Indonesia

A business case for sustainable coffee production

SUSTAINABLE COFFEE PROGRAM

January 2014

The world's second largest Robusta exporter

Before the rise of Vietnam, Indonesia was the world's largest producer and exporter of Robusta coffee. Robusta was introduced to Indonesia at the start of the 20th century as a hardier alternative to Arabica. Its importance grew during the colonial period, making Indonesia the first country in the world to grow and export Robusta on a large scale. Today, Robusta represents over 80% of Indonesia's coffee production.

Coffee is a smallholder crop in Indonesia. Its significance to the economy has been dwarfed by palm oil, which generally grows at lower altitudes than Robusta. Coffee, however, remains an important income source for an estimated 1.5 million farmers across the archipelago. Coffee farming is highly concentrated in the southern provinces of Sumatra. Due to minimal expenditure on agro-inputs and farm maintenance, farming costs are lower than in other origins such as Vietnam.

Indonesia's Robusta sector is often overshadowed by Vietnam. Indonesia's yields are lower, transaction costs are higher, and growth has been flat for most of the past decade. These factors make the business case for investing in sustainable production look less attractive at first glance. However, Indonesia warrants a second look. It has great potential to increase yields – potentially another 6 million bags of coffee – and to double farmer incomes in the process.

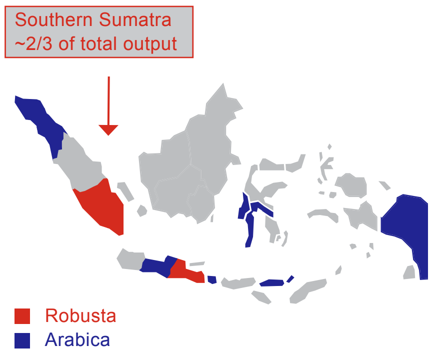
Emerging sustainability trends

Indonesia has responded to roaster demand for certified / verified Robusta and increased sales to 5% of exports (the national total is 7% if Arabica exports are also included). Most of this has been achieved through exporter- and international roaster-funded programs. Economic challenges are likely to make it difficult for Indonesia to grow this percentage in the future.

Current trends suggest Indonesia may become a net Robusta importer in the next decade. This development already occurred in other Southeast Asian countries such as Malaysia and the Philippines, which are now important buyers of Indonesian coffee. As the export sector gets smaller, the business case for exporters to invest in sustainable supply becomes less attractive. High numbers of farmers, low output per farmer, and a fragmented supply chain also increase the cost of running sustainability programs in Indonesia relative to Vietnam.

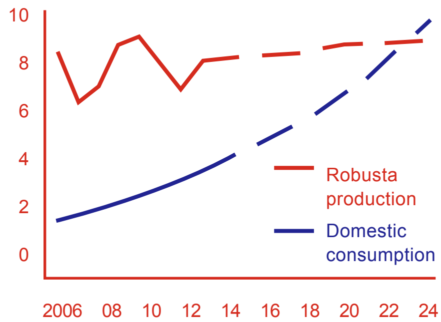
The business case for sustainability can be improved by increasing smallholders' yields. Investing in higher productivity would allow the country to maintain a significant export sector, reduce aggregation costs, and increase farmer incomes. There is also a compelling business case for the international coffee industry to catalyze these investments as a means of ensuring future coffee supply.

Production regions



Indonesia could become a net importer of coffee within the next ten years*

Current Robusta trend (bags, millions)



Quick facts:

- Farmers: 1.5 million (estimate)
- Avg. farm size: 0.85 hectares
- Volume: 9.5M bags (2009-12 avg.)
- Soluble sales: 1.9M bags
- Soluble growth: +20% since 1990s

* Source: GAEKI; USDA; TechnoServe Analysis

Key opportunities

Improving productivity

More sustainable farming practices could **increase incomes by 70% for half a million coffee farmers**, from a base of about $700 per year. On a national scale, **an incremental 6 million bags of production** of Robusta could be generated after 10 years.

Training programs would need to advance farmer adoption of good agricultural practices, particularly those related to soil fertility, tree stock management (pruning, grafting, planting), and pest control. These programs can also help address other sustainability challenges, such as pesticide usage and conservation of forest resources, that are important for producers to meet certification / verification standards.

A strategy for co-investing in sustainability

Although there is a business case for farmers to shift to more sustainable practices, doing so requires co-investment from different actors and a collaborative framework for monitoring and implementation. The total cost of providing intensive training (e.g., through farmer field schools) to half a million farmers would be around $95 million. If financed over 10 years, this represents a cost of less than $40 per ton across the country's total coffee exports (about 2% of current export value).

For international coffee companies, Indonesia is critical to future procurement activities. There are few alternatives for the industry if Indonesia's exports tail off. Vietnam, the market leader, faces environmental constraints to sustaining current production levels and is susceptible to drought. Brazil uses Robusta primarily for the domestic market; rising costs have eroded aspects of its competitive advantage as an exporter. Other origins in Africa and Asia have a lower production base than Indonesia and would likely require even greater investment to expand production. Indonesia, therefore, represents a cost-effective use of resources.

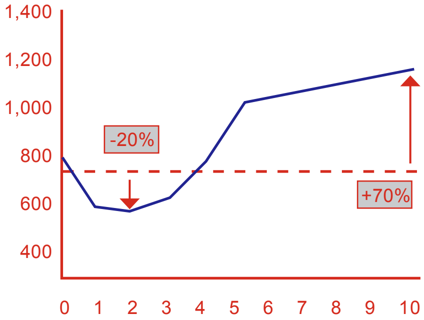
For public sector partners, returns include higher incomes for farmers and rural growth. An investment of about $180 per farmer in training yields a return of more than $400 in additional income per farmer after 5 years. While the Indonesian government has historically placed greater attention on Arabica coffee and other crops (e.g., oil palm and cocoa), it's participation is needed to help boost the Robusta sector.

The Sustainable Coffee Program is promoting a collaborative framework to assist implementation and is open to co-invest with likeminded partners in fieldlevel projects that demonstrate innovation or high potential for scale up.

Key sources: Directorate General of Estate Crops; GAEKI; Kementerian Pertanian Republik Indonesia; USDA; interviews with farmers, exporters, roasters, standards, trade groups, and government stakeholders conducted in October-December 2013.

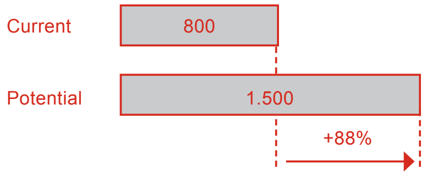
Modeled income improvement potential for Robusta farmer

Net income (US$), excludes training costs



Robusta yields could nearly double*

Kg green coffee/ha



** According to stakeholder interviews*

Potential agronomic improvements and estimated costs	Incremental cost by Year 10 USD per hectare
• Tree rejuvenation (stumping/pruning)	$30
• Fertilization	$266
• Gradual replanting	$20
• Integrated pest management (IPM) and disease control	($4)
• Other costs	$80
• Total cash costs	$392
• Overall farm management (labor)**	$195

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