



Food and Agriculture Organization
of the United Nations

Investment Opportunities for Resilience Building and Long-Term Development in Haiti

Investment Forum | Rome, Italy | 17-20 October 2023



Hand-in-Hand
Initiative



Haiti

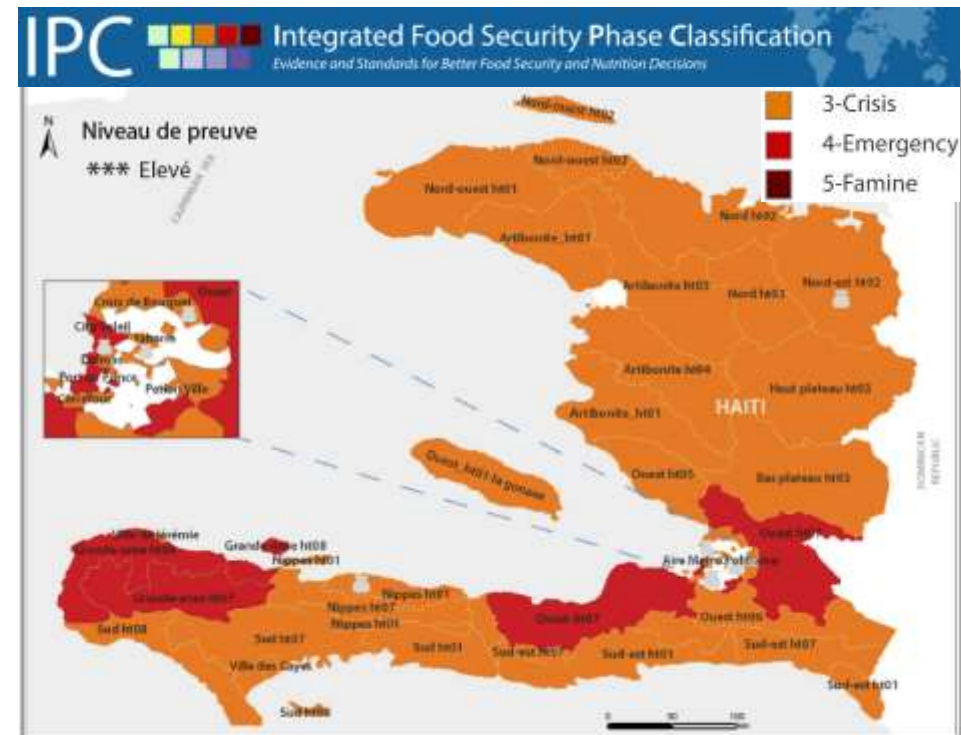
Haiti and the importance of the Humanitarian Development Peace nexus

- A protracted crisis – prolonged state of emergency
- 4.35 million people (44% of the population) suffer from acute (IPC3+ level) **food insecurity** (September, 2023)
- Humanitarian assistance to Haiti: A low share (10.2%) is allocated to support agricultural livelihoods (June, 2023)¹

↳ Equally important to invest in measures that reduce risk, prevent disasters and minimize stress

- Importance of implementing a policy capable of addressing both cyclical and structural shocks

↳ PSNSSANH (2018) adopted by the Council of Ministers in 2020



HUMANITARIAN RESPONSE PLAN NEEDS FOR THE FOOD SECURITY SECTOR IN 2023		
People in need	People targeted	Financial requirements (US\$)
4.9M	2.4M	420M

OCHA (2023), Haiti: Humanitarian Response Plan 2023 At a Glance.

Haiti's agricultural sector

60%
of the poorest households in
Haiti are rural households³

The agricultural sector accounts for 18% of GDP¹

Nominal GDP 2022	Share of agriculture, livestock, forestry and fisheries
USD \$21.15 billion	USD \$3.8 billion

- Sector is characterized by subsistence agriculture and diversification of crops
- Small farms with a mixed crop-livestock system
- Main crops: cereals - roots and tubers - fruits - essential oils - coffee - cocoa

Several factors have constrained productivity, such as:

- Lack of access to technology and financing
- Climate crisis
- Poor infrastructure

Other drivers of the sector's decline:

- Non-competitive prices of imports
- Labor-shortage



Transforming Haiti's agri-food systems can address these challenges

¹ IHSI (L'Institut Haïtien de Statistique et d'Informatique). 2022.

² World Bank.

³ IFAD. 2017. Agriculture in Haiti.

Why invest in Haiti's agricultural sector?



Challenge 1: Build resilience and contribute to the SDGs

Reduce the high levels of poverty and food insecurity

Adapt to climate change

Absorb the destructive impact of natural disasters

Reduce inequality by creating employment opportunities for youth and women



Challenge 2: Improve the agricultural sector's competitiveness

Incentive mechanisms to reduce import dependency

Improve access to technology and innovation

Improve access to financing

Improve the logistics system



Opportunity 1: Good agroecological conditions

Year-long cultivation

Diverse topography

Diverse crops

Potential for productivity gains



Opportunity 2: Access to international markets

Border markets

The United States of America

CARICOM



Opportunity 3: High local demand

Limited supply of staples

International humanitarian actors (WFP, UNICEF)

Agricultural financing framework for Haiti

NATIONAL AGRICULTURAL INVESTMENT PLAN (2011- 2016)¹	
Development of infrastructure	Watershed management versants Irrigation
Production and development of value chains	<ul style="list-style-type: none"> - Plant production- - Livestock - Fisheries and Aquaculture - Access to agricultural inputs and tools - Rural credit - Post-harvest management and marketing - Urban and peri-urban agriculture - Local production and humanitarian operations
Agricultural services and institutional support	
Estimated investment: US\$ 772 M	

NATIONAL AGRICULTURAL INVESTMENT PLAN (2016 – 2021)
<ul style="list-style-type: none"> ➤ Agricultural infrastructure and watershed management ➤ Development of crop, livestock and fisheries production ➤ Development of public agricultural services
Estimated investment: US\$ 796 M

1. MARNDR. 2011.

Why invest in the yam value chain?



Fundamental for local diets and rich in nutrients



Grows well in Haiti – one of the main crops produced in quantity



Drought resistant – key to climate crisis adaptation



High demand – from local population, international and humanitarian actors, school canteens, hospitality sector and international markets



Can be transformed

- Adds monetary value
- Increases shelf-life
- Reduce post-harvest loss
- Create job opportunities supporting women's empowerment



Why invest in the coffee value chain?



Historically important cash crop for Haiti's economy

In 1980s, generated \$US 90 million in export sales¹



Ideal mountain conditions for premium coffee productions such as Haitian Blue



National coffee enterprises (Rebo, Selecto, Michel, Café Lux), cooperatives, associations, National Institute of Coffee of Haiti (INCAH)



Existing transformation centres



Large unmet international demand



Increase productivity and farmers' revenues by adopting varieties resistant to coffee leaf rust and using biopesticides against bark beetle

Several leaf rust resistant varieties have been developed in Brazil and should be tested in Haiti



Can be grown sustainably, organically, and fairly, meeting international certifications of quality and fair-trade models



1. WB. Haiti Coffee Supply Chain Risk Assessment, 2010.

Integrating agroforestry systems into existing systems - key to resilience

ENVIRONMENTAL BENEFITS

- ✓ Integration of trees provide natural shade
- ✓ Absorbs more CO₂ than existing systems
- ✓ Favour biodiversity and natural pest control
- ✓ Reduce soil erosion
- ✓ Strengthen capacity to absorb rain
- ✓ Nourish underground water basin
- ✓ Prevent floods and landslides

SOCIAL AND ECONOMIC BENEFITS

- ✓ Diversifies crops which diversifies incomes and diets
- ✓ Reduce risk of losing crops to drought and/or heavy rain



Belle-Anse, 2023. Heavy rains 1st week of June flooded and destroyed maize crops.

Investment opportunities in a strategic location

Sud-Est department

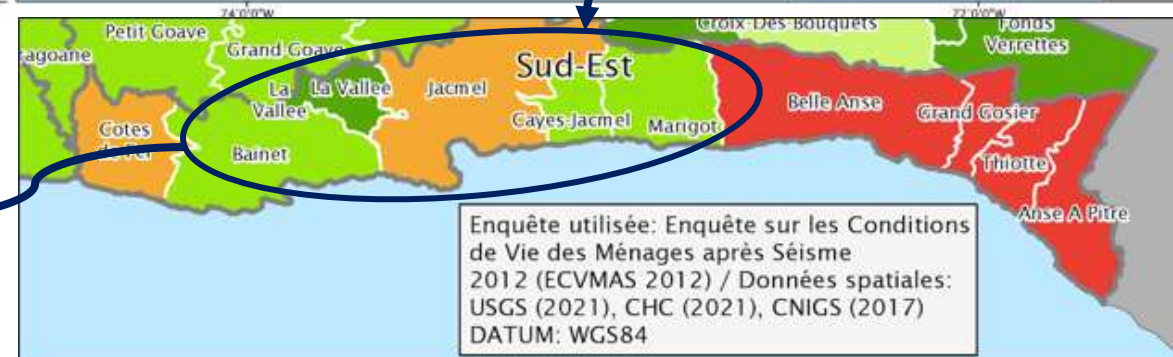
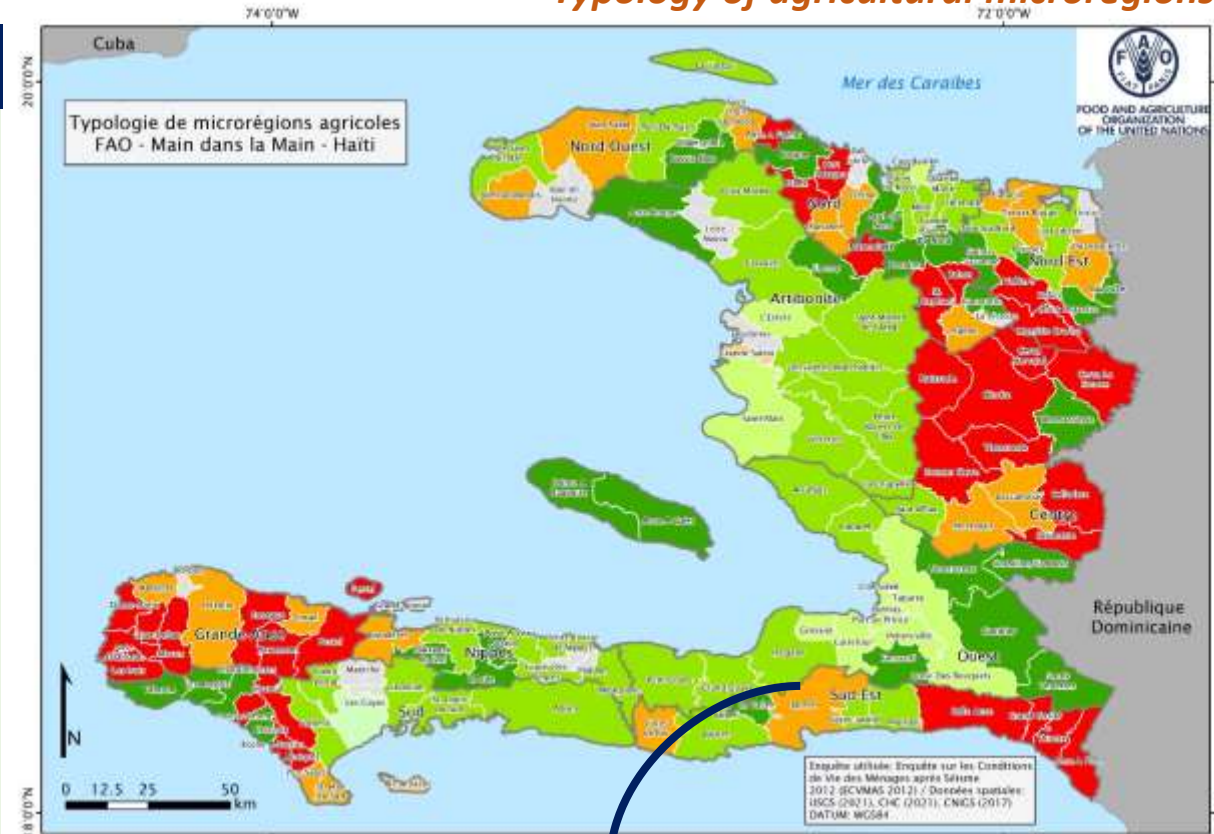
- High agricultural potential and high food insecurity
- High production of yam (5000 MT/year)
 - ➔ yield/ha 4.9 MT < average national yield/ha 5 MT
- Ideal conditions for high quality coffee
- Near border markets
- Port with commercial cargo wharf in Jacmel
- Presence of key food security actors on ground PROSAN alliance: FAO, local office of Ministry of Agriculture, Spanish Agency for Int. Cooperation, NGOs

> 70%

of the population are food insecure (IPC3+) in this department

Departement: Sud-Est
Municipalities: Bainet, La Vallée, Jacmel, Cayes-Jacmel, Marigot

Typology of agricultural microregions



Investment plan

Objective

Building resilience through the development of strategic value chains

1000 hectares targeted

Yam 300 ha in agroforestry
200 ha in full sun

Coffee 500 ha agroforestry

3000 producers



Cayes-Jacmel, August 2023. Yam, bananas, bell and chilli pepper, aubergine, cocoa, citrus and avocado grow here

Investment scope

ACTIVITIES



Technical packages, training and Farmer Field Schools



Research on seed varieties



Production of quality seedlings, biopesticides and biofertilizers



Incorporation of agroforestry systems



Enterprise creation



Institutional support

YAM



500 technical packages

- plants
- plot layout
- soil preparation and planting techniques
- residue management and compost application
- pest, light and fertility management
- harvesting equipment

1 study of yam seeds

2 yam variety collection

1 genetic characterization of varieties

Laboratory material

8 seed production enterprises

10 biofertilizer/biopesticides enterprises

COFFEE



500 technical packages

- plants
- plot layout
- soil preparation and planting techniques
- residue management and compost application
- pest, light and fertility management
- harvesting equipment

1 study on coffee seeds

2 coffee seed variety collection

Laboratory material

2 coffee seed production centers

10 biofertilizer/biopesticides enterprises

Investment scope

ACTIVITIES



Development of transformation activities



Support to farmers' associations



YAM



Nutritional value and bacteriological quality of products

Development of manufacturing diagrams for 6 products processed with the FFS



Cayes-Jacmel, 2023. Yam using trees as live stakes

COFFEE



10 coffee washing centers rehabilitated
6 roasting enterprises developed



Cayes-Jacmel, 2023. Yam and coffee growing together

Opportunity 1 | Yam value chain investment with great returns

COST-BENEFIT METRICS

Cost (USD): \$6.17 M

Internal rate of return (%): 17.5%


Net present value (12% d.r., 20 y): \$1.2 M USD

Direct beneficiaries: 1500 farmers

Employment opportunities created: 752

Increase in net revenue per capita/year (USD):
 Yam in full sun: \$1628
 Yam in agroforestry: \$502

CO₂ sequestered:
 66,414 tCO₂-eq for 500 ha over 20 years
 6.6 tCO₂-eq per ha/year



EXPECTED RESULTS		WITHOUT PROJECT	WITH PROJECT (5 th year)
Yam in full sun intercropped with maize 200 ha	Yield	4340 kg/ha	17,050 kg/ha
	Production value	104 000 USD	2 040 000 USD
	Net revenue/farmer	371 USD	1999 USD
Yam in agroforestry with fruit trees, peas, and maize 300 ha	Yield	3255 kg/ha	8990 kg/ha
	Production value	116 900 USD	1 586 000 USD
	Net revenue/farmer	175 USD	677 USD

Opportunity 2 | Coffee in agroforestry investment with great returns

COST-BENEFIT METRICS


Cost (USD): \$5.95 M


Internal rate of return (%): 14.6%

Net present value (12% d.r., 20 y): \$0.9 M USD

Direct beneficiaries: 1500 farmers

 **Employment opportunities created:** 883

 **Increase in net revenue per capita/year (USD):**
Coffee in agroforestry: \$1525

 **CO₂ sequestered:**
68,622 tCO₂-eq for 500 ha over 20 years
6.9 tCO₂-eq per ha/year



EXPECTED RESULTS		WITHOUT PROJECT	WITH PROJECT (5 th year)
Coffee in agroforestry with bananas, fruit trees, and yam 500 ha	Yield	200 kg/ha	500 kg/ha
	Production value	1 241 000 USD	4 322 000 USD
	Net revenue/capita	822 USD	2216 USD



HAITI INVESTMENT AND SUPPORT PLAN



Food and Agriculture Organization of the United Nations



SUMMARY

US\$ 12.1M Total investment for Sud-Est	16.1% Overall average IRR	15,000 Direct bene: 3000 Indirect b.: 12,000	US\$1,295 Average net income increase per capita/year	6.8 tCO₂-eq Emission reduction per hectare/year
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KEY INVESTMENT AND SUPPORT OPPORTUNITIES

Intervention

Yam value chain development

1

Cost (USD)

\$6.17 M

Internal Rate of Return (%)

17.5%

Net Present Value (12% d.r., 20 y, USD)

\$1.2 M

Social benefits

Direct beneficiaries: **1500**

Indirect beneficiaries: **6000**

New jobs created: **752**

Net revenue increase per capita/year:

Yam in full sun: **\$1628**

Yam in agroforestry: **\$502**

Environmental benefits

Carbon sequestration

66,414 tCO₂-eq for 500 ha over 20 yrs

6.6 tCO₂-eq per ha/year

Intervention

Coffee value chain development

2

Cost (USD)

\$5.95 M

Internal Rate of Return (%)

14.6 %

Net Present Value (12% d.r., 20 y, USD)

\$0.9 M

Social benefits

Direct beneficiaries: **1500**

Indirect beneficiaries: **6000**

New jobs created: **883**

Net revenue increase per capita/year:

Coffee in agroforestry: **\$1525**

Environmental benefits

Carbon sequestration

68,622 tCO₂-eq for 500 ha over 20 years

6.9 tCO₂-eq per ha/year

Total investment of

US\$ 121M

is required to **scale up** similar **agrifood investments** to 10 other areas in Haiti and **support transformative food systems change**

Several areas have **high agricultural potential and high food insecurity and are relatively calm**

