



STORIES OF IMPACT AGRIBUSINESS

FOREWORD

By 2050, it is estimated that the world's agricultural system will need to produce approximately 50 percent more food to feed an estimated 9 billion people. In emerging markets, agriculture is the most important economic sector and source of employment; more specifically, 75 percent of the world's poor live in rural areas and depend on agriculture for their incomes. With volatility in food prices putting additional pressure on social and political systems, increasing global demand for scarce resources, widespread droughts, and rising concerns over food safety issues, sustainable agricultural development is an urgent priority.

IFC combines investment and advisory services to offer commercially viable solutions to agribusiness companies and their supply chains. At the end of June 2014, IFC's investment portfolio in agriculture and forestry totaled over \$4.5 billion and we had 33 active agribusiness advisory projects. In 2013 alone, our investments helped our clients reach approximately 3 million farmers.

We bring global knowledge to our clients and among other things help them to become industry leaders for responsible agricultural production. For instance, IFC is helping Ecom across multiple countries in their commodity trading and processing so as to improve the productivity of smallholder coffee farmers in their supply chain.

We also work with companies to address food safety issues, strengthening the quality of supply lines such that the end product meets international standards. For example, we helped a global leader in food processing in India as well as other companies in Belarus, Georgia and Ukraine to raise their food safety quality procedures, which in turn helped them each expand their exports into new markets.

Our work extends to some very challenging places to do business. For example, we worked with raisin and pomegranate farmers in Afghanistan to significantly increase their output and improve their access to regional markets.

IFC also contributes to transforming agribusiness at the country level by working with groups of smallholders and industry associations. For instance, IFC has helped to upgrade the operations of Cambodian rice farmers and millers so that their national industry can compete on an international level.

In the following pages, you will find numerous illustrations of the work that we do with our private sector clients, typically combining finance and advice. This powerful combination of money and knowledge helps our clients not only sustain but also grow their businesses, thereby paving the way for robust job creation, growth, and positive environmental and social benefits.

Sincerely,



Mary Porter Peschka
*Acting Director, Advisory
Services, IFC*



Atul Mehta
*Director, Manufacturing,
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About IFC

IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector in developing countries.

Acknowledgements

IFC would like to thank the governments of Ireland, Luxembourg, the Netherlands, Norway, and Switzerland for their support in producing this magazine.

Note about the results presented in this report

Results and figures reported in this publication are based on the most updated data available in June 2014.

TABLE OF CONTENTS

EAST ASIA AND THE PACIFIC

- 6** | Integrating Women into the Coffee Supply Chains in Indonesia and Vietnam
- 10** | Transforming the Rice Industry and Building Export Capacity in Cambodia
- 14** | Supporting Small Farmers in Meeting International Certification Standards in the Philippines

EUROPE AND CENTRAL ASIA

- 20** | Improving Food Safety to Boost Food Exports in Ukraine, Belarus and Georgia

LATIN AMERICA AND THE CARIBBEAN

- 26** | Improving the Agricultural Practices of Coffee Farmers in Central America

MIDDLE EAST AND NORTH AFRICA

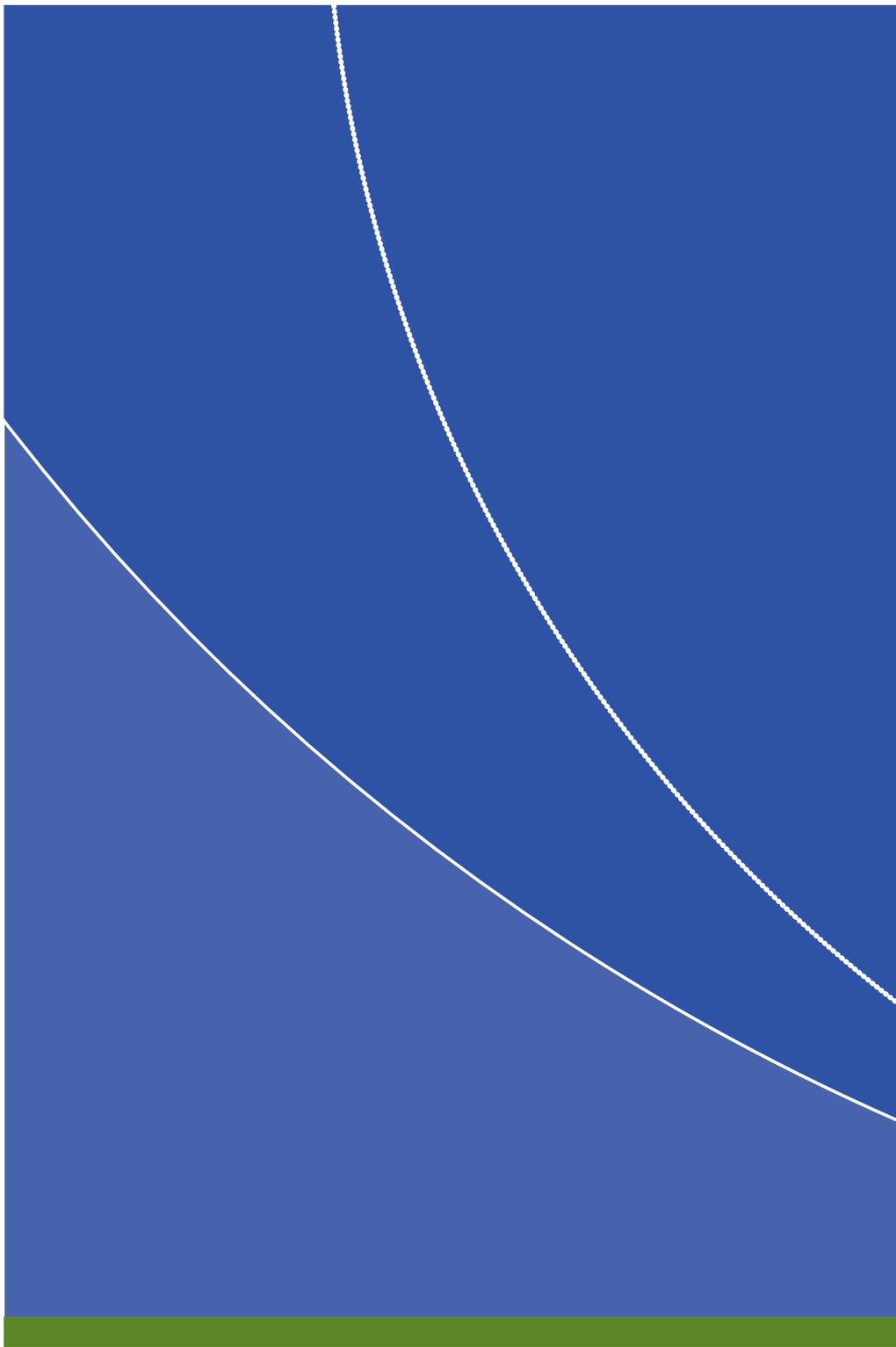
- 32** | Helping Local Companies Increase Olive Oil Exports in the West Bank and Gaza
- 36** | Working with Raisin and Pomegranate Farmers to Increase Productivity and Access to Markets in Afghanistan

SOUTH ASIA

- 42** | Making the Agricultural Sector More Sustainable in Bangladesh
- 46** | Improving Productivity in the Poultry Sector in Bangladesh
- 50** | Strengthening Poultry Supply Chains in Nepal
- 54** | Improving the Productivity of Sugar Farmers in India
- 58** | Addressing Water Security in the Agricultural Sector in India
- 62** | Addressing Food Safety and Traceability in India

SUB-SAHARAN AFRICA

- 68** | Improving the Productivity of Smallholder Coffee Farms in Kenya
- 72** | Increasing the Efficiency of the Largest Exporter of Fruit in South Africa
- 76** | Empowering Farmers and Small and Micro Entrepreneurs in the Democratic Republic of Congo



The image features a solid blue background with a large, semi-transparent, lighter blue circular shape on the right side. At the bottom, there is a horizontal bar divided into two sections: a dark green section on the left and a light green section on the right. Two white lines curve across the lower portion of the image, starting from the left edge and ending near the right edge. One is a solid line, and the other is a dotted line.

EAST ASIA AND
THE PACIFIC



Integrating Women into the Coffee Supply Chains in Indonesia and Vietnam

IFC is working with ECOM in Indonesia and Vietnam to set up Farmer Training Centers (FTCs) to promote quality awareness and best practices for sustainable coffee cultivation.

The FTCs help farmers improve coffee productivity and quality, reduce costs and obtain internationally recognized certification for sustainable production.

Over the last three years, around 4,000 farmers from Vietnam who obtained the certifications have increased their total income by about \$6.6 million, and about 6,000 farmers from Indonesia experienced total increased incomes of about \$3.8 million.

IFC CLIENT: Ecom

The Opportunity

Indonesia and Vietnam are among the world's largest coffee producers with millions of people relying on coffee for their livelihoods. In order to meet an increasing demand for high-quality coffee beans that are produced sustainably, the two countries must strengthen the supply chains in their respective coffee industries.

Women make up 80 percent of coffee farm workers in North Sumatra, Indonesia, and about 50 percent in Lam Dong, Vietnam. Although they play a key role in coffee cultivation, processing and marketing, they are often excluded from training and other development opportunities.

When women farmers have better access to technical training and productive input, they are more likely to adopt good agricultural practices. When women farmers are included in agricultural development opportunities, they receive critical knowledge, skills and assets that help them improve their household productivity.

“Our focus was to train our field staff and their managers to work directly with farmers and to help train them in good agricultural and sustainability practices.”

—Serge Mantiene, Sustainability Manager for Ecom in Vietnam

IFC's Approach

IFC took the following measures in Indonesia and Vietnam to increase women farmers' skills and improve overall coffee productivity and quality:

- Identified women's role in on-farm supply-chain work.
- Deployed women trainers and women volunteers; engaged leaders of women's unions, farmers' associations, and village heads.
- Adjusted the training schedules to accommodate women's needs.
- Developed gender-specific training materials, and provided training for trainers for ECOM staff and local communities.
- Introduced more visual aids, such as videos and pictures, to accompany traditional training materials.
- Introduced a simple financial management tool to help women farmers document and analyze household and farm expenditures, given women's traditional role in managing household income.

The project's approach to involving more female coffee farmers can be replicated with other commodities in which women are known to play a key role.

RESULTS AND IMPACT

- In Indonesia, nearly 1,600 women were trained. The share of women who received training increased from 16 percent to 27 percent.
- In Vietnam, more than 2,300 women were trained, more than doubling the level of female participation in training workshops to 25 percent from 12 percent in 2010.
- In Indonesia, the state-owned Bank Sumut decided to open loan facilities to cater to the needs of coffee farmers after witnessing the successful collaboration among different stakeholders in the country's coffee supply chain.
- In North Sumatra, Indonesia, a survey of coffee farmers showed that training groups consisting of both male and female farmers reported a 92 percent increase in their productivity level. Farmers who did not receive training from the ECOM-IFC supported program reported only a 37 percent increase in productivity.
- \$154 million has been invested by IFC in Ecom globally since 2006.



Transforming the Rice Industry and Building Export Capacity in Cambodia

IFC is strengthening the Cambodian rice sector by helping to add value along every step of the supply chain, with key interventions at the farming, milling and export stages.

Through the Rice Sector Support Project, IFC is working with and through local millers to help farmers access higher-value seed varieties and increase the efficiency and yield of their farms.

To boost Cambodian rice competitiveness on the international market, IFC is also working with 70 percent of the nation's rice exporters.

IFC CLIENTS: AMRU Rice and others

The Opportunity

Agriculture, led by rice production, represents approximately one third of Cambodia’s GDP and employs 80 percent of the population. The use of a phrase meaning “white gold” to describe the grain in Cambodia reflects its economic and cultural importance.

However, relative to neighboring countries Thailand and Vietnam, Cambodian rice paddy yield is low. Cambodian rice farmers cultivate one crop per year, compared to farmers in Vietnam who are able to produce crops three times a year. According to the Asia Foundation, the lower output levels are due to the high costs associated with expensive fuel and limited transportation options and port facilities.

Despite low yield, Cambodian farmers produce a surplus of rice every year. According to figures released by the Cambodian Ministry of Commerce, exporters only brought 10 percent of that excess product to market in 2012.

Lower-quality rice varieties, outdated and inefficient milling technology and a lack of compliance with international food safety standards have limited the ability of Cambodian exporters to find international buyers.

“The fact that I am the number one rice exporter [in Cambodia] today can be attributed to a great extent to what I learned and the opportunities I seized in the course of the project implemented by IFC. It has also helped [my company] in terms of reputation and credit-worthiness.”

—Song Saran, Chief Executive Officer, AMRU Rice Cambodia

IFC's Approach

IFC works to bring about transformational change by pursuing a comprehensive, sector-wide strategy in the Cambodian rice industry. IFC aims to contribute to increasing national rice exports by 300,000 metric tons annually, at a value of \$180 million.

In addition, the goal of the project is to increase and improve sustainable farming opportunities for 30,000 farmers.

IFC's holistic approach targets key processes along the value chain by:

FARMER LEVEL

- Increasing access to improved rice seed to increase their yield and the quality of the paddy.
- Offering training on farm management.

RICE MILLER LEVEL

- Advising on equipment and technology upgrades to improve efficiency and quality.
- Introducing food safety management systems and certification.
- Strengthening management through the use of mill software and financial literacy training.

RICE EXPORTER LEVEL

- Developing and implementing a strategy to increase rice exports, especially for high value, aromatic rice products.
- Supporting rice industry associations in building capacity of exporters.
- Strengthening brand identity of Cambodian rice on the international market by participating in international rice events.

At the national level, IFC, together with the World Bank, advised the Cambodian government on developing and promulgating its first milled rice standard since 1956.

RESULTS AND IMPACT

- Advised around 100 medium-sized and large rice millers and exporters in eight provinces on:
 - Upgrading production facilities.
 - Efficient mill management.
 - Complying with food safety standards.
- Built the capacity of Cambodian rice millers and exporters to participate in international trade fairs and market their products successfully.
- Improved the international perception of Cambodia's rice, resulting in the country's premium jasmine rice winning the "World's Best Rice" award in 2012 and 2013 at the Rice Trader World Rice Conference.
- Facilitated \$14.5 million of rice exports in 2013: twice the value and volume of the previous year.



Supporting Smallholder Banana Farmers in Meeting International Certification Standards in the Philippines

IFC partnered with Unifrutti, an international fruit exporter with a local presence in the Philippines, to help build the management capacity of local farmers and provide technical training that helps growers maintain soil quality, recycle water, and produce quality crops.

This partnership has allowed Unifrutti to command a higher price for its produce in specialized markets and has led to the adoption of more sustainable farming practices, increased the income of farmers, and to economic growth.

IFC CLIENT: Unifrutti

The Opportunity

When IFC began working with Unifrutti Group, the smallholder Filipino banana growers that supplied the international fruit company were not well positioned to comply with Rainforest Alliance and other international certification standards.

Local farmers did not follow regulations on proper use of fertilizers, waste and water management, or wage requirements for workers. As a result, the bananas they produced were mainly exported to markets that did not have stringent quality or standards requirements.

The Philippines was undergoing a national land reform policy that involved selling corporate plantations to smallholder farmers, making large export companies such as Unifrutti increasingly reliant on smallholders to supply bananas. To sell bananas to specialized markets, such as Japan, Unifrutti needed smallholders to become certified.

But growers considered certification a cost burden because it required investments such as installing hazard-proof chemical storage and mixing areas, filtering systems, and showers and toilets for workers. By providing technical and business training to farmers in areas of waste management and water conservation, among other areas of farm management, IFC helped increase the number of qualified smallholder banana growers in Unifrutti's supply chain, enabling the company to command higher prices. Unifrutti, in turn, gave farmers a price premium to encourage adoption of certification standards, which helped farmers to cover costs and increase their profit.

“Safety. Environmental sustainability. Employee welfare. When we started this business, no one talked about these things. But now the markets are always asking, ‘how do you grow the bananas?’”

—Hermi B. Martin, President, Unifrutti Group

IFC's Approach

IFC worked with Unifrutti Group to enable the company to provide extension services to banana farmers in its supply chain so that farmers could comply with international certification requirements. Extension services included information on water recycling, reducing dependency of agrochemicals (e.g. by manually weeding rather than relying on herbicides), and generating new income from sorting and selling recyclable wastes, among other sustainable farming techniques.

The training led to increased confidence among farmers and a better negotiating position with Unifrutti and the banks they approached for financing because certified farms are perceived to be well-managed and disciplined—and sustainable over time—making them better bets for bank loans. By becoming certified, smallholder farmers demonstrate they can be environmentally and socially responsible.

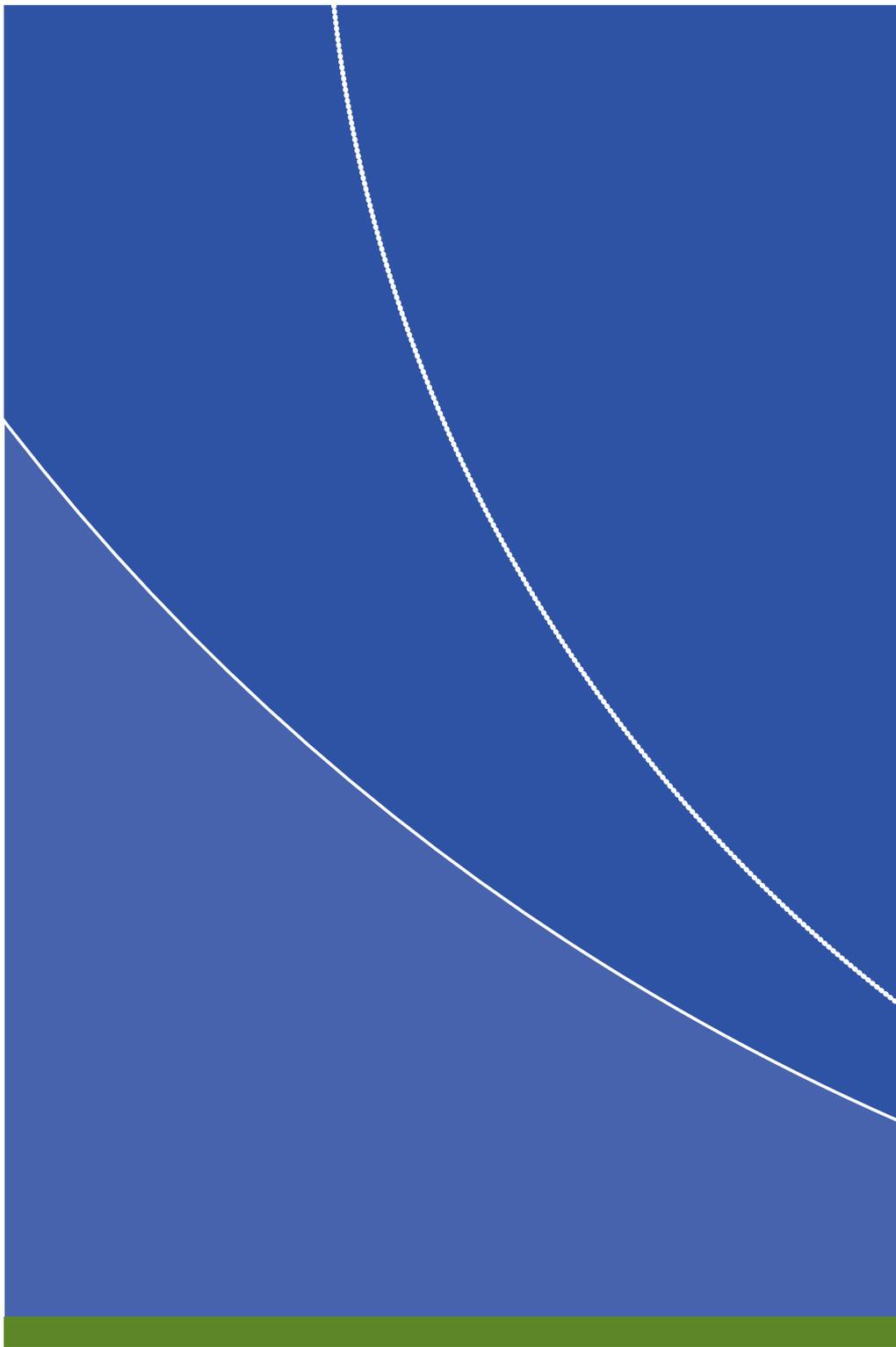
In June 2008, IFC created a 14-month pilot project that introduced 416 farmers to the new farming techniques and began to change mindsets that made many farmers cling to old ways. The pilot resulted in improved social and environmental practices and the farmers received Rainforest Alliance (RA) certification; 98 percent reported improved business management skills.

During the second phase, a price premium was established for highland growers, whose high quality bananas were identified during the pilot phase as a priority for Unifrutti's premium market. Lowland farm bananas weren't of a high enough quality to make the premium cut, but the farmers still covered the increased costs associated with obtaining RA certification through cost savings derived from water conservation, recycling, and other sustainable farming practices.

IFC and Unifrutti shared training costs, with Unifrutti providing the RA technical training and IFC facilitating the business management training. IFC also worked with Rainforest Alliance to train local auditors, which will enable farmers to have easier access to annual audits needed to maintain their RA certification after the IFC–Unifrutti partnership ends.

RESULTS AND IMPACT

- Over 1,000 farmers have been trained in strategic planning, change management, and other business skills related to farming.
- Locally trained auditors have audited more than 8,000 hectares of Philippine farmland, including at least 1,000 hectares managed by smallholders.
- Now, Unifrutti and other companies are replicating the success of getting bananas certified by the Rainforest Alliance, with plans to certify 8,000 hectares of Philippine coconut farms. So far, 400 hectares of smallholder cocoa farms have become certified.
- Highland farmers command 5 to 25 percent higher prices for their crops as a result of Rainforest Alliance certification and meeting other premium market requirements.



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EUROPE AND
CENTRALASIA



Improving Food Safety to Boost Exports from Belarus, Georgia and Ukraine

Agricultural exports from Belarus, Ukraine and Georgia have been limited, primarily due to food safety concerns.

IFC is helping food producers in all three countries to adopt better food safety procedures and standards and increase their competitiveness.

As a result, investments in IFC's client food producers have risen by \$157 million, while their sales and exports have increased by \$173 million since 2008. IFC has helped to increase awareness of food safety as a priority for the nations' food industries and worked with journalists to raise the prominence of the issue in national media coverage.

IFC CLIENTS: Globino, MHP, Korobivsky and others

The Opportunity

Belarus, Georgia and Ukraine have long and rich histories as producers of agricultural products. However, despite favorable natural resources, their performance in this sector remains weak.

Belarus has strong export potential in agricultural produce and foodstuffs. Few Belarusian companies have food safety management systems in place or adequate ability to respond to food safety threats. In order to continue exporting to Russia, its traditional trading partner, Belarusian food companies must meet stringent food safety requirements.

Outdated food safety regulations and practices have hindered exports and investment and therefore limit Georgia's potential in agribusiness. After Georgia gained its independence in 1991, all food safety regulatory systems gradually disappeared. Updating the country's food safety regulatory system was a strategic priority for Georgia, as it was a key prerequisite to launching free trade negotiations with the European Union.

In Ukraine, exports of processed fruits and vegetables to the European Union market are limited despite its proximity, while exports of meat and dairy are virtually nonexistent. In 2008, only an estimated 1 percent of the 20,000 food enterprises in Ukraine had implemented Hazardous Analysis Critical Control Points (HACCP), the globally recognized food safety management system.

Food safety remains a key challenge in all three countries and poses an underestimated threat to public health and to the competitiveness of one of the region's most important industries.

“Participation in IFC's program significantly contributed to doubling our sales.”

—Oleksander Miahivskiy, Sales Manager, Korobivsky, meat processing company

IFC's Approach

IFC aimed to increase the competitiveness of Belarusian, Georgian and Ukrainian food producers by:

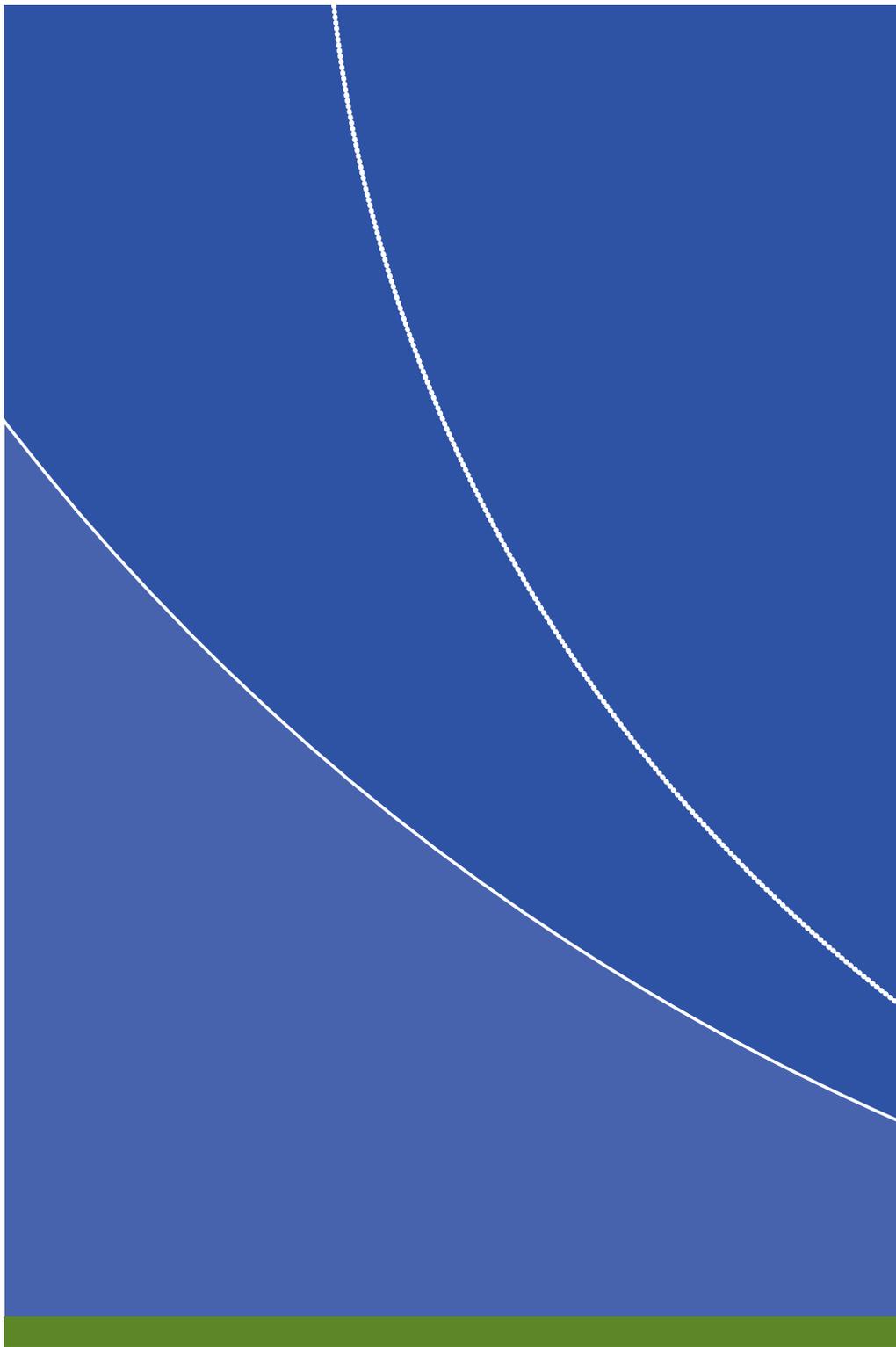
- Working with food companies to upgrade their food safety systems in farming, processing, and retail.
- Working with local food safety consultants to set and implement international standards at food processing companies.
- Working with government officials to improve selected government regulations and harmonize with EU food safety regulations.

The projects focused on the following sectors, chosen due to their investment potential and because they needed improvement in food safety practices: meat, dairy, bakery, and fruit and vegetable processing. More specifically, IFC worked with key stakeholders to:

- Increase public awareness of food safety issues and facilitate favorable conditions for companies to implement food safety management systems.
- Provide advice to support the implementation of food safety management systems at selected partner companies on a cost-sharing basis. IFC's services include diagnostic visits, trainings, and consulting support for evaluation and certification.
- Harmonize local food safety regulations with international best practices. IFC actively works with governments to develop effective food safety regulations. IFC also conducts training workshops for state inspectors on how to conduct inspections according to international requirements and EU practice.

RESULTS AND IMPACT

- Financial institutions increased investments in IFC client companies by \$157 million as a result of better food safety.
- IFC client companies increased domestic sales and exports by \$173 million.
- 52 companies increased their access to global markets by implementing recommended changes.
- The Veterinary Agency of Ukraine adopted five checklists based on the EU approach to food safety inspections.
- As a result of IFC's Investment Climate suggestions, a mandatory governmental certification was eliminated, removing a bureaucratic layer that did not guarantee food safety and saving Ukrainian food businesses \$7 million a year.
- Building on the success of this program, IFC has expanded its activities to other countries in Europe and Central Asia.



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LATIN AMERICA
AND THE
CARIBBEAN



Improving the Agricultural Practices of Coffee Farmers in Central America

In 2006, IFC partnered with Ecom Agroindustrial Ltd., a global leader in commodity trading, to help coffee suppliers in Central America improve their incomes through the adoption of sustainable practices and international quality standards.

The success of this program led to replication; IFC has provided both investment and advisory services to Ecom in several regions of the world.

IFC CLIENT: Ecom

The Opportunity

Coffee is a heavily traded global commodity, and high-quality arabica beans are the fastest-growing segment of the market. The demand from consumers for certified coffee is also growing, and the price they are willing to pay has caught the attention of traders and producers. In order to meet market demand, coffee farmers have had to adapt farming practices to qualify for certification. The various standards available include a range of criteria that evaluates farmer performance in relation to environmental protection, social issues and economic sustainability.

These certifications have the potential to create value for smallholders, as certain certified coffee carries a market premium. However, complying with rigorous and sometimes varying certification criteria tends to place additional burdens on small farmers, who need guidance to understand and properly implement required practices.

Ecom is an international commodity trading company, ranked third among the world's largest coffee dealers with 13% of the world's market share. Ecom's major customers include Nestlé, Starbucks, Kraft, Procter & Gamble, and Sara Lee. The company sources from over 250,000 smallholders in 30 countries. Despite its success, Ecom faces a number of challenges in its coffee supply chains, including:

- Absent or ineffective agricultural extension services at origins.
- Low productivity from aging trees and poor farming practices.
- Lack of understanding of consumer demands and market requirements (ie: sustainability programs).
- Limited access to finance for farmers, which hinders the ability to invest at the farm level.

“We knew that by collaborating with multiple stakeholders and IFC, we would be challenged to see how good we could get. Through continuous learning and building new sets of tools and abilities, we’ve been able to strengthen our local capacities and provide a better service to our producers.”

—Eric Ponçon, Ecom's Regional Director in Central America

IFC's Approach

IFC and Ecom, in partnership with Nestlé (Nespresso, Nestec, Nestlé UK) began working together in 2006 in Central America to strengthen farmers' coffee growing practices in order to meet industry quality demands, environmental and social standards, and increase productivity.

Over the course of six years, IFC assisted coffee farmers in Mexico, Guatemala, Costa Rica and Nicaragua to improve their production and increase income for the Ecom-Nestlé supply chain, by:

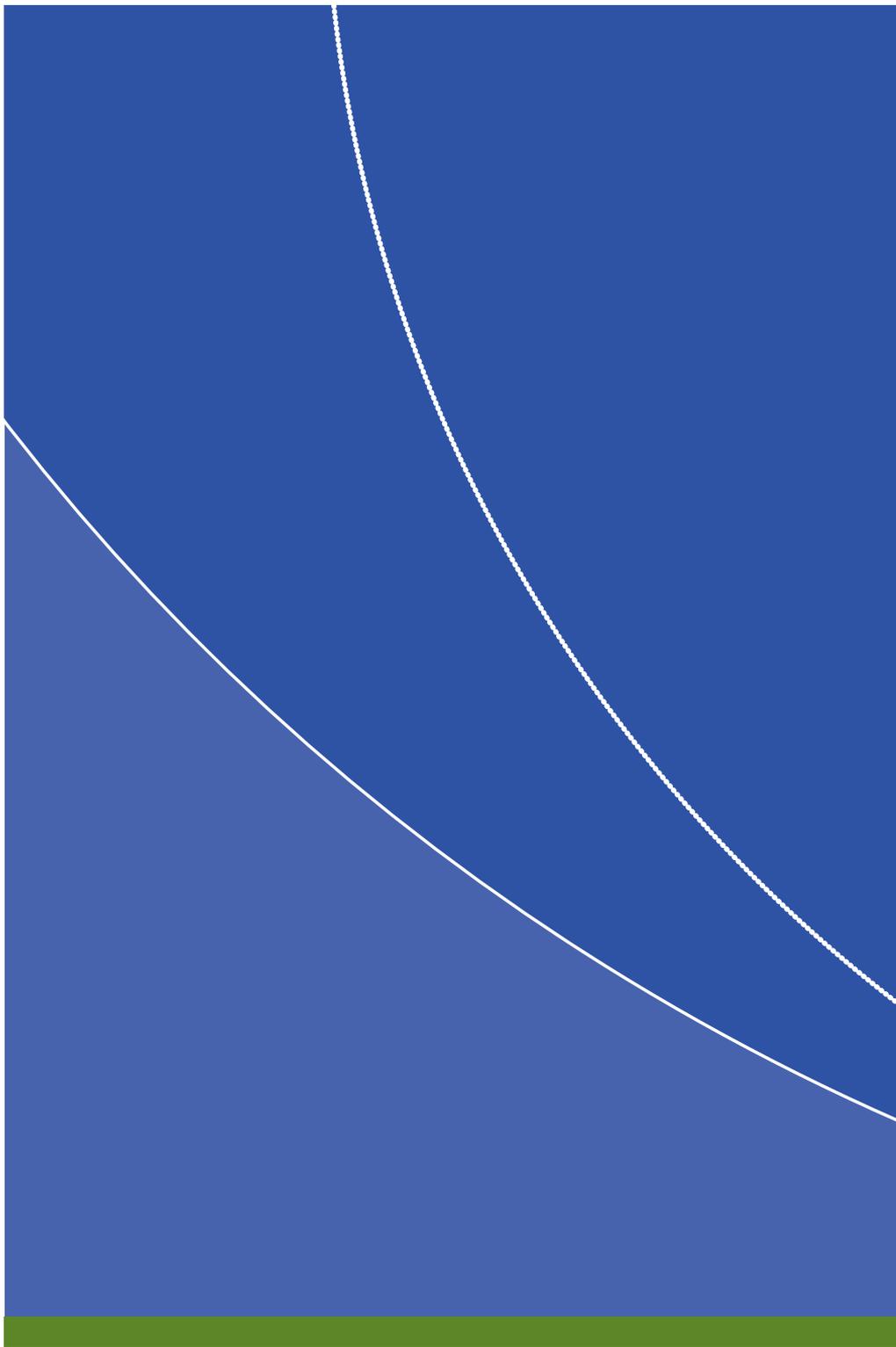
- Strengthening sustainable practices on farms while providing preferential market access and price premiums through certification programs;
- Increasing farmer productivity through improved pruning and integrated pest management practices and adoption of hybrid varieties;
- Improving Ecom lending practices and provision of a \$25 million loan to Ecom to on-lend to farmers for short-term finance and medium-term sustainability improvements.

Based on the program's positive results in Central America, IFC expanded financing and advisory support to Ecom's supply chain development initiatives in Indonesia, Vietnam, Papua New Guinea, Kenya, Tanzania, and Uganda. Several farmer training centers have been established at the country level to provide training and advise farmers on complying with good agricultural practices.

RESULTS AND IMPACT

- \$24 million in IFC financing to Ecom in Latin America and the Caribbean since 2006.
- More than 4,000 coffee farmers have been trained, with 1,800 entities obtaining certification.
- Over 14,000 hectares managed utilizing sustainable practices, compared to less than 405 hectares in 2008.
- Over 23,000 metric tons of certified coffee sold by those certified farmers and purchased by Ecom.
- \$11.8 million in additional sales revenue for the smallholder farmers.*

*Figure based on compilation of quality and certification premiums





MIDDLE EAST
AND NORTH
AFRICA



Helping Local Companies Increase Olive Oil Exports in the West Bank and Gaza

IFC worked with eight olive oil companies—representing the majority of the sector in the West Bank and Gaza—to develop supply chains, improve quality, and increase exports.

IFC advised the companies on how to access international markets, obtain financing, find ways to use byproducts from olive oil processing, and reduce negative environmental impacts.

As a result, olive oil exports increased by 35 percent in the first three years of this project's implementation.

IFC CLIENTS: Al'Ard Palestinian Agri-Products, Al Reef For Investment And Agricultural Marketing Company, Kanaan Fair Trade, Agri-Technochemical, Zaytoon, Uawc-Olive Mountain, New Farm, Tayeba

The Opportunity

Agribusiness and agriculture account for about two-thirds of total employment in the West Bank and Gaza. Olive oil production, in particular, is a major driver of economic growth in the region and provides jobs to more than 100,000 families.

The olive oil sector has great export potential. Production exceeds local consumption and olive oil, as a non-perishable product, is less affected by political turbulence.

However, the olive oil industry in West Bank and Gaza faces several constraints, such as weak quality control, poor packaging and labeling, inadequate supply chain links, and a lack of marketing know-how. Furthermore, the historically fragmented agricultural sector and post-conflict economic challenges make it difficult to consolidate a larger number of small growers and achieve consistent quality across the sector. In addition, current olive processing practices are particularly harmful to the environment.

“IFC’s level of involvement and concern has been a key ingredient in the success of this project, assisting our company to increase its olive oil exports six-fold by accessing new markets.”

—Dr. Osama Odeh, General Manager of Agri Technochemical, one of the eight olive oil companies that worked with IFC

IFC's Approach

IFC aims to address key challenges faced by the olive oil sector in conflict-affected West Bank and Gaza such as limited access to finance, markets and best practices. Towards this end, IFC works with farmers, millers, bottlers, producers, and related businesses and creates important linkages in the industry.

More specifically, IFC worked with eight Small and Medium Enterprises (SMEs) in the West Bank and Gaza, namely Al' Ard Palestinian Agri-Products, Al Reef for Investment and Agricultural Marketing Company, Kanaan Fair Trade, Agri-Technochemical, Zaytoon, UAWC–Olive Mountain, New Farm, Tayeba.

IFC's work with these companies aimed to:

- Increase their compliance with international food standards and implement basic traceability programs.
- Establish a framework for marketing olive oil for export.
- Enhance access to finance for producers and related businesses.
- Improve their environmental performance through waste minimization and recycling, as well as utilization of industry byproducts.

As a result of the project, a 500 ml bottle of olive oil under the newly developed brand Daskara was sold for \$23 from distributors. Prior to IFC's program, the same sellers received an average wholesale price of \$14 for the same amount and quality. Several shipments at the new price have already been made to the US, where the new brand was launched.

RESULTS AND IMPACT

- Increased olive oil exports by 35 percent in the first three years of project implementation, from \$3 million to \$4.4 million.
- Established cooperation between a US importer and SMEs in the West Bank and Gaza.
- Established a unified marketing framework through a new brand called Daskara which represents the industry in international markets.
- Eight local SMEs were trained on:
 - Financial management, credit, and other aspects of financing, and gained exposure to global markets.
 - Traceability standards, using a specially-developed IFC Traceability Manual. 360 farmers in the supply chain of these SMEs also received this training.
- Eight local SMEs almost doubled the retail price of their product, going from \$14 per bottle to \$23, thanks to stronger branding and marketing.
- Five out of eight SMEs that worked with IFC became ISO and HACCP certified, by complying with international food safety standards.
- 110 employees of bottling companies and their suppliers were trained on testing, packing, and export procedures for olive oil.
- Completed an environmental assessment on the use of waste water as a fertilizer.



Working with Raisin and Pomegranate Farmers to Increase Their Productivity and Access to International Markets in Afghanistan

IFC helped raisin and pomegranate farmers increase the quality and quantity of their crops through farm extension services and farm management training. The training provided them with information about harvesting, grading, and storing their products, and enabled them to access new markets in Afghanistan and abroad.

The project engaged with hundreds of farmers across five districts in Afghanistan's Kandahar Province, helping them to increase productivity and contribute to the region's economic growth.

The Opportunity

Agriculture is a major source of employment in Afghanistan, and raisins and pomegranates, in particular, are commodities with high growth potential. However, Afghan farmers face a number of challenges, including limited presence in international markets and lack of technical expertise in harvesting, sorting, and drying their crops. As a result, farmers produce sub-optimal harvests, and see lower returns on their investment.

IFC focused on raisin and pomegranate farmers in Kandahar Province because of their potential for producing superior-quality crops. IFC conducted a scoping mission and found that modernizing the raisin drying houses would allow farmers to complete two production cycles per season, instead of just one. The scoping mission also found that by focusing on quality and packing, pomegranate farmers could increase productivity and sales.

In 2006, IFC began a pilot project with 10 raisin farmers and 50 pomegranate farmers, building modern drying houses and training the farmers to improve post-harvest activities such as cleaning, sorting, grading, and packing their crop. The farmers participated in a trade mission to Dubai to view international wholesale markets and learn about the products offered by other countries.

In 2008, the project was scaled up to reach 100 grape farmers and 1,400 pomegranate farmers. The farmers were able to improve their post-harvest practices, sell their product at a much higher price, and export to new markets in New Delhi and Mumbai.

“(Thanks to IFC), new linkages were established and new effective markets were identified at national and international levels, especially in India. Technical problems of exporters have been solved, which led to new agreements between Afghan exporters and importers from India.”

—Haji Shahzada, owner of a drying house

IFC's Approach

IFC initially identified 40 agricultural graduates and provided them with six months of technical training in harvesting and producing crops, to form an extension team able to provide technical support to farmers.

IFC connected with local small businesses to provide the materials needed to build modern drying houses and used IFC's Business Edge management training workshops to train extension workers on the basics of budgeting and accounting. Workshops were conducted in Pashtu and used local examples. Two technical manuals were produced (one for each commodity) that cover aspects of farming related to quality, with specific attention to post-harvest activities.

During the project, extension workers worked to build a successful business model that could be replicated in five districts of Kandahar Province. IFC also partnered with Afghan exporters and identified potential Indian importers interested in working with the Afghan exporters. The farmers learned sorting and packaging techniques that would appeal to international markets, and were linked to exporters.

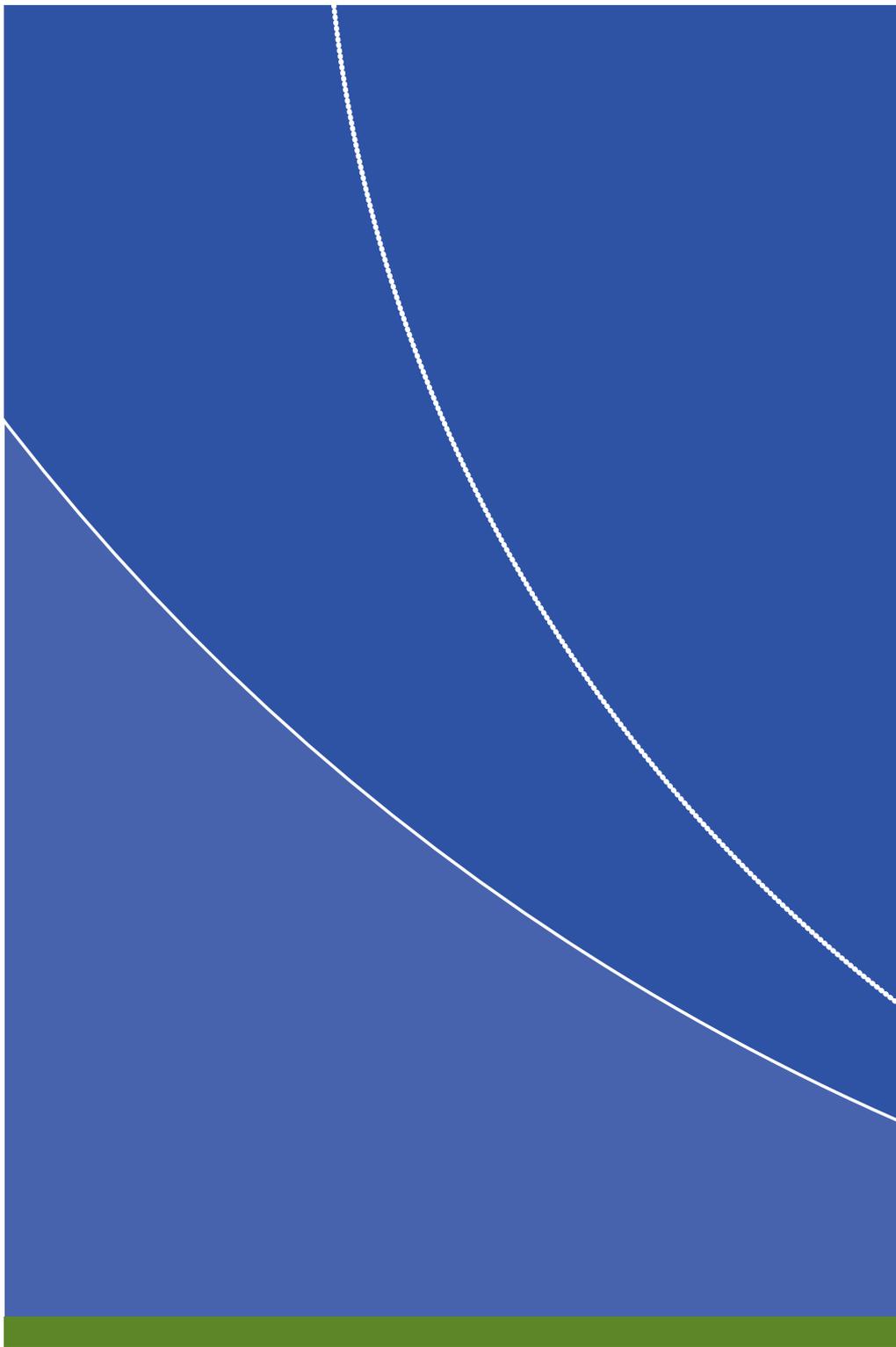
As a result, the time needed to produce raisins was cut by 50 percent, and waste was reduced to 15 percent from roughly 35 percent. Increased production and higher quality resulted in sales to India of roughly \$4 million worth of raisins and pomegranates produced by these farmers. Women benefited indirectly: while none received training directly, male family members who participated in the project trained them in post-harvest production, a process to which women on family farms often contribute.

To make the project sustainable, Afghan extension workers formed an association. They have continued to provide fee-based training and technical assistance to raisin and pomegranate farmers in Kandahar Province since the completion of the project in 2012.

Building on the success of the program, IFC will begin working with a large Afghan fruit processing and exporting company to enhance its supply chain and integrate farmers that were able to implement recommended practices. The new project will also help to gain access to wider market opportunities and attract financing.

RESULTS AND IMPACT

- 1,500 farmers and 40 extension workers were trained in modern production techniques. All came from remote locations in Kandahar Province with very limited access to technical support/knowledge.
- Doubled local farmers' raisin output, and reduced waste by introducing 125 new drying houses. Thanks to the success of this program, farmers are now also willing to invest in the drying houses themselves.
- Established linkages between farmers and Afghan exporters, who were introduced to new markets in India.
- \$4 million worth of raisins and pomegranates exported to Indian markets by farmers involved in the project.



The image features a solid blue background with a large, semi-transparent, lighter blue curved shape on the right side. At the bottom, there is a horizontal bar divided into two sections: a dark green section on the left and a light green section on the right. Two white curved lines, one solid and one dotted, sweep across the lower portion of the image from left to right. The text 'SOUTH ASIA' is centered in the middle-right area in a white, sans-serif font.

SOUTH ASIA



Making the Agricultural Sector more Sustainable and Resilient in Bangladesh

IFC is working with leading seed companies in Bangladesh to promote sustainable farming practices, such as the production, distribution, and adoption of stress-tolerant seed varieties that withstand prolonged periods of submergence, high levels of salinity, and drought conditions.

As a result of IFC's engagement, over 145,000 farmers were exposed to practices that increase productivity, facilitate access to supply chains, and knowledge and are environment friendly.

IFC CLIENTS: ACI Ltd., Lal Teer Ltd., Supreme Seed Ltd. and others

The Opportunity

Agriculture is a major economic driver in Bangladesh, accounting for 16 percent of the country’s gross domestic product and providing employment for 65 percent of its labor force. However, Bangladesh is losing 1.75 percent of its arable land each year—faster than its population growth of 1.5 percent. By 2025, the agriculture sector will have to feed 19 million more people with considerably less land under cultivation.

Climate change poses an especially serious challenge to Bangladesh’s agricultural output, and puts its food security at risk. As a low-lying country situated on a delta, Bangladesh experiences salt water intrusion, land erosion, and drought and can expect increased flooding, and more intense natural disasters.

Women are largely invisible players in the agricultural sector. They are often left out of capacity building programs, and their potential impact on household income is hardly recognized.

It is imperative for farmers to change traditional farming methods and adopt climate-smart practices (e.g., stress tolerant seed varieties) for sustainable agriculture and ensure food security. Similarly, agribusinesses will have to adjust to increased supply chain disruptions, decreased productivity, and workforce instability (e.g., displacement, illness).

“We have very much appreciated IFC’s role in supporting the private sector’s efforts to contribute to the nation’s food security. The scope of our collaboration in recent times has been expanded to supporting farmers in stress-prone areas, which is critical to adapting to climate change.”

—Mahbub Anam, Managing Director of Lal Teer, one of the four leading seed sector firms in Bangladesh

IFC's Approach

IFC is actively promoting climate-smart agricultural practices in Bangladesh, working with both the private and the public sectors to build greater efficiencies in the use of their resources.

More specifically, IFC works with:

- Bangladesh's some of the largest private seed companies (e.g., Supreme Seed Ltd., ACI Ltd., and Lal Teer Ltd.) to demonstrate the business case for stress-tolerant and high yielding seed varieties, provide extension services to farmers on seed production and on-farm management practices, and encourage more investment in the business.
- Farmers to increase their awareness of climate-smart agricultural practices that can improve their yield and revenue
- Women farmers to formalize their role in post-harvest activities in specific communities and train them on seed production, micro-entrepreneurship and market-linkages.
- Dealers and retailers to expose them to new seed varieties, understand their applications in specific cropping seasons and environmental conditions
- The Bangladesh government to bring together public and private sector representatives to a constructive dialogue and collaboration in promoting stress-tolerant seeds and other adaptive inputs.

IFC's objective is to support farmers in adapting to climate change as well as strengthening food security and social inclusion by:

- Increasing the production, distribution, and adoption of stress-tolerant and promoting them to farmers who can benefit from them but are not aware of their availability or the respective farming practices.
- Promoting high-yielding seed varieties, which boost agricultural output.
- Including rural women in seed production in remote areas and linking them to formal seed supply chains.

RESULTS AND IMPACT

- 139,000 farmers trained on stress-tolerant and high-yielding seeds varieties (Some on seed use; others on seed production).
- 67 percent of project-supported farmers adopted recommended varieties.
- 14 percent paddy yield increase for project-supported farmers compared to 10.9 percent for control farmers.
- 88 percent vegetable yield increase for project-supported farmers compared to 5.5 percent for control farmers.
- 15 percent revenue increase for project-supported farmers.
- 3,602 farmers produced better quality seeds and linked to seed supply chain; 2,200 of them are women.
- 71.9 percent cumulative increase in lead firms' sales revenue.



Improving Productivity in the Poultry Sector in Bangladesh

IFC worked with Bangladeshi farmers to help them adopt clean energy technology that converts cow and chicken waste to biogas, which is then used to generate electricity.

By using local clean energy, farmers save on energy costs and generate extra income from the sale of fertilizer and excess electricity. Simultaneously, IFC helped build the capacity of the local supply chain.

With IFC support, dozens of farmers were able to access bank financing to install small waste-to-energy plants on their farms, helping to create a market for biogas equipment and generators.

The Opportunity

In Bangladesh, the poultry sector employs over 5 million people, making it the second largest source of rural jobs. Despite continuous growth over the last decade, low productivity and poor waste management do not allow the sector to reach its full potential.

Ninety-five percent of poultry farmers lack awareness of farm management and struggle to survive and stay profitable. Poultry farmers face two key problems in Bangladesh: the large amount of animal waste on their farms—about 4,500 million tons generated daily by poultry farms—and the high cost of using diesel-based back-up power whenever their unreliable grid electricity failed.

Although biogas could address both of these problems, there were a few barriers to overcome first. For instance, there were few commercial suppliers of biogas equipment in Bangladesh for farm use. In addition, bankers were reluctant to provide lending to farmers interested in purchasing biogas waste-to-energy plants because their commercial viability was untested in the local market.

“IFC’s timely initiative helped us resolve energy access, bio-security, and waste management issues.”

—Mujibur Rahman, Owner, Golden Poultry Farm,
Ramu, Cox’s Bazar

IFC's Approach

IFC helped identify biogas as a clean energy alternative to the diesel fuel the farmers were previously using to provide electricity on their farms, and provided technical expertise in building, operating and maintaining small-scale biogas energy plants.

IFC also worked with farmers and SMEs to improve productivity through training and capacity building.

More specifically, IFC developed and disseminated Poultry Workbooks—good practice guides for farmers and SMEs, and conducted training sessions on farm management, disease and bio-security management.

IFC also organized events and demonstrations of the biogas technology to illustrate the technical and commercial feasibility of the biogas technology.

In addition, IFC worked with market stakeholders to promote clean energy by introducing waste-to-energy technologies.

Overall, IFC helped build linkages between farmers, SMEs, service and technology providers, and financial institutions. In particular, IFC works with:

- Farmers, SMEs and energy providers to install small scale waste-to-energy generation plants.
- Service providers to develop capacity to tap the upcoming market demand.
- Government, industry, NGOs and other stakeholders to create awareness and a business-enabling environment.
- Financial institutions to educate them on the financing of renewable energy projects.

By catalyzing investment in this type of clean energy in Bangladesh, IFC helped create a market for the materials needed to build the waste-to-energy plants.

RESULTS AND IMPACT

- Trained over 15,000 small and medium enterprises (SMEs) and poultry farmers.
- Sold 11,367 Poultry Workbooks, good practice guides for SMEs and farmers to improve their productivity.
- Facilitated \$1.2 million in investment for 16 poultry farms.
- Installed waste to electricity plants at 250 poultry and dairy farms.
- Generated over 6,700 MWh/year of electricity from waste to electricity plants.
- More than 12,000 SMEs and farmers implemented recommendations received from IFC resulting in improved performance for 8,012 entities.
- IFC client companies increased sales by \$104 million.



Strengthening Poultry Supply Chains in Nepal

IFC worked with Small and Medium Enterprises (SMEs) and farmers in the Nepalese poultry sector to strengthen their technical skills, increase profitability, and expand access to markets.

Through building the capacity of three local poultry companies and 4,050 poultry farmers, IFC addressed industry-wide challenges, such as lack of veterinarian skills and bio-security standards, low production efficiency, and limited farm management skills.

IFC CLIENTS: Probiotech Feed Mill, Avinash Hatchery and others

The Opportunity

The poultry sector in Nepal is estimated at \$240 million and employs over 70,000 people. However, the industry loses up to \$32 million in profits. This loss is primarily due to the fact that local SMEs lack formal training on farm management and struggle to stay profitable.

More specifically, Nepalese poultry producers face multiple challenges like inefficient feeding practices and low quality of baby chickens—the two key inputs that together represent up to 90 percent of their costs.

Another issue is bio-security and disease management, which are critical to the sustainability of the industry. Local specialists lack adequate training and the Nepalese poultry sector needs to build capacity in these areas.

“We value IFC’s integrated approach to improve efficiencies through technical assistance and to pave the way for investment. IFC helped us improve the productivity and the loyalty of our broiler farmers through an innovative fee-based extension services model which is led by the private sector. IFC has also started helping us with farmer capacity building in the maize sector.”

—Anand Bagaria, Managing Director, Probiotech Industries, Nepal

IFC's Approach

To achieve the most impact, IFC is focused on the following interventions:

- Assessing poultry feed process quality and advising on how to improve nutrition practices.
- Developing a Standard Operating Practice—a good practice guide for the poultry sector aimed at increasing overall production efficiency.
- Analyzing bio-security and diseases in parent and grower farms, and providing industry-wide recommendations for improvement.
- Training small and medium poultry farms' staff and build local veterinarian capacity by training the trainers.



Lasing Lamar owns a poultry farm and, along with 4,000 other poultry farmers in Nepal, has received management training from IFC.

RESULTS AND IMPACT

- Provided fee-based training on farm management to 4,050 chicken growers, 42 percent of whom are women.
- Trained 32 (30 percent women) veterinarians as trainers to build local capacity.
- Developed a Standard Operating Practice—a guide for stock farms, hatchery, and broiler growers.
- Developed a Training Aid and Broiler Production Guide to facilitate adoption of new skills and knowledge by poultry farmers.
- Probiotech feed mill, one of IFC's clients, won the "Nepal Standard" quality award from the Nepal Bureau of Standards and Metrology in 2011.
- Women farmers trained by the project have reduced the cost of chicken production by 18 percent versus 7 percent by men farmers.
- In May 2014, IFC signed an agreement with poultry feed manufacturer Probiotech Industries to invest \$1.9 million equity in the company to enhance farm productivity and boost incomes in rural Nepal. This is IFC's first agribusiness investment in Nepal.



Improving the Productivity of Sugar Farmers in India

IFC worked with DSCL Sugar, the fifth largest sugar company in India, to improve the productivity of farmers in its supply chain by training them in advanced farming techniques.

As a result, the productivity of farmers who received training is estimated to have increased by 80 percent, compared with a 20 percent increase among farmers who did not receive training. This successful business model is expected to reach 50,000 farmers in DSCL's supply chain and also be replicated by other companies in India's sugar sector.

IFC CLIENT: DSCL Sugar

The Opportunity

In India, more than 50 million farmers depend on sugarcane cultivation for their livelihood.

While some states in India have a high farm yield of more than 100 tons per hectare, the four million farmers in the low-income state of Uttar Pradesh produce only around 50–55 tons per hectare on average, resulting in reduced incomes from sugarcane cultivation.

DCM Shriram Consolidated Ltd. (DSCL), an IFC investment client, is one of the major sugar producers in the state, with four sugar plants and more than 150,000 farmers in its entire supply chain.

DSCL is under pressure to increase the productivity of farmers in its supply chain. Current capacity utilization is low and if it falls any lower, it will hurt the company's profits. In the past, measures undertaken by the company to enhance productivity had limited success because the programs were fragmented, rather than holistic in their approach.

“By helping farmers increase their farm productivity, this project has not only increased farmers’ incomes, but the company has boosted its sugarcane supply. This is a true manifestation of good corporate social responsibility, where the company’s and community’s interests are mutually aligned.”

—Sunil Radhakrishna, Senior Executive Director, DSCL

IFC's Approach

IFC worked with DSCL to increase the productivity of farmers in its supply chain by bringing in expertise on developing a package of practices based on the crop's specific agro-climatic needs.

More specifically, IFC supported the training of farmers who supply sugarcane to DSCL's sugar plants in advanced farming practices related to seed management, soil improvement, water usage, planting, monitoring, and reporting.

These practices were incorporated into a training manual for DSCL and an easy-reference pictorial flipchart for farmers that demonstrates farming practices to be followed during each month of the crop cycle.



Sugar farms in Uttar Pradesh, India, where IFC worked with DSCL, one of the largest sugar producers in the country.

RESULTS AND IMPACT

- After two years, trained farmers obtained sugarcane yields that were 79 percent higher than the yields of those who did not receive any training.
- Initially, 2,000 farmers received training—this has been scaled up to over 17,500 farmers. The project is expected to be expanded to reach 50,000 additional farmers in DSCL's supply chain.

REPLICATION

- The project is expected to be replicated by DSCL to ultimately reach all 150,000 farmers in its supply chain.
- The project is being replicated by four other sugar companies in India and is expected to reach over 200,000 farmers.



Addressing Water Security in the Agricultural Sector in India

IFC worked with Jain Irrigation Systems Ltd., an IFC investment and advisory client, to conduct a Water Footprint Assessment which helps companies reduce water-related risks, improve water efficiency, and mitigate social and environmental impact.

This was the first time that a business conducted such an assessment in a developing country and it paved the way for similar assessments for IFC clients in countries that face water scarcity.

IFC CLIENT: Jain Irrigation Systems Ltd.

The Opportunity

Water scarcity is an alarming 21st century issue. It is estimated that by 2025, two-thirds of the world's population will be living in water-stressed conditions. Businesses around the world recognize this challenge as a threat to their reputations as well as their bottom lines.

Water footprinting is a method similar to carbon footprinting that determines how much water a company uses in its operations as well as in its supply chain. It can also identify the social and environmental impact associated with that consumption. It is particularly useful for agribusiness, which consumes 70 to 85 percent of total fresh water.

India is one of the world's most water-affected countries. India-based IFC client Jain Irrigation Systems Ltd. is one of the world's largest manufacturers of drip irrigation systems and operates in an area where water scarcity is an imminent issue. It is also one of the world's largest producers of dehydrated onions and mango pulp, puree, and concentrate. It was the first business in a developing country to conduct a Water Footprint Assessment, which led to a reduction in its water consumption as well as a strategy to increase local water availability.

“This water footprint assessment has exceeded our expectations. At a local level, the strategy validates our efforts to make a profound difference in farmers’ lives by providing extra income and sustaining rural livelihoods. At a regional level, the strategy will help increase water supply and decrease demand for water. The water footprint assessment attests to the leadership that both IFC and Jain Irrigation Systems are taking in the area of sustainable management and consumption of water resources.”

—Anil Jain, Managing Director, Jain Irrigation Systems Ltd.

IFC's Approach

IFC worked with Jain Irrigation Systems Ltd. to produce a Water Footprint Assessment which assessed the production of its dehydrated onions and the manufacturing of its micro-irrigation system (MIS). Among the most important findings was that onions grown under drip irrigation have a 42 percent smaller water footprint than those grown using traditional irrigation methods.

IFC views water footprinting as an integral part of its climate change strategy given that it can help its clients reduce water-related risks, improve water efficiency, and limit their water-related social and environmental impact.

Overall, this Water Footprint Assessment serves as an example of an effective tool for managing water-related risks and paves the way for similar assessments for IFC clients in countries that face water scarcity.

More broadly, IFC has been engaged in addressing water scarcity issues as a founding partner of the Water Footprint Network, a platform for private sector, academics, research institutions, international organizations and NGOs interested in furthering research in this field.

RESULTS AND IMPACT

- Increased its water savings through a solid understanding of the water footprint of its operations.
- Increased uptake of its sustainable drip irrigation system by farmers in both its supply chain and in the broader region, replacing traditional flood irrigation systems.
- Formulated strategies for alleviating water scarcity and improving the sustainability of water use in the surrounding onion-growing region.
- Encouraged local onion farmers to use drip irrigation to reduce water consumption and pollution.
- Established a forum for local water stakeholders to work together toward sustainable water resource management.
- IFC has invested \$133 million in Jain Irrigation Systems Ltd. since 2007.



Addressing Food Safety and Traceability in India

IFC partnered with Jain Irrigation Systems Ltd., an Indian company that is a leading international producer of processed fruits and vegetables, to increase farmers' water efficiency and help fruit and vegetable suppliers meet international food safety standards.

IFC CLIENT: Jain Irrigation Systems Ltd.

The Opportunity

Water scarcity and food safety are alarming 21st century issues. Agribusinesses around the world recognize limited natural resources and uncertified suppliers as threats to their reputations as well as their profitability.

India-based Jain Irrigation Systems Ltd. has partnered with IFC on a variety of projects relating to food safety and water efficiency. Jain Irrigation Systems Ltd. is one of the world's largest producers of dehydrated onions and mango pulp, puree, and concentrate.

As part of a previous successful partnership with IFC, Jain Irrigation Systems Ltd. was the first business in a developing country to conduct a Water Footprint Assessment, which led to a reduction in its water consumption as well as a strategy to increase local water availability.

India is also one of the largest and lowest cost producers of fruits in the world, yet its share in global exports (both and processed) is less than 2 percent of the total world trade.

One of the major constraints faced by Indian food processors and exporters is the lack of local compliance with stringent food safety standards demanded by the major importing countries of the world.

“[Implementing Jain GAP] is a win-win for everybody. The farmer will get more products, more financial returns, and better safety and occupational health. We will also get better quality materials, assured supply, and more satisfied clients.”

—Dilip Kulkarni, President, Agrifood Division,
Jain Irrigation Systems Ltd.

IFC's Approach

IFC partnered with Jain Irrigation Systems Ltd. to help local suppliers meet food safety standards that the international market demands.

The farms of Jain Irrigation Systems Ltd. are certified by GLOBALGAP, a non-governmental organization that sets voluntary standards for certification around the globe. However, the company has noted increased interest from its buyers in the farm-level practices of its suppliers and in its ability to trace the origins of its products.

To assess the practices of small-scale Indian farmers, IFC performed a diagnostic of Jain Irrigation Systems Ltd.'s mango and onion supply chains, which noted varying levels of GAP compliance at the farm level.

IFC and Jain Irrigation Systems Ltd. joined forces to develop and pilot a "Jain GAP" standard to apply to the firm's supply chain. This tailor-made standard is a modified and simplified version of GLOBALGAP that brings a measure of food safety and standards to Jain Irrigation Systems Ltd.'s supply base while minimizing the associated costs of compliance to both farmers and Jain Irrigation Systems Ltd..

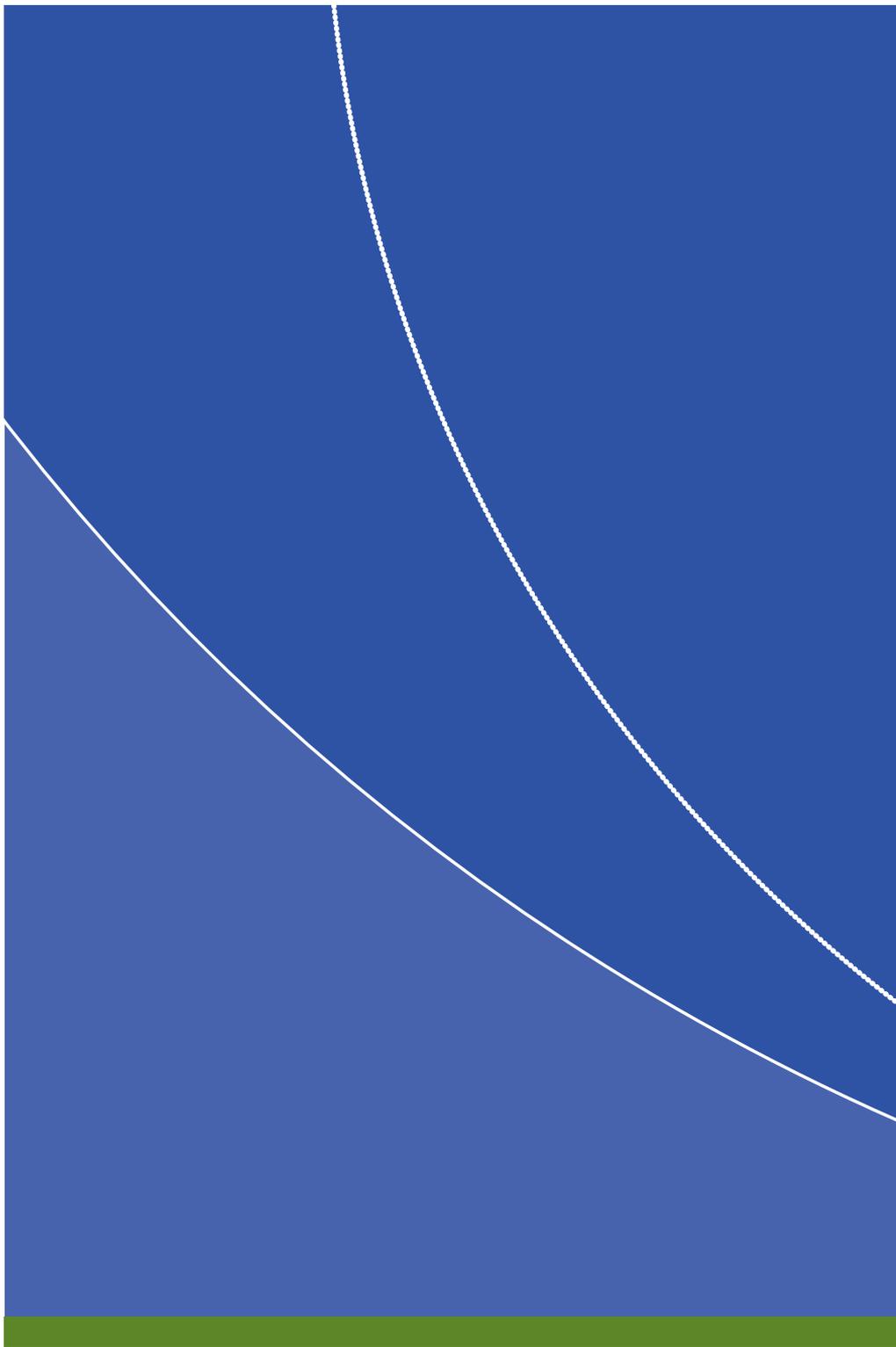
Jain GAP is an entry-level standard that includes critical elements of Global GAP, such as traceability, food safety, hygiene, sanitation, and occupational health.

To support the implementation of this standard, IFC provided experts who:

- Trained Jain Irrigation Systems Ltd. staff on managing the standard
- Trained extensionists on specific practices so that they could train farmers on meeting the standard
- Trained Jain Irrigation Systems Ltd. auditors on verification processes

RESULTS AND IMPACT

- Developed JAIN GAP food safety standard that includes 74 of the 256 total GLOBALGAP criteria.
- Achieved GLOBALGAP recognition of the JAIN GAP standard as a “Primary Farm Assurance” Standard.
- Trained 4,162 JISL farmers on GAP practices.
- 1,340 farmers complied with the JAIN GAP practices.
- 5,573 acres of land cultivated under the JAIN GAP system.
- IFC has invested \$133 million in Jain Irrigation Systems Ltd. since 2007.



The image features a solid dark blue background. A large, lighter blue curved shape enters from the right side, partially overlapping the dark blue. At the bottom, there is a horizontal bar divided into two sections: a dark green section on the left and a lighter green section on the right. A white dotted line curves across the lower portion of the image, starting from the left edge and ending near the right edge, positioned above the green bar. The text 'SUB-SAHARAN AFRICA' is centered in the right half of the image.

SUB-SAHARAN
AFRICA



Improving the Productivity of Smallholder Coffee Farms in Kenya

IFC is working with Ecom, a global leader in commodity trading, to raise the productivity of smallholder farms, improve the quality of their coffee, and have a positive impact on the livelihoods of farmers in Kenya.

More specifically, IFC is working with Ecom to develop new farmer training tools and methods, adopt more sustainable farming practices, and meet international standards for quality.

IFC has partnered with Ecom since 2006, providing both investment and advisory services. The IFC program in Kenya was launched in 2011.

IFC CLIENT: Ecom

The Opportunity

According to World Bank data, the agricultural sector contributes to 30 percent of Kenya's GDP while an estimated six million Kenyans are employed directly or indirectly in agribusiness.

Coffee trade is one of the main earners of foreign exchange, bringing in 3.2 percent, yet 75 percent of Kenya's coffee is produced by small farmers with only 0.3–0.5 hectares of land. The major coffee growing regions are around Mount Kenya and the Aberdare Range, where the altitude and soil provide excellent conditions for growing premium coffee.

However, since 1989, production has fallen drastically, from 130,000 tonnes to less than 60,000 tonnes by 2009. This is attributed to a lack of agricultural training systems and weak public sector support of the industry, especially in terms of material inputs such as seeds and fertilizers.

In 2006, Ecom established Sustainable Management Services (SMS), a wholly-owned company, as a vehicle to manage the collection, training, and farm inputs along its coffee supply chain. SMS, with support from the Dutch humanitarian NGO HIVOS, successfully started training promoter farmers on how to spread best agricultural practices amongst coffee growers. SMS now wishes to significantly expand these activities and build capacity at the coffee association/co-operative level.

“Through the training facilitated by IFC we learned how to use seed varieties that are resistant to leaf rust and how to use mulch to prevent soil erosion and the loss of water. Thanks to this training, my farm will look very different 2–3 years from now.”

—Patrick K. Kabue, Farmer and Trainer

IFC's Approach

IFC is working with SMS, a subsidiary of Ecom that is responsible for the management of coffee supply chains in Kenya, to improve both the quantity and the quality of coffee that local farmers produce.

More specifically, IFC helps SMS to offer training on:

- Adopting Good Agricultural Practices (G.A.P.) that result in food that is safe and wholesome. (For instance, how to use organic manure).
- Obtaining international certification and accessing new markets.
- Improving financial literacy skills. This training builds on IFC's Business Edge management training workshops for farmers.

IFC also works with the Coffee Research Foundation (CRF), a non-profit whose mandate is to research, develop and disseminate appropriate technologies for enhanced productivity, quality and value addition. IFC is helping CRF with quality management and training at the factory level—a first in the history of the foundation.

Finally, IFC is helping Ecom Kenya assess the credit worthiness of coffee producers in its supply chain, allowing the company to move away from an informal lending system to a more sustainable, objective and standardized process. This mitigates Ecom's lending risks and, also, allows the disbursement of more funds to farmers. The farmers can then use the capital to increase their productivity through the purchase of necessary equipment and materials such as fertilizers, pesticides and new seed varieties.

RESULTS AND IMPACT

- More than 16,000 small farmers improved the quality of their coffee and more than doubled their crop yield as a result of adopting the agricultural practices recommended by this project since it was launched in 2011.
- 350 promoter farmers were trained in good agricultural, certification, financial literacy and farm management practices. Each promoter farmer is transferring his or her knowledge to ~50 smallholder growers through training.
- 12 coffee associations (also known as co-operatives) and staff from 22 different wet mills learned about the financial benefits of producing better quality coffee that can fetch a higher price on international markets.
- Completed an IFC diagnostic study which evaluated the financing needs of farmers in Ecom's supply chain in Kenya. Based on its findings, a new business model is being developed that will improve access to finance for suppliers.
- \$154 million has been invested by IFC in Ecom globally since 2006.



Increasing the Energy Efficiency of the Largest Fruit Exporter in South Africa

In South Africa, demand for energy has outpaced national supply as there has been little investment in energy infrastructure. Country-wide power outages and an increasingly insufficient supply have led to escalating energy prices.

IFC works with the Karsten Group to increase energy efficiency, reduce operating costs, and boost productivity.

IFC has partnered with the Karsten Group since 2006, providing both advisory and investment services.

IFC CLIENT: Karsten Group

The Opportunity

Ranked the 18th largest issuer of greenhouse gas (GHG) emissions worldwide, South Africa has an abundance of energy resources in addition to large deposits of coal, which generate 80 percent of the country's consumed primary energy. As a result, until 2009 the country's energy prices were among the cheapest on the continent.

Beginning in 2002, South Africa's GDP steadily increased more than the rest of Sub-Saharan Africa. However, investment in energy infrastructure and supply systems did not match the years of steady economic growth. By 2007, electricity demand could not be met at all times and intermittent power outages set in.

The government introduced a new tariff structure favoring energy efficiency with lower tariffs and capacity restrictions.

Before the power shortage became evident, private sector firms had little incentive to prioritize energy efficiency processes within their operations. However, following the 2007 blackouts, businesses realized the need to seek long-term resource efficiency solutions.

As the energy landscape changed, companies began seeking advice from outside energy specialists and pursuing funding to maximize energy efficiency within their operations.

Karsten Farms' management understood the value of making its operations more energy efficient. It also knew that it was better to do so sooner rather than later and engaged a partner with whom it had already worked.

“We like working with IFC. If all farming businesses in the region did what we've done, we would achieve significant success in improving people's lives.”

—Piet du Plessis, Karsten Group Chief Executive Officer

IFC's Approach

An IFC investment client since 2006, the Karsten Group was eligible for IFC's Cleaner Production Lending Facility (CPLF). The Facility is available to IFC portfolio clients in good standing to help finance projects that support more efficient use of energy, water and materials, resulting in the use of natural resources and in the reduction of GHG emissions. The Facility also allows clients to pilot investments in energy efficiency and renewable energy that they may roll out more widely in their operations.

IFC's Sustainable Business Advisory and Karsten's energy team jointly identified opportunities in resource efficiency. Drawing upon the Facility, Karsten received \$1 million for a long-term loan and advisory services to install efficient lighting and refrigeration systems on its farms. The loan also helped Karsten install solar water heaters in approximately 300 farming worker homes on ten farms, improving the living standards of its employees.

As a result, the project is saving Karsten \$300,000 annually due to a reduction in energy costs and an increase in productivity, while lowering its annual energy consumption by 1,500 mwh, or 5 percent of current consumption.

IFC's advice was not only practical, but the hands-on nature of the partnership provided solutions that could be implemented immediately, leading to cost savings as early as one year after implementation.

Immediate improvements and cost savings further incentivize companies to consider energy efficient solutions for a sustainable future.

RESULTS AND IMPACT

- \$1.2 million in total financing facilitated for Karsten Group.
- \$1 million invested by IFC in Karsten Group.
- 1,500 mwh of energy savings annually, or 5 percent of Karsten's annual consumption.
- \$300,000 saved annually due to a reduction in energy costs and an increase in productivity.
- The annual cost savings Karsten Group achieved paid back their investment in energy efficiency after four years.



Empowering Farmers and Small and Micro Entrepreneurs in the Democratic Republic of Congo

IFC worked with Minoterie de Matadi, a flour and feed milling company in the Democratic Republic of Congo known as MIDEMA, to strengthen its value chain by providing IFC's Business Edge training to farmers and Small and Medium Enterprises (SMEs) and facilitated their links to financial institutions and their access to finance.

Many farmers and SME owners who increased their business revenue through their partnership with MIDEMA were women.

IFC CLIENT: Minoterie de Matadi (MIDEMA)

The Opportunity

Small business owners in the Democratic Republic of Congo often lack the ability to supply large companies because they don't have adequate business management skills or access to the bank financing that could help their enterprise grow. As a result, MIDEMA, a large milling company, was often forced to go abroad to find suppliers to satisfy its milling needs. IFC worked with the company to provide Business Edge management training to the farmers and small businesses most likely to become suppliers. The training focused on writing successful business plans to better access finance, marketing, accounting, and business productivity.

IFC also invested more than \$12 million in Advans Bank, Rawbank, and ProCredit Bank to enable them to provide credit to farmers and small business owners so that they could expand their businesses, operate more efficiently, and become attractive business partners for MIDEMA. With the support of IFC, these financial institutions have also provided non-financial services to their customers utilizing Business Edge workshops. For instance, Rawbank's initiative, known as "Lady's First," has helped train more than 500 female entrepreneurs and helped 110 of them secure more than \$7.2 million in bank financing.

"I have been able to expand drastically my bakery as a result of improving my knowledge and practices in the Business Edge training workshops I attended. My sales have gone up from 450 flour sacks to 2,340 per month. The bakery has repeatedly accessed loans from Advans Bank Congo for a total of \$57,000, thus allowing it to renew and purchase modern production equipment and raw materials."

—Ngimbi Tembo Dimbungu, female owner of NTB Bakery

IFC's Approach

IFC partnered with MIDEMA to provide IFC's Business Edge management training to the suppliers in its corporate value chain so that they could build well-managed and efficient small businesses. IFC also invested in local banks to ensure that they were well-positioned to provide financing to the small businesses that could supply MIDEMA. The project sought to increase the profits of both MIDEMA and its suppliers by strengthening the ability of local farmers and small businesses to beat the competition, become sustainable, and reverse the trend of bakeries going out of business. MIDEMA in return could rely on local producers for its mills and help consolidate jobs in local communities. The project with MIDEMA was so successful that its parent company, the Seaboard Corporation, has asked IFC to replicate the project in other African countries and in Haiti.

IFC is committed to working with clients such as MIDEMA to strengthen the small and medium enterprises that make up its corporate value chain. By providing small business owners and employees with the business skills needed to manage efficiently and access bank financing, IFC helps to ensure these businesses remain profitable and able to contribute to economic growth — a key IFC development goal. Like other developing countries, small and medium enterprises in the Democratic Republic of Congo have the potential to become the backbone of the private sector and their growth helps fuel the economy. The partnership with MIDEMA showcases IFC's ability to work with key clients in developing countries to provide the tools small businesspeople need to succeed.

Since 2002, IFC has used Business Edge management training solutions to help around 200,000 individuals strengthen their management skills, grow their businesses, and stay competitive in more than 50 developing countries. Offered in 20 languages, the workshops cover key management topics: marketing, governance, human resources, quality and operations management, finance and accounting, and personal productivity skills.

RESULTS AND IMPACT

- 5,403 SME personnel trained, of whom 2,022 were women, with satisfaction rate of over 90 percent.
- 696 entities reported performance improvements.
- \$33.8 million in sales revenue for local bakeries.
- 400 SMEs accessed \$11.4 million worth of financing, achieved through SME linkages to financial institutions.
- IFC–MIDEMA partnership proved successful in supporting 317 locally owned bakeries in MIDEMA's distribution chain.
- The program is highly regarded as being transformational in the SME realm. It has achieved strong demonstration effects, with strong demand and recognition on the ground from corporates, financial institutions, and SMEs.

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