



CASE STUDY

# Bhutan: Blending Happiness and Hazelnuts with Finance

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The Global Agriculture and Food Security Program (GAFSP) invests in agriculture to reduce poverty and improve food and nutrition security in low-income countries. GAFSP targets the entire value chain in agriculture and related sectors through its complimentary Public and Private Sector Windows, recognizing that investments from both public and private sectors are critical to a well-developed, resilient food system, improved agricultural productivity, increased incomes, and the highest development impact. Our donors – Australia, Bill and Melinda Gates Foundation, Canada, Republic of Korea, Ireland, Japan, the Netherlands, Spain, United Kingdom, and the United States – work in partnership with recipients, civil society organizations, and other stakeholders to improve the lives of smallholder farmers and their families. Millions of poor and vulnerable people around the world will directly benefit from GAFSP's continued commitment and support.

## **ABOUT THE CASE STUDY**

Expanding access to markets, financing and storage, inputs and technology for smallholder farmers is a central element to eliminating extreme poverty and promoting shared prosperity. This case study highlights the developmental impact of an unusual IFC and GAFSP led investment in a semi-greenfield company in the agribusiness sector in Bhutan.

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# Bhutan: Blending Happiness and Hazelnuts with Finance

In 2015, IFC, ADB and GAFSP together invested US\$12 million in Mountain Hazelnuts, a project to promote hazelnut production by smallholder farmers across Bhutan, the land of Gross National Happiness. This unusual investment in a semi-greenfield company with significant execution risks was IFC's first ever in the agribusiness sector in Bhutan and was made possible with concessional finance from the Private Sector Window of GAFSP. The project has the potential to improve the lives of 15 percent of Bhutan's entire population: a mountainous return on a US\$6 million GAFSP investment.

## BACKGROUND

On the mountains of Bhutan, where happiness is akin to holiness, a quiet agricultural revolution is taking place. Dotted along the vertiginous Himalayan slopes are millions of young hazelnut trees, the vision of an entrepreneurial couple, Daniel Spitzer and Teresa Law, who dared bring commercial hazelnut production to Bhutan.

In 2010, Spitzer established Mountain Hazelnuts, a smallholder farmer-based company designed to take advantage of the growing demand for hazelnuts from European confectionery and snack producers in Asia. Spitzer initially planned to build his hazelnut business in western China – where he had a proven track record of developing large scale projects – but the devastating Sichuan earthquake of May 2008 prompted many farmers there to abandon their land to move to the cities to work on reconstruction. At about the same time, Bhutan announced it would consider foreign investments. Spitzer did some research and discovered that the tiny kingdom, cradled by the Himalayas and wedged between India and China, had climate and soil characteristics perfect for growing commercial crops of hazelnuts. Bhutanese farmers, despite a high rate of urban migration, were well used to tending the steep slopes. Digging out his contact list from over thirty years of working in Asia, Spitzer and his team met with hundreds of potential stakeholders. They built credibility with government officials and people in the villages, working with experts on agricultural studies, land surveys and training programs for the farmers. Public officials helped spread the word amongst farmers. Months later, Mountain Hazelnuts was born.

For many outside observers, the humble hazelnut may not seem like a big market opportunity, but it is the world's second most valuable tree-nut crop after almonds, thanks to the European confectionery market and the expanding health consciousness of western consumers anxious to capitalize on the nut's antioxidant qualities. Currently Turkey and Italy grow most of the world's hazelnut crop, used most notably in the popular 'Nutella' spread. However, in recent years Turkey's market has become extremely volatile and a new market has opened up in Bhutan's backyard where the growing middle classes in China are rapidly increasing their tastes for exotic snacks. With proximity to these two new neighbors, Mountain Hazelnuts is well positioned to supply to this burgeoning export market.



Photo © Mountain Hazelnuts

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## THE MODEL

Mountain Hazelnut's business model is deceptively simple but not without considerable risks. Using hazelnut saplings grown in their own nursery in Bhutan, Mountain Hazelnuts distribute 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 and training to ensure that farmers know best how to 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 4 to 6 kilos of nuts to be sold to Mountain Hazelnuts. With the typical rural household in Bhutan earning a cash income of less than \$500 a year, these incremental earnings based solely on the sale of the hazelnuts will help farmers dramatically boost their incomes. By improving the lives of these farmers Mountain Hazelnuts is also hoping to stem the crippling flow of younger Bhutanese villagers migrating to urban areas. By planting on thousands of acres of overgrazed and deforested foothills, the company also hopes to halt hillside erosion.

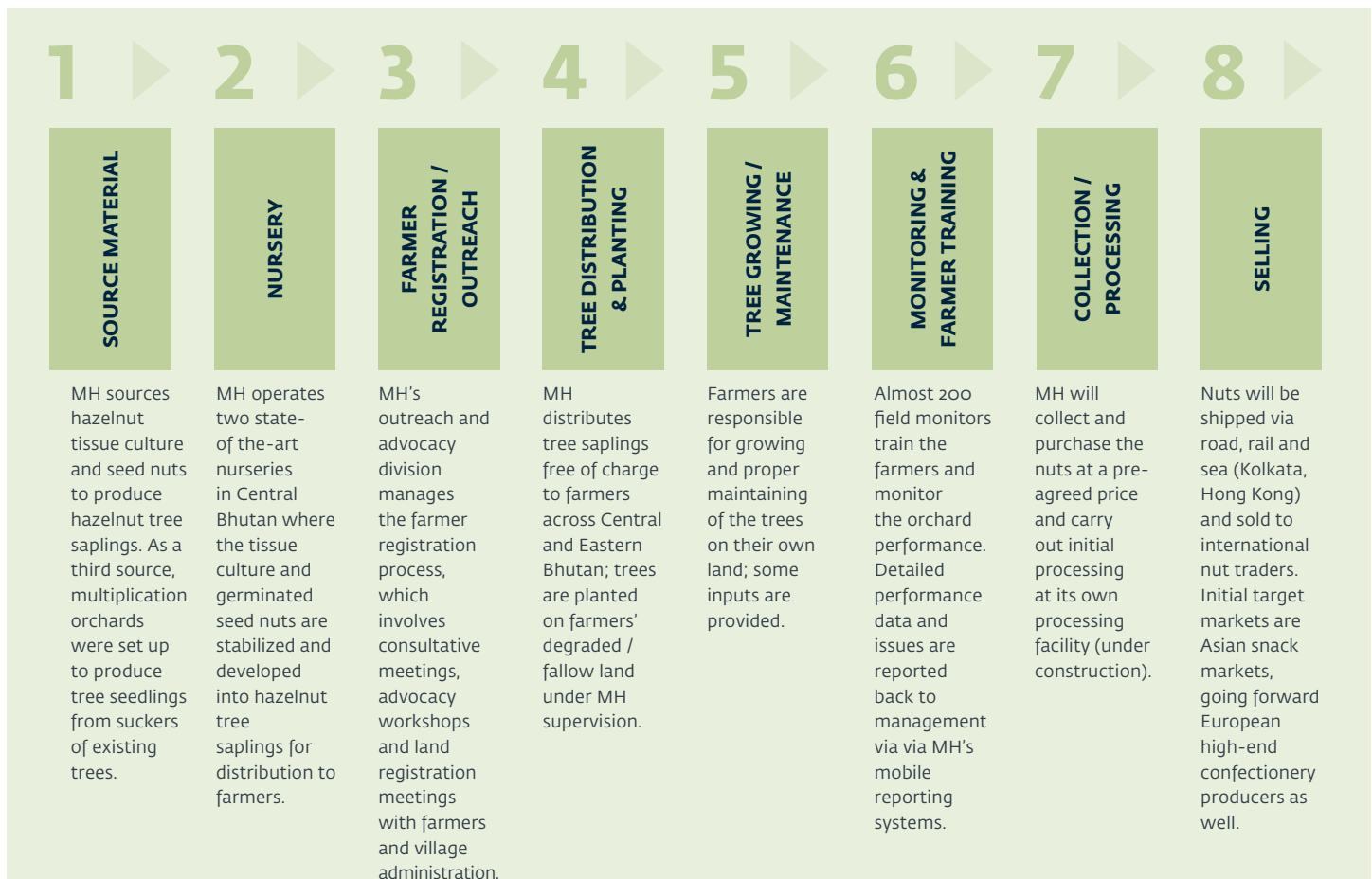


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## THE PROJECT AND PERCEIVED RISKS

In 2011, with Mountain Hazelnuts preparing to deliver the first truckloads of hazelnut seedlings to its first batch of participating farmers, Daniel Spitzer engaged with IFC about a possible investment in the company. Spitzer was well known to IFC from a previously successful investment in one of his companies in China in the late 1990s. However a detailed appraisal and investment review meeting that year did not materialize in an investment due to disagreements on potential valuation and terms. At the time, Mountain Hazelnuts had less than 3,000 farmers registered for the program and had just begun nursery operations. However, IFC maintained contact with Spitzer and in 2014, with Mountain Hazelnuts well-positioned to serve the Chinese market, a decision was taken to re-engage.

Despite the company's improved capacity, a proposed investment in Mountain Hazelnuts gave IFC cause for concern. The investment would be the institution's first in a unique shared prosperity model – providing money to a hazelnut production company that technically owned neither the trees nor the land that the project's success was dependent on. How could Mountain Hazelnuts manage and motivate 15,000 untrained farmers to adopt good agricultural practices and properly grow hazelnut trees across a mountainous country with limited infrastructure? And even if they did, what if a virulent pest or a sudden flood or earthquake wiped out the orchards?

There was apprehension too about Mountain Hazelnuts' ambitious timeline. Could the company meet its aggressive target of planting 10 million hazelnut trees and establish a logistics and international marketing infrastructure before seeing their first meaningful cash inflows? And what of the volatile global hazelnut market, which in 2014 alone saw prices fluctuate up and down by more than 100%? Could the bond of trust, so essential between participating farmers and Mountain Hazelnuts, survive the potential of side selling? What if buyers from nearby India or China offered a better price?

Mountain Hazelnuts was far better positioned in 2014 than it had been in 2011. The company had moved closer to commercial production by planting in excess of 2.5 million established hazelnut trees, and was poised to generate the first marketable yields. With hardy hazelnut trees now taking root on Bhutan's rocky mountain sides, the suitability of Bhutan's natural conditions for hazelnut cultivation had been confirmed. IFC technical specialists noted that Mountain Hazelnuts' nursery operation was fully developed with increased nut germination rates. Most importantly, the company had won farmer buy in and could boast of over 6,000 farmers on their books with and an additional 6,000 hectares of land registered for planting.



Photo © Mountain Hazelnuts

### **The unusual partnership between a Bhutanese start up and a Buddhist nun**

*As a child, Ani Kinzang helped her family tend cattle in the mountainous village of Mukazor. Contemplative and drawn to the spiritual, Ani would seek out her uncle during her free time, listening to his stories about the Buddha, and memorizing Buddhist prayers.*

*At 14, determined to become a Buddhist nun, Ani ran away from home. In a remote nunnery in Samdencholing, she found a community of like-minded women. But life in the nunnery was extremely harsh, with very little food and basic comforts. That's when Ani decided to dedicate her religious practice and earnings to fund a retreat for other nuns, a place where Ani and her colleagues could devote time, in relative comfort, to silent meditation.*

*But how could a nun like Ani raise enough income to build a retreat? Returning to her family land and the life she once knew as a farmer, Ani decided to grow commercial trees: bamboo, walnut, pear and sandalwood. But animals gnawed at the roots and insects devoured sap from the plant tissues. Ani's earnings slowed further when she struggled, without logistical support, to get her paltry produce to market.*

*That's when Ani's brother-in-law told her about the hazelnut tree, a "tree that will grow where nothing else will." Investigating further, Ani learned about Mountain Hazelnuts, a company that would not only provide Ani with hazelnut saplings, inputs and training to plant her own orchard, but who would return to purchase her crop at a guaranteed minimum price.*

*"I'd never seen or heard about the tree before," Ani said. "But to hear that I wouldn't have the burden of bringing everything to market was a huge relief. I wanted to try."*

*That was in 2013. Now, Ani's burgeoning hazelnut orchard has taken root, with more than 80% of the original plants alive and growing. While Ani waits for the trees to bear fruit, she enjoys frequent visits from Mountain Hazelnut staff who advise her on how best to care for her trees. In the meantime, with a brick press borrowed from her brother, Ani makes by hand the mud bricks that will one day enclose the retreat.*

*"This life is precious," said Ani. "We cannot waste it. I only hope that by planting trees such as hazelnuts, I can help others move closer to enlightenment."*

## THE BUSINESS CASE FOR GAFSP

Although there was interest in moving forward with Mountain Hazelnuts, operational risks were still high to offer long-term capital to this still relatively early-stage and pre-revenue company. That's when an approach was made to the Private Sector Window of the Global Agriculture and Food Security Program. By using blended finance solutions involving concessional funding, the Private Sector Window specializes in supporting early-stage but potentially impactful agribusiness projects targeted at improving the livelihood of smallholder farmers. However, instead of a grant-based approach, the goal is returnable capital.

Following discussions, it was agreed that IFC and ADB would each invest US\$3 million of equity while Daniel Spitzer and existing shareholders would convert US\$3 million of existing bridge loans into equity. The Private Sector Window of GAFSP agreed to invest quasi-equity of US\$6 million, matching the total amount of IFC's and ADB's investments.

The use of GAFSP blended finance in the form of cumulative preferred redeemable shares was essential to mobilize IFC's and ADB's funding, and to close the remaining funding gap for the project's completion. In short, it made this deal a reality. In the absence of alternative funding offers, the structure of this investment did not distort the market and did not price any competitor out of the market. With its cash flow friendly profile, it is the appropriate instrument for Mountain Hazelnuts' capital structure, as the company will not generate substantial cash flows for some time and thus not be able to service regular debt.

This 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 then be in a position to accept commercial funding, especially trade finance to support the company's operations.

### US\$12 MILLION EQUITY INVESTMENT BY IFC, ADB AND GAFSP

#### PRODUCTS

- US\$3 million IFC Equity Investment in Preferred Shares
- US\$3 million ADB Equity Investment in Preferred Shares
- US\$6 million GAFSP Quasi-equity Investment in Cumulative Redeemable Preferred Shares (CRPS)

#### FEATURES

##### IFC and ADB

- Common and specific shareholder rights (voting, consent, policy, information, exit, preemptive, anti-dilution, nomination of Board member)
- Policy put, liquidity redemption

##### GAFSP

- Cumulative dividend of base IRR, paid at exit/redemption
- Specific consent rights, information rights and policy rights
- Senior in repayment of dividend and capital to all shareholders, subordinated only to IFC and ADB in line with GAFSP mandate
- Redemption in line with IFC / ADB exit

#### GAFSP CONCESSIONALITY

- Front-ended disbursement disproportionate to IFC & ADB
- Waterfall distribution of proceeds to provide capital protection to IFC & ADB



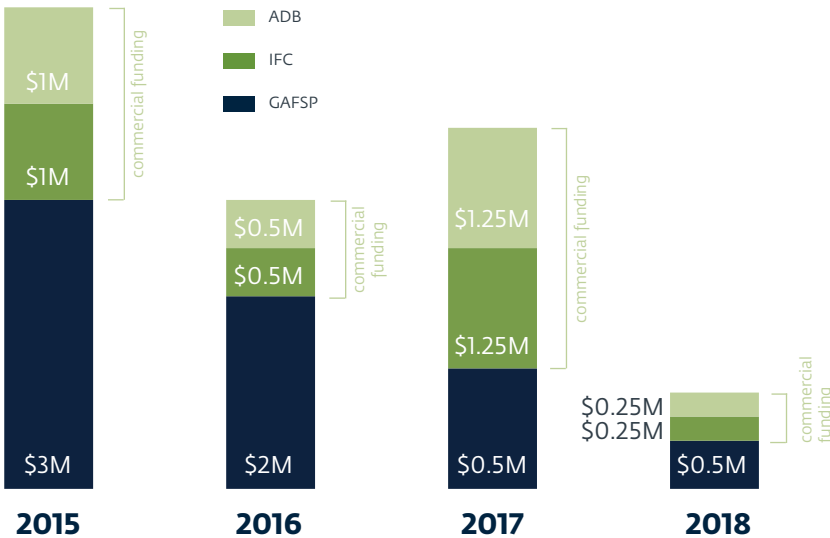


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### PHASED DISBURSEMENT FOR RISK MITIGATION

Subsequent disbursements subject to reaching operational and financial milestones:

	2016	2017	2018
Cumulative planted trees since Jan. 2015	2 million	4.5 million	6 million
Revenue of previous year	--	\$0.1 million	\$2 million



### WATERFALL ARRANGEMENT FOR DISTRIBUTION OF PROCEEDS

1. Pooling of all proceeds received by IFC, ADB and GAFSP
2. First US\$6 million paid to IFC & ADB (principal recovery)
3. Second US\$6 million paid to GAFSP (principal recovery)
4. Next amounts proportionately paid to IFC, ADB and GAFSP until GAFSP reaches base IRR
5. Next amounts equally paid out to IFC and ADB only until both reach commercial IRR
6. Next amounts proportionately paid to IFC, ADB and GAFSP (thus representing additional upside for GAFSP beyond base IRR)

### RATIONALE FOR THE STRUCTURE

- Given the high risk profile inherent in this semi-greenfield project, neither IFC nor ADB would have invested without substantial support from GAFSP.
- The company will not be in a position to service any interest or principal repayment of debt for a number of years, thus ruling out a straight loan from GAFSP. The CRPS, technically an equity instrument ranking senior to all other classes of shares, 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 IRR is in the form of a dividend payment and is cumulative i.e. it does not mandatorily have to be paid by the company to GAFSP every year.
- The phased, milestone-based disbursement schedule and waterfall arrangement provide critical risk mitigation / capital protection for IFC and ADB only, thus restricting GAFSP's concessionality in line with its mandate.
- The waterfall mechanism 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.
- Mirroring of the CRPS redemption timeline to the IFC and ADB equity exit timeline leads to a significant alignment of interests between IFC, ADB and GAFSP in spite of not investing via the same instrument.

## DEVELOPMENT IMPACT

The overall projected financial returns on GAFSP Private Sector Window projects are in the low single digits—clearly low investment returns if that were the instrument’s only measure of success. However, GAFSP and IFC recognizes the significance of their projects in terms of development impact, and in the case of Mountain Hazelnuts there are a multitude of development rich results to mine: 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

Mountain Hazelnuts is expected to eventually involve 15,000 farmer households, mostly located in Bhutan’s poorer eastern regions. Farmers will grow hazelnuts to generate income on degraded, unused land, which would otherwise be left barren. In an agreement between Mountain Hazelnuts and participating farmers, farmers cannot replace 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. Including all farmer household dependents, this translates into a project impact on approximately 15 percent of Bhutan’s population.

### LINKING FARMERS TO MARKETS

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

### JOB CREATION, WOMEN PARTICIPATION AND SKILLS DEVELOPMENT

Over time, 400 additional jobs will be created at Mountain Hazelnuts and the company plans to expand existing linkages with approximately 1,200 entrepreneurs offering support services (e.g., trucking, construction). Female employment is expected to triple and grow from 29 percent to 50 percent until 2020. Despite its semi-greenfield state, Mountain Hazelnuts is a very professionally run operation, 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 global best practices. In addition, several

staff members have been given stipends to enroll in university programs abroad to upgrade their skills, which is likely to be repeated. The company aims to develop a management team which has the skills to manage a medium size business in Bhutan in the long run, without an overt dependence on expatriate staff.

### GREENHOUSE GAS (GHG) MITIGATION AND FOREST PRESERVATION

Up to 1.5 million metric tons of carbon dioxide (CO<sub>2</sub>) will be sequestered over the productive lifetime of the targeted 10.8 million hazelnuts trees. Annual pruning of trees will provide a sustainable source of fuel wood, instead of logging natural forests (which is equivalent to approximately 21,000 mature pine trees each year). In addition, the hazelnut trees will be planted on degraded land that was either deforested and became vulnerable, or was subjected to ‘slash and burn’ or ‘shifting cultivation’. The hazelnut trees will be planted along the contour, like retaining walls, which will stabilize the ground and reduce erosion by capturing the soil and spreading roots.

### REDUCED URBAN MIGRATION

Mountain Hazelnuts works predominantly with farmers in the Eastern and Central regions of Bhutan. The attractive returns for farmers based on the sale of their hazelnuts is expected to reduce/slow down urban migration towards the capital Thimphu in the West, where employment opportunities are limited.





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## CONCLUSION

Through Mountain Hazelnuts' creativity, entrepreneurial spirit, and commitment to development, the lives of thousands of Bhutanese farmers and their families will soon be improved with the first expected harvest of hazelnuts in the autumn of 2016. 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 mountain communities, rather than migrate to urban slums. Mountain Hazelnuts – despite the potential risks and pitfalls ahead – is playing a catalytic role to enable these vulnerable mountain communities to thrive by creating long-term sustainable income opportunities and numerous other positive impacts.

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 investments like Mountain Hazelnut show, GAFSP projects are difficult and risky but they offer a way to achieve real impact and reach small farmers in some of the world's most challenging areas.

“Mountain Hazelnuts is a risky investment,” Daniel Spitzer said. “It’s a very long term venture. Trees take time to grow, they don’t produce hazelnuts immediately. The conventional financial mechanisms and financial institutions didn’t have the patience to provide capital to us on terms that made sense. GAFSP takes an interesting approach to the development of Mountain Hazelnuts. It thinks about the risks involved. It thinks about the actual needs of the project and it really plays a bridging role. We are delighted to have GAFSP involved.”

## **About GAFSP**

*The Global Agriculture and Food Security Program (GAFSP) is a global effort that pools donor resources to fund programs focused on increasing agricultural productivity as a way to reduce poverty and increase food and nutrition security. GAFSP targets countries with the highest rates of poverty and hunger. The public sector window helps governments with national agriculture and food security plans. The private sector window, managed by IFC, and supported by the governments of Australia, Canada, Japan, the Netherlands, the United Kingdom and the United States, provides long- and short-term loans, credit guarantees, and equity to private sector companies to improve productivity growth, deep farmers' links to markets, and increase capacity and technical skills.*

*GAFSP is also committed to helping meet the United Nations sustainable development goals (SDGs) to end poverty and achieve food security in every corner of the globe by 2030. GAFSP focuses exclusively on the regions and sectors where significant progress will be required to meet several of the SDGs including: positively impacting poverty reduction (SDG-1) and meeting the hunger and food security targets (SDG-2), gender equality (SDG-5), and climate change (SDG-13) goals.*

## **About IFC**

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*IFC uses its capital, expertise, and influence to help end extreme poverty and boost shared prosperity.*

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