutritious sunflower oil.

<https://bit.ly/2x1h3yj>

In Vietnam, #CIFSRF has provided 2,899kg of fortified porridge to 2,550 school children. Read about the health impacts here:

<https://bit.ly/2M7GKwX>

#FoodSecureFuture



**Vietnam continues to face significant problems with food insecurity and malnutrition among women and children**

#CIFSRF has been providing training to women farmers in fortified food production to improve nutrition in the country.

<https://bit.ly/1UvwF9U>

#FoodSecureFuture

## Nutritious potatoes in Colombia



**#CIFSRF has developed new potato varieties with twice as much protein as traditional varieties in Colombia**

Right now at our #FoodSecureFuture event we are discussing #CIFSRF nutrition innovations in Colombia. Stay tuned for the local impacts. <https://bit.ly/1UvwF9U>



**#CIFSRF has expanded the adoption of nutritious, disease-resistant potatoes to alleviate malnutrition in Colombia**

6.5 million consumers have been reached and 70% of participating households improved their nutrition & health. <https://bit.ly/2OleKGo> #FoodSecureFuture

Facilitator: @AnniWesley\_IDRC

experts/Organizations: @Paula\_Tenaglia @GAINalliance @acfcanda @UNICEF @GNCGeNeVA

## **Session 3: better market access and income**

### Small millets India



Due to increased public acceptance of small millets in India, 30 food enterprises have increased their sales by more than 15%. <https://bit.ly/1UvwF9U> #CIFSRF #FoodSecureFuture



In India, policy support has strengthened the role of farming communities in emerging millet value chains.

#CIFS RF

Women's organizations have supplied 130 tons of millet rice to their members, improving the consumption of this climate-resilient, gluten-free superfood.

<https://bit.ly/2pk99Xy>

#FoodSecureFuture

### Microdosing Nigeria



Revenues from indigenous vegetables have increased by 90% in Benin & 120% in Nigeria thanks to technology scaling up efforts by #CIFS RF: <https://bit.ly/1UvwF9U>

### Fermented foods



262 production units in Kenya, Tanzania, and Uganda are producing over 45,000 litres of probiotic yogurt weekly.

#CIFS RF

DYK selling 1 litre of probiotic yogurt in Uganda is three times more profitable than selling the same amount of fresh milk? <https://bit.ly/2rOwdN5>

#FoodSecureFuture



A #CIFS RF study in Uganda & Tanzania has shown that probiotic yogurt consumption increases weight gain and decreases skin rashes among students.

<https://bit.ly/1UvwF9U>

#FoodSecureFuture

experts/Organizations: @Gianlucabrasil @AGRAAlliance @CareGhana @ODIdev

#### Session 4: research for development partnerships

##### Coconuts in Cote d'Ivoire



In Cote d'Ivoire, #CIFSRF has been helping to combat lethal yellowing disease, which can destroy entire coconut plantations. <https://bit.ly/1UvwF9U>  
#FoodSecureFuture



**Through development partnerships in Cote d'Ivoire, coconut farmers have been empowered to detect and stop lethal yellowing disease.**

**#CIFSRF**

2,500 farmers & 180 extension agents have been trained to improve their coconut farming techniques and protect against lethal yellowing disease. Find out more about what this means for local farmers: <https://bit.ly/2DjeaJC>  
#FoodSecureFuture

##### Nanotechnology



Using a nanotechnology solution called "enhanced freshness formulation," #CIFSRF has helped to extend mango shelf life in India & Sri Lanka by 2-3 weeks. <https://bit.ly/1UvwF9U>  
#FoodSecureFuture



**In India and Sri Lanka, development partnerships have helped to decrease disease in bananas, mangoes and papayas by 80%.**

**#CIFSRF**

#CIFSRF partnerships have been working to reduce fruit post-harvest losses in Asia. More than 12,000 farmers in India have been reached with innovative solutions. More impact info here: <https://bit.ly/2OFkSdX>

CBPP vaccine



Contagious bovine pleuropneumonia affects the livestock of ~24 million African farmers each year. Read about the #CIFSRF research that has helped to develop an effective new vaccine: <https://bit.ly/2DL8e2L>  
#FoodSecureFuture



**A contagious bovine pleuropneumonia vaccine is helping to reduce livestock losses worth CA\$78 million each year.**

**#CIFSRF**

The vaccine can be rapidly produced and easily used by farmers. Find out more here: <https://bit.ly/2DL8e2L>  
#FoodSecureFuture

experts/Organizations: @DeloitteCanada @Rimisp

**Session 5: scaling up research for impact**

Microdosing Nigeria



**In Benin and Nigeria, over 337,900 farmers have been reached with improved practices for growing indigenous vegetables.**

**#CIFSRF**

Through a novel #CIFSRF innovation platform, smallholder farmers in Benin & Nigeria are scaling up vegetable production: <https://bit.ly/2NtlKpC>  
#FoodSecureFuture

Fortified salt India



**Nearly 60 million  
1kg bags of salt  
fortified with iron  
and iodine have  
been distributed by  
#CIFSRF**

#CIFSRF has been scaling up fortified salt production in India to combat iron deficiency. Read about the project's key results: <https://bit.ly/2KxuepX>  
#FoodSecureFuture



DYK iron deficiency is to blame for more than 200,000 maternal deaths in India each year? Adding iron to salt costs less than CA\$0.25 per person, per year.  
<https://bit.ly/1UvwF9U> #CIFSRF  
#FoodSecureFuture

Legumes Tanzania

**In Tanzania, over  
128,500 family farming  
members have begun  
using at least one  
improved practice for  
legume production.**



**#CIFSRF**

Right now, we're discussing scaling research at our #FoodSecureFuture event. The increased adoption of improved legume technologies is significantly impacting production in Tanzania:  
<https://bit.ly/2Oin6mO>



#CIFSRF multimedia campaigns in Tanzania have reached 655,662 farming family members with information on improved legume practices. <https://bit.ly/1UvwF9U>  
#FoodSecureFuture

Facilitator: @rdeplaen

experts/Organizations: @LargeScaleChng @kmaxottawa @DevCanada @CanadaDev @CanadaPe @CanadaFP @CDIwageningenUR @WUR

## Session 6: gender integration in research for development

### Family farms in Cambodia



Women farmers in Cambodia are receiving training on improved agricultural practices, entrepreneurship skills & nutrition education.

#CIFSRF

#CIFSRF is working to address challenges relating to gender inequality in Cambodia. The food security of participating households has since increased from 26% to 72%. <https://bit.ly/2Oji89c>  
#FoodSecureFuture



Thanks to a family farms #CIFSRF project in Cambodia, within participating households, 90% of farming decisions are now being made by women.

<https://bit.ly/1UvwF9U>

#FoodSecureFuture

### Pulses ethiopia



Pulse-nutrition education in Ethiopia has benefitted more than 23,000 women-headed households. Find out more here:

<https://bit.ly/2MQXl0L> #CIFSRF

#FoodSecureFuture



Radio broadcasts about the nutritional benefits of pulses have reached more than 246,500 households in Ethiopia.

#CIFSRF

#CIFSRF has also established women's micro-franchises to sell pulse-rich food products. We're hearing from the researchers about the key results now at our #FoodSecureFuture event:

<https://bit.ly/2N0NTed>

## Amazon fish



Thanks to a #CIFSRF project in the Bolivian Amazon, the number of families involved in fish farming has increased from 937 in 2015 to 1,757 in 2018. Find out about the local impacts:

<https://bit.ly/2pq8Qu7>

#FoodSecureFuture

#CIFSRF has promoted a fish leather value chain in the Bolivian Amazon, helping women and indigenous groups to increase their incomes.

<https://bit.ly/1UvwF9U>

#FoodSecureFuture



**Women and indigenous groups in the Bolivian Amazon have sold 1.2 tons of fish skins.**

#CIFSRF

Facilitator: @jemimah\_njuki

experts/Organizations: @sclaszlo @susan\_kaaria @ISID\_McGill @100KIT @FAO



## Annex 5. Evaluation responses

### Overall survey results

<b>Text Block:</b>						
Canadian International Food Security Research Fund (CIFSRF) fonds canadien de recherche sur la sécurité alimentaire internationale (FCRSAI). We value your opinion and want to hear your feedback. Nous apprécions votre opinion et accueillons vos commentaires.						
<b>1- Please rate the event / veuillez classer l'événement:</b>						
1 = Needs Improvement / besoin d'amélioration , 2 = Fair / acceptable , 3 = Good / bien , 4 = Very Good / très bien , 5 = excellent						
1	2	3	4	5	<b>Number of Responses</b>	<b>Rating Score*</b>
					59	4.2
*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.						
1 = Needs Improvement / besoin d'amélioration , 2 = Fair / acceptable , 3 = Good / bien , 4 = Very Good / très bien , 5 = excellent						
1	2	3	4	5		
0 (0.0%)	2 (3.4%)	6 (10.2%)	28 (47.5%)	23 (39.0%)		
<b>2- Rate the following sessions / Veuillez classer les sessions: Session 1: Sustainable agricultural production / Session 1 : Production agricole durable</b>						
1 = Needs Improvement / besoin d'amélioration , 2 = Fair / acceptable , 3 = Good / bien , 4 = Very Good / très bien , 5 = excellent						
<b>Answer</b>					<b>Number of Responses</b>	<b>Rating Score*</b>
	1	2	3	4	5	

How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?		55	3.8
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?		53	3.7

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

## Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	0 (0.0%)	5 (9.1%)	15 (27.3%)	23 (41.8%)	12 (21.8%)
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	0 (0.0%)	6 (11.3%)	14 (26.4%)	23 (43.4%)	10 (18.9%)

## Session 2: Nutrition and health outcomes / Session 2 : Résultats en matière de nutrition et de santé

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5	Number of Responses	Rating Score*
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						53	3.7

How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	49	3.6
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\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

### Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	0 (0.0%)	4 (7.5%)	20 (37.7%)	17 (32.1%)	12 (22.6%)
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	0 (0.0%)	7 (14.3%)	15 (30.6%)	18 (36.7%)	9 (18.4%)

### Session 3: Market access and income for small-scale farmers / Session 3 : Accès aux marchés et revenus des petits exploitants agricoles

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5	Number of Responses	Rating Score*
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						51	3.7
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?						49	3.7

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

## Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	0 (0.0%)	4 (7.8%)	14 (27.5%)	25 (49.0%)	8 (15.7%)
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	1 (2.0%)	2 (4.1%)	13 (26.5%)	28 (57.1%)	5 (10.2%)

## Session 4: Collaborative Partnerships / Session 4 : Partenariats collaboratifs

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5	Number of Responses	Rating Score*
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						51	3.8
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?						47	3.8

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

## Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

<b>Answer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	0 (0.0%)	5 (9.8%)	14 (27.5%)	18 (35.3%)	14 (27.5%)
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	0 (0.0%)	3 (6.4%)	16 (34.0%)	15 (31.9%)	13 (27.7%)

### Session 5: Scaling up innovations for impact / Session 5 : Applications à grande échelle des innovations en vue d'un impact accru

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

<b>Answer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Number of Responses</b>	<b>Rating Score*</b>
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						51	3.8
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?						49	3.9

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

### Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

<b>Answer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
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How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	2 (3.9%)	2 (3.9%)	12 (23.5%)	22 (43.1%)	13 (25.5%)
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	0 (0.0%)	2 (4.1%)	13 (26.5%)	21 (42.9%)	13 (26.5%)

## Session 6: Gender equality in agriculture and food security / Session 6 : Égalité des sexes en agriculture et sécurité alimentaire

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer						Number of Responses	Rating Score*
	1	2	3	4	5		
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						51	3.8
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?						47	3.6

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

### Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	0 (0.0%)	6 (11.8%)	12 (23.5%)	21 (41.2%)	12 (23.5%)

le dialogue à été engageant et stimulant?					
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	0 (0.0%)	6 (12.8%)	14 (29.8%)	18 (38.3%)	9 (19.1%)

### In our words: A farmer's perspective / Notre point de vue : agriculteurs

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1 2 3 4 5					Number of Responses	Rating Score*
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						55	4.0
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?						52	3.7

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

### Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	2 (3.6%)	6 (10.9%)	7 (12.7%)	17 (30.9%)	23 (41.8%)

How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?	2 (3.8%)	4 (7.7%)	16 (30.8%)	16 (30.8%)	14 (26.9%)
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### In our words: An emerging researcher's perspective / Notre point de vue : chercheurs émergents

1 = Needs Improvement / besoin d'amélioration , 2 = Fair / acceptable , 3 = Good / bien , 4 = Very Good / très bien , 5 = excellent

Answer	1 2 3 4 5					Number of Responses	Rating Score*
	How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?						
How useful was the session for your work and institution? / A quel niveau la session à été utile pour votre travail et votre institution?						52	3.5

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

### Details

1 = Needs Improvement / besoin d'amélioration , 2 = Fair / acceptable , 3 = Good / bien , 4 = Very Good / très bien , 5 = excellent

Answer	1	2	3	4	5
How engaging and stimulating was the dialogue? / A quel niveau le dialogue à été engageant et stimulant?	3 (5.4%)	5 (8.9%)	13 (23.2%)	20 (35.7%)	15 (26.8%)
How useful was the session for your work and institution? / A quel niveau la session à été utile pour	2 (3.8%)	8 (15.4%)	14 (26.9%)	17 (32.7%)	11 (21.2%)



votre travail et votre institution?

### 3 - Rate the Following / Veuillez classer ceci: exhibition and Marketplace / Marché FCRSAI

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Number of Responses</b>	<b>Rating Score*</b>
					55	3.9

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

#### Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
0 (0.0%)	3 (5.5%)	12 (21.8%)	26 (47.3%)	14 (25.5%)

<b>Number of Responses</b>	<b>Rating Score*</b>
55	3.9

### How adequate was the networking time? / Évaluez si le temps de réseautage fût suffisant.

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

1	2	3	4	5	Number of Responses	Rating Score*
					58	3.9

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

## Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

1	2	3	4	5
0 (0.0%)	5 (8.6%)	9 (15.5%)	28 (48.3%)	16 (27.6%)

					Number of Responses	Rating Score*
					58	3.9

---

## How useful was the networking for your organization/job? / Évaluez l'utilité du réseautage pour votre organisation/travail.

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

1	2	3	4	5	Number of Responses	Rating Score*
					57	4.2

\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

## Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

1	2	3	4	5
0 (0.0%)	2 (3.5%)	7 (12.3%)	26 (45.6%)	22 (38.6%)

	Number of Responses	Rating Score*
	57	4.2

---

**4 - I personally got the most out of / J'ai personnellement tiré le maximum de:**

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	Number of Responses
	48

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**5 - Overall I liked / Généralement j'ai aimé(e):**

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	Number of Responses
	48

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**6 - What could be improved? / Que pourrait être amélioré?**

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	Number of Responses
	43

**7 - The most interesting/innovative result in CIFSRF / Le résultat le plus intéressant ou innovant du FCRAI**

	<b>Number of Responses</b>
	41

**8 - What are the next steps for the future? / Quelles sont les prochaines étapes pour l'avenir?**

	<b>Number of Responses</b>
	42

**9 - Please rate the following / Veuillez classer ces items:**

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

<b>Answer</b>						<b>Number of Responses</b>	<b>Rating Score*</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
Materials (posters, infographics) / Matériaux (affiches, infographies)						57	4.2
Pre workshop information and travel arrangements / Informations préalable à l'événement et préparatifs de voyage						53	3.7
Accommodation / Hébergement						40	4.0
Venue / Lieu						56	4.4
Food & Beverage / Nourritures et boissons						54	4.3
Overall comfort / Confort général						55	4.3

Overall Satisfaction with event / Satisfaction avec l'événement	57	4.4
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\*The Rating Score is the weighted average calculated by dividing the sum of all weighted ratings by the number of total responses.

## Details

**1** = Needs Improvement / besoin d'amélioration , **2** = Fair / acceptable , **3** = Good / bien , **4** = Very Good / très bien , **5** = excellent

Answer	1	2	3	4	5
Materials (posters, infographics) / Matériaux (affiches, infographies)	0 (0.0%)	1 (1.8%)	13 (22.8%)	18 (31.6%)	25 (43.9%)
Pre workshop information and travel arrangements / Informations préalable à l'événement et préparatifs de voyage	4 (7.5%)	6 (11.3%)	12 (22.6%)	12 (22.6%)	19 (35.8%)
Accommodation / Hébergement	0 (0.0%)	3 (7.5%)	11 (27.5%)	10 (25.0%)	16 (40.0%)
Venue / Lieu	0 (0.0%)	0 (0.0%)	7 (12.5%)	19 (33.9%)	30 (53.6%)
Food & Beverage / Nourritures et boissons	0 (0.0%)	1 (1.9%)	9 (16.7%)	19 (35.2%)	25 (46.3%)
Overall comfort / Confort général	0 (0.0%)	0 (0.0%)	4 (7.3%)	29 (52.7%)	22 (40.0%)
Overall Satisfaction with event / Satisfaction avec l'événement	0 (0.0%)	1 (1.8%)	7 (12.3%)	19 (33.3%)	30 (52.6%)

## Survey comments

**Survey Name:** CIFS RF event survey

Oct 11, 2018 9:23:48 AM

<b>1- Please rate the event / veuillez classer l'événement: - Comments</b>	<b>Answer</b>
	Highly interactive and full of new information and learning for myself. experience shared is valuable. Great people lovely atmosphere great food.

	Found the design used was inclusive and participatory but at a very high cost of depth and substance.
	Very productive two days event that covers all the important areas
	Hard to capture the depth of the results in this format. It did tend towards the superficial and PR focus which is too bad. Having the recipients speak is great. What seemed missing was greater analysis of the specific themes. e.g. scaling up presenters spoke about overall projects but didn't focus much on how specifically they reached so many people and what their numbers really mean. That focus would have done more to stimulate discussion.
	I got to know more about all the projects and the results that they generated. It is amazing to know the total number of poor people that were positively impacted by the projects. It is a turn around for the developing world. I recommend that Global Affairs and IDRC select some of these projects for further scaling. My choice are indigenous vegetables project, nanotechnology and vaccine projects.
	Congratulations to everyone involved!
	The take away discussions could have been crisper.
	I am really impressed to see all these projects brought results, by controlling its share in innovation, women empowerment, environment, nutrition and more.
	Le choix d'avoir plusieurs personnes sur les panels avec peu de temps a permis de couvrir beaucoup plus de projet et était très dynamique
	Needs Arabic translation
	Very well organized and very informative. Very good learning experience from others.
	I thought the structure of the event and the flow, pace and quality of the discussions worked well. Participants were diverse with good M/F ratios. And the food was notably amazingly nutritious. The marketplace was an innovative set up and I think it worked well. Giving free time to connect was an investment in network building. Well done! Finally, the personal sharing from students, farmers, researchers and discussants hit the right tone of positivity with some critical thinking.
	Le concept des trois présentations suivies d'analyses externes Était vraiment super. Une excellente occasion de mettre les différents secteurs ensemble autour des discussions. Merci beaucoup pour ce bel Événements.
	I liked the format
	The reflections of the past were well highlighted throughout the conference. Deliberations on way ahead needed adequate attention.
	Beaucoup de soucis techniques pour me connecter et participer à votre Événement.
	Learning and sharing and integrating the learning from such an important undertaking as CIFSRF is key to ensuring the lessons are applied in the future.
	I love the timing of the sessions, allowing break times at decent intervals as well as the group breakout sessions
	This was a beautifully put together event with really interesting presentations and fantastic food. Thanks IDRC for the great 2 days

	Good organization. Interesting and useful topics, stayed to time, opportunity for attendee involvement
	The attention to detail (lanyards with schedule, usb key etc.) was nice.
	A very good learning experience of what other projects did and achieved
	It was great to share in the success of the program. However, the session chairs did a poor job of making sure the speakers stuck to their time. The extra panelists added almost nothing to the event, except Colleen at World Vision. This time could have been better used for discussion of the presentations, how to convey the results to Canadians, and how to pursued the government to continue the initiative in select countries with a combination of the innovations.
	Good blending of presentations, panelists and first-person testimonials. Ample opportunities for interaction between CIFSRR project implementing agencies and others.
	Choix diversifiés de projets et d'expériences, positif. Pas assez de temps cependant pour les experts sur les panels. La formule des tables de discussions aurait pu être utilisée pour la moitié des ateliers seulement pour permettre plutôt quelques questions de la salle.
	Overall, a good exchange of ideas. Good presence of Southern speakers. However, in most cases individual presentations were too short, to get a real sense of what was the learning from each. We were left with a lot of questions about important details.
	One of the best conferences I have ever attended--lots of interesting participants and excellent papers. I particularly enjoyed the presentations by the farmers.
	Lâ événement a été très appréciable. Il a mis à la porte de tous les participants les résultats de recherche des projets financés par FCRAI. Ce qui a été le plus important, la méthodologie appliquée pour permettre l'analyse des projets, des points de vue résultants de ces analyses. Ce qui donne une vision plus lointaine et meilleure quant aux prochains financements et choix des projets
	This was a well organized and collaborative effort. The excitement and passion behind the initiative was clear -- from IDRC's President to all its staff and that of Global Affairs. Certainly room for improvement as to the topics discussed, albeit being sensitive to the 2-day timeframe of the overall event.
	It was an excellent event; I had great time visiting with people from different parts of the world. It was quite engaging. The momentum of CIFSRR shouldn't be stopped. It must continue towards global food and environmental security. I appreciate the hard work of Global Affairs and IDRC colleagues. Bravo! Congrats! Vijaya
	It was a shame that evidently many who registered did not attend. Might be something to revisit in terms of promotion of the event.
	Well organized, good participation, good venue, great thematic knowledge in one place
	Some additional time for speakers and a chance to directly interact with them would have been helpful. It was difficult for both client as well as

	researcher to interact in the Market Place or lunch as there are so many clients and very little time/space to interact.
	The event was very well organized and focused. I feel that we managed to achieve much in a very timely fashion. This event was a fantastic opportunity to meet with members of other CIFS RF projects, with IDRC and Global Affairs staff, with farmers, students, experts, and others, to reflect on and to share and exchange experiences and ideas, and to forge new relationships. We look to the future with hope armed with our lessons learned through our on-the-ground experiences.
	Great People to be with...
	Very informative of CIFS RF achievements.
	I liked the format and especially the external commentary to move the discussion beyond the program level to some of the bigger issues and questions.
	event was well structured, the themes were well articulated and presenters were well prepared
	The event showed the achievements reached for each project in clear way, concise. The friendly atmosphere helped to establish new contacts. The organizers took care every detail and the agenda was developed successfully. The structure of the event facilitated to address all the topics relevant in food security an nutrition. It was fantastic to have two or three external commenters. This allows to have a critical evaluation and the comments from audience is relevant to have its perception.
	It was great to have a forum where all such innovations could be shared. There was also great networking
	<b>Answer</b>
	Very interesting and challenging.
Very informative.	
I took copious notes. Lots to review and ponder upon as I start planning for my oncoming field research.	
en général, L'idée des discussions aux tables était intéressante mais le temps alloué un peu trop long. J'aurais donné un peu plus de temps aux experts et réduit le temps aux tables. Aussi je trouve que deux experts par sujet était suffisant, trois devenait plus lourd.	
This was an excellent session for giving an overview and engaging people, and not intended for disseminating research.	
Was unable to attend on Wednesday. Please have a way we can indicate we are only able to come one day.	
This goes for all sessions: The presentations, particularly by the grantees were so interesting - it would have been nice to have a bit more time for each project. The table discussions were fine, but the questions were a bit constraining, it would have been nice to have been more open to frank and critical dialogue that wasn't being forced in a particular direction	
Interesting learned new things, organization good	
There was dialogue at the tables but it was repetitive with the same questions for each session. There was no dialogue for the presentation	



	<p>sessions. The 'outside' presenters added nothing of note to the outcomes and were way over time.</p> <p>Sharp presentations and stimulating panel observations. Breakout sessions were particularly insightful.</p> <p>Disappointed to see so much discourse about taking innovation to people, 'adoption', 'transfer', and 'acceptance' of technology. I would have liked to see much more talk of co-creation, horizontal knowledge sharing, participatory and collaborative research. And particularly of the gendered nature of knowledge.</p> <p>My work is on the fringe of the topic (or is the core--depending on your point of view). I'm working on data models for decision making--linking national, subnational and OpenStreetMap data--the presentations and discussions improve my perspective on what has to be measured and how to measure it.</p> <p>Le dialogue a été très engageant et stimulant. Les participants ont donné leur point de vue sur les avancées sur l'importance de la recherche, les bienfaits et la mise en échelle de ces innovations.</p> <p>La session a été très utile. En tant que professionnel en développement durable, les innovations apportent une valeur ajoutée: réduire la dépendance alimentaire, la sécurité alimentaire et l'augmentation des revenus; les mêmes pour notre institution</p> <p>The time constraint for deeper discussions was a bit lacking -- there was a tendency to focus too much on the positive and successful outcomes, but little on what was challenging and did not work</p> <p>It was holistic in approach.</p> <p>To some degree it seemed that the innovation part of the projects were not all that "new".</p> <p>The experts contributions was good. esp. the consideration of our perceptions of the adoption of technology in developing countries. Some perceptions/ biases do not reflect reality.</p> <p>Conversation was abstract because we did not have the report beforehand. So, the discussion questions did not make much sense to many of us who did not know the projects</p> <p>lessons presented resonated well with my work and gaps yet to address</p> <p>It was good to learn from the other projects how they tackled the agricultural and how they involved the communities</p> <p>Vaccine work is impressive, looking forward to the commercialization stage.</p>
<p><b>Session 2: Nutrition and health outcomes / Session 2 : Résultats en matière de nutrition et de santé - Comments</b></p>	<p><b>Answer</b></p>
	<p>It would have been better to talk more on impact of Food Security and Nutrition program on health that not much shown or discussed</p>
	<p>Very entertaining.</p>
	<p>Good learning experience from different parts of the world. Very informative.</p>
	<p>I thought more could have been shared but I appreciate the need to inform without using up all the time to share on project details we could read about. I kept wanting to know more after each presentation. Good strategy. I will</p>

	definitely check out the docs provided on the USB storage device. That was another cool innovation!
	I presented in this session so not appropriate to comment
	This goes for all sessions: The presentations, particularly by the grantees were so interesting - it would have been nice to have a bit more time for each project. The table discussions were fine, but the questions were a bit constraining, it would have been nice to have been more open to frank and critical dialogue that wasn't being forced in a particular direction
	Struck me as the rigor of the presentations (except Tanzania) was poor. A 22% decline in stunting, this should be published NeJM; I doubt the findings would stand up. A lot of emphasis on fortification, even this had trouble showing impact Needed to know how dietary diversification might improve nutrition outcomes. Would have liked more on whether we should try to show improvement of nutritional outcome with agriculture. What should the outcomes be and what duration is needed.
	There was dialogue at the tables but it was repetitive with the same questions for each session. There was no dialogue for the presentation sessions. The 'outside' presenters added nothing of note to the outcomes and were over time, except for Colleen emery who made a suggestion to focus on conflict zones. But such was the format there was no way to discuss this openly with everyone.
	Sharp presentations and stimulating panel observations. Breakout sessions were particularly insightful.
	CIFSRF work showed the complexity of the challenge, yet was able to go beyond the call and demonstrate effective change from both food security and more targeted interventions (like fortification) to malnutrition. Its laudable efforts throughout to assess outcomes and change in nutritional status (in spite of the short length of implementation), and having boldly identified and stuck to specific indicators -- demonstrates clarity in planning and execution.
	Very useful for my teaching and research.
	Again experts contributions were very good. I wonder if it would have been useful for the project people to have access to such experts as they proceeded with the project.
	same comment as above
	the connection between agriculture and nutrition was well espoused and linkages well discussed. Group discussions were great and animated
	I was in this session, and it was stimulating to know the work of the other projects. The project from Vietnam that worked with processing and to moved some biochemical indicators also the project Tanzania - fortified oil. I liked one of the external commenter, who indicated that nutrition is a very complex theme, so it is not easy to deal with it and to tackle this issue is in a complex way, and it is important to be careful at the moment of conclude.
	The talk on virus was quite interesting but it is not clear how far they are in terms of implementing it.

<b>Session 3: Market access and income for small-scale farmers / Session 3 : Accès aux marchés et revenus des petits exploitants agricoles - Comments</b>	<b>Answer</b>
	Here I was disappointed in a weak understanding of what it means to access new markets. It is far more than increasing production. Who are the new consumers? What did the projects do to reach them?
	Very useful and informative.
	Good and informative.
	I am a bit concerned when I hear presentations that seem to propose smallholder farmer business models that create agricultural empires. I think there is a place for that but the quality of improvements that are impactful are more about the quality of life for the majority.
	This goes for all sessions: The presentations, particularly by the grantees were so interesting - it would have been nice to have a bit more time for each project. The table discussions were fine, but the questions were a bit constraining, it would have been nice to have been more open to frank and critical dialogue that wasn't being forced in a particular direction
	This was an important one and I had much to learn and did. Still struggling to see a viable link to markets in our project.
	There was no dialogue for the presentation sessions. Clement and Reid were the only two presenters who stayed within time the whole event. The 'outside' presenters added little of note to the outcomes. There was dialogue at the tables but it was repetitive with the same questions for each session.
	Sharp presentations and stimulating panel observations. Breakout sessions were particularly insightful.
	My work is on the fringe of the topic (or is the core--depending on your point of view). I'm working on data models for decision making--linking national, subnational and OpenStreetMap data--the presentations and discussions improve my perspective on what has to be measured and how to measure it.
	efforts in this regard were extremely welcome -- markets and income are often disregarded in development initiatives and poorly reported upon. CIFSRF has tried hard to report on market access, food chains work and income and succeeded to the extent of what current initiatives have achieved. It will be crucial to return at a later date and carry out impact assessment to assess the resilience of this change and its impact.
	Very much in line with the challenges I have.
	It seemed at times that the audience was not aware of some concepts. Important to have everyone understand what value chain are, role of behaviour change communication. also would be good to unpack more on how to look at impact of interventions, both intended and unintended.
	ditto
Farmer story was impressive	
though program did not set out with focus on incomes, this is probably the reason anyone would invest in the innovations. anchoring value chains in a business model that can be scaled up would attract investors. partnerships and policies are key to scale up	

	<p>It was very stimulating to see the different ways employed for the project for marketing. I liked the project fermented foods, because we had the opportunity to see the lady who worked in this project and it was very stimulating to see how her improved her quality of live. In this session also was point out that the innovations by themselves are not the solution, but the innovations need to work together with social innovations, because they are key elements for changing.</p> <p>There was not enough detail to the approaches adopted to be able to have a meaningful discussion around gaps</p> <p>exciting innovations that will change the face of food systems in the developing world and globally i.e. dry bacteria for probiotic yoghurt and fortified millet in India among others</p>
<p><b>Session 4: Collaborative Partnerships / Session 4 : Partenariats collaboratifs - Comments</b></p>	<p><b>Answer</b></p> <p>The session should have focused on the importance of collaboration to achieve the intended results rather than presentation of outputs.</p> <p>Very impressive.</p> <p>The collaboration and partnership aspect did not come out clearly as major strengths in the projects presented. They were not good cases for the theme.</p> <p>I thought this was one area that could have been re-worked. Collaborative governance in a relatively new field but some basic background from implementations science by discussants could have improved the discussion.</p> <p>Did not attend</p> <p>I was not present for this session.</p> <p>Having more NGO'S from Africa would have been great</p> <p>This goes for all sessions: The presentations, particularly by the grantees were so interesting - it would have been nice to have a bit more time for each project. The table discussions were fine, but the questions were a bit constraining, it would have been nice to have been more open to frank and critical dialogue that wasn't being forced in a particular direction</p> <p>Very pertinent to my own work. Would have appreciated a greater discussion of potential challenges and how they were overcome.</p> <p>The chairing was once again poor, taking no account of the five minute timeline. Rather we heard repetition of what the program achieved. Indeed, pretty much every chair did this. The external speakers added little of note and Ignacia seemed disinterested in the program and only in her own work.</p> <p>I thought that Mme. Gaboury's presentation was exceptionally useful. Breakout sessions were particularly insightful.</p> <p>Did not attend</p> <p>My work is on the fringe of the topic (or is the core--depending on your point of view). I'm working on data models for decision making--linking national, subnational and OpenStreetMap data--the presentations and discussions improve my perspective on what has to be measured and how to measure it.</p> <p>early summary of key findings presented by Wendy Manchur were extremely insightful and demonstrated the degree to which efforts have been made to</p>

	achieve a high degree of impact in this often complex area of development research and development.
	It is difficult to have a great time. The projects did very well.
	Very good to include the role of partners that are often not specifically included or thought to be partners - like financial institutions. Good intervention by Anne from Desjardins. Big need for financial literacy among emerging innovations, markets and those working on the ground to scale up.
	ditto
	The talk on hexanal and the real time application of this product is great. I hope it will be available to farmers in Canada. I am not sure if any one from regulatory organizations was present in the audience and it would have been great to hear from them on what it will take to clear it. We seem to be already using it in our food and then why there should be hesitation in using in fruits!
	Good discussion and interesting to have comments from Desjardins especially.
	crowding in other partners including governments is critical for scale up. partners should have a shared vision for success
	I liked very much to know the project about vaccines and how they were able to involved many actors and countries. This project had behind a strong scientific component to develop a vaccine against five diseases. I think this kind of projects with a strong scientific knowledge behind can do the difference.
	did not attend
<b>Session 5: Scaling up innovations for impact / Session 5 : Applications à grande échelle des innovations en vue d'un impact accru - Comments</b>	
	<b>Answer</b>
	Should have more time for round table discussion since it is an important issue
	I enjoyed the scientific discussions. Very impressive.
	The scaling up aspects were not clearly highlighted. Major tenets for projects scale up were not clearly pointed out in the projects presented.
	I quite like this session. It was an important reflection on the why, what, when to scale up.
	Did not attend
	This goes for all sessions: The presentations, particularly by the grantees were so interesting - it would have been nice to have a bit more time for each project. The table discussions were fine, but the questions were a bit constraining, it would have been nice to have been more open to frank and critical dialogue that wasn't being forced in a particular direction
	Still left thinking what scaling up is. but that's OK it stimulated reflection for me. Is it number of households or the impact on the household
	The chairing was once again poor, taking no account of the five-minute timeline. Rather we heard repetition of what the program achieved. The external speakers added little of note and Richard Kohl should have been cut off. Seerp mentioned justice, which was not examined in the projects, and it

	seemed strange to have paid for him to come all the way from the Netherlands just for that.
	Sharp presentations and stimulating panel observations. Breakout sessions were particularly insightful.
	My work is on the fringe of the topic (or is the core--depending on your point of view). I'm working on data models for decision making--linking national, subnational and OpenStreetMap data--the presentations and discussions improve my perspective on what has to be measured and how to measure it.
	This is an area, while laudable in its efforts, that requires further work and definition. While recognizing this only took place post phase2, and requires much more time to assess (i.e. some of the scaling up examples provided were questionable at best --been improvement area in Tanzania, and fortification work), highlighting better definition of SU and its rationale. Bringing in outside speakers to challenge the work was extremely (i.e. rep from Wageningen) useful.
	The impact has been great. Bravo!
	Again, very good contributions of experts. This session was powerful because it helped elevate discussion not of the specific projects as much as the concepts that need to be considered when looking at scaling up. Key considerations like trade-offs, the progression of adaption and adoption, impacts on social systems where the scale up occurs.
	Information regarding scale was not thoroughly explored. it was not clear how these innovations would be scaled after discovery. Also, in all cases, the role of government as either absent or downplayed or just not presented at all. Government would play a BIG role in scaling innovations (creating the right environment, policy and otherwise).....so, it was hard to see the real benefits of the 124m after program closed.
	There was a lot of confusion over the use of the term scaling up as one of the groups (I think many) pointed out post presentation.
	I appreciated the important challenges raised about scaling up and the need to think about responsible scaling. I would have liked to hear more about the failures and to think about what we can learn about these experiences.
	innovations scale up requires strong partnerships and value for money. connect the value chains from end to end for impact instead of stand-alone interventions (from farmers, inputs, output markets, service providers to consumers)
	I enjoy this session because our project is writing about scaling -up, so I could contact the person from Wageningen to work with this and I received his book and ideas. Also was interesting to know from the other projects similar ideas for scaling-up as, to identify the right partners, to conform a strong leadership for sustainability, that the best is to improve the living conditions of people not only the number of people, and other crucial idea was that the scaling-up is not neutral.
	excellent and interesting interventions by the commentators
	did not attend

**Session 6: Gender equality in agriculture and food security / Session 6 : Égalité des sexes en agriculture et sécurité alimentaire - Comments**

Answer
Impressive
The translation of gender equality was as if we meant women equality. Gender means equal opportunity for men and women. The discussion much focused on women and opportunities that they had in the projects but no mention of opportunities for men in some projects that were managed by women.
Great panel and great discussion!
Did not attend
Good point someone made that if gender was so important, why was it made the last session in the afternoon?
Putting this session at the end of the conference and with reduced time to talk did not do it justice. Since it is a cross-cutting theme, it may have been better to integrate it across the themes and have it as a central question for the panels and for the discussion tables.
My most important take home point here are that: 1. Women involvement is not the same thing as women empowerment. We need to look beyond just involving women in part of the process but rather empower them to be partners and decision makers. 2. We need to work together with cultural, communal and policy leaders to find ways to truly empower women rather than imposing the western model on them.
This goes for all sessions: The presentations, particularly by the grantees were so interesting - it would have been nice to have a bit more time for each project. The table discussions were fine, but the questions were a bit constraining, it would have been nice to have been more open to frank and critical dialogue that wasn't being forced in a particular direction
This was good I still think many of the innovations increase the work burden of women. Would have liked to have known more about ways of measuring this burden, increased and decreased.
Same as other sessions, only by now the table discussions on the same topic were getting tiring.
I was called out to attend to other priorities so was not able to engage as much.
This is a foundational aspect of FSN. We should have had this session at the beginning, not the end.
My work is on the fringe of the topic (or is the core--depending on your point of view). I'm working on data models for decision making--linking national, subnational and OpenStreetMap data--the presentations and discussions improve my perspective on what has to be measured and how to measure it.
Again, commendable efforts were demonstrated throughout. It would have been helpful to bring in more challenging speakers to address this issue (beyond those already part of the sponsors). For example, Clare Bishop Samrock from IFAD has undertaken commendable institutional-level work (making IFAD a leader on gender equality and empowerment within the

	UN), Lynn Brown (formerly WB)&Vicki Wilde (formerly BMGF and CGIAR). Broad/differing approaches to gender inequality often confusing.
	excellent start.
	Stimulating session which revealed that gender integration, transformation strategies and practical application is a work in progress. We really need to consider this in the context of land ownership.
	Treating gender as a separate entity is the best recipe for it to be sidelined...ironically, it was the last session of the conference....what a great way of trivializing it. Gender should have been threaded through all the innovations and should have naturally come out during the technical presentations....the format of the conference strongly supported the usual "and gender was considered" mantra.
	I guess the expertise on gender seems to be lacking in the research teams. Perhaps some guidance from a gender think-tank panel at the start may have improved. I don't know if this was in place or not.
	This session would have come earlier. I feel like much more time should have been allocated to this session considering the importance of gender in agriculture not enough time was allocated
	Unfortunate that this topic was left until the end because all the speakers were excellent. The audience lacked energy to engage in further discussion. In future, don't put this topic last as it also sends a message....
	gender was well articulated and benefits of including women in decision making in agriculture, including leadership
	This was an excellent session for the end. How the projects involved women and impact in their lives. I enjoyed especially the project in Bolivia because we could see the lady who now is a businesswoman with her restaurant and also in the commercialization of fish. It was very stimulating to know how she grew up and overcome all the barriers.
	did not attend
	<b>Answer</b>
	Impressive
	Good
	Wonderful idea
	I cannot agree that it is justifiable to spend Canadian taxpayer dollars to fly someone all the way from Africa to Ottawa, when we could have video Skyped.
	Such an important feature of the conference! This perspective needs to stay front and center in our thinking. I really loved this!
	It was great learning how intervention programs like this have direct meaningful impact on the lives of farmers. I hope it'll be the turning point for generations after them
	This was for me the highlight of the two days
	There is a tendency to show off the success stories giving the false impression that all is wonderful. Would have been great to hear from a farmer in Cambodia (maybe a woman) who got nothing out of the project despite giving her best effort.
	Winnie's presentation took courage and showed how important the work that CIFSRF did can change lives.
	Superb.



	Ce n'était pas vraiment un dialogue mais était très intéressant.
	It is impossible to physically visit all of the various types of project that make up viable programmes-- I found these snapshot views to be particularly valuable. I've never been to Cambodia so it was all new-- I've worked extensively in Bolivia but had no idea of what was happening in fisheries(or fish restaurants for that matter) ditto for the story on milk production. Very impressive participants.
	Good efforts to bring a voice and direct farmer perspective. Good choices in spite of the logistical difficulties encountered!
	Nice to see the beneficiaries explaining their experience.
	What struck me was that their stories should be witnessed by the people who work in cubicles and simply see/ read or review reports and numbers behind the projects. They need to be educated and enriched by the work of those involved in these projects. (Maybe a thought about how to multi-purpose these workshops/ conferences.)
	Great to hear from the farmers. Wonder what it would have looked like if all the achievements were presented by the farmers themselves?
	This tells how much it was successful in the global south (new term for me!). It would have better if there are farmers representing more successful ones like virus or hexanal projects so we can hear directly from them. Such representations can also help the researchers to project the product further to policy people who were there in attendance.
	Inspiring! But not a dialogue. Also a bit strange that her experience wasn't brought back into one of the panels, especially the one on gender.
	The Vietnam farmer though absent was very good, the Bolivia fish farmer talk and interpretation, would have been better if key take away were projected. got lost with the interpretation. the dairy fermented yoghurt was great. in all markets and incomes featured strongly
	This part in the event was excellent because the farmers could communicate their experiences and achievements to the audience. Their communications were clear and especially honest and to see thought them how our projects were able to change their lives, it was deeply moving.
	Was great to know the experiences from the field but more time should have been given to dig a little deeper.
<b>In our words: An emerging researcher's perspective / Notre point de vue : chercheurs émergents - Comments</b>	
	<b>Answer</b>
	Impressive and informative
	Very informative
	Very pleasant
	It was difficult to understand the point of this presentation. There are so many researchers in the room. Why highlight this one?
	This was also important and an excellent perspective to have. Perhaps you could have also included an NGO to talk about the importance of that partnership.
	This was very helpful. I hope someday my story would be shared too
	I think this is one thing CIFSRF can be extremely proud of both in country and Canadian researchers
	The researcher presented poorly, saying four or five times that he did a PhD in Saskatchewan.

	<p>Superb.</p> <p>The presentations were excellent-- the improvement over the past 10 years in the participation of the "local" partners was impressive.</p> <p>Some good reps from the Global South.</p> <p>Very rich new information for our work.</p> <p>Always inspiring to see the fresh energy, dedication and desire to move forward with their work. I was struck by how these emerging researchers were keen to include and share their experience (and credits for the work) with their peers. Hope that humbleness does not disappear!</p> <p>great work presented.</p> <p>They were not clear on what they got out of the project other than profusely thanking the agency again and again. Sorry to be direct and blunt on this.</p> <p>Helped to convey the value and reach of CIFSRF but not so sure on lessons learned?</p> <p>good account of his growth and development to a full researcher and impact on the communities he serves</p> <p>Impact with innovations requires scientific knowledge behind and to see the three young researchers showing how the projects impacted in their lives was very significant, because a important part of the sustainability are them, those young people trained with the vision of the projects and to have the confidence that they will continue with the processes started.</p> <p>More time should have been given for questions or clarifications session/presentations</p>
<p><b>3 - Rate the Following / Veuillez classer ceci: exhibition and Marketplace / Marché FCRSAI - Comments</b></p>	<p><b>Answer</b></p> <p>I was not able to spend much time there but it provided much needed depth to the discussions.</p> <p>IDRC did a good job of summarizing the projects.</p> <p>Honestly, I did not spend much time there</p> <p>Good. However in many posters concerned researchers were not there to offer explanation of some issues.</p> <p>Très bonne idée de présenter les projets individuels en posters et discussions individuelles plutôt qu'en présentations formelles. C'est une excellente occasion de réseautage, d'échanger sur le futur et de poser les questions qui nous concernent personnellement.</p> <p>There was plenty of time to meet and discuss with all of the projects highlighted. So good to meet the individuals doing the research.</p> <p>The time allotted to this part of the event was too much in my opinion</p> <p>When I visited, not that many people were by their posters, and so it was basically the same as looking at the posters at any other time during the two days</p> <p>I didn't really engage in this</p> <p>This was good for connecting people and discussing projects</p> <p>Very useful for networking/information &amp; knowledge sharing</p> <p>Interesting-- but I based by decisions on who I wanted to meet and talk to from the verbal presentations.</p> <p>Appropriate.</p>

	<p>Since food is such a huge motivator, it would have been richer if the exhibits allowed for more experiential sharing beyond the posters and discussion. (Yes more logistically complicated) But taste, touch, smell and sound offer a deeper experience to share.</p>
	<p>great presentations too.</p>
	<p>Certainly needs more time to interact and in several booths researchers were either too crowded with clientele or no one was there!</p>
	<p>the exhibition was great, the displays and poster well designed and informative. the implementers were passionate and explained the what/why/how and the impact</p>
	<p>It was a nice space to share with others and to show with more detail the project in other aspects that were not considering in the respectively session.</p>
	<p>It was very informative to know more details about specific innovations.</p>
<p><b>How adequate was the networking time? / Évaluez si le temps de réseautage fût suffisant. - Comments</b></p>	
	<p><b>Answer</b></p>
	<p>Impressive.</p>
	<p>I really enjoyed the longer two hour networking on the second day.</p>
	<p>Okay</p>
	<p>Je pense que c'est un grand succès de l'évènement. C'est probablement une des grandes réussites des discussions autour des tables également car cela permettrait de rencontrer des personnes intéressantes lors des échanges et de continuer le réseautage lors des moments informels.</p>
	<p>It might have been nice to have an informal gathering at the end of day one.</p>
	<p>Just sufficient</p>
	<p>As above, would have preferred more space for unstructured discussion, without the reporting back from each table</p>
	<p>Plenty of time people very friendly and engaging</p>
	<p>Networking is important, but so too is confronting major issues and having a forum to delve into disparity. There was no forum for this, and we could easily have had less time around the posters and more for open discussion.</p>
	<p>I think there was adequate time through the exhibition, marketplace, over breaks and meals and after hours in the hotel. Having this event out of Ottawa centre and having out of town participants lodged at the hotel facilitated this.</p>
	<p>Good opportunities to connect wit peers. But not enough time, as breaks were cut short or rushed.</p>
	<p>The coffee breaks were a bit short-- these are particularly good times to meet people who have just made presentations or who have presented ideas in the discussions. If the breaks are too short you miss the opportunity and by the next break you have another topic to follow up.(This may only apply to people who are not staying in the hotel and don't have the same opportunity to mix with the non-resident participants.</p>
	<p>Not easy, but good efforts in place to help make happen.</p>
<p>Well planned.</p>	
<p>The workshop roundtable style of interaction was good indeed.</p>	
<p>Adequate</p>	

	not enough time for networking. few minutes in between sessions
	It was good to accomplish the event objectives. I have to tell that it is stressful to present in five minutes, but it was a good exercise for us to be able in five minutes to transmit the key message in a topic and to have a team for training us was wonderful. This is one of those kind of things that do that I love IDRC.
	A lot of time and space provided, perhaps some guided opportunities for exchange (e.g. setting up corners based on common topics/interests) may have sparked connections more easily
	Needs a lot more time than the 30-45 mins available.
<b>How useful was the networking for your organization/job? / Évaluez l'utilité du réseautage pour votre organisation/travail. - Comments</b>	<b>Answer</b>
	Impressive.
	Adequate
	Plusieurs idées intéressantes sortent du fond qui peuvent être intégrées dans des projets existants ou dans des collaborations futures.
	From an NGO perspective, it was great to meet researchers and be able to identify potential partnerships for the future. All connections made were extremely useful.
	I got a number of ideas and potential collaborators
	We made some good contacts and clarified some questions about our project.
	Always doing this.
	For me-- networking is about 50 per cent of the reason to attend these sessions-- more opportunity to network would have been useful. The idea of moving people from table to table for the discussions did help a lot to make up for the shortage of networking time.
	Talked to many people throughout.
	excellent
	I managed to connect with potential partners and learning from what was discussed. good potential collaboration
	excellent I had all the information previous to event on time, when I had a questions always the answer was prompt. During the event the IDRC team was excellent. The quality of the auditorium, the organization, foods, everything was excellent. The created atmosphere, so friendly, also this is an aspect that characterizes IDRC, was excellent and it facilitated the communication among us.
	Again, very useful but since there was a high level of participation, we may have benefited from having met directly people with common interests/areas of work.
	Honestly it is not applicable to me
<b>4 - I personally got the most out of / J'ai personnellement tiré le maximum de: - Responses</b>	<b>Answer</b>
	sessions are useful
	Discussions with teams at the posters
	Yes

Networking and hearing directly from researchers and scientists.
Reseautage
Discussions with peers and colleagues. The agenda was solid, the intervenors were excellent and the participation very good.
Discussions and dialogues
Yes
Panels and discussion!
All the sessions and most of participants.
exchanging with all very interesting people
The overview of the portfolio of projects and the variety of subjects, approaches, processes they represented.
Networking
panel sessions followed by group discussion time
Round Table discussions after panels. They were very stimulating.
Discussions
The networking with organizations aligned to our mission.
Connaissances et me rendre compte de l'importance de la sécurité alimentaire. Merci
I loved the inclusion of the table discussions - that was the best interaction and ability to meet new people.
Scaling up session Networking session Learning from the farmer's perspective and market access Networking session
The opportunity to hear about all of IDRC projects and interventions. Being given the opportunity to build new partnerships and help projects if a new call arises
The Farmer's presentations
The networking opportunities and time engaging with such a diverse set of researchers and other food security stakeholders.
Interacting with IDRC and Global Affairs and other researchers. Telling stories and lessons learned.
Hearing about the range of projects
1)Partnerships and Scaling up sessions 2)Farmer and Researcher testimonials
Les discussions en petit groupe.
exchange of views with peers at the tables. end of day summaries were helpful.
The presentations by the farmers were fascinating, unfortunately I didn't get an opportunity to meet with any of them.
learning of the achievements of an amazing program of partnership between Canada and the Global South. efforts since its inception to gather results and outcomes commendable.
the event overall.
reseautage
Yes

	The experts contributions and the discussions of the broader issues raised by these projects.
	4
	All presentations were very useful and the report will seal the deal
	Hexanal, virus and fish projects and to some extent from potato although it was very region-specific
	Yes indeed, was able to nurture key contacts and networks
	I got the most out of the round table discussions after each session (which also helped to establish new contacts) and the input from the panels of experts.
	The discussion on scaling up. Much food for thought.
	the sessions on productivity, markets, gender, partnerships and the vaccines session.
	the probiotics yoghurt can be targeted to a wider consumer base if health benefits are exploited. do not be cowed by big industry, there is a market niche for all products. Market the product benefits. similarly for the Microveg.
	Yes, I personally got the most out from the event. I am very happy and satisfied for this opportunity and to see all the faces of the other projects. I think this event helps me to grow up more because I learnt from others and knew their experiences. It was great to met again the Minister of International Development.
	Two sessions were particularly interesting to me: market access, although it would have been useful to hear more about women's access and the sophistication of approaches, and scaling up.
	I got important lesson from presenters and participants.
	The expert panels
<b>5 - Overall I liked / Généralement j'ai aimé(e): - Responses</b>	<b>Answer</b>
	I liked the event.
	the two days event with lot of lesson learned
	The posters were very good.
	All the sessions and the presentations. Nothing to exclude.
	The practical examples and group discussions to pull out key ideas, gaps and lessons learned. I also really enjoyed the session on scaling up.
	Oui
	The organisation was excellent. The facilitation was well done. The format was lively and engaging.
	Organization and quality of performance
	Yes
	everything!
	Sessions for farmers and youth.
	La formule très stimulante
	Great atmosphere, very well organised, very well planned,
The Bolivian lady's presentation	

	variety of content covered over the two days
	The format of the event. That after each panel, we could discuss with our colleagues at a table. It's simulated intellectual conversation, and also allowed for networking.
	The presentations
	The format. The organization. Great team work!
	La richesse des débats
	The coming together of all participants plus the inclusion of others - I am sure for project participants to meet each other was amazing. For me, to see the projects and learning as a whole was a very rich opportunity.
	The time keeping and the diversity/multifaceted nature of the event.
	Networking opportunities
	The set up and organization of the day - the structure to cluster projects on a topic worked well
	The breakdown of sessions by theme, which allowed for very interesting insights into different aspects of the projects undertaken.
	Well organized, kept to time, good balance of sessions, interaction as above
	The enthusiasm of everyone who attended
	IDRC-Global Affairs Partnership in the delivery of the event Interactions between CIFS RF partners and other development stakeholders/ networking external experiences of the panels
	Le format de la conférence en général, avoir les courtes présentations de projet, avec les commentaires des experts et du temps pour discuter, était très bien organisé.
	The variety of presentations, the mix of speakers.
	The mixing up of people from different tables for the discussions and the presentations by the farmers. However, I'm no longer associated with any of the NGOs or development organizations--so I represent only a small portion of the representatives.
	The synthesis documentation prepared and learning the broad range of Canadian partners who have something to offer to Research for Development!
	the various sessions
	Le temps pour échanger
	Yes
	The variety that the conference format offered. Project people mixed with experts, active discussions after each session. And the photo booth was simply fun.
	2
	The piece on nutrition.
	Some of the presentations -especially hexanal and virus
	Liked the presentations, the market place and table discussions.
	I found that the event was of a good size with a good mix of participants with different expertise and experiences. I enjoyed the feedback and

	<p>comments of the expert panels. And I also greatly appreciated the effort to keep everything on track with respect to time.</p> <p>The balance between presentations and group discussions.</p> <p>the style and clarity of the presentations and the time keeping</p> <p>I liked the intelligent organization that facilitates to get the input from the projects, external specialized people, and the general audience. That was great and also the atmosphere that was very friendly.</p> <p>The plenary set up for all sessions, so that everyone could listen about all topics, rather than having parallel sessions (more like conference style) to pick and choose from.</p> <p>The event as whole most</p> <p>the logistics for the event with tables and ensuing interaction at the table rather than rows of chairs, the Marketplace immediately next door, parking</p>
<p><b>6 - What could be improved? / Que pourrait être amélioré? - Responses</b></p>	<p><b>Answer</b></p> <p>It would be good to have 1-2 session on debates on critical issues related Food security and Nutrition. Debate is good for learning</p> <p>Hard to say how to improve synthesis and what we learned by doing CIFSRF for future work. Canada come from the teams. Maybe POs needed to have a greater personal choice.</p> <p>It was a perfect meeting. Keep it up.</p> <p>The lunch on the second day did not have a major protein source for vegetarians. It was just salad and pasta.</p> <p>Moins de experts et de panelistes qui parfois répétaient le même message</p> <p>There were no opportunities for plenary discussion. I understand that this is not always productive, however I missed it.</p> <p>Discussions can be extended via Skype to those who have not attended our meeting in Egypt and Translate to Arabic</p> <p>Time for presentations was too short. A lot of interesting data/findings were not presented due to time limit.</p> <p>Structuring of the discussion groups. More effective use of visual aids. Allowing participants to provide video comments. More viewpoints from non Canadian researchers.</p> <p>-Identify and strengthen synergy and matching points among projects approved under the Fund to help developing effective partnerships and outcome delivery.</p> <p>Quelques détails :</p> <ul style="list-style-type: none"> <li>- limiter à deux experts par sujet et non 3 et leur laisser quelques minutes de plus.</li> <li>- Je ne changerais pas le 5 min de présentation des projets, par contre je mettrais le marchai© plus tôt dans la conférence.</li> <li>- discussions autour des tables un peu plus courtes et varier la méthode d'échanger, pas 6x</li> </ul> <p>A bit more challenging discussions/debates perhaps in the panels, but maybe that does not fit with the kind of event that this was.</p> <p>Was great</p>



It was a great event.
Time for networking
Adequate time for discussing way ahead.
Les aspects techniques pour une meilleure connexion pour permettre aux personnes intéressées de pouvoir suivre l'évènement à distance. Par exemple, moi, j'ai eu d'énormes difficultés pour me connecter et suivre votre évènement. Merci
I mentioned already the integration of gender. It would have been good to hear from an external gender expert on the panel. There is still a long way to go towards embedding gender equality into this work.
Give more time to the speakers to give further overview of their projects. I felt like they had a lot more to say/share
the round table discussions. let groups be formed for the day so the discussions can flourish. the understanding of time in the discussions could be better portrayed
The welcoming remarks on the first day were far too long. Not reporting back from each table after discussion
Fewer panelists and more time per presenter would allow for better engagement on the specifics of the work undertaken. The discussion after each panel was interesting, but often was very high level because of the lack of details on project specifics.
One less session and perhaps break the entire group into the main sessions gender, nutrition, scale, Draw conclusions from experience and next step.
Session chairing, having question and answer periods, less repetition of the overall findings, and more tangible dialogue on what's next - with the Minister. Frank said it was good that the politician came as he is busy, but frankly I am busy too and I think it is ridiculous that politicians who serve the people do not give more time to listen
1) On projects where it is viable, to report on the multiplier effect of innovations adoption/adaptation 2) Have national government perspective on how they have been strengthened/what they have learned/what they will continue to promote post-project.
Most things we heard were not outside the usual. I wondered how these CIFSRF projects were any different from regular Global Affairs-funded projects. And, if enough consideration was given to that 'sweet spot' that makes them different: whether innovative research methods, multiple impacts, use of local knowledge, etc.
More networking time would be useful--but this would be easier to arrange if all participants were booked in the hotel-- but this would obviously add to the cost.
Moreon:1) Where to next? More serious and transparent efforts about how many if not most of the initiatives will get continued support. Not clear how many will survive (this is key and was missing);2) Clarity on Impact? Will the sponsoring partners undertake an impact evaluation after 5-10 years? a)Clarity on extent of government engagement.

	More time for questions and discussions
	Réduire les échanges en petits groupes et poser des questions aux panelistes
	More conferences
	I think it would have been good to have a broader but also targeted dissemination of the event. There are many in Ottawa who would have benefited but also who would be good to serve as disseminators of the CIFSRF lessons and work of IDRC and Global Affairs.
	4
	Could be better to share the report in advance, reduce the presentations to a few key ones BUT give them time to present enough data to give people better context. Five minutes was too abstract.
	As said earlier, some more time for presentations and mainly direct Q/A period with the researchers/their team
	Questions for table discussions should have changed based on what made more sense per session . There should have been an opportunity to ask 1-2 clarification questions after the
	everything was very good.
	I wonder if it would have been good to switch up the questions following each session? Could we have heard more about what didn't work and what we learned from that? While impressive, all the references to the CIFSRF numbers became too much to digest.
	video tape presenters who require interpretation to keep the audience engaged .
	maybe to have more time for the lunch time because this time helps to share with others.
	While acknowledging that there were many projects and a lot of resources and innovations to share, I think that 5 mins were just too little to describe the work of each project. Perhaps it would have made more sense to have the three-presentation combined in one background, 3 approaches and comparing results.
	overall satisfied with the event and would therefore not suggest any improvement
<b>7 - The most interesting/innovative result in CIFSRF / Le résultat le plus intéressant ou innovant du FCRSAI - Responses</b>	<b>Answer</b>
	Fish on Farms, gender and transformative approach
	Nanotech!!
	Nanotech and indigenous vegetables projects.
	The ways projects were scaled up and overcame challenges.
	Hard to say. What an interesting program. The DFS is impressive. Vaccines too. The most interesting thing would be to see more conclusions and lessons learnt from the whole of CIFARF.
	Interaction between participants of different nationalities
	Improvement of nutritional status and health of vulnerable members of the society

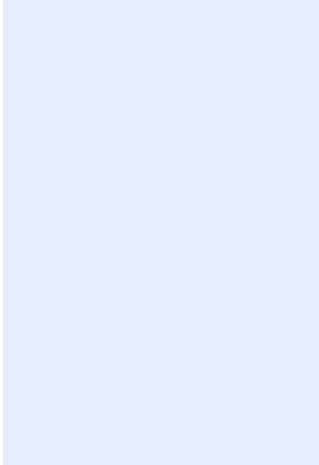
	Nano-technology applied to post harvest loss across 6 countries! That is a research project worthy of implementation science.
	Projects that reached out higher number of poor-resource smallholder farmers.
	Nanotechnologie pour la conservation des fruits
	Hexanal
	I was most interested in the vaccines - I knew less about the topic
	The little packet of yogurt culture.
	Sustainable Agricultural Production
	Double Fortified Salt
	Les discours des différents intervenants
	There are so many. It highlights for me the need to constantly be challenging ourselves to work more collectively on innovation and innovative practices.
	7.8 million lives impacted directly or indirectly. also, three projects account for over 1 million lives (Microveg, Ethiopia, and Cambodia)
	The growing recognition that scaling up projects is not a de facto positive for all in all situations. More nuance on the specifics of each project, the potential winners and losers, and the need to focus less on technological innovations as a panacea, but instead, focus on the kernel of the work that presents lessons learned for other work.
	Tanzania project. Made sense. Local crop money for farmers. Country had policy of vitamin A fortification. No simple way to fortify oil grown at small scale. Innovation small scale cheap ways of fortifying on a small scale. Alternative environmentally damaging palm oil, Malaysia. I wonder the sustainability and would have liked more on its efficacy
	It would be unfair to single out one project. For me, the even showed that Canada could easily make a major impact on the world if it created a cohesive way for several of these projects/models/innovations to be taken to 5-10 countries in desperate need, and who are willing to contribute themselves even in-kind to their success and continuation.
	The growth of the partnership between IDRC and Global Affairs; the contribution and gender analyses of CIFSRF; the identification of research for development project new research topics
	There seems to have been a strong effort to capture numbers and results.
	This is my first encounter with CIFSRF-- I'm not really able to comment on this.
	Most interesting finding: The demonstration how a well-conceived and organized initiative, with sustained support and engagement by its sponsors can achieve such a multiplicity of initiatives, mix of partners and overall results -- all within an existing and evolving policy framework).
	The development and research done by various groups
	hexanal
	Results were innovative

	<p>Not so much a result but observation. The project results were not especially shocking but the change that has occurred during the last 10 years underlines that innovation seems to defy time. Things change or evolve faster than a normal project cycle. Maybe we need to look at an agile framework for our efforts in international development.</p>
	6
	<p>Post harvest treatment of fruits with Hexanol. Very relevant and likely game changer for many farmers and households. Likely to encourage fruit consumption.</p>
	<p>Without a doubt in my opinion the hexanal project- it can be used in Canada and in global south!!!</p>
	<p>Vaccine, dry bacteria for yoghurt production and hexenal</p>
	<p>The realization that there is a limit to scaling-up beyond which it begins to have negative impacts or implications. Maybe scaling-up can be best achieved by replicating appropriate scale operations in different regions, and that are modified to local needs.</p>
	<p>Fermented foods. Commonly used in the communities, hence use of probiotics would be a natural cultural fit.</p>
	<p>I think the vaccine against five diseases is very innovative. But also the methodologies implemented for the projects to reach the end-users.</p>
	<p>Gender transformative approaches and overall gender integration in the project - it emerged from the discussions that many are still unfamiliar with this, and there needs to be more knowledge around how-to address gender inequalities, from a minimum effort to more sophisticated approaches.</p>
	<p>Livestock vaccines the approach and implementation</p>
	<p>the collaborative partnerships that were developed</p>
<p><b>8 - What are the next steps for the future? / Quelles sont les prochaines étapes pour l'avenir? - Responses</b></p>	<p><b>Answer</b></p> <p>We are implementing projects across Asia and Africa and CIFSRF lesson learned will be reflected in our projects</p> <p>More funding naturally!!</p> <p>New line of funding for projects that have impacted more positively.</p> <p>The projects we were involved in have created some good partnerships. We will pursue through and apply what we've learnt in future projects. Global Affairs and IDRC should make efforts at policy feedback and development with the various governments and public bodies implicated in CIFSRF.</p> <p>Invitation to participate without incurring costs</p> <p>Up-scaling of the viable, practical, affordable, profitable and high impact innovations</p> <p>There is need to put some research on implementation science side of CIFSRF.</p> <p>Focus on farmer-gender's needs.</p> <ul style="list-style-type: none"> <li>-Identify and integrate key partners from project design to development and dissemination, including financial and policy institutions.</li> <li>-Strengthen partnerships between farmers, stakeholders, private sectors, NGOs, policy makers and end users.</li> <li>-Identify and strengthen synergy among projects under the Fund.</li> </ul>

	<p>1-Continuer à rapprocher les acteurs de la recherche, sociétale et secteur privé.</p> <p>2- À l'initiative de l'expertise des ONG en transformation des rapports de force</p> <p>3- intégrer des pratiques plus écologiques. Surprise d'entendre parler d'engrais et jamais de compost ni d'approches plus résilientes aux changements climatiques</p>
	?
	Fund similar work again - the food crisis is not over
	Considering how to research food security and nutrition issues in fragile and humanitarian context
	My future, or your future?
	Community of Practices formation
	Scaling-up the innovations and transfer to other regions.
	La question de la sécurité alimentaire est toujours d'actualité dans une bonne partie du monde et le sera davantage dans le futur. Merci
	Is Food Security too narrow a lens? The underlying causes of poverty and the factors exacerbating it, including climate change, conflict and population migration are the current challenges we must face. Perhaps a more multi-disciplinary research lens could be a part of the next steps.
	ensuring the sustainability and further scaling up of the project. Involving policy makers as well as creating more market access and finding alternative ways to conserve farmers products
	more integration of projects. improved mandates for interventions. All projects should have a technology dissemination (GIS, ICT), policy change (disaster prevention, adaptation policy, climate change), and government (matching funds, disaster prevention) element from the onset of the project. How this is approached should remain independent
	Summarizing lessons learned from the discussion to share with participants and inform future projects. It's critical that this work be leveraged in a clear and coherent manner by Global Affairs and other government departments in their work, to ensure developmental support and broader policy objectives are in better alignment.
	Retire settle move to Florida. CIFSRF Need to see what has continued after the donor has left. I believe successes will come from fortification, vaccines, governance, vaccines. Less so from crop diversification at household level, very small scale animal husbandry or aquaculture. Main routes to improved health will come from increased \$ to women.
	It felt like IDRC already know this and Global Affairs are not prepared to fight for funds to make point 7 happen. A strong case could be made why money spent here is better than that political measures for Trade, CIHR, reimbursing Dairy Farmers, and delegations to China. Does Canada want to make a global impact or not? I'm not convinced.

	<p>Learn from CIFSRF and share this knowledge as broadly as possible; Inform the Canadian public as to how their funds are being invested and what results have been achieved.</p>
	<p>CIFSRF prides itself for supporting innovation. You can be more adventurous, by creating a 'venture space', to explore things outside the box -- new/emerging areas of research; participatory methodologies, etc. We are told by Global Affairs we should innovate more, and not be afraid to fail. Can Cifsrf help take up that challenge?</p>
	<p>In the early part of my career I was posted as an "operational expert" filling a vacant post in the structure of a ministry. Unless the situation has changed enormously it would be interesting to expose current civil servants in their home countries to the presentations of "farmers"--these are people with remarkable achievements.</p>
	<p>1) assess overall needs within CIFSRF(i.e get a good picture of what can continue under its own steam, and what is promising but requires sustained support;2)once adequately defined, look carefully at what can be scaled up to further the reach of benefited poor;3)look to engaging bilateral funding from Global Affairs geographic programs and multilateral orgs</p>
	<p>We mus continue CeFSRF.</p>
	<p>mieux cerner les defis et les opportunités de travailler entre la recherche et les ONGs, définir un cadre de travail permettant aux deux groupes de mieux travailler ensemble.</p>
	<p>Scaling up</p>
	<p>So now that projects are done.. who is tracking where they lead or follow up with them?          Maybe put emphasis on developing engagement among/ between the project people to encourage the peer to peer learning.          New IDRC work can explore: resilience, agility, and how knowledge is shared - more broadly not just academically.</p>
	<p>2</p>
	<p>Reading the report and connecting with the expert technology developers.</p>
	<p>Though funded by IDRC from 1996-2002 through the Global CBDC program to work on "African community vegetables".Vegetable planting manuals/booklets and seeds booklets namely: (1) Gynandropsis gynandra, (2) Solanum nigrum, (3) Corchorus olitorious, (4) Clotoraria brevidens, were released into the open seed systems market, and are still in use.</p>
	<p>From the little conversation I could have with the hexanal researcher (Jay xxxx) it appears that the product is not available in Africa. The results are also from only east Africa (Kenya and Tanzania). They should be allowed to expand the work to other African countries - South and West-especially after this much success.</p>
	<p>More funding for research and scaling up the innovations. The need to share consolidated learnings.</p>
	<p>The next steps are to continue searching for further funding to increase the scope of what we have accomplished. Fortunately the local NGO with whom we worked have enough critical momentum to continue the activities of the project with respect to working with policy-makers and with entrepreneurs.</p>

	<p>Develop business models that can take the innovations to commercial scale. crowd in partnerships and leverage investment funds from other actors. keep research questions in focus (e.g. income improvement, less drudgery, nutrition and small holder farmer focus). inclusive finance, resilience and returns for farmers and all value chain actors is key.</p>
	<p>The next step is the collaboration south-south. There are several lessons learnt and it is time that methodologies to develop in south countries can be adapted and transfer to other countries with similar needs. I think there are a good number of methodologies and strategies for working, it is time to apply them in south-south collaboration.</p>
	<p>Give some opportunities for reflection around how to work on scaling up better and in an integrated way and how to address gender.</p>
	<p>Integrating best practices to other areas</p>
	<p>options for sustainability, expansion to other countries, application at the regional level</p>



# Annex 6. Select photos from the event

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## VIP event

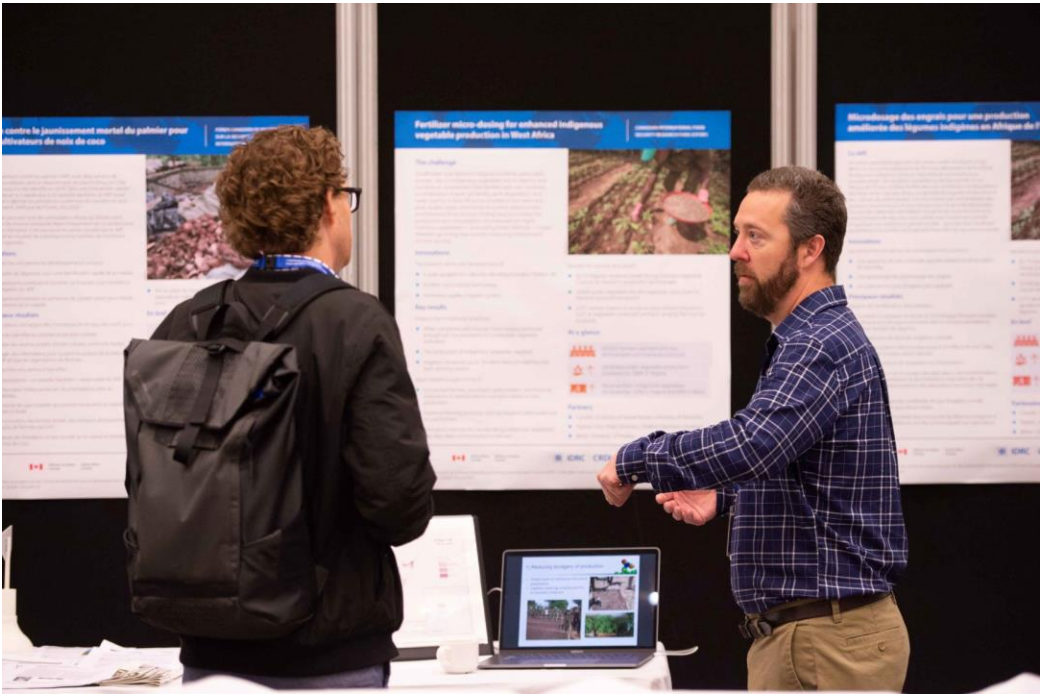




Main event



Market place exhibit



## Photo booth

