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Certified Cocoa: scaling up farmer participation in West Africa

This paper is part of a publication series generated by the New Business Models for Sustainable Trading Relationships project. The partners in the four-year project – the Sustainable Food Laboratory, Rainforest Alliance, the International Institute for Environment and Development, the International Center for Tropical Agriculture, and Catholic Relief Services – are working together to develop, pilot, and learn from new business models of trading relationships between small-scale producers and formal markets. By working in partnership with business and looking across a diversity of crop types and market requirements – fresh horticulture, processed vegetables, pulses, certified coffee and cocoa – the collaboration aims to synthesize learning about how to increase access, benefits, and stability for small-scale producers while generating consistent and reliable supplies for buyers.

For further information see:
www.sustainablefoodlab.org/projects/ag-and-development and
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Certified Cocoa: scaling up farmer participation in West Africa

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Acronyms and abbreviations

| | |
|---------|--|
| CEFCA | Centre d'Etudes, Formation, Conseils et Audits |
| Cocobod | Ghana's Cocoa Board |
| COSA | Committee on Sustainability Assessment |
| GDP | Gross domestic product |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH |
| iMPACT | Mars Partnership for Cocoa Communities of Tomorrow |
| NBM | New Business Models project |
| RA | Rainforest Alliance |
| SAN | Sustainable Agriculture Network |
| STCP | Sustainable Tree Crops Program |

Executive summary

When Unilever and other large international companies decided in 2009 to choose Rainforest Alliance (RA) certification for some of their chocolate brands, the scheme had to radically extend its reach and scale up certification efforts in order to meet projected demand. Since more than half the world's cocoa is grown in Côte d'Ivoire and Ghana (40 per cent and 25 per cent respectively), Unilever decided to work with its suppliers and with RA to certify new farmers in these countries. The aims of the project were to counter growing consumer concerns about child labor, deforestation and farmer incomes and also to reverse declining yields and falling supplies of cocoa as farmers reacted to low incomes by not investing in their crops, or even by getting out of cocoa altogether.

Rainforest Alliance had already brought benefits to farmers growing coffee and other crops and begun to scale up its certification efforts in West Africa, but the certified cocoa market was still very small. The project had to:

- Generate demand for RA-certified cocoa among multinational food companies and the intermediaries (traders and processors) who supplied them.
- Work with the appropriate government bodies from both Côte d'Ivoire and Ghana to negotiate appropriate price mechanism and regulatory frameworks.
- Adapt the Sustainable Agriculture Network (SAN) Standard and guidelines to ensure they were appropriate and relevant and would offer improved sustainable yields.
- Build a market for locally provided training services and develop a network of local trainers and auditors.

Building demand did not prove to be a problem: Mars, Kraft and other international companies joined Unilever in pledging to buy RA cocoa. Scaling up certification to meet demand was harder, with auditors becoming a bottleneck although the project expects to meet its (increased) targets for certifying farmers.

Political instability in Côte d'Ivoire also proved a major challenge, disrupting both farming and auditing. With most cocoa farmers being unorganized and the largest producer group in Ghana not opting for RA certification, the project had to extend its reach through traders and processors rather than through farmer co-operatives. The project has also extended its geographical scope to Sierra Leone, Nigeria and Cameroon.

The impact on farmers appears to have been positive, with certified farmers in Côte d'Ivoire seeing both higher yields and higher revenue from their cocoa crops compared to similar non-certified small-scale farmers, although the non-certified group is closing the gap. The project has also been a commercial success for Unilever, which now intends to use only sustainably sourced cocoa by 2020, representing a significant portion of the global cocoa market.

Lessons have also been learned:

- There are limits to how fast certified supply can be scaled up to meet demand, requiring close collaboration across the supply chain to manage problems that arise.
- Local traders can bear the risks and costs of training and certification for unorganized farmers, allowing training and certification to be scaled up more rapidly.
- Benefits come from improved productivity, including complementary crops and other income-generating schemes, rather than from premium prices.
- Building on existing training schemes and extension services can cut the cost of certification.
- Geographical diversification of schemes can help mitigate the risks of political instability or poor quality.
- Studies to evaluate the costs and benefits of certification need to be carefully designed and carried out.

1

Introduction

In 2008, Anniek Mauser was the Sustainability Manager for the global ice cream category at Unilever. She was charged with creating a sustainable sourcing plan for the Magnum ice cream brand – one that would resonate with consumers while supporting the product’s reputation for high quality.

Consumers were concerned about three issues in the cocoa industry: farmer incomes, deforestation, and child labor. These have deep-rooted and complex causes that could be addressed in two ways. Either Unilever could develop its own standard for purchasing sustainable cocoa or it could purchase cocoa certified by a credible third party, whether a company-owned or independent certification program.

Either way, Mauser needed to identify a cocoa sourcing strategy that would provide adequate traceability to back up any claims regarding environmental and social conditions on the farms, and to solve any problems that arose with quality. Traceability was also important to ensure accountability and product integrity.

The search for a sustainable, high-quality, traceable source of cocoa seemed particularly challenging given the overall supply constraints that the industry was experiencing. Demand for cocoa had never been higher, but both volumes and quality were constrained by the low returns for farmers, preventing them from investing in long-term improvement to their farms, and

creating a disincentive for the younger generation to enter cocoa farming at all.

Mauser traveled with colleagues to Côte d’Ivoire in November 2008, and visited the sustainability programs of Barry Callebaut and ADM Cocoa, two of the largest traders in the country and suppliers of cocoa to Magnum. They also visited Fairtrade and Rainforest Alliance Certified™ farms, to get a feel for how they differed and how they addressed the key sustainability issues that Unilever was facing. The visit reinforced the company’s decision that because Magnum was a relatively small player in the cocoa industry, it would be more efficient and effective to collaborate with an existing third-party certifier.

In the past, Mauser had been involved with the decision to bring ethical certification to other Unilever brands: Fairtrade certification for Ben & Jerry’s ice cream, and Rainforest Alliance certification for Lipton tea. Which certification to use for Magnum depended on finding the best fit between the criteria of the different standards and the Magnum brand. In early 2009, the team decided to work with Rainforest Alliance (RA).

One challenge, however, was that very few cocoa farmers were already certified – RA would have to expand its reach substantially for suppliers to source enough certified cocoa for the entire Magnum line. Since most cocoa is grown in West Africa (about 40 per cent in Côte d’Ivoire and 25 per cent in Ghana), Unilever

decided to work with its suppliers and with RA to certify new farmers there.

Another challenge was ensuring that the quality of the certified cocoa would be high enough for a premium brand like Magnum. Ghana has a reputation in the international market for producing consistently high-quality cocoa that already trades at a premium price and the Ghanaian government, which manages the industry, was skeptical about entering certification. Côte d'Ivoire had already begun producing certified cocoa, but in recent years its cocoa had suffered from quality defects that worried the major global cocoa companies.

Unilever would therefore have to do more than just commit to buying Rainforest Alliance-certified cocoa; the company would have to bring new farmers into their supply chain, ensure that certification would be attractive to them and build their capacity to implement the practices needed to achieve certification.

“Consumers were concerned about three issues in the cocoa industry: farmer incomes, deforestation, and child labor.”

2

Cocoa farmers in West Africa

The cocoa sector is of great importance for rural livelihoods in West Africa. It provides direct employment for more than 2 million households and indirect employment for a further 5 million people. Including household dependents, more than 20 million West Africans rely on the cocoa economy. More than 90 per cent of cocoa farmers are small scale, with plots of 1–3 hectares. They are mostly poor, with incomes per head of less than a dollar a day (Barrientos *et al.*, 2008).

Côte d'Ivoire is the world's leading producer of cocoa, with an average annual production of 1.5 million metric tonnes, accounting for approximately 40 per cent of world production. In 2009, its cocoa production also equaled close to 40 per cent of the country's foreign exchange earnings and 10 per cent of its gross domestic product (GDP). Cocoa provides employment to more than 600,000 farmers, and a livelihood to more than 6 million people, approximately one-third of the country's total population. Around 95 per cent of production comes from small-scale farms. Production has been declining for a variety of reasons – including black pod disease, ageing trees, high export tax and political instability (Hewitt and Millard, 2010, 2010).

Ghana is the world's second largest producer of cocoa, responsible for around 25 per cent of the world's bulk cocoa. It is Ghana's dominant cash crop and single most important export product. Around 6.3 million Ghanaians depend on cocoa

for their living, representing around 30 per cent of the total population. Ghana's cocoa production is characterized by small-scale farming with an average productive cocoa area per household of approximately 2 hectares (Sustainable Food Lab *et al.*, 2009). Farmers struggle with low yields and low incomes; in cocoa-producing households it is estimated that the mean daily income per head from cocoa was US\$0.42 and the total income just US\$0.63 (Barrientos *et al.*, 2008, cited in Sustainable Food Labs, 2009).

The cocoa sector in West Africa has been criticized internationally for using forced child farm labor. In 2006 in response to international pressure, and with industry support, government officials in Côte d'Ivoire established the National Committee for the Fight Against Trafficking and Child Exploitation to remove child labor from the industry through monitoring and education. Ghana's government has established a similar program.

Deforestation is also a major cause for concern in West Africa, as cocoa farmers plant in newly cleared areas. The western parts of both Ghana and Côte d'Ivoire form the last frontier for cocoa expansion due to the presence of patches of non-reserved and reserved forest. Farmers need to manage the soil to replace nutrients lost through deforestation and forest degradation if they are to sustain cocoa production on former forest land.

3

The global cocoa industry

About 60 per cent of the world's cocoa is used in chocolate products, with the remaining 40 per cent used for a range of bakery, confectionery and drink products. In 2007, the year in which the New Business Models (NBM) project began (Box 1), the value of the global chocolate market was US\$74.1 billion at retail prices and was growing at an average of 3 per cent year on year. The US market accounted for 22.7 per cent of global chocolate sales (Sustainable Food Lab *et al.*, 2009).

World cocoa sales have been rising as demand grows in emerging markets. Mature markets have begun to favor darker and more intensely flavored chocolate, increasing demand for higher-quality cocoa. At the same time, poverty and lack of training among cocoa farmers is undermining their investment in their farms. Many producers cannot afford inputs such as fertilizer,

do not have access to training or financing that could increase quality and yields, and some are leaving the business entirely or encouraging their children to do so. Falling production drove prices to a 24-year high in September 2009.

Sustainability initiatives were still very new in the cocoa sector when Unilever made its decision to collaborate with Rainforest Alliance. Most of the industry's effort was focused on child labor, following the Harkin Engel Protocol in 2001 and the creation of both the International Cocoa Initiative and an industry group to respond to the challenge. While Rainforest Alliance had been expanding its certification reach in West Africa, the concept was not yet well established in the international market. Among the leading brands, Cadbury launched its Cocoa Partnership in 2008 and announced a commitment to Fairtrade for its Dairy Milk brand in March 2009. Kraft had

Box 1: The New Business Models project

This case study is part of a publication series generated by the New Business Models for Sustainable Trading Relationships project. The partners in this four-year collaboration (2008–2012) – the Sustainable Food Laboratory, Rainforest Alliance, the International Institute for Environment and Development, the International Center for Tropical Agriculture, and Catholic Relief Services – worked together to develop, pilot and learn from new business models to facilitate trade between small-scale producers and formal markets. The collaboration has involved private sector partners in four value chains: (1) fine flavor cocoa in Ghana, (2) certified cocoa in Ghana and Côte d'Ivoire, (3) outdoor smallholder flowers in Kenya, and (4) dried beans in Ethiopia. By working in partnership with business and across a diversity of crop types and market requirements, the collaboration aims to synthesize knowledge about how to increase access, benefits and stability for small-scale producers while generating consistent and reliable supplies for buyers.

More on the New Business Models principles and framework can be found in the paper “Think Big, Go Small: adapting business models to incorporate smallholders into supply chains” available at www.linkingworlds.org and <http://www.oxfam.org/en/policy/think-big-go-small>

undertaken two co-operation projects in Ecuador and Côte d'Ivoire to build the supply of Rainforest Alliance-certified beans from 2006 to 2008 but only launched its certified *Côte d'Or* brand in September 2009. Mars had developed a number of initiatives, including the Mars Partnership for Cocoa Communities of Tomorrow (iMPACT), and announced its support for certification in April 2009. Supply chain companies such as Barry Callebaut and ADM Cocoa had started up localized initiatives

including the ones Unilever visited in Côte d'Ivoire. Companies were working together through their trade associations, especially the World Cocoa Foundation, to invest in efforts to boost farm productivity, reduce the incidence of cocoa pests and diseases, and train farmers in good agricultural practices. The Sustainable Tree Crops Program (STCP), led by the International Institute of Tropical Agriculture (IITA), was a particularly important project in this area.

4

The concept of voluntary certification

Certification schemes such as organic, Fairtrade, Utz Certified and Rainforest Alliance have recently grown in recognition and popularity among consumers of coffee, cocoa, bananas and other commodity crops (Box 2). Such schemes provide auditing by an independent third party, offering some assurance that certified goods have been produced according to certain environmental and/or ethical standards. Certification can bring a range of benefits to farmers as well as to the buyers further down the supply chain.

Benefits for farmers

Broadly speaking, certification schemes aim to bring economic, social and environmental benefits for farmers although the emphasis varies from scheme to scheme. An early focus

was on the economic benefit of a 'premium' above the commodity price, but increasingly Rainforest Alliance emphasizes the income gains associated with improved quality and yields and better farmer group management. Certification can be an effective tool for helping farmers organize as a group and plan together for the future, providing a social benefit from stronger organizations. Other social benefits include better farmer skills and knowledge, health benefits from training in the safe handling and storage of chemical inputs, and more children in education through awareness-raising and the prohibition of child labor. The requirement for sustainable agriculture practices – which help maintain fertile soil, clean water and trees in the landscape – offers environmental benefits. Economic, social and environmental benefits often reinforce each other; for instance,

Box 2: The market potential for certified agricultural products

Globally, the market for certified agricultural products is US\$42,000 million, approximately 2.5 per cent of the global food and beverages market. It has shown high and sustained growth rates since certification first became popular during the 1990s. Certain products have exceptionally high market shares: for instance Fairtrade bananas account for more than half of all bananas sold in some European countries, while RA certified bananas command 15 per cent of the global banana trade.

RA-certified products have grown at an average rate of around 10–15 per cent a year in terms of retail sales and production quantities, and rates are likely to stay in the range of 8–15 per cent over the medium term. Yet most certified markets are still very small, including the certified cocoa market.

In 2008, when the project started, global sales of organic cocoa were around 27,00 tons, sales of Fairtrade cocoa were 10,500 tons (Pay, 2009) and of Rainforest Alliance 5,000 tons. Utz Certified had also announced its entry into cocoa and had signed partnership agreements with some of the major processing and manufacturing companies, which was expected to influence certified volumes significantly.

Sources: Sustainable Food Lab, et al. (2009); Pay (2009)

a healthy ecosystem will go on being a productive one.

Benefits for industry

Companies see multiple benefits from certification. First, they are able to respond to customer demands by purchasing from known communities where they can track their impact and know that training and efforts to eradicate child labor are taking place. Second, certification offers traceability, which manages their risk over food safety, quality and supply volumes – it is harder to manage a supply chain that is invisible to the brand. Moreover, conserving the ecosystem and introducing practices such as tree planting and nurseries helps secure the long-term supply of cocoa.

In markets where certified products are not yet widely available, carrying a credible and recognizable seal can provide valuable product differentiation. Coffee certification is a good example; initially it was mostly adopted by small and medium companies seeking to add value to their brands and to help them stand out against their competitors. The cocoa industry has followed a different pattern – partly because there are fewer small cocoa and chocolate companies, but mainly because, by 2009, the leading brands understood the risks in the supply chain and the market and were ready to respond, following the lead of the mainstream coffee companies that were joining voluntary certification schemes at the time.

5

Rainforest Alliance and cocoa

Rainforest Alliance aims to conserve biodiversity and promote sustainable livelihoods by changing land-use practices, business practices and consumer behavior. The RA green frog seal is increasingly recognized by consumers in major markets, and represents rigorous certification at the farm level.

RA's sustainability standards focus on:

- social and environmental management systems
- ecosystem conservation
- wildlife protection
- water conservation
- fair treatment and good working conditions for workers
- occupational health and safety
- community relations
- integrated crop management
- soil management and conservation
- integrated waste management.

To obtain RA certification, a farm has to be evaluated during the three-year certification cycle and prove each year thereafter that it was in compliance with the Sustainable Agriculture Network (SAN) Scoring System. Small-scale farmers are certified as a group in order to reduce transaction costs.

In seeking to provide financial value to farmers, RA aims to achieve a positive impact on several variables that it believes most strongly influence their incomes:

- price
- improved yield
- best management practice
- farm efficiency
- access to business and financial services
- improved knowledge
- market opportunities.

The certification standard and associated capacity-building activities are designed to have an impact at the farm level. At the same time, however, RA works actively to link those farm improvements to market opportunities – without mandating the terms on which those markets should operate. Catalyzing increases in demand would allow farmers to recover the costs of certification (including the cost of audits (per diem and travel expenses for auditors) and the costs of on-farm improvements (buying protective equipment, installing buffer zones around waterways and roads, etc.), and would create the opportunity to scale up the supply of certified cocoa.

RA's policy is not to compare itself with other voluntary certification systems, which differ substantially in their standards and objectives. Moreover, RA does not aim to make itself the 'best certification system in the world' but rather to demonstrate that the RA system has value.

Rainforest Alliance and the New Business Models project

Rainforest Alliance has begun to scale up its cocoa certification efforts in West Africa in recent years, in an attempt to address the industry's environmental and social issues. At the beginning of 2008, it began collaborating with several other organizations under the New Business Models (NBM) project.

The certified cocoa component in the NBM project was led by Rainforest Alliance and implemented through local partner organizations: Global Business Consulting Company in Côte d'Ivoire and Agro-Eco/Louis Bolk Institute in Ghana. The project team planned to involve traders and buyers as well, on

the basis that co-ordination right along the value chain is essential to having a sustainable impact on livelihoods.

RA and its local partners aimed to foster more durable relationships between farmers and traders to create an incentive for farmers to manage their resources sustainably. Through its work in coffee and other crops, RA had already demonstrated that certification could bring benefits to farmers and provide companies with objective, credible verification of improvements in their supply chain. In the cocoa sector, the project would need efficient ways to reach unorganized cocoa farmers in order to enable a massive scaling up of farm certifications. Achieving scale was both a development goal – helping many more farmers access the benefits of certification – and an industry goal, as demand for certified cocoa was outpacing supply.

The project's initial target was to certify 7,000 new cocoa farms, totaling 34,000 hectares, by the end of 2011. This would reach a total of 35,000 beneficiaries (including household members). It estimated that on average annual farmer income would rise by \$300 per year, or 35 per cent. RA would have to help build a total market for 6,500 metric tonnes of certified cocoa to achieve these benefits by working with buyers to generate demand and by working with farmers and with local supply chains to increase access to international markets. Over the longer term, the project partners aimed to achieve certification of 1 per cent of global cocoa volume (32,000 metric tonnes), representing the production of approximately 30,000 small farms.

6

Project strategy

Early in the project, Rainforest Alliance focused on several specific strategies for working with farmers, building the supply of certified cocoa and testing the new business model. These are listed here and described in the sections that follow:

- generating demand
- working with government
- developing locally relevant guidelines
- building a services market for training
- training auditors
- working with unorganized farmers
- reducing costs for farmers
- increasing benefits for farmers.

Generating demand

Rainforest Alliance was already licensing a number of multinational food companies and was in discussion with several other potential buyers of Rainforest Alliance certified cocoa so it introduced these industry players into the project. The plan was that the brands would generate demand and the supply chain companies – traders and processors – would supply what their customers requested. The traders and processors bought from the producer groups so most of the day-to-day interactions with the industry were facilitating the efforts of the supply chain companies to build certified supply.

Working with government

Both Ghana and Côte d'Ivoire have important government institutions overseeing their cocoa industries, meaning that domestic governments were essential stakeholders in the effort to expand RA certification.

Ghana's cocoa industry has a liberalized internal market but the Ghana Cocoa Board (Cocobod) exclusively manages the export of cocoa beans. Private companies may export processed cocoa products. Cocobod supports quality control through a robust government-managed system that has given Ghanaian cocoa a reputation for reliable quality. This system has brought great benefits to Ghana, and Ghanaian cocoa trades at a premium on the world market (see Daniels *et al.* 2012). However, a differentiated product like certified cocoa was a novel concept and would therefore need sensitive coordination with the authorities.

Cocobod also sets the percentage of the export price that farmers receive. Certified cocoa that traded at a premium presented a challenge to the pricing system, although Fairtrade and organic certification schemes had successfully negotiated a mechanism to make premium payments above the standard export price. Rainforest Alliance was able to build its relationship with Cocobod gradually as demand for certified cocoa was initially mostly focused on Côte d'Ivoire.

In Côte d'Ivoire, the cocoa sector had been liberalized in the 1990s and its cocoa board dismantled. The sector thereafter operated mainly through private traders, although three government bodies still provided the regulatory framework. In Côte d'Ivoire as in Ghana, the government was concerned to know what

certification bodies intended and specifically what benefits they would bring to farmers.

Developing locally-relevant guidelines

The Sustainable Agriculture Network Standard is interpreted in local guidelines developed through stakeholder consultation to ensure it is aligned with the social, political and legal context of each particular country and crop. RA convened workgroups including representatives from government, producers, civil society organizations and the private sector to define and publish guidelines in Côte d'Ivoire and Ghana – a process that also helped build understanding of the standard among key stakeholders.

Examples of how the interpreted standard has additional value for cocoa farmers include recommendations for shade trees that led to groups setting up nurseries, interpretation of local hunting traditions in the light of the standard's ban on hunting, and evaluating how to calculate payments to workers in the traditional share-cropping system.

As the project scaled up, so did the debate in the cocoa sector generally about sustainability. The main issue on which everybody united was that low productivity was the single biggest impediment to long-term sustainability – and the largest factor in determining farmer income. RA had a project target of increasing productivity by 25 per cent through training in good agricultural practices and other social and environmental sustainability practices. In 2011, RA began work on a set of specific criteria for what it called 'sustainable yield' – that is, productivity increases that could be maintained over a long period without adversely affecting the soil or other key production factors. The first draft of a

set of recommended practices was developed in close consultation with experts from Mars and from other key players in the industry, and is being refined and tested in a pilot project in Côte d'Ivoire.

During 2009 and 2010, RA also held extensive consultations that resulted in additional criteria for climate change mitigation and adaptation. In 2011 it signed an agreement with a leading trading company, Olam, to pilot climate-friendly farming in Ghana.

Building a services market for training

The project envisioned a system that would enable a large number of trainers to deliver the RA training curriculum and help establish internal management systems (both farmer organizations and certified entities).

Initially, certification training had been delivered through international funding programs. In order to empower local farmers with a market-based approach, RA looked to develop a market of approved trainers, allowing local producers and companies to access the certification training directly, without passing through RA. RA employed a representative to build and manage relations with governments and other stakeholders, support initiatives and oversee the organization and quality of training and technical assistance. Many supply chain companies trained their technicians in the RA standard, so that they could directly deliver technical services to the producer groups.

RA played a seminal role in efforts to build local institutional capacity in sustainable cocoa farm management, in particular through the Certification Capacity Enhancement project.

Recognizing that all certification programs were growing in West Africa and that training institutions and farmers lacked experience in sustainable practices, RA promoted the project, which Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH subsequently took on and managed, to develop a common training course for all certifications. The purpose was to deliver services more efficiently to farmers and enable the government extension services in Ghana and Côte d'Ivoire to be given basic training. RA continues to take initiatives in capacity building. In 2011, it put a training course for trainers online, initially in English, covering all the practices of the SAN standard, using video and culturally adapted photographic materials. The team plan to make it available soon in French, and to incorporate a quality control system.

Training auditors

West Africa as a region was relatively new to voluntary certification. Unlike Latin America, where organic and other certification schemes had been common for many years, West Africa had no established base of trained farm and enterprise-level auditors. Just as with trainers, building this local capacity was critical for both the longevity and cost-effectiveness of scaling up RA's certification effort. Local capacity was also critical for improving quality: auditors from the same region understand local farmers' reality better than any outsider, can often make more informed judgments about a farm's management, and generally be of more value to the farmer. Auditor training courses were held in Ghana and Côte d'Ivoire and gradually a group of West African auditors was accredited by SAN. The first, an Ivorian woman, subsequently became

RA's representative in Côte d'Ivoire and RA supported her in forming the country's first NGO specializing in sustainable cocoa, called CEFCA (*Centre d'Etudes, Formation, Conseils et Audits*).

Reaching unorganized farmers

RA assumed that it would work through existing cocoa producer organizations in West Africa, which had been growing in recent years. Some of these were already working with Fairtrade. The largest was Kuapa Kokoo in Ghana, with over 40,000 members; the largest in Côte d'Ivoire was Kavokiva with 4,000 members. The project also aimed to identify and strengthen other groups besides co-operatives. Producer organizations were especially important in Côte d'Ivoire because they could trade further up the supply chain, thus reducing their members' dependence on exploitative local traders. It was the trading companies that co-ordinated access to training in certification practices. They selected their suppliers in the co-operative sector for certification, based on their experience in dealing with them.

Although RA planned to work with farmer organizations wherever possible, it recognized that it needed strategies to reach the vast majority of cocoa farmers who were still not organized into formal structures. As the project developed, it began to plan how to reach unorganized farmers through less formal structures, such as traditional authorities who organize much of community life; local government; and existing initiatives such as the Farmer Field Schools promoted by the Sustainable Tree Crops Program.

The plan to work with unorganized farmers was accelerated in 2009 as it became clear that Rainforest Alliance certification would achieve mainstream scale in the industry. The commitments made by Unilever, Kraft and Mars alone in 2009 were for an annual purchase of 150,000 tons of certified cocoa, and these companies only had around 20 per cent of the chocolate market between them.

In Ghana, the majority of farmers do not sell their cocoa through producer groups. To pilot ways of reaching these unorganized farmers, the project worked with a society established by an input company, whose distribution centers were also used to train farmers and collect their cocoa. In addition, it worked with an informal group set up under a project structure, in which the partner NGO made the application and held the certificate on the farmers' behalf. However, opportunities for growth were limited, especially as the largest producer group (Kuapa Kokoo) did not adopt Rainforest Alliance certification. By 2010, the project was working more directly with the supply chain companies in Ghana, who took charge of organizing farmers and developing internal management systems.

In Côte d'Ivoire, over 80 per cent of farmers sell through trader networks rather than through co-operatives. Local *traitants* are the gatekeepers to the exporter market, sending agents (*pisteurs*) by motorbike to the villages to buy cocoa from individual farms. Even when farmers are organized into co-operatives, the *traitants* may be involved. Many farmers, if offered a better price, bypass agreements made

with the co-operative and sell directly to the *traitants*. Both co-operatives and *traitants* sell their cocoa to exporters in Côte d'Ivoire, of which the most important are international companies.

The exporters have long offered pre-financing to co-operatives in Côte d'Ivoire to cover their needs before the harvest. They have now added further financing to meet the costs of training and auditing services, taking the risk that the farmers might not always sell the certified cocoa to their traders and hence that they would not reap any return. The increasing market demand for certified cocoa put them in a bind: if they failed to supply certified cocoa to their main buyers, they risked being cut out of profitable supply chains entirely.

Given the limited number of farmer groups, RA and the exporters began to consider how to apply the certification systems to the local intermediaries who bought from unorganized farmers and sold to the exporters. The major challenge was traceability, as *traitants* routinely mixed beans to achieve an even quality. The project would have to identify *traitants* who were willing to see the benefits and take on the additional responsibilities and costs.

This new model would not create genuine producer groups rooted in their communities; the groups would be informal and function mainly to fulfill certification requirements. But it would offer higher prices and improved management practices to a much larger group of farmers and as such would promote the concept of sustainability as a core practice in the sector.

Reducing costs for farmers

The cost of certification has three distinct elements: 1) training and setting up the internal management system, 2) investments on the farm to improve practices, and 3) costs of the audit and certification process. Training and audit costs are usually too high for co-operatives to pay for upfront, even though certification could bring substantial income benefits later on. Some of the growing practices required by the SAN Standard do not offer immediate returns through improvements to yield or quality. In Ghana, too much shade was a difficult issue. Government trials found declines in yields of 30 to 50 per cent at shade levels slightly below the SAN Standard, compared to a no-shade system (Sustainable Food Lab *et al.*, 2009). The SAN Standard also required other initial investments, notably water resource management, buying personal protective equipment for the mixing and application of pesticides, and improving housing conditions, which were intended to improve social conditions and so would not necessarily be offset by improved economic returns.

In order to reduce the costs and make training more accessible, RA encouraged collaboration, both through the common curriculum of the Certification Capacity Enhancement project and by recognizing the common foundation learning in the Sustainable Tree Crops Program (STCP). It offered shorter certification training for farmers who had taken the STCP course than for those starting from scratch.

Rainforest Alliance also reduced farmer costs by changing the fee structure for certification. Whereas farmers and co-operatives had previously paid an annual fee, in 2010 RA shifted responsibility to the supply chain; traders who purchased Rainforest Alliance-certified cocoa needed to pay a volume-related royalty.

Increasing benefits to farmers

The most visible benefit of a certification program is usually price premiums, but broad experience has shown them to be less important than improvements in quality and yields. Premiums can add a percentage to the farm gate price, but perhaps only for a small percentage of the crop if there is not enough demand for the certified product, whereas an increase in yield gives the farmer greater sales overall. Certification premiums depend on market trends whereas quality and volume improvements offer concrete and long-lasting value on the farm. RA's training in agricultural practices seeks to help farmers maximize sustainable yields from their cocoa trees. A 2009 study by the consultancy GIZ found that West African farmers expressed satisfaction with increased yields. REF?

In Ghana, the average yield per hectare for all farmers had been around 300–450 kilograms, which was below the global average of 560 kg/ha and lower than research trials suggested was possible. The government provided subsidized fertilizer and pesticides, but many farmers did not use them, or did not use the recommended amounts, or did not use them in the right way at

the right time. Research showed that using the recommended amounts of fertilizer could increase yields by 21 per cent for traditional varieties of cocoa (Edwins and Masters, 2005, cited in Sustainable Food Labs *et al.*, 2009). Ghana had also launched a program to encourage the adoption of new and higher-yielding hybrids; yields increased by 51 per cent when farmers switched to the new varieties, even without applying fertilizer (see Daniels *et al.*, 2012). Controlling pests and diseases could also reduce cocoa losses to insects, black pod disease and swollen-shoot virus, but farmers rarely invested in pesticides and fungicides or spent sufficient time controlling the weeds and mistletoes that harbored pests.

In general, low cocoa incomes and a dwindling workforce explain farmers' poor maintenance of cocoa crops. Farmers lacked the incentive and the resources to invest in inputs for their farms. The result was dramatically lower yields, and a decline in bean quality. Rainforest Alliance, like other initiatives, looked to increase income across the whole farm and to increase motivation through training and better market connections, to give farmers the ability and the incentives to invest in their farms.

The project initially proposed increasing farmer benefits through supplementary income, for instance by growing complementary crops. It did not pursue this approach, however, except for some isolated initiatives such as planting *Allanblackia* trees (which produce an edible oil) on Ghanaian cocoa farms in collaboration with Unilever. As the project progressed, interest grew in the possibility of monetizing the contribution to carbon sequestration from farming methods that incorporate tree planting. The carbon market is not yet developed for agriculture, and accurately quantifying the ability of cocoa production systems to contribute to carbon sequestration is still at an experimental stage. In 2011, RA began a project with the trading company Olam to promote additional climate-friendly farming practices with a group of farmers in Ghana's Western Region and to test the concept of generating value from the carbon emissions reduction potential offered by cocoa farms.

“The carbon market is not yet developed for agriculture, and accurately quantifying the ability of cocoa production systems to contribute to carbon sequestration is still at an experimental stage.”

7

Taking stock: successes and challenges

As the project neared its conclusion in 2011, it had been remarkably successful in certifying farmers on a large scale. It has also been successful in farmer training, piloting a new trader-centered model for traceability, transferring responsibility for training to a market-based system, and taking sustainability in the cocoa and chocolate industry into the mainstream, with some major brands bearing the frog seal.

Cocoa certification has grown fastest in Côte d'Ivoire. By mid-2010, there were 15,872 newly certified farmers, who between them could have produced 42,798 tons of certified cocoa. Actual traded volumes were much lower, as high prices convinced many farmers to sell their crops in the conventional market. The spread of certification was slower in Ghana, but approximately 2,000 farmers were already a year or more into the training process and were expected to achieve certification soon.

Farmers enjoyed upgraded skills, stronger organizations, and healthier farms. They knew more about safely handling chemical inputs, and more children were able to attend school. Four 'training of trainers' sessions had been conducted, and 24 local trainers in Ghana and Côte d'Ivoire had been selected. Farmer organizations had established internal management systems, and the farms were more environmentally sound with many more shade trees.

The private sector, motivated in part by the scarcity of certified cocoa, was taking on the costs of RA training and the annual audit. Groups selling certified cocoa benefited from this market dynamic, selling their beans for an average premium of \$200/ton in the 2009–10 season, with a similar outlook for 2011.

On the world market, total volumes of certified cocoa have grown significantly since the start of the project, fueled in part by new public commitments to sustainable sourcing by a number of large chocolate manufacturers. Certification schemes have made great strides in penetrating the mainstream cocoa and chocolate markets, including several major commitments to Rainforest Alliance cocoa from large brands:

- Unilever committed to sourcing the Magnum brand's chocolate with RA-certified cocoa (a commitment that became public in 2010).
- Mars, Inc. committed in April 2009 to buy 100,000 tons of certified cocoa annually by 2020, of which RA estimated half would be of West African origin (in 2011, Mars also announced the conversion of the Dove dark chocolate range in the USA).
- Kraft launched *Côte d'Or* with the RA seal in September 2009, and in October committed to buying 30,000 tons of certified cocoa annually by 2012; RA estimated that 80 per cent of this cocoa would come from West Africa.
- Several smaller chocolate companies made new product launches using the RA seal, including Newman's Own, Vosges, Endangered Species (USA) and Lotte (Japan) – while other companies made commitments that are not yet in the public domain.

The available volume of certified cocoa more than doubled from 2009 to 2010, accounting for 3 per cent of global production (TCC, 2010).

At the same time, however, growth brought pressure on human resources. Traders and producer groups expected fast, low-cost service

and RA was not always able to provide it. Over-stretched auditors were sometimes slow in delivering reports, or not available to undertake audits when required. Client sometimes had unrealistic expectations about the time needed for scheduling audits and for preserving the integrity of the audit and evaluation process. This difficulty, aggravated by civil war in Côte d'Ivoire in 2010–11, remains a challenge and a source of tension with trading companies. In 2011, RA opened an audit office in Accra and appointed a customer services officer there to expedite audit processing. It also began an exporter forum to enable discussion on difficulties to take place in a non-competitive environment, so that common difficulties could be understood and addressed.

Assessing the impact on farmers

By 2011, the governments of Ghana and Côte d'Ivoire were comfortable with certification's operations, although both were still anxious to quantify the net economic benefit to the farmer. Rainforest Alliance and other project partners were confident that certification could lead to improved incomes for farmers, and to a variety of social and environmental benefits for their families and farms. From the beginning of the project, they planned to test these assumptions through rigorous data collection and analysis.

This assessment was partially successful in Côte d'Ivoire, where the partners had invested the bulk of the initial effort. The Committee on Sustainability Assessment (COSA) methodology was used, starting with a baseline study in 2009 that quantified the costs of implementing best management practices and collected relevant social and economic data in cocoa-producing communities. By comparing

certified and non-certified farms, the study aimed to determine whether certification was delivering a net financial benefit for farmers, over and above any qualitative benefits that had been observed. Follow-up data collection was completed in March 2012, adding an important longitudinal dimension to this analysis.

In 2009, 197 farms in Côte d'Ivoire were surveyed. Of these, 102 farms were Rainforest Alliance Certified (the 'treatment group') and 95 farms (the 'control group') were not. Using a robust sampling framework, the uncertified farms were selected for having similar characteristics to the certified farms. At the time of the sampling, the majority of the farms in the treatment group had only become certified within the last two years and some were still in the process of finalizing their certification. In 2012, a total of 252 farms from the same co-operatives were surveyed using the same methodology. Of these, 117 were Rainforest Alliance certified and 135 were not. This increase in observations from the 2009 baseline improved the statistical strength of the results.

While it was difficult to substantiate claims about the effect of Rainforest Alliance certification across the value chain and at the country level from just two sets of observations and modest sample sizes, there was enough data (and good confidence levels) to suggest that RA's certification, in selected sub-regions of Côte d'Ivoire, was indeed contributing positively to the improved sustainability of the farms and farmers who were applying it. This determination was based on standardized indicators, matched controls for comparisons, and longitudinal assessment based on two points in time (2009 and 2012). Compared to their uncertified counterparts, RA-certified farmers showed

substantial improvements in indicators such as yields, net income, training, community participation, and use of soil and water conservation measures. In particular, certification was associated with a positive effect on yields per hectare, with yields of certified farmers (576 kg/ha) appearing to be 70 per cent higher than those of non-certified farmers (334 kg/ha) in 2012. Certification was also seen to have a positive impact on farmers' revenue with that of those certified appearing to be 72 per cent higher (US\$922/ha) than that who were non-certified (US\$542/ha) in 2012. Farmer revenue per hectare was closely tied to increased yields – the price received by certified farmers was not significantly different from that received by non-certified farmers. The study concluded that the major driver of economic benefit had been productivity rather than price.

Certified farms also showed improved social outcomes with higher rates of school attendance, greater access to water, more training opportunities and increased participation in community infrastructure projects. Even in the earlier stages of the project, farmers perceived that certification had made a positive difference. Sixty-seven per cent of certified farms reported that their economic circumstances had improved in the last production year over the previous one, compared to only 26 per cent of control farms. These preliminary results showed some promising trends, and demonstrated buy-in from the farmers.

There were also some unexpected findings that require further study. For some important social and economic indicators, including yield and revenue, the difference between certified and non-certified farms decreased between 2009 and 2012. It appeared that the uncertified farmers were narrowing the performance gap with certified farmers. This offers potential insights into the impact of certification processes and could even suggest new ways to improve broad-scale application of sustainability initiatives. Cote d'Ivoire experienced a tumultuous civil war between the 2009 and 2012 surveys. It had been assumed that the war would affect both groups equally as they were similar in many respects, but there may have been some hidden factor that caused the war to affect certified producers more than non-certified producers (Box 3). Alternatively, non-certified farmers might have been learning from certified ones through some spillover effect, thus improving their relative performance over time.

There were a number of limitations in quantifying the true net impact on farmers. The COSA methodology did not use backward-looking questions, so it was only possible to assess the situation of the farmers starting in 2009, at which point some had already been influenced by the certification process. Without establishing a baseline before any technical assistance for certification was delivered, costs taken up before certification were not captured – and these tend to be the highest costs involved in complying with the SAN standard. The team saw these as important lessons to bring into future impact evaluation studies.

Box 3. Diversification to reduce vulnerability to political instability

At the start of the project, political instability in Côte d'Ivoire seemed to be subsiding. But in late 2010 a disputed national election led to violent protests that continued through the cocoa season. Many farmers suffered as a result. Audits were suspended. Some farmer co-operatives lost equipment such as motorbikes and computers, causing delays in their recovery and in their ability to resume audits. RA recognized the difficulty of the situation, and introduced some flexibility into its certification rules. The political turmoil resulted in the Ivoirian government imposing a ban on all cocoa exports for an unspecified length of time.

For other players in the supply chain, the embargo was also costly. Companies that had committed to sourcing Rainforest Alliance Certified cocoa were left without enough suppliers, and the temporary loss of the world's major cocoa supplier caused shortages everywhere. In response, companies that were already beginning to diversify their sourcing accelerated their interest in neighboring countries for certified cocoa. RA secured the Gates Foundation's permission to expand the project to Sierra Leone, Nigeria and Cameroon, and in 2010 RA's cocoa program manager started visiting those countries to establish relationships and develop a strategy for moving forward.

Reflections and lessons learned

Back at Unilever, the project was viewed as a clear commercial success. In mid-2011 the company launched a branded 'Ghana Cocoa' ice cream bar in Europe. It featured a Rainforest Alliance Certified milk chocolate shell (with 36 per cent cocoa) around hazelnut ice cream. The Magnum brand enjoyed positive press and good reviews for Ghana Cocoa and a similar product launched at the same time featuring Rainforest Alliance Certified Ecuadorian cocoa.

The company also announced targets to use sustainably sourced cocoa for the entire Magnum line by 2015, and for all other cocoa by 2020. Cocoa accounted for just 4 per cent of Unilever's agricultural raw materials, but given the company's scale this represents a meaningful share of the global cocoa market.

Along with sustainable sourcing commitments, Unilever agreed to work with Rainforest Alliance to track the impact on farmers. This would include a broad range of areas: health and education, women's empowerment, family welfare, farm performance, and protection of the environment.

Among the key lessons learned by the Rainforest Alliance team and the New Business Models partners were that:

- Demand can be built very quickly, but there are limits to how fast supply can be scaled up to meet it. Successful new business models require close collaboration across the supply chain so that tensions between demand and supply growth can be smoothed.
- Local traders could serve as catalysts and funders of certification, allowing schemes to be scaled up more rapidly than would otherwise be possible, and providing more durable trading relationships throughout the supply chain, but especially between farmers and global buyers.
- Improved productivity is essential to increase benefits to farmers. Complementary crops are vital for food security and income diversification and trees are essential for stabilizing the ecosystem. In the future, carbon sequestration services might deliver additional financial benefits.
- Using a common curriculum and increasing the sustainability expertise of existing institutions, agronomists and extension staff made it possible to lower the cost of certification by decreasing the cost of training.
- Geographical diversification of projects can help protect global buyers, e.g. major chocolate manufacturers and brands, against country risks such as political instability and quality variances.
- Evaluating the costs and benefits of certification is challenging. The project needed to build in-country capacity to conduct third-party evaluation. A study needs to be carefully designed if it is to provide empirical evidence of a connection between best management practices and certification benefits.

“Demand can be built very quickly, but there are limits to how fast supply can be scaled up to meet it. Successful new business models require close collaboration across the supply chain so that tensions between demand and supply growth can be smoothed.”

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- Anniek Mauser, Director of Sustainability, Benelux Countries, Unilever
- Christian Mensah, Project Leader, Agro Eco – Louis Bolk Institute (Rainforest Alliance representative in Ghana)
- Edward Millard, Director, Sustainable Landscapes, Rainforest Alliance
- Eric Servat, Senior Program Manager, Cocoa, Rainforest Alliance
- Don Seville, Co-Director, Sustainable Food Laboratory

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- Internal reports
- Reports to funders
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