
WEBINAR
IMPACTFUL INNOVATIONS
"Lessons From Family Agriculture on Adaptation
to Climate Change in Latin America and the Caribbean!"
January
31
3.00 P.M.
IDB
Inter-American
Development Bank
gef
IICA
FONTAGRO

Webinar Program

❖ Welcome Remarks by Dr. Hugo Li Pun, Executive Secretary, FONTAGRO	5 min
❖ Climate Technology Transfer Mechanisms and Networks in Latin America and the Caribbean by Dr. Ana Rios, IDB	5 min
❖ Presentation of successful cases by Huntington Hobbs, MBA, consultant, former Associate Director of MasAgro, CIMMYT and Dr. Hugo Li Pun.	20 min
❖ Lessons Learned by Ms. Kelly Witkowski, Climate Change Specialist, the Inter-American Institute for Cooperation in Agriculture (IICA)	20 min
❖ Audience Q & A	10 min

Organized by FONTAGRO in collaboration with IDB's Climate Change and Sustainable Development Sector

1. FONTAGRO in Brief

- A cooperation mechanism for the innovation of family agriculture
- Board of Directors: representatives of 15 member countries.
- Regional projects with at least two member countries
- Capital US$100 Million
- Over 100 approved projects
- US$88,6 million. Leverage 1:5
- 25 countries

Our sponsors:

IDB IICA

2. HOW WE OPERATE

- Call for Proposals
- Joint Projects
- Small Grants
- Competitions
- Knowledge Management and Training

3. COMPETITION 2015

Competition on Successful Cases of Innovations for the adaptation of family agriculture to climate change.

- Document successful experiences and lessons learned
- Results:
  - ✓ 49 cases presented.
  - ✓ 11 selected for publication
  - ✓ Five cases awarded:
    - ✓ two from NGOs/producers,
    - ✓ one from national institutions,
    - ✓ two from international organizations

4. GEF PROJECT

- Promote the development and transfer of **environmentally sound technologies** (EST)
- Part of program financed by the **Global Environment Facility** (GEF) and implemented by multilateral development banks
- Technical assistance to assess and adopt EST in the following sectors/areas:
  - **Policy**: Instituto Nacional de Ecología y Cambio Climático
  - **Energy**: Fundación Bariloche
  - **Transport**: World Resources Institute (WRI)
  - **Forestry**: Tropical Agricultural Research and Higher Education Center (CATIE)
  - **Agriculture**: Regional Fund for Agricultural Technology (FONTAGRO)

4. GEF PROJECT

Work Plan

- **Policy and capacity building**:
  - promotion of EST through national innovation systems
  - climate and sectoral policy and planning
- **Network building and knowledge**:
  - case studies
  - outreach events
  - mapping of regional expertise on EST
- **Technical assistance:**
  - technology roadmaps
  - technology assessment
  - policy development
- **Investments:**
  - project design

5. Succesful Cases: Adapta Sertao - Brazil

ADAPTA SERTÃO

ADAPTING TO CLIMATE CHANGE IN THE HANDS OF THE COMMUNITY

A Challenge to Livestock

- Brazil's Sertão is a semi-arid region and getting drier (30% decrease in rainfall)
- Grazing by livestock increasingly unsustainable as grasslands deteriorate
- Livestock increasingly require supplemental feeding, greatly increasing costs and debt loads

5. Succesful Cases: Adapta Sertao - Brazil

ADAPTA SERTÃO

ADAPTING TO CLIMATE CHANGE IN THE HANDS OF THE COMMUNITY

Key Adaptations

- Sell the less productive cattle and use proceeds for investments in improving productivity
- Key technological innovation: Use succulents that store water, and feed them to cattle for both hydration and nutrition
- Form cooperatives (800 farmers) for lowering costs of inputs and greater access to markets

Key Results

- Costs per liter of milk reduced from US$ 0.65 to US$ 0.11 a liter
- Participating small-holder farmers increased production of milk from near 55 liters to over 100 liters per day

6. Succesful Cases: Fish for Life - Bolivia

FISH FOR LIFE:

DO NOT GIVE FISH, TEACH HOW TO FISH

A Challenge with Fish

- Yapacaní is a subtropical region of Bolivia with high temperatures (32 C) with increasing floods and long droughts
- Poverty prevails for 10,000 families dependent on rain-fed rice monoculture of low productivity

6. Succesful Cases: Fish for Life - Bolivia

FISH FOR LIFE:

DO NOT GIVE FISH, TEACH HOW TO FISH

Key Adaptation:

- Small-pond aquaculture by women

Key Results:

- Family incomes increased 400% to US$ 15,000 per year
- Fish consumption rose from 3.8 to 8.6 kg/person/year
- Women farmers empowered as they became fish sellers and restaurant owners
- Fish farming adds resilience to the family rice farming system

7. Succesful Cases: Native Criollo Goats - Argentina

NATIVE CRIOLLO GOATS:

FROM PRODUCING TO SURVIVE TO PRODUCING TO LIVE

A Challenge for Goats

- 2,800 Mapuche Indian families live in a sparsely populated region of southern Argentina and depend on Merino sheep and Angola goats
- Snow, an 8 year drought, and even a volcanic eruption greatly reduced herd size
- Young farmers began to emigrate, putting at grave risk the future of the Mapuche community

7. Succesful Cases: Native Criollo Goats - Argentina

NATIVE CRIOLLO GOATS:

FROM PRODUCING TO SURVIVE TO PRODUCING TO LIVE

Key Adaptations:

- Use of native criollo goats which are more resilient than sheep or Angola goats
- The Mapuche community got a 5 year loan, and travelled 1,000 kilometers to The Andes to buy native criollo goats
- They had to shift from selling wool to selling meat, and formed a cooperative to sell directly in regional markets

Key Results:

- Herd mortality has greatly decreased
- Goat now represents 40% of Mapuche family diet.
- Family incomes increased by US$ 1,650 in year one and should increase more as herd size increases
- Young are reported returning home to work in goat herding

8. Succesful Cases: ALTAGRO – Peruvian Altiplano

A COMPREHENSIVE APPROACH TO ADDRESSING POVERTY AND VULNERABILITY IN THE PERUVIAN ALTIPLANO

A market-oriented approach and increased resilience of farming systems

- 68% of rural population in the Peruvian Altiplano lives in extreme poverty
- High climate variability and exacerbated by climate change
- Complex farming systems and low productivity
- CIRNMA and CIP developed integrated and sustainable farming systems, linking farmers to markets

8. Succesful Cases: ALTAGRO – Peruvian Altiplano

A COMPREHENSIVE APPROACH TO ADDRESSING POVERTY AND VULNERABILITY IN THE PERUVIAN ALTIPLANO

Key adaptations:

- Technologies, community organization, technical assistance, microcredit, processing and marketing

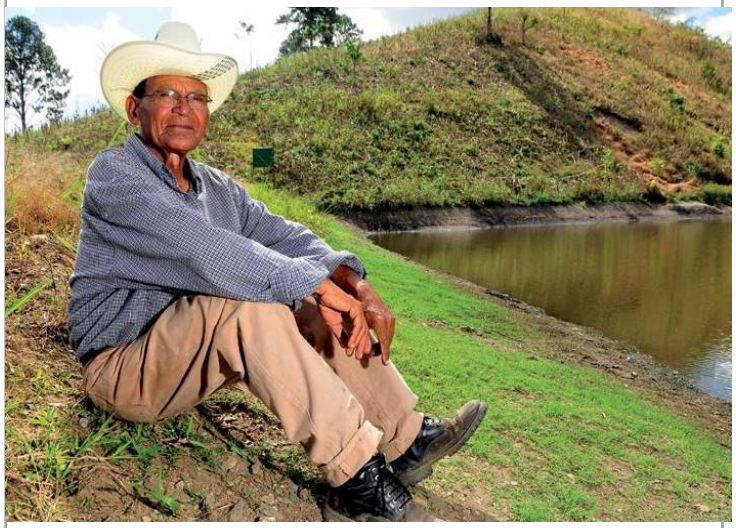
Key results:

- Production of certified organic quinoa increased income 10 X
- Milk sales increased from US$ 29 to over 767 per year
- Trout raising generated an annual income between US$ 784-7788 per family
- Alpaca handicrafts increased income 9 X
- Women empowerment
- 70% increase in capital index

9. Succesful Cases: Water Harvest - Nicaragua

WATER HARVEST:

THE ECO-EFFICIENT AGRICULTURE GRAIL



Combating drought

- Central American dry corridor one of the most vulnerable to climate risks
- 7.5 million people dependent on rainfed agriculture
- Drought concentrated in 7 months
- Lack of irrigation and seasonal food production affects poverty, hunger, unemployment, and migration
- FLAR/CIAT working with local organizations and farmers to overcome challenges

9. Succesful Cases: Water Harvest - Nicaragua

WATER HARVEST:

THE ECO-EFFICIENT AGRICULTURE GRAIL

Key Adaptations:

- Ponds to catch rainfall
- Irrigation systems installed
- Improved technologies

Key Results:

- Yield increased by 2 to 3 X
- More diversified farming systems increased resilience, income and reduced seasonal migration
- Contribution to capacity development, family empowerment, and technology transfer

10. Lessons Learned

Participation	• Adaptation is specific to local needs and priorities • Farmers identified the problems and participated in developing and validating innovations • Empowerment of farmers facilitated scaling-up
Organization and Coordination	• Intersectoral collaboration is key • Support of public organizations is key to provide expertise and facilitate processes

10. Lessons Learned

 **Capacity Building and Leadership**	• Strengthening local capacities through new technologies, and developing local leadership • Training is the key to ensure proper understanding of technologies and their use
 **Technologies and Knowledge**	• Many sources of knowledge: long-term research and adaptation

10. Lessons Learned

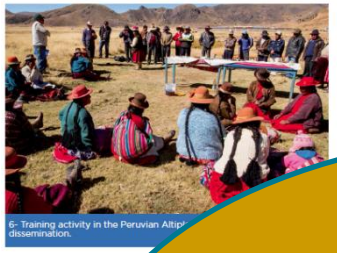
Technical Assistance and Lending	• Technical assistance and credit are key to promote knowledge adoption and expansion
Women's Role	• Participatory approaches with gender analysis facilitate the effectiveness of research and development projects

10. Lessons Learned

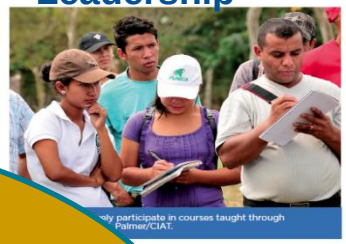
Comprehensive approaches and value chains	• Investments in agricultural research and development with a long-term outlook • Comprehensive and multidisciplinary work with production-chain approach involving crops, cattle farming, and fish farming, diversifying production and reducing risk • Strong connection to local or international markets, resulting in considerable income increase
Perseverance	• Adapting to climate change is a continuous process that requires creativity, learning, and persistence

Lessons Learned

Participation



Capacity building & Leadership



Perseverance

INNOVATION

Technology & Knowledge

Value Chain & Markets

Role of Women

Technical Assistance & Lending

FONTAGRO: Innovations for family agriculture

- 35 new technologies and knowledge, 15 new in LAC, 4 of global impact
- They have improved the livelihood of family farmers by increasing income and agriculture productivity, reducing vulnerabilities to climate change and improving the environment
- If you want to know more about FONTAGRO: www.fontagro.org
- To download the publication in English: https://publications.iadb.org/handle/11319/7802