

# Managing Risk in Côte d'Ivoire's Cocoa Sector

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## Summary of Côte d'Ivoire Cocoa Sector

- **Addressing Côte d'Ivoire cocoa sustainability issues is an industry and national imperative**
  - Both industry and country have significant stakes in the health of the cocoa sector in Côte d'Ivoire
- **Cocoa growing conditions in Côte d'Ivoire are bleak but can be improved**
  - Economic, social, environmental conditions are poor and in a downward spiral of decline
  - Conditions are already creating volume and quality risk
  - Turnaround of the cocoa sector in Côte d'Ivoire is both possible and needed along with improvements in other origins
- **Clear strategies exist to take corrective action – Stakeholders must mobilize urgently**
  - Priority should be placed on improving economics to the farmer
  - Solutions to improve farmer income are known but have not been successfully brought to scale
  - Improving farmer income will drive concurrent environmental and social improvements, in combination with other efforts
  - Addressing challenges in the cocoa sector can be integrated with broader agricultural development efforts
- **Achieving success will require a new level of collaboration**
  - Developing/working within a common agenda: government, NGOs, donors, supply chain and then a public-private governance structure for cocoa sector activities in Côte d'Ivoire
  - Integrating commercial interests in sustainability with “public goods” investments

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# Côte d'Ivoire Cocoa Case Study

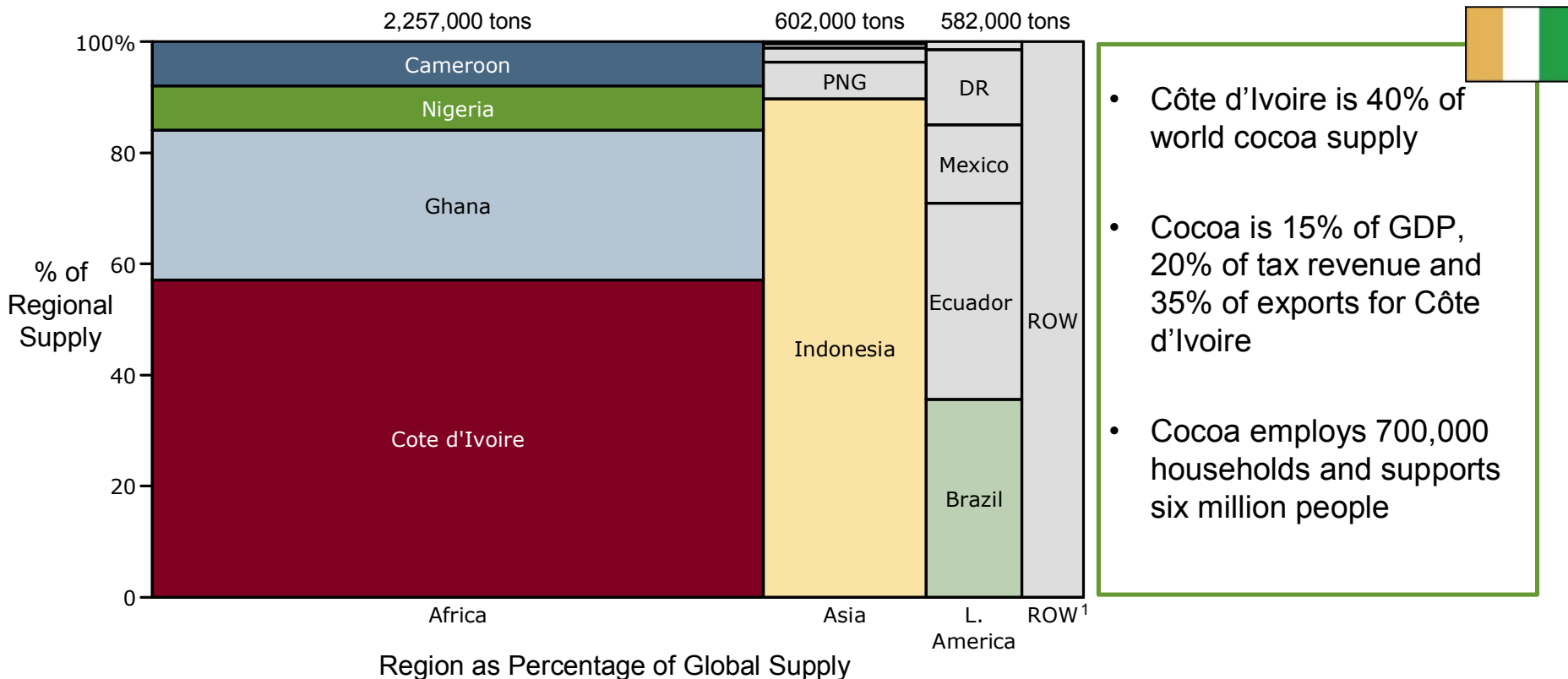
## **I. Situation Assessment**

## **II. Vision and Strategies**

## **III. Taking Action & Partnerships**

# Côte d'Ivoire Is the Leading Cocoa Producing Country in the World, Supplying More than Twice as Much as the Second Largest Country

Annual Cocoa Production by Region, 2007



- Côte d'Ivoire is 40% of world cocoa supply
- Cocoa is 15% of GDP, 20% of tax revenue and 35% of exports for Côte d'Ivoire
- Cocoa employs 700,000 households and supports six million people

***Côte d'Ivoire can become not just a volume leader, but a leader in sustainable, competitive, intensified and diversified cocoa farming systems***

Source: Industry data; 1 – Cocoa from the rest of the world represents less than 10% of total production and is from smaller origin countries (e.g., Papua New Guinea)

## Côte d'Ivoire Is Ranked Among the Low Human Development Countries according to the United Nations Human Development Indicators

Côte d'Ivoire Country-Level Development Challenges
<ul style="list-style-type: none"> <li>• <b>Political Uncertainty</b> <ul style="list-style-type: none"> <li>– Elections have been postponed several times and may not be held in 2009</li> </ul> </li> <li>• <b>Weak Economic Growth and Outlook</b> <ul style="list-style-type: none"> <li>– Reduced foreign investment and slow economic growth have resulted from uncertain future</li> <li>– Per capita income down 15% since 1999</li> </ul> </li> <li>• <b>Diminished Public Services and Investment</b> <ul style="list-style-type: none"> <li>– 72% of cocoa farming villages do not have a health center</li> <li>– 9% have no primary school within 3km</li> </ul> </li> </ul>



UN Human Development Indicator	Côte d'Ivoire Value	Côte d'Ivoire Rank Among All Nations	Côte d'Ivoire Rank Among Selected Cocoa-Producing Countries <sup>1</sup>
Life Expectancy at Birth	55 years <sup>2</sup>	164 / 177	5 / 5
Adult Literacy	48.7%	125 / 139	5 / 5
Combined School Enrollment	39.6%	160 / 172	5 / 5
GDP Per Capita	\$1648	147 / 174	5 / 5
<b>UN Human Development Index Total Ranking</b>		166 / 177	5 / 5

***Côte d'Ivoire leads in cocoa production, but not in development against other cocoa producing countries***

Source: UNDP Human Development Report, CIA Factbook, Initial Diagnostic Report on Child Labor

1 – Selected cocoa-producing countries include Indonesia, Ghana, Cameroon, and Nigeria

2 – Data on life expectancy is from CIA Factbook; rankings are from UNDP Human Development Report

Cocoa Sustainability in Côte d'Ivoire—A Vision for Change

# The Vast Majority of Cocoa Farmers in Côte d'Ivoire Are at Subsistence Level, With Limited Ability to Invest Sufficiently in Their Farms

## Côte d'Ivoire Average Farm and Family-Level Economics



Key Farm Indicators	Cocoa Farming – Inefficient, under priced, subsistence...
Current Avg. Yield	<ul style="list-style-type: none"> <li>• 450 Kg/Ha</li> <li>• Average farm size 3 Ha</li> </ul>
Cocoa Volume	<ul style="list-style-type: none"> <li>• 1.35 tons</li> </ul>
Cocoa Price	<ul style="list-style-type: none"> <li>• Recent farm gate price of \$1-1.40 / Kg</li> </ul>
Income	<ul style="list-style-type: none"> <li>• ~\$1600 (Gross Income)</li> <li>• Gross income too low to invest in optimal farm inputs                             <ul style="list-style-type: none"> <li>– Cost of optimal farm inputs (\$300 / Ha or \$900 total on a 3 Ha farm)</li> </ul> </li> </ul>
Average Farmer Age <sup>1</sup>	<ul style="list-style-type: none"> <li>• 49 years old</li> </ul>
# of Kg of Cocoa Needed to Buy One Bag of Fertilizer	<ul style="list-style-type: none"> <li>• Côte d'Ivoire: 52 kg of cocoa</li> <li>• Indonesia: 8 kg of cocoa</li> </ul>

1 – In country expert interviews; François Ruf, CIRAD  
Cocoa Sustainability in Côte d'Ivoire—A Vision for Change

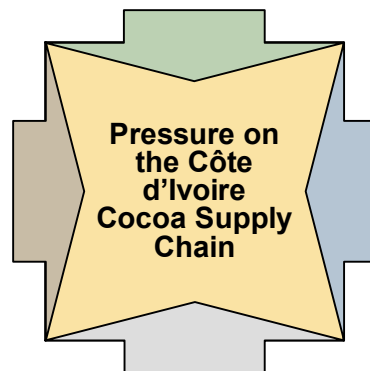
# Challenging Economic, Environmental, Social and Political Conditions in Côte d'Ivoire Place Considerable Pressure on the Cocoa Supply Chain

## Economic

- **Low Cocoa Yields** – 450 Kg/Ha
- **Tax Burden** – 34% versus ~15% in Ghana and zero to very small in other cocoa origins
- **Resulting Low Share of Prices to Farmers**

## Environmental

- **Deforestation** – no new land
- **Full Sun Cocoa Systems<sup>1</sup>** – 35% no shade
- **Declining Soil Fertility** – ~14% access to fertilizers



## Social

- **Lack of Social Services** – Only ~28% of cocoa farming villages have a health center
- **Child Labor** – 89% of children, 43% injuries, 9% forced labor
- **Migration**

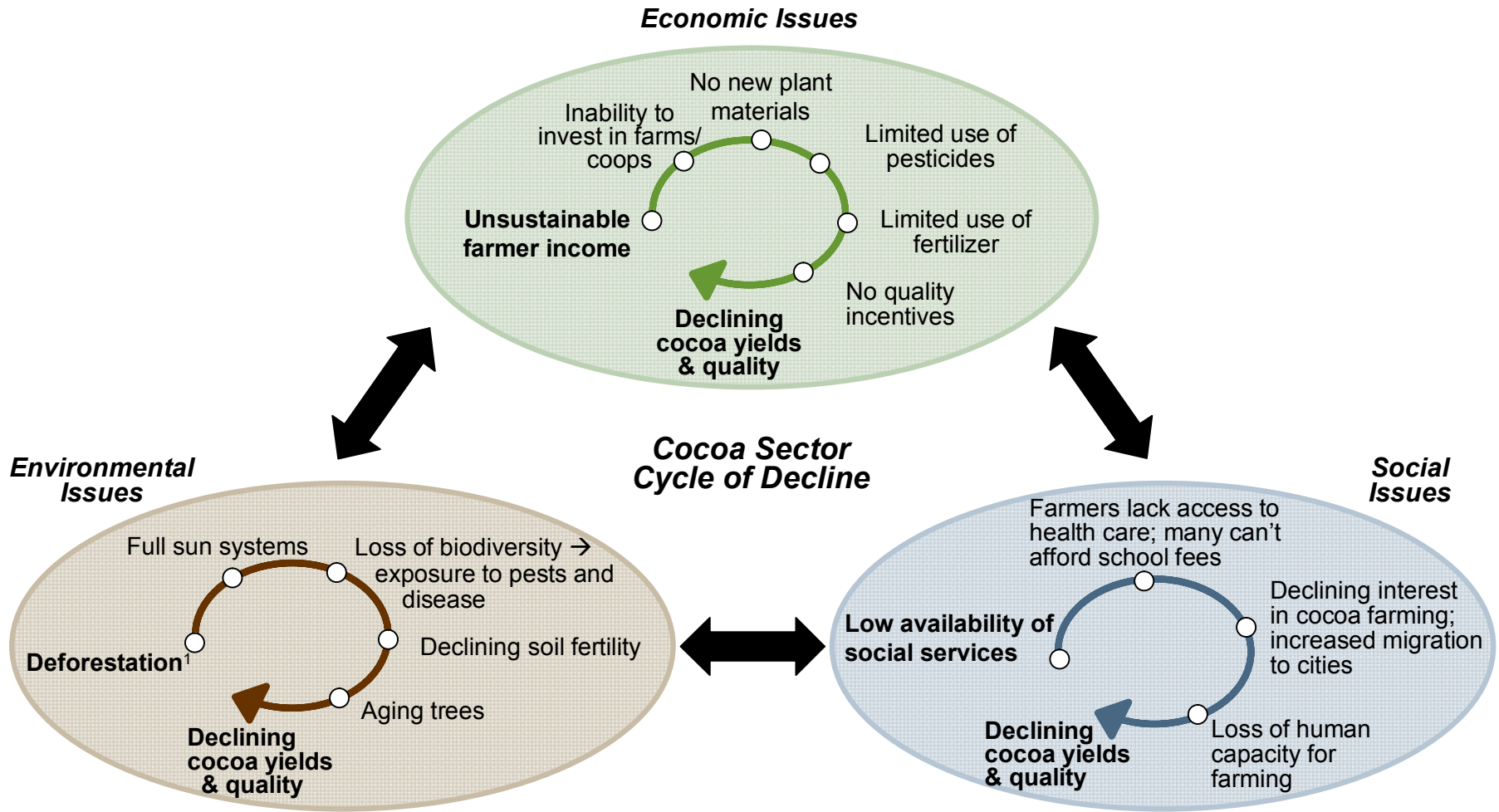
## Political and Regulatory

- **Evolving Political Environment**
- **Launch of New Cocoa Sector Governing Body**
- **Land Tenure Rights**

Notes: 1- This does not include farms that have 18 shade trees, the acceptable shade level for several certification programs.

Source: Industry Documents, United Nations, World Bank  
Cocoa Sustainability in Côte d'Ivoire—A Vision for Change

# Cocoa Sector Sustainability Conditions Are Currently in a Mutually Reinforcing Downward Spiral

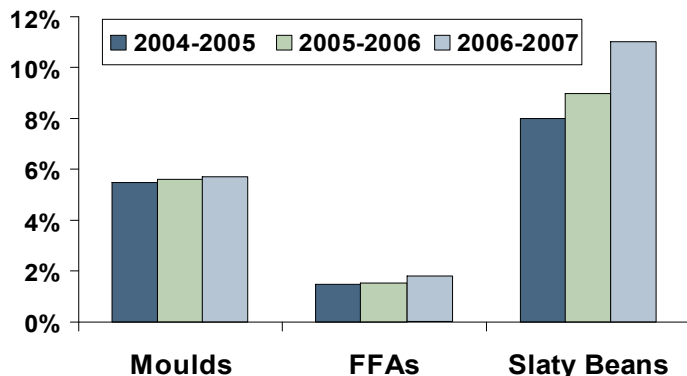


***In the absence of corrective action, these negative trends will accelerate and threaten overall cocoa production levels and quality***

1 – ~90,000 Ha/ year attributable to cocoa farming; 3 million ha of total rain forest remain in Côte d'Ivoire  
Cocoa Sustainability in Côte d'Ivoire—A Vision for Change

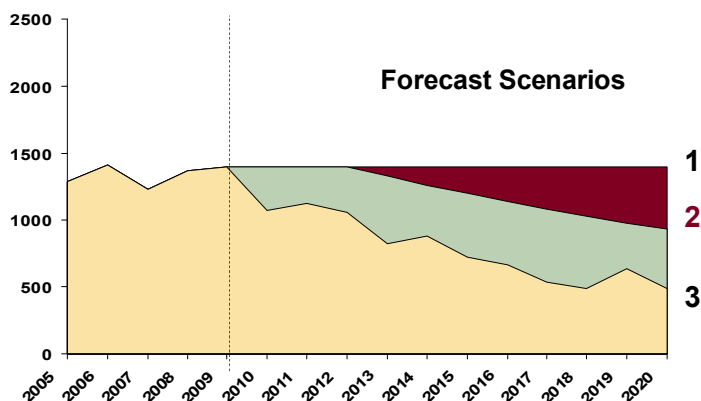
# Quality Declines Are Tangible, Production Declines Are Likely

## Côte d'Ivoire Cocoa Bean Quality



- **Declining bean quality has significant commercial implications for Industry**
  - Raises costs of bean processing (and processed good prices)
  - Increases quantity of rejected beans
  - Creates food safety concerns
- **Quality issues are a recent phenomena and once addressed, the situation can be reversed**

## Total Cocoa Production in Côte d'Ivoire 2005 - 2020 (Metric Tons)



### Potential Scenarios

- **Scenario 1:** Production is flat, as in the last 5 years
- **Scenario 2: Production flat until 2012, then begins to decline gradually (5%/yr)**
- **Scenario 3:** Production declines rapidly due to an uncontrollable disease outbreak (modeled on Brazil)

- **Drivers of decreased production include:**
  - Aging trees
  - Soil fertility loss
  - Increased losses (pests/diseases)
- **Deteriorating conditions increase Côte d'Ivoire's vulnerability to devastating declines**

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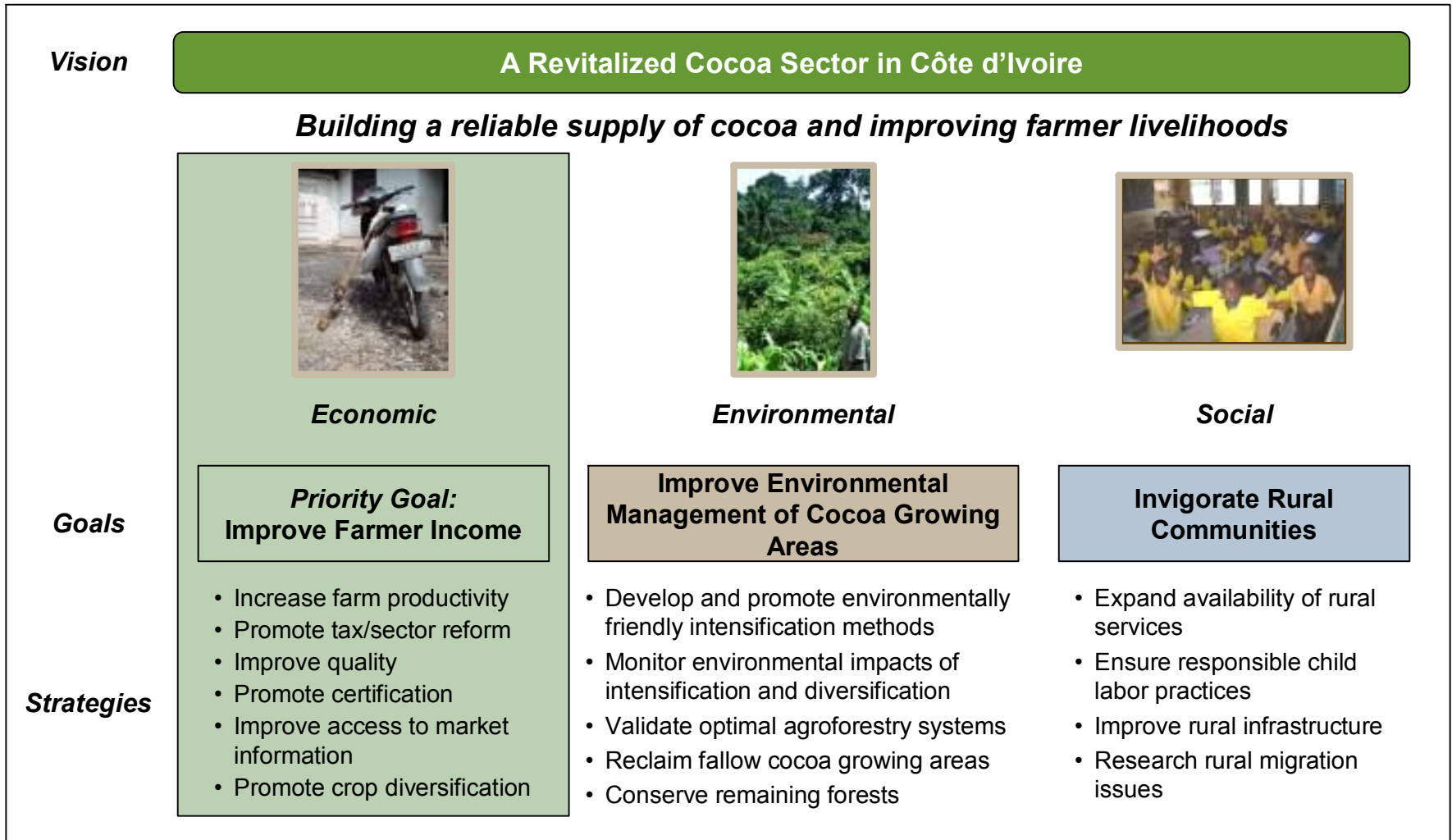
# Côte d'Ivoire Cocoa Case Study

## I. Situation Assessment

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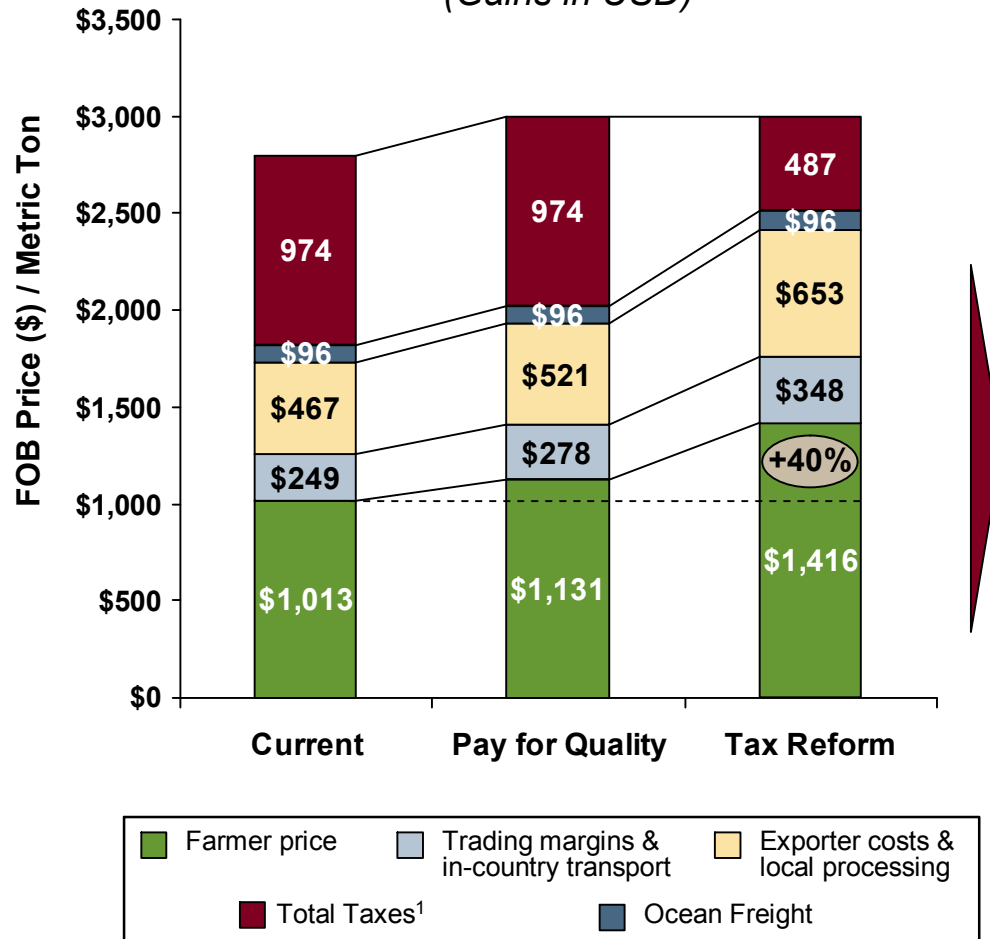
# A New Comprehensive Vision of Cocoa Sustainability, Shared by All Stakeholders, Is Urgently Needed in Côte d'Ivoire



***Action should prioritize economic issues as they unlock the ability to make concurrent improvements in environmental and social dimensions***

# Opportunities Exist To Increase the Farmer's Share of FOB Cocoa Prices by Approximately 40% Through Tax Reform and Quality Initiatives

**Potential Impact of Price-Based Gains**  
(Gains in USD)



**Price-Based Gains**

- Cocoa farmers can realize up to 40% more value for their cocoa through:
  - **Quality Premium** – Achieve up to USD \$200 (premium received in Ghana), allocated proportionally to farmers and supply chain partners for quality and traceability
  - **Tax Reform** – Reduction of total taxes from 35% to 17.5% with benefits accruing proportionally across the supply chain
- **Market Information System** – Cocoa farmers can also increase farm gate price through improved market pricing information (not yet estimated)

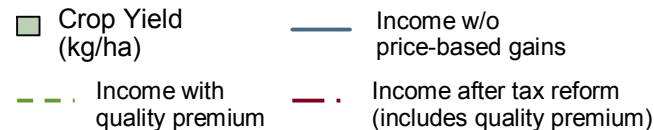
Note: FOB is "freight on board" (export price)

1 – Total taxes include both export tax and paraprofessional tax

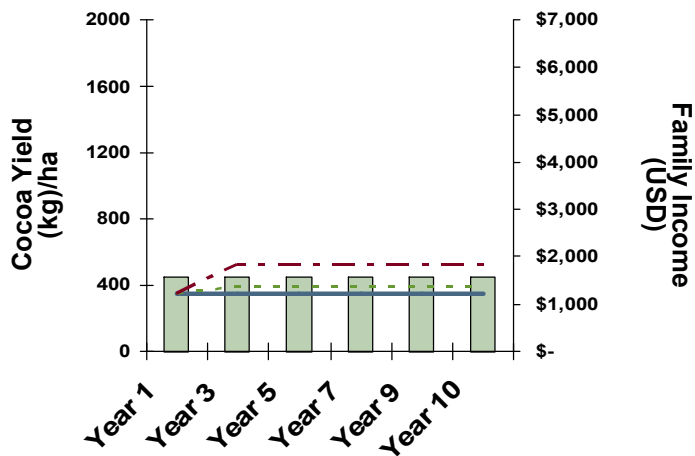
Source: 2006 industry data adapted to September 2008 prices, In-country research, expert interviews  
Cocoa Sustainability in Côte d'Ivoire—A Vision for Change

# Volume-Based Gains in Combination with Priced-Based Gains Can Generate Significant Net Income Improvements

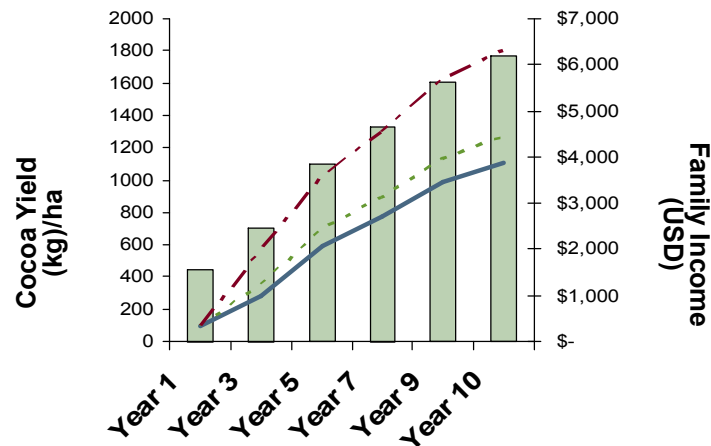
- **Price-based gains<sup>1</sup>** produce a modest but direct increase in farmers' bottom line (i.e., require no investment)
- **Volume-based gains<sup>2</sup>** in combination with price-based gains generate significantly more income, but require up-front investment by farmers in farm inputs



**Price-Based Gains<sup>1</sup>**  
(Potential Family Net Income Impact)



**Volume- and Price-Based Gains<sup>2</sup>**  
(Potential Family Net Income Impact)

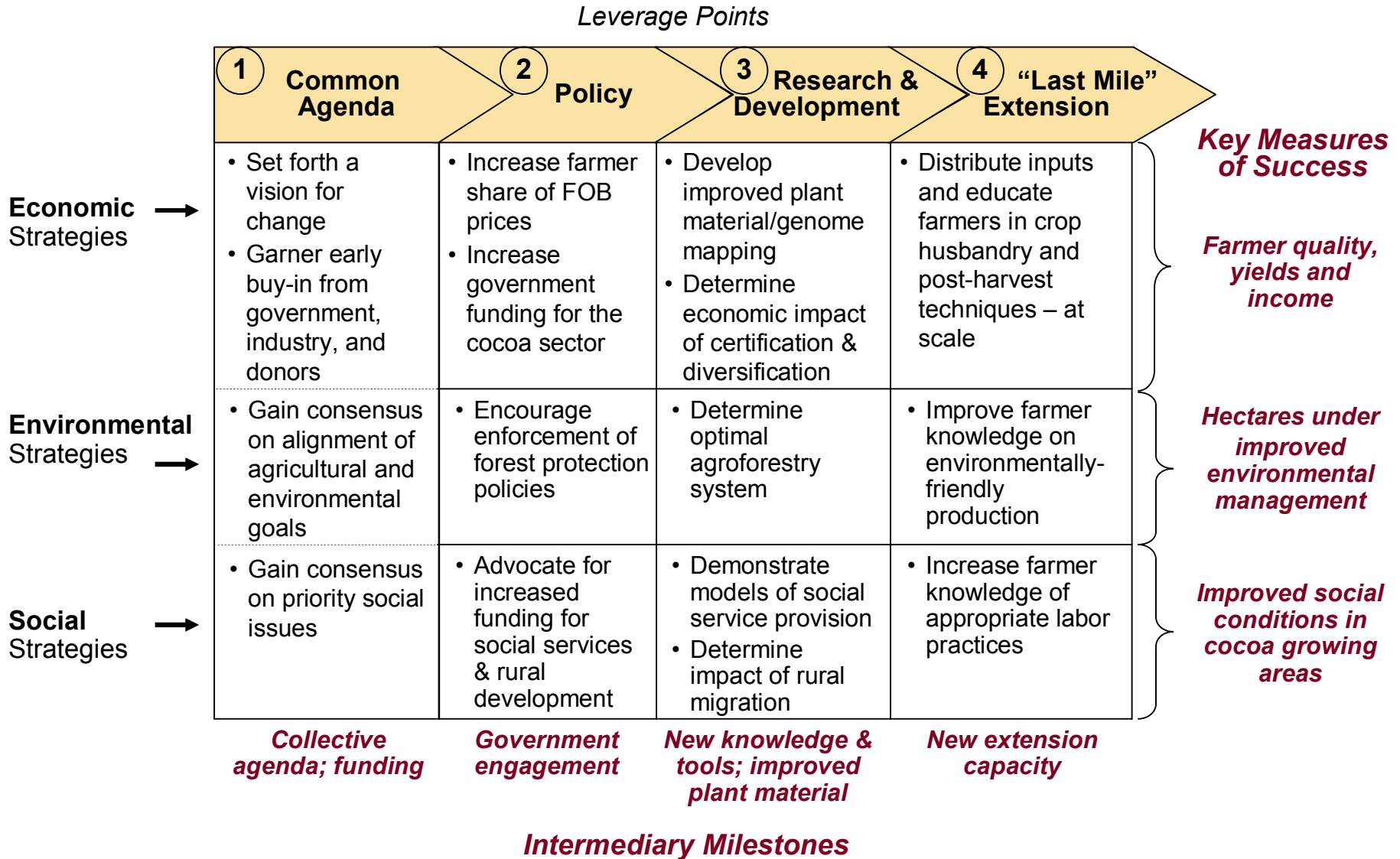


1, 2: Income impact is shown as net of input/plant material costs for graph on right (2). Both graphs assume 12% increase in farmer income due to quality premium in year 2; additional 25% increase in income due to tax reform in year 3. Graph on right (2) assumes 30% productivity increase in year 2 from pest management techniques; additional 50% increase in year 3 from improved pest management and plant material; additional 33% increase in year 4 from improved pest management and plant material; additional 30% in year 5 from use of fertilizer; and additional 10% each year thereafter until optimal yield of 1500 kg/ha is achieved. Source: Expert interviews and FSG analysis

# Four Leverage Points Will Be Critical to Realizing the Goals of the Sustainability Vision

- 1 **Development of a Common Agenda** that defines the problem and sets forth a vision for change, strategies for achieving the vision, and resource requirements is essential for sector-level impact
- 2 **Policy Reform** will help underpin the effort to achieve sector-level improvements in economic, environmental, and social conditions
- 3 **Further Research & Development** is necessary in several key impact areas (e.g., optimal plant material, agroforestry systems)
- 4 **“Last Mile” Extension** refers to the development of efficient new mechanisms to efficiently distribute farm inputs and transfer knowledge at scale

# The Completion of Several Activities Within Each Leverage Point Will Lead to the Revitalization of the Cocoa Sector in Côte d'Ivoire



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# Côte d'Ivoire Cocoa Case Study

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## Today, a Multitude of Disconnected Investments Fail to Transform the Cocoa Sector From Extensive to Intensive and Diversified Farming

### Economic Initiatives

- Farmer Productivity
- Quality
- Taxation
- Market Information

### Environmental Investments

- Deforestation
- Farming Practices
- Climate Change

### Social Investments

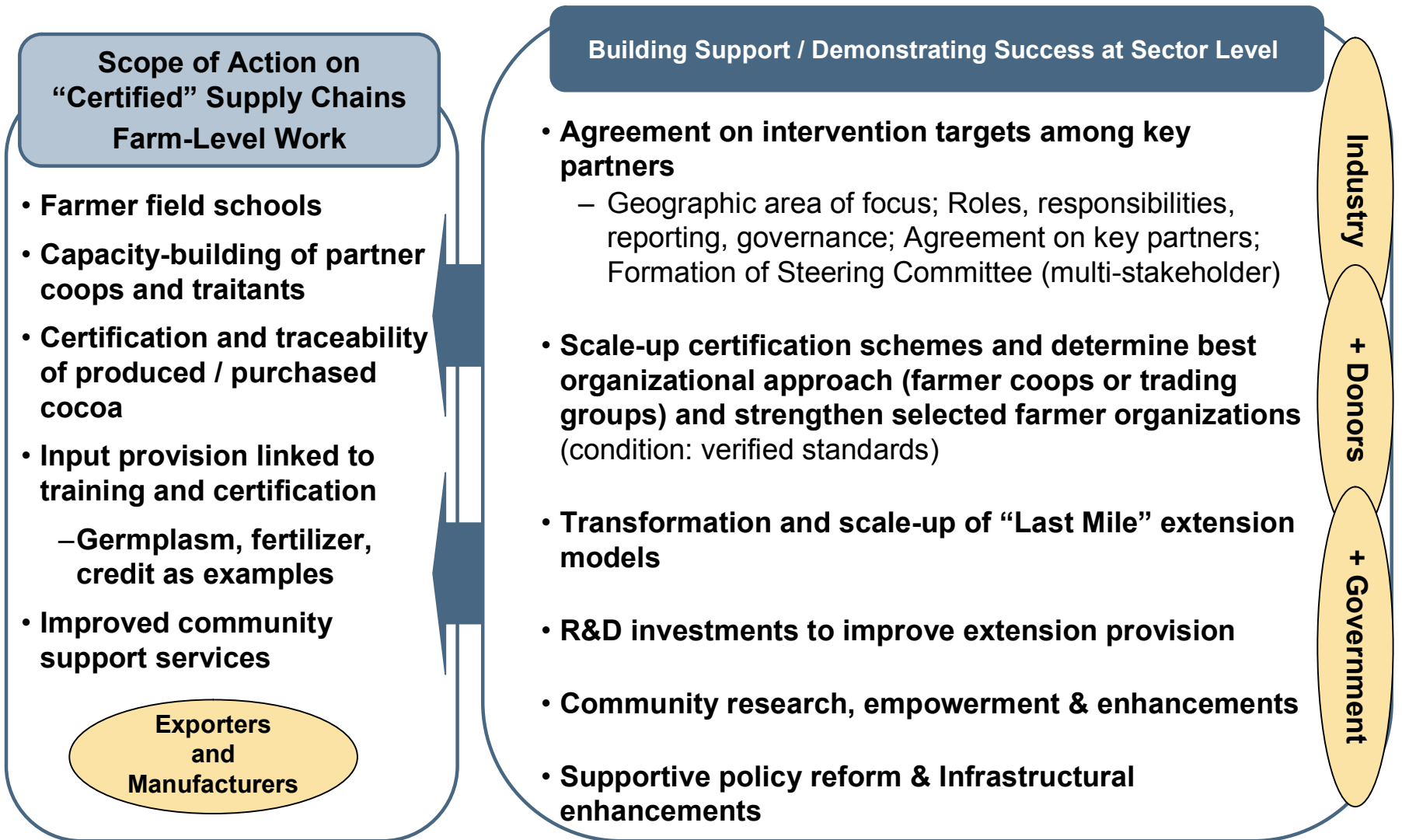
- Responsible Labor Practices
- Improving Living Conditions

### Sample of Actors Currently Working in Côte d'Ivoire's Cocoa Sector



***Current efforts are insufficient; Revitalizing the cocoa sector will require deeper integration of respective efforts and competencies***

# Building a Common Agenda Should Focus on Defining Location-Specific Integration of Dedicated Efforts with Sector-Level Support



## There Are Many Reasons To Believe a Cocoa Sector Transformation Is Possible

### Conditions supporting Côte d'Ivoire Cocoa Sector Transformation



**Willing and interested beneficiaries**



**Common understanding of both sector challenges and solutions**



**Commitment and motivation among stakeholders**



**Sector-level approach takes into account commercial self-interest**



**Realistic acknowledgement of government and sector policy conditions**



**Other agricultural sector transformation examples exist to draw from**