Blended Finance for Agriculture

CASE STUDY

BLENDING HAPPINESS, HAZELNUTS AND FINANCE IN BHUTAN

MOUNTAIN HAZELNUTS

Synopsis

Primary investors:
Asian Development Bank
Global Agriculture and Food Security Program
International Finance Corporation
Mountain Hazelnuts

Value chain or sector: Hazelnuts

Country: Bhutan

Type of risk addressed: Business model risks associated with developing a new value chain

Type of blended finance instruments:
Equity
Cumulative redeemable preferred shares

Contributed by
Niraj H. Shah, Principal Investment Officer
Philipp Farenholtz, Investment Officer
International Finance Corporation

Executive summary

Growing trees takes patience—and patient capital. In 2015, the International Finance Corporation (IFC) teamed up with the Asian Development Bank (ADB) and the Global Agriculture and Food Security Program (GAFSP) to make a long-term, $12 million investment in a project to promote hazelnut production by smallholder farmers across Bhutan. An initiative of a company called Mountain Hazelnuts, the project has the potential to improve the lives of fully 15% of the entire population of this tiny Himalayan country, which pioneered the concept of Gross National Happiness. Besides guaranteeing extra income to farmers, the project stands to provide long-term social and environmental benefits. But if the potential rewards are high, so are the risks. Concessional finance support was critical to close the deal.

Introduction

An International Development Association country with a per capita income today of just over $3,000 and a population of 750,000, Bhutan has a little-diversified economy that depends largely on hydropower revenues, budgetary grants, and subsistence agriculture. Agriculture is the main source of livelihood for more than half the population but accounts for less than one fifth of GDP.

Further to this, the emergence of a vibrant private sector has been constrained due to inadequate infrastructure, the absence of scale economies, skills mismatch in the labor force and limited access to finance.

The founders of Mountain Hazelnuts—CEO Daniel Spitzer, a repeat client for IFC; Teresa Law, CFO; and Andrew Watson, Chief Scientist—saw the potential of this crop to create a profitable business with a significant development impact. After exploring a number of potential host countries, they settled on Bhutan. The founders launched the company in 2009 with an investment by Spitzer and raised additional capital from external investors in 2011. (The IFC appraised the project at that time but ended up not investing until a few years later).

Mountain Hazelnuts' business model is deceptively simple: The company grows hazelnut saplings in its own nursery in Bhutan and distributes them to farmers to plant on fallow land that has no commercial use. An agreement brokered through the Bhutanese government allows farmers without land to participate in the project by leasing land from the government. Mountain Hazelnuts then provides agricultural inputs, training and regular supervision to ensure that farmers know how to most effectively care for their young shrubs. Once the trees flourish and bear nuts, the farmers sell the crop back to Mountain Hazelnuts at a guaranteed minimum price. Each full-grown tree can yield four to six kilos of nuts per harvest. With the typical rural household in Bhutan earning a cash income of less than $500 per year, the incremental earnings based solely on the sale of the hazelnuts will give farmers a meaningful boost to their incomes.

Besides the economic benefits, the project has clear social and environmental value. By improving the lives of these farmers, Mountain Hazelnuts can help stem the crippling flow of younger Bhutanese villagers migrating to urban areas. And by planting the trees on thousands of acres of overgrazed and deforested mountain slopes, the company also stabilizes degraded areas and halts erosion.

As attractive as the model seemed, the proposed investment carried multiple risks that gave the IFC cause for concern. This would be the first time it ventured into agribusiness in Bhutan and the first time it invested in this type of shared prosperity model—providing money to a hazelnut production company that owns the trees on which the project's success depends but not the land on which they grow. Mountain Hazelnuts would have to manage and motivate 15,000 untrained farmers to adopt good agricultural practices and properly grow hazelnut trees across a mountainous country with limited infrastructure, with the additional risk of a virulent pest or a sudden flood or earthquake wiping out the orchards.

There was apprehension too about Mountain Hazelnuts' ambitious timeline. It was not clear if the company could meet its aggressive target of planting more than 10 million hazelnut trees and establish a logistics and international marketing infrastructure before seeing its first meaningful cash inflows. Additional risks included volatile global hazelnut prices, which in 2014 alone fluctuated between $3 and $6.60 per kilo.

Although IFC was interested in moving forward with Mountain Hazelnuts, the operational risks were still high for offering long-term capital to this still relatively young, pre-revenue company. That is where the Global Agriculture and Food Security Program came in. Its Private Sector Window uses blended finance solutions and concessional funding to support both early-stage projects and established agribusinesses that can improve the livelihood of smallholder farmers. However, instead of a grant-based approach, the goal is returnable capital.

Under the agreement that was eventually hammered out, IFC and ADB each invested $3 million of equity in the company, with Spitzer and other Mountain Hazelnuts shareholders converting $3 million of existing bridge loans into equity. The Private Sector Window of GAFSP matched the IFC and ADB investments with $6 million in quasi-equity financing, in the form of cumulative redeemable preferred shares.

The use of GAFSP blended finance was essential to mobilize IFC and ADB funding and to close the remaining funding gap for the project's completion. Without this support, the deal simply would not have been completed. The investment was structured in a way that worked for all parties, with no cash outflow for the company and mitigated risks for IFC and ADB. In the absence of alternative funding offers, it did not distort the market or edge out any competitor.

The concessional quasi-equity instrument from GAFSP, together with the investments from IFC and ADB, will help Mountain Hazelnuts reach its break-even point and ramp up profitability and cash generation. Once that occurs, the company will be in a position to accept commercial funding, especially trade finance, to support its operations.

Blended Finance Approach

The structure of this blended finance investment made sense for the investors and for Mountain Hazelnuts. Because the company would not generate substantial cash flows for some time—until the hazelnut trees became productive—it could not take on regular debt, as it would not yet be able to make interest or principal payments. A straight equity investment had potential drawbacks too. Although the existing shareholders were eager to accept the ADB and IFC as new investors, they were wary of the extent to which their own shares would be diluted by issuing additional shares.

From IFC's and ADB's perspective, some risk mitigation from GAFSP was needed, and existing shareholder bridge loans had to be converted into equity rather than be paid out with proceeds from the IFC/ADB/GAFSP investment. As such, the requirements for structuring the GAFSP instrument were tight: no dilution and no cash outflow for the company, and risk mitigation for IFC and ADB.

The solution in this case turned out to be to structure the GAFSP investment in the form of cumulative redeemable preferred shares (CRPS). Technically an equity instrument ranking senior to all other classes of shares, the CRPS has similar characteristics as a loan with a fixed coupon and redemption timeline and no dilution to other shareholders. However, the biggest advantage it offers to the company and its shareholders is that the base internal rate of return is in the form of a dividend payment and is cumulative, meaning that the company does not have to pay out a dividend to GAFSP every year.

A phased, milestone-based disbursement schedule and an agreement among IFC, ADB and GAFSP about the distribution of their pooled proceeds provide critical risk mitigation and capital protection for IFC and ADB only; this keeps the GAFSP's concessionality level in line with its mandate. The agreement also allows for potentially higher returns for GAFSP but only out of the proceeds received by IFC and ADB. In other words, any downside or upside arrangement stays between IFC, ADB and GAFSP and does not benefit or penalize other shareholders.

The structure, while not exactly conventional, worked for all parties. Existing shareholders were pleased to see additional cash flow-friendly capital without excessive dilution, and they agreed to convert their bridge loans into additional equity at the same valuation at which IFC and ADB invested equity. IFC and ADB have some risk mitigation from GAFSP, and GAFSP will earn returns for a debt-like instrument with upside potential.

Impact

The overall projected financial returns on GAFSP Private Sector Window projects are in the single digits—a low investment return if that were the only measure of success. However, GAFSP and IFC recognize the significance of their projects in terms of development impact, and in the case of Mountain Hazelnuts, there are a multitude of positive development results: alleviating poverty among farmers, linking them to markets, creating jobs, restoring Bhutan's eroded landscape, improving the environment and ensuring a financial gain for investors.

Farmer Reach and Expected Income

As of early 2020, Mountain Hazelnuts already involves more than 11,000 farmer households, many of which are located in Bhutan's poorer eastern regions. At project's completion (2026-2027), this number will grow to over 15,000 households and community groups.

Farmers grow hazelnuts to generate income on degraded, unused land that would otherwise be left barren. According to the agreement between Mountain Hazelnuts and participating farmers, farmers must plant on fallow land and cannot displace existing crops with hazelnuts, making the income from hazelnut cultivation entirely incremental. The additional earnings from hazelnut sales are projected to eventually double the household incomes of a large portion of participating farmers. If all farmer household dependents are included, along with Mountain Hazelnuts' employees and entrepreneurs in the hazelnut value chain, the number of participants translates into a project impact for 15% of Bhutan's population.

Linking Farmers to Markets

Mountain Hazelnuts will support the development of an organized and structured marketing system for hazelnuts produced by smallholder farmers. The farmers involved will gain market access and be integrated into an international supply chain.

Job Creation, Women's Participation and Skills Development

Mountain Hazelnuts is Bhutan's largest private sector employer, with 800 employees—a number expected to rise as processing and logistics operations expand over time. In addition, approximately 1,200 entrepreneurs earn income by providing support services, including trucking and construction. Women comprise nearly half of Mountain Hazelnuts' workforce and account for a significant percentage of heads of households working at the company.

Even though it is still a young operation, Mountain Hazelnuts is very professionally run, with increasingly formal policies and procedures and solid governance in place, which is uncommon in Bhutan. This offers employees a unique opportunity to gain experience in working for a business that has implemented first-world standards. In addition, several staff members have been given stipends to enroll in university programs abroad to upgrade their skills, a practice likely to be repeated. By heavily investing in training and development, the company is building a strong local management team which will have the skills to operate a significant business in Bhutan in the long run, with minimal dependence on expatriate staff.

Greenhouse Gas Mitigation and Forest Preservation

An estimated 8 million metric tons of carbon dioxide will be sequestered over the productive lifetime of the targeted 10.8 million hazelnut trees. Annual pruning of trees will provide a sustainable source of fuel wood (equivalent to approximately 21,000 mature pine trees each year) which can be used without logging natural forests. In addition, the hazelnut trees have been planted on degraded land that was either deforested and became vulnerable to erosion or was subjected to "slash-and-burn" or "shifting cultivation" practices.

The hazelnut trees have been planted along contours—they act as retaining walls—which stabilizes the ground and reduces erosion by capturing the soil and spreading roots.

Reduced Urban Migration

Mountain Hazelnuts works predominantly with smallholder farmers and mountain communities in eastern and central Bhutan, areas that had experienced significant urban migration due to limited employment opportunities. An attractive income opportunity for hazelnut farmers has encouraged many to remain with their families and has persuaded some jobless youths to return from the city to their homes to grow this new cash crop.

Lessons learned

Mountain Hazelnuts is playing a catalytic role in breaking the cycle of poverty perpetuated across generations of farmers in Bhutan. Through the company's creativity, entrepreneurial spirit and commitment to development, the lives of thousands of Bhutanese farmers and their families are improving. The children of these farmers will have better employment prospects as they grow and will be better positioned to remain with their families in their Himalayan communities.

This investment could not have taken place without the concessional finance support of the Private Sector Window of GAFSP. As world leaders come together to help meet the Sustainable Development Goals to end poverty and achieve food security by 2030, blended finance is now recognized as a viable model to mobilize capital to meet these ambitious development challenges. As this investment in Mountain Hazelnuts demonstrates, GAFSP projects are difficult and risky, but they offer a path to achieve real impact and reach small farmers in some of the world's most challenging areas. While Mountain Hazelnuts has succeeded in registering an increasing number of farmers to participate in the program and has managed the planting process, a number of issues arose over the course of the project that created some setbacks and lessons learned.

Prior to the IFC/ADB/GAFSP investment, it was recognized that Mountain Hazelnuts would likely face unexpected challenges beyond those that had been considered at the outset. These turned out to be many and varied. For example, farmer registration and advocacy meetings were halted for some time ahead of national elections, when gatherings of groups in excess of five people were prohibited; plant distribution was interrupted by a regional road-widening project and adverse weather conditions; plant development at orchards was unsatisfactory because of insufficient irrigation, pests or inappropriate planting; and bacterial contamination in the production of planting material caused pollinator trees to develop more slowly and therefore fail to pollinate production trees in the earlier years.

Appropriate systems and processes must be in place to fully understand these challenges and detect issues across a complex supply chain with thousands of farmers scattered throughout a wide, nearly impenetrable terrain. Mountain Hazelnuts' management has been able to detect problems early on, thanks to an elaborate supervision system. This system involves regular visits to every orchard—every 45 days on average—by company field monitors, who travel across Bhutan using the company's motorcycle fleet. Every tree is inspected, and problem cases are instantly uploaded to the company's servers using modern communication technology based on mobile handsets and proprietary software applications. Based on this, management has a deep and near real-time understanding of the entire tree base of the project.

The company's management needs to be strong, experienced, and capable to quickly adopt adequate measures to respond to unexpected issues and make such a risky project a success. Throughout the investment holding period, Mountain Hazelnuts' management has proved, more than once, that it has the technical and managerial capabilities to handle all kinds of issues and implement appropriate measures, often preemptively. IFC's positive experience with the company's management team in a previous, similar investment project in China, where it proved capable of handling complex supply chains with hundreds of thousands of farmers, was a key comfort factor driving IFC's investment decision.

To highlight one example in the Mountain Hazelnuts case, early on the project experienced some issues with nut production. Manual application of imported pollen for hazelnut trees proved ineffective, resulting in a disappointing 2017 harvest. In response, the company implemented an extensive grafting program, financed with $200,000 in grant funding raised from other sources. This highly complex exercise involved grafting imported scion wood twigs on hazelnut production trees in the orchards. It was completed in April 2019 and will boost pollination in a third of the project's orchards, improving yields and accelerating production. With Mountain Hazelnuts commencing export sales, management's creative problem-solving and ability to control its supply chain will be decisive factors in its success.

About
This case study is part of an effort by the Smallholder and Agri-SME Finance and Investment Network (SAFIN), the Inter-American Development Bank (IDB) and the Organization for Economic Co-operation and Development (OECD) to document the use of blended finance to strengthen agri-SME finance supply.

Contact details
Bettina Prato
Senior Coordinator, SAFIN
b.prato@ifad.org

Yuri Soares Dillon
Unit Chief, IDB Lab
yuris@iadb.org