Case Study
Partnership for Sustainable Agriculture in Vietnam
Coffee Working Group
Business Model Overview

October 2016
Coffee Sector

Accounting for some 60% of global Robusta coffee exports, Vietnam boasts the world's most competitive coffee producers. Steadily increasing over the past three decades, yield ranks among the highest in the world. As the most efficient, low cost supplier, Vietnam coffee production derives almost entirely from smallholder farmers, who account for 95% of its harvest across the concentrated Central Highlands (in the provinces of Dak Lak, Lam Dong, Dak Nong, and Gia Lai). With an average plot of 1.5 hectares (Ha), these farmers manage the majority of farming activities from family labor and sell their coffee (mostly green beans after hulling) to local collectors for eventual delivery to exporters. Coupled with low costs for labor and inputs, coffee cultivation remains highly profitable for Vietnam's half million smallholder farmers, despite their lack of organization into aggregated units (such as cooperatives).

Challenges

The coffee sector faces numerous challenges, even with farmers at peak productivity. Ageing coffee tree stock, depletion of groundwater supply, diminishing soil fertility, and climate change threaten its long-term sustainability. The smallholder nature of coffee farming also calls for strong coordination to address industry challenges.

Coffee Working Group Activities

Responding to challenges in the sector, the PSAV Coffee Working Group (WG) brought together industry players and Government of Vietnam (GOV) officials with the goal of reaching 20,000 smallholder farmers by 2020 and improving outcomes in coffee quality, coffee output, coffee sustainability, and farmer incomes. The WG aims to achieve this through activities that span the entire value chain and enhance farmer access to knowledge, inputs, information and markets. The following diagram depicts the core activities and structure of the WG.
In line with the WEF’s New Vision for Agriculture, the Working Groups adopt an inclusive value chain approach toward improving smallholder productivity, profitability and environmental sustainability. Projects are designed as end-to-end interventions, and aim to improve smallholders’ access to knowledge, inputs, finance, markets and information.

**Access to knowledge**

- **Nestlé**
  - Provides training on best practices (farming, tree rejuvenation, safety and environment).
  - Provides training to assess quality of current and new coffee varieties to ensure preferable and consistent quality for industry and consumers.

- **Yara**
  - Performs field trials to monitor improvements in yield and agreed quality parameters. Trials to be based on current standard grower practice.
  - Provided training via demo plots to showcase product value and quality.
  - International value chain specialist to work with local partners to support value chain competitiveness.

- **4C Association (Common Code for the Coffee Community)**
  - Participates in and exchanges learnings in Coffee Working Group under MARD for linking 4C activities with the 4C members, localities, and other relevant stakeholders.
  - Conducts training-of-trainer (ToT) training and farmer training to improve coffee quality and enhance the understanding and application of sustainable practices.
  - Supports coffee farmers in continuously improving their performance in social, economic and environmental aspects through capacity building, training and access to tools on good agricultural practices (GAPs) and the basic 4C sustainability practices.
  - Facilitates working groups to adapt the 4C Indicators to the local realities.

**Rainforest Alliance (RA)**

- Participates in the Coffee WG at all appropriate levels, shares information, experience and expertise; contributes lessons learned from other coffee growing regions.
- Conducts ToT workshops to increase local capacity for training farmers to maintain or increase production while protecting natural resources and meeting internationally accepted standards on sustainability to benefit farmers, farm-workers, local communities and the environment.
- Conducts local workshops to get farmer and other stakeholder input into the Sustainable Agriculture Network (SAN) standard to ensure that it is effective in the local conditions. Also uses these workshops to develop new farm-management guidelines to improve yield and/or quality, including through better crop nutrition and tree rejuvenation.

**The Government of Vietnam (GOV) through the National Agriculture Extension Centre**

- Supports training across all demonstration plots set up by WG members. The GOV also assists in the formation of farmer organizations and cooperatives to allow the project to reach farmers at scale.
- Technical expertise provided by private sector companies are disseminated through extension services to the cooperatives.
**Progress and Achievements**

**Access to inputs**

**Yara**
- Conducted survey of the nutritional status of coffee trees based on tissue and soil analysis (experiences in Vietnam so far show that the coffee crop is particularly deficient in P, Mg, B, Cu, Zn, Mo).
- Conducted survey of current management of the coffee crop with particular emphasis on fertilizer use, farm economy and environmental impacts.
- Derived a program for best plant nutrition practice including the scope for foliar fertilizers (such as micronutrients).
- Calculated a farmer cost benefit analysis for best plant nutrition practice including discussion of incentive parameters with relevant stakeholders on quality and yield.
- Maps and evaluates common practice in use of water / irrigation.
- Evaluates future application technologies, such as fertigation practices.
- Conducts life cycle analysis, carbon footprint study for best fertilizer practice.

**Nestlé**
- Works on new generation of tree stocks, exchanges genetic material with Western Highlands Agriculture and Forestry Science Institute (WASI), investigates new varieties that could be resistant to pests (nematodes).
- Complements WASI efforts in propagation by deploying mother garden for producing shoots, grafted varieties and seeds (WASI & Nestlé).

**Access to markets**

**Nestlé**
- Supports post-harvest treatment facilities (tarpaulins, relevant machines, etc.)
- Procurers green coffee (GC), providing it meets Nestlé’s GC specifications and is in accordance with current market conditions.

**4C Association**
- Coordinates activities with partner organizations, joint activities, benchmarking, etc.
- Cooperated with Crop Production Department of MARD in drafting a guidance on implementing the 4C codes in VN-localized guidance with encouragement by MARD to provincial departments.
- Supports coffee sector in adapting marketing strategies, technical standards and codes toward sustainability and global integration.

**Access to enabling environment**

**GOV**
- Facilitates engagement between the WG and existing farmer organizations, and helps to form new farmer organizations if relevant.
- Supports WG members by generating procedures to grant cooperation with the local authorities.
- Provides farmer finance support model with WG.
- Authorized the genetic material exchange between WASI and Nestlé for breeding new varieties.

**Profitability**
- Average income comparison between PPP demos and control demos from 2011-15: 12% higher yields.
- Yield comparison between PPP demos and control demos in 2015-16: 17% higher yields.
- Improved quality, with greener and healthier leaves, and larger and riper cherries.

**Environmental sustainability**
- Carbon emission reduced by 55% with optimized chemical fertilizer use (1,487 kgCO₂ eq/ton compared to 661 kgCO₂ eq/ton).
- Water footprint reduced by 66% (from 1,390 to 470 liters/plant/irrigation).
- Fertilization use reduced by 18-23% (depending on location).

**Farm income increased by 14%**

**Carbon emissions reduced by 55%**

**4,378 farmers supported**

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**RA**
- Cooperated with Coffee WG Members and other local stakeholders to define sustainability in the local Robusta context, giving Vietnam a marketing and promotional tool, and giving farmers incentives to improve their farm-management practices in line with 4C and SAN standards.
- In collaboration with other WG partners, seeks market linkages for farmers meeting sustainability standards.

**GOV**
- Ensures National Standard aligns with international standards and is being implemented in line with international standards (Vietnamese Coffee and Cocoa Association VICOFA).
5 Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>2010</td>
<td>June: Formation of the Public Private Task Force on Sustainable Agricultural Growth in Vietnam</td>
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<td>October–November: Alignment of the Coffee WG Strategy</td>
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<td>Design of plan to conduct pilot projects</td>
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<td>2011</td>
<td>January–April: Approval of the pilot projects by MARD</td>
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<td>November: Inclusion of WEF’s New Vision for Agriculture framework into Vietnam’s 10-year national agriculture strategy</td>
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<td></td>
<td>July–December: Implementation of scale-up strategy program ‘extension attach to demo plot’</td>
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<td>Approval by MARD for the scale-up of the first 50 demo plots and farmer groups</td>
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<td>2013</td>
<td>September: Establishment of the Vietnam Coffee Coordination Board (VCCB)</td>
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<td>December: Milestone: scaling of 71 demo plots, development of 2 cooperatives</td>
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<td>2014</td>
<td>September: Set up of 51 demo plots and 3 cooperatives</td>
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<td>November: Formalization of the Coffee WG as the Production Sub-Committee of the VCCB</td>
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<td>2015</td>
<td>Linking farmers, cooperatives and coffee VC with financing institutions</td>
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<td>Agri-Finance WG Bank of Investment and Development of Vietnam (BIDV)</td>
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<td>Asia Commercial Bank (ACB) Agribank</td>
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<td>2016</td>
<td>Scaling up of project activities, with efforts to:</td>
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<td></td>
<td>1 Expand cooperatives, merging with some demo plots</td>
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<td></td>
<td>2 Re-align demo plots</td>
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<td>3 Link/support farmers and cooperatives to coffee VC</td>
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