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

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

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**HUMANITARIAN RESPONSE PLAN NEEDS FOR THE FOOD SECURITY SECTOR IN 2023**

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<th>People in need</th>
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<td>4.9M</td>
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\(^1\) Food Security Cluster Haiti, July 2023.
Haiti's agricultural sector

The agricultural sector accounts for 18% of GDP¹

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<th>Nominal GDP 2022</th>
<th>Share of agriculture, livestock, forestry and fisheries</th>
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<td>USD $21.15 billion</td>
<td>USD $3.8 billion</td>
</tr>
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</table>

- 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

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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)

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**International humanitarian actors**

- WFP
- UNICEF
## Agricultural financing framework for Haiti

<table>
<thead>
<tr>
<th>NATIONAL AGRICULTURAL INVESTMENT PLAN (2011-2016)¹</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Development of infrastructure</strong></td>
<td><strong>Agricultural infrastructure and watershed management</strong></td>
</tr>
<tr>
<td>Watershed management versants Irrigation</td>
<td></td>
</tr>
<tr>
<td><strong>Production and development of value chains</strong></td>
<td><strong>Development of crop, livestock and fisheries production</strong></td>
</tr>
<tr>
<td>- Plant production-</td>
<td>- Development of public agricultural services</td>
</tr>
<tr>
<td>- Livestock</td>
<td></td>
</tr>
<tr>
<td>- Fisheries and Aquaculture</td>
<td></td>
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<tr>
<td>- Access to agricultural inputs and tools</td>
<td></td>
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<tr>
<td>- Rural credit</td>
<td></td>
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<tr>
<td>- Post-harvest management and marketing</td>
<td></td>
</tr>
<tr>
<td>- Urban and peri-urban agriculture</td>
<td></td>
</tr>
<tr>
<td>- Local production and humanitarian operations</td>
<td></td>
</tr>
<tr>
<td><strong>Agricultural services and institutional support</strong></td>
<td>Estimated investment: US$ 796 M</td>
</tr>
<tr>
<td><strong>Estimated investment: US$ 772 M</strong></td>
<td></td>
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</tbody>
</table>

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 cantines, 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 sales

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

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.*
SECTION 2: INVESTMENT OPPORTUNITIES

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
SECTION 3: INVESTMENT PLAN AND OPPORTUNITIES

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.
### 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
SECTION 3: INVESTMENT PLAN AND OPPORTUNITIES

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

**COFFEE**
- 10 coffee washing centers rehabilitated
- 6 roasting enterprises developed

Cayes-Jacmel, 2023. Yam using trees as live stakes
Cayes-Jacmel, 2023. Yam and coffee growing together
## Opportunity 1 | Yam value chain investment with great returns

### COST-BENEFIT METRICS

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<thead>
<tr>
<th>Metric</th>
<th>Without Project</th>
<th>With Project (5th year)</th>
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<td><strong>Yam in full sun intercropped with maize 200 ha</strong></td>
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<td>Yield</td>
<td>4340 kg/ha</td>
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<td>Production value</td>
<td>104,000 USD</td>
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<td>Net revenue/farmer</td>
<td>371 USD</td>
<td>1999 USD</td>
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<td>3255 kg/ha</td>
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<td>116,900 USD</td>
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<td>Net revenue/farmer</td>
<td>175 USD</td>
<td>677 USD</td>
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### EXPECTED RESULTS

- **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

- **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

## SECTION 3: INVESTMENT PLAN AND OPPORTUNITIES
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**

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<td><strong>Net revenue/capita</strong></td>
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HAITI INVESTMENT AND SUPPORT PLAN

SUMMARY

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<td>Total investment for Sud-Est</td>
<td>US$ 12.1M</td>
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<td>Overall average IRR</td>
<td>16.1%</td>
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<td>Direct bene: 3000</td>
<td>15,000</td>
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<tr>
<td>Average net income increase per capita/year</td>
<td>US$1,295</td>
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<td>Emission reduction per hectare/year</td>
<td>6.8 tCO₂-eq</td>
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Environmental benefits:
Carbon sequestration:
- 66,414 tCO₂-eq for 500 ha over 20 yrs
- 6.6 tCO₂-eq per ha/year

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

KEY INVESTMENT AND SUPPORT OPPORTUNITIES

1. Intervention: Yam value chain development
   - Cost (USD): $6.17 M
   - Internal Rate of Return (%): 17.5%
   - Net Present Value (12% d.r., 20 yrs, 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

2. Intervention: Coffee value chain development
   - Cost (USD): $5.95 M
   - Internal Rate of Return (%): 14.6%
   - Net Present Value (12% d.r., 20 yrs, 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: $1525
   - Environmental benefits:
     - Carbon sequestration:
       - 68,622 tCO₂-eq for 500 ha over 20 yrs
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Total investment of US$ 121 M 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.

HUMANITARIAN RESPONSE PLAN NEEDS FOR THE FOOD SECURITY SECTOR IN 2023

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