

# CGIAR - FONTAGRO

FONTAGRO Leading Collaborative Efforts: A Showcase of Partnership with CGIAR Institutions

Eugenia Saini  
Executive Secretary,  
FONTAGRO



# FONTAGRO - CGIARS

62 PROJECTS  
63,557,458 USD

FONTAGRO has been collaborating with CGIARs since 1998. Over the span of 26 years, 62 projects have been undertaken to advance agricultural research and development.



**CIMMYT**  
9 Projects



Pest and disease management



Genetic improvement



Climate change adaptation



**CIP**  
11 Projects



Food Security



Genetic improvement



Climate change adaptation



**ICARDA**  
3 Projects



Water Resource Management



Genetic improvement



**CIAT**  
34 Projects



Sustainable agriculture



Genetic improvement



Climate change adaptation



Water Resource management



Pest and disease management



**BIOVERSITY**  
3 Projects



Sustainable agriculture



Pest and disease management



**Alliance**  
BIOVERSITY &  
CIAT  
2 Projects



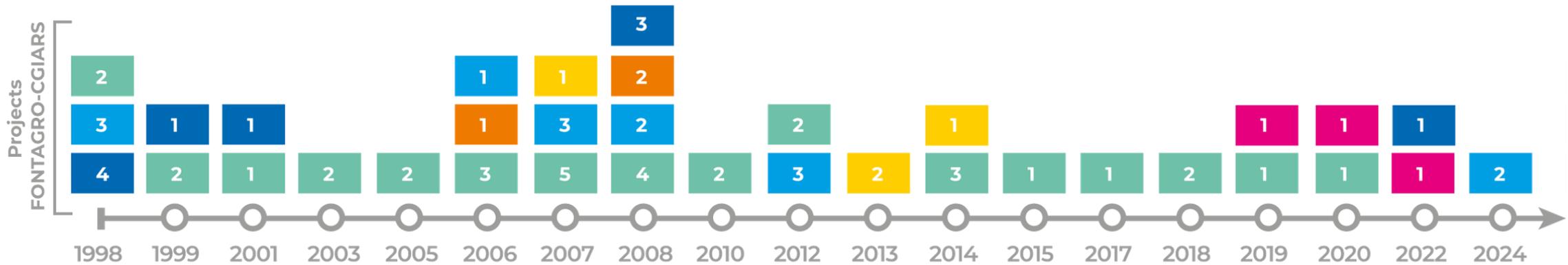
Sustainable agriculture



Pest and disease management



# PARTICIPATION PER YEAR (FONTAGRO-CGIARS)



- CIAT
- ICARDA
- CYMMIT
- Bioversity-CIAT International Alliance
- CIP
- Bioversity International





**CIMMYT**<sub>MR</sub>

International Maize and Wheat  
Improvement Center

## DRIVING CHANGE: KEY PROJECT RESULTS

### **Management of Fusarium Head Blight in Wheat:**

Implementation of integrated management techniques significantly reduced incidence and increased yield.

### **Resistance to Rust in Wheat:**

Identification of genes and development of varieties with greater resistance, increasing production.

### **Maize and High Temperatures:**

Tolerant varieties increased productivity and reduced loss due to heat stress.

### **Sustainable Maize Production:**

Competitive zones increased productivity and reduced the use of agrochemicals.

### **Industrial Quality of Wheat:**

Quality improvements in wheat increased industrial demand and wheat quality.

### **Maize Pest Resistance:**

New varieties reduced pest incidence and increased yield.

### **Germplasm for Direct Sowing:**

Validation of germplasm increased the adoption of direct sowing and reduced soil erosion.

### **Drought-Tolerant Maize:**

Introduced varieties increased yield and reduced loss due to water scarcity.



9 Projects

\$ 11,894,466





## DRIVING CHANGE: KEY PROJECT RESULTS

### Development of Resilient Varieties:

- Significant improvement in pest and disease resistance in new potato varieties.
- Conservation of 50 new varieties in gene banks.

### Technological Innovations in Crops:

- Notable increase in the productivity of potato and wheat.
- Reduction in the use of agrochemicals through sustainable practices.

### Use of Bioinputs in Vegetables:

- Increase in the adoption of bioinputs among farmers.
- Reduction in production costs.

### Economic Impact on Farmers:

- Increase in the income of potato farmers.
- Decrease in food insecurity in rural communities.

### Innovation in Sweet Potato Products:

- Increase in sweet potato production.
- Creation of 10 new value-added products.



11 Projects

\$ 9,930,569





## DRIVING CHANGE: KEY PROJECT RESULTS

### Development of Barley Varieties:

- Development of barley varieties resistant to yellow rust and blotch.
- Introduction of resistance genes into local cultivars

### Genetic Improvement against Stress

- Development of genetically improved solanaceous varieties (tomato and potato) to resist abiotic stress (drought and salinity).

### Changes in Water Productivity in the Southern Cone

- Improvements in water use efficiency in agricultural systems through new management techniques.
- Promotion of more efficient water resource management



3 Projects

\$ 3,941,862



## DRIVING CHANGE: KEY PROJECT RESULTS

### Impact Assessment (2020)

Revealed that co-financed projects improved crop resilience, resource management, and farmer incomes in the region

### Coffee Genome

Development of resilient varieties

### Sustainable Rice Management

Emission reduction  
Water use reduction

### Cacao

Sustainability and productivity in the región

### Water Management

Improved efficiency and sustainability

### Carbon Sequestration

Agricultural Practices: Increased carbon sequestration

### Papaya, Tree Tomato, Corn, Rice

Development of improved and resistant varieties

### Banana

Improved management and commercialization

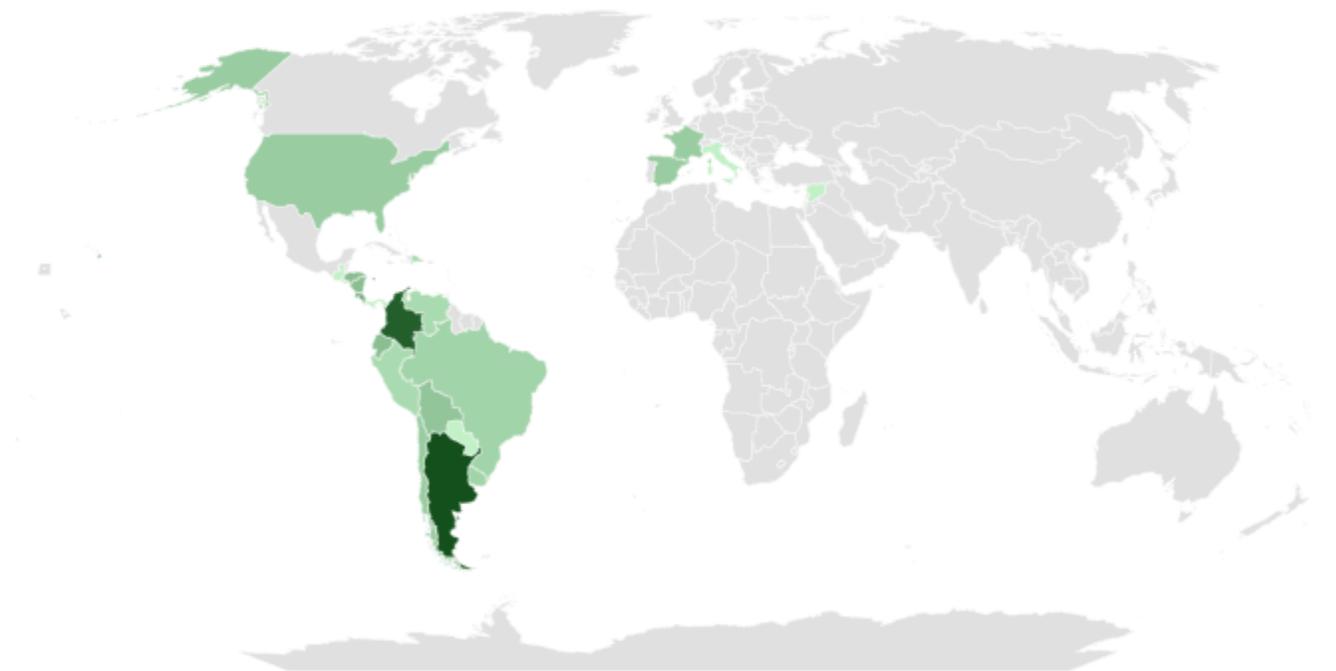
### Climate-Smart Agriculture

Innovations and CSA: Promotion of sustainable practices



34 Projects

\$ 32,370,587





3 Projects

\$ 3,231,990

## DRIVING CHANGE: KEY PROJECT RESULTS

### **Water Management in Banana Communities**

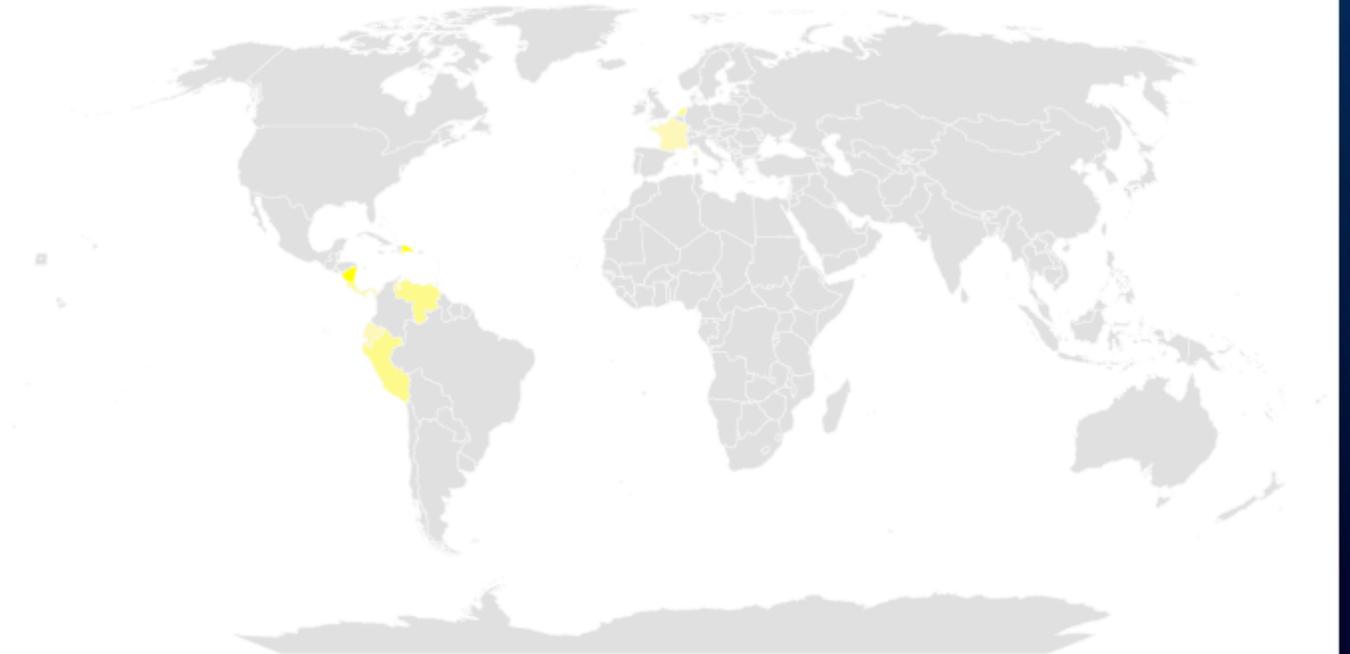
Efficient systems improved water availability and quality, reducing consumption.

### **Plantain Processing and Marketing**

Advanced techniques and effective strategies increased value addition and expanded markets.

### **Organic Banana Production**

Organic practices controlled red spot disease, improving the production and quality of organic bananas.



## DRIVING CHANGE: KEY PROJECT RESULTS

**Design and Testing:** After a participatory design process and field testing, a robust, user-friendly, and low-cost soil humidity sensor was developed.

**Key Features:** The device offers up to six months of charging autonomy, automatic activation, increased robustness, elegant design, and easier data download and charging.

**Implementation:** Produced 90 replicas of the sensor for testing with producers in three participating countries.

**Molecular Diagnostic Methodology:** Developed a standardized and validated method for identifying Foc TR4 in symptomatic, asymptomatic, and environmental samples (soil and water).

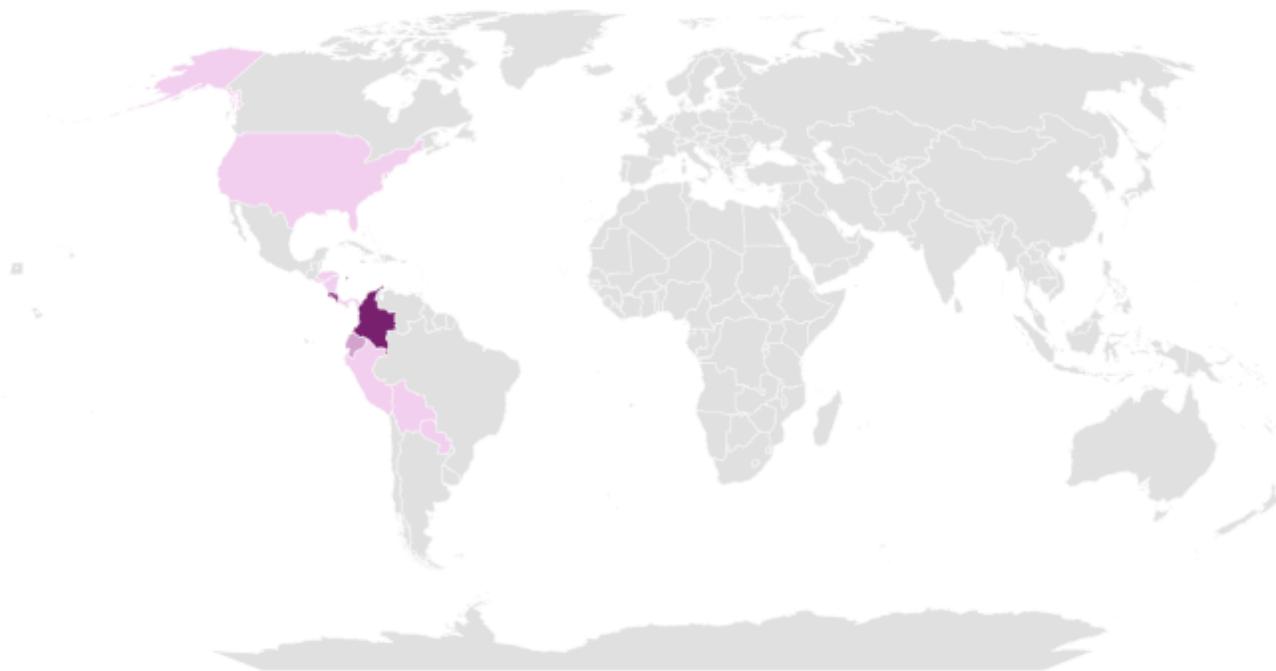
**Technological Innovations:** Created at least two technologies for the prevention and management of Foc TR4.

**Biosecurity and Soil Management Practices:** Identified practices that reduce the incidence of Fusarium at the local level.



2 Projects

\$ 2,787,984



## Key takeaways

1

### **Impactful Collaboration**

62 projects completed in 26 years, advancing agricultural research with over \$63 million invested.

2

### **Resilient Crops**

Developed drought-tolerant and pest-resistant varieties, boosting yields and reducing losses.

3

### **Technological Innovation**

Improved resource management and sustainable farming practices, increasing farmer incomes.

This collaboration between FONTAGRO and CGIAR centers has proven to be a powerful alliance, driving innovation in sustainable agriculture and strengthening food security in Latin America and the Caribbean.

Moving forward, to meet the challenges of tomorrow.



