# Contents

## 1.0 Executive Summary

## 2.0 Background

2.1 Tea Markets and Value Chain

2.2 Sustainability Challenges of Tea Production

2.3 Commodities Market Transformation

2.4 Sustainable Agriculture at Unilever

## 3.0 Case study

3.1 Taking on the Mainstreaming Challenge

3.2 Hitting the Road

3.3 Reaping Results in the Market

3.4 Challenges Ahead
Chapter 1
Executive summary

‘Unilever’s commitment to fully convert to certified sustainable tea sent a powerful signal to the supply chain that certification was now a market reality.’

Edward Millard, Rainforest Alliance

Commodity value chains around the world are increasingly stressed; some even face severe and dire circumstances. This is due to myriad social, environmental and economic challenges linked to the finite nature of natural resources and rapidly growing populations.

These pressures threaten not only the raw material supply for key industries such as food & beverage and textiles, but also the livelihoods of tens of millions of people and the natural resources they depend on. For this reason, companies, NGOs, and governments are actively seeking solutions to render commodity value chains more sustainable.

Tea – production, processing and consumption – is one of the commodity value chains in question. This case, the first of IDH’s Market Transformation case series, documents a groundbreaking initiative by Unilever, the Anglo-Dutch food & beverage company, to make its own tea value chain sustainable. This initiative started with the popular Lipton and PG Tips brands in specific countries and is gradually rolling out in other regions of the world.

By reading this case study, business executives and other stakeholders will learn from Unilever’s journey in multiple ways. The company, recognising that no single entity can solve the complex issues around conversion of the tea value chain on its own, entered into a partnership with the Rainforest Alliance. Through Rainforest Alliance certification of tea plantations, the partnership has accelerated a transformation to sustainable Unilever tea products. Concurrently, they have built an effective, groundbreaking approach to communicating this shift effectively to tea-drinkers without undermining its consumer base. The lessons learned from building the partnership and the “win-win” outcomes for the players involved are carefully extracted and reported in the case.

An innovative communications and marketing strategy that enabled the company to successfully link sustainability to mainstream brands (as opposed to the more usual “niche” approach) is also documented.
The case emphasizes both the intangible (e.g., brand/reputation) and tangible (e.g., supply chain security) business benefits that drove Unilever’s value creation strategy. As such, it is an excellent example of how companies, by carefully building multi-dimensional business cases for sustainability and strategic execution plans that account for the specific challenges of sustainability and partnerships, can grasp opportunities and forge new markets. It shows how companies can become first movers and leaders in contributing to more sustainable business models, while simultaneously ensuring the financial and longer-term sustainability of their core business.

Most interestingly in this case, the moves made by Unilever have had a knock-on effect of contributing to a “tipping point” for sustainability in the tea sector. As a direct result of Unilever’s initiatives, several other major companies and brands followed in Unilever’s footsteps and are certifying their own tea supply chains. This has happened without the loss of business benefits to Unilever, implying that the business rationale was founded on more than a “first mover” competitive advantage. Thus, the case documents the first tangible framework of this “systems solution” to the complex sustainability dilemmas around tea production.

Although excellent and leading examples of certification initiatives have existed for some time, this may be the first time that such a partnership will succeed in impacting an entire commodity value chain far beyond the activities of the actual company involved.

To accelerate momentum towards the requisite “sustainability tipping points” across commodity value chains, it is vital that such cases enter mainstream business thinking, reflection and learning. To attain this objective, this case, and forthcoming “market transformation” best practice examples, will be converted to a series of teachable cases used in the core curriculum of IMD business school, other academic institutions and in company training programs. This case is already an integral part of an annual Masterclass Workshop for mainstream managers in companies linked to commodity value chains that is run by IMD in partnership with the Sustainable Agriculture Initiative Platform (SAI Platform) and the Dutch Sustainable Trade Initiative.
Chapter 2
Background

‘Like any tropical crop, tea raises a number of environmental and social issues, each with a cost/benefit balance that can be tipped in a positive way.’

Rainforest Alliance, Sustainable Tea brochure

Historically, the tea market has shown a persistent state of oversupply, which has kept a downward pressure on prices. Even though falling prices might sound like good news for tea consumers, they represent a threat to the long-term economic health of the industry.

Low margins and underinvestment jeopardize productivity and quality and act as barriers to the improvement of the working conditions and livelihoods of growers, creating a downward spiral that make it hard for the sector to act in a more sustainable manner.

Unilever is the world’s largest tea company. It purchases around 12% of the world’s total tea production and is vertically integrated in the value chain, being present from the production site all the way to commercialization. Therefore, the company is strategically placed to be the catalyst for transformation in the industry and has laid the foundation for large-scale social and environmental improvements while attempting to reverse the commoditization trend of the tea market.

Tea Markets and Value Chain

In 2008, black tea accounted for approximately 65% of global production and 80% of global trade. India, Kenya and Sri Lanka were the biggest world producers of black tea, while green tea was mainly grown in China. The two biggest producers, China and India, were also major tea consumers and their domestic markets accounted for over half of global consumption. Consumption in non-producing countries was led by the European Union, Russia, North Africa, Japan and North America. Western Europe and North America together accounted for approximately 10% of total tea consumption. The UK was the largest tea consumer within Europe, with a market share of 63%. Figure 1 shows data on major tea production and consumption countries.

Significant future growth and improvements in market fundamentals are expected in the global tea market and are supported by FAO projections from Spring 2010 (see box 1).
Future growth in the tea market will partly come from the strengthening of trends that have already emerged in the market, such as consumers moving away from other drinks to tea due to the wide range of value-added products, for example ready-to-drink fruit and flavored teas, expansion of the green-tea market outside Asia and an increasing perception of tea as a healthy beverage. The second growth trail in the tea market is a result of the increase in use of tea bags in developing and emerging markets where most people had traditionally made tea using loose leaves.

**Sustainability Challenges of Tea Production**

Tea plantations are typically located in tropical forest areas within about a dozen countries and "like any tropical crop, tea raises a number of environmental and social issues, each with a cost/benefit balance that can be tipped in a positive way."4

Tea grows year-round and is a labor-intensive crop, employing over 13 million workers – of which around 9 million are smallholders – in the four main producing countries. Tea production in smallholdings is usually combined with other subsistence crops and livestock and has an important role as a cash crop, providing income to pay for food, education and healthcare for the farmers’ families.

Investments and the improvement of agricultural practices in tea plantations have been undermined in the three past decades by commoditization, downward pressure on prices and upward pressure on primary production costs. Poor yields and quality have led to high vulnerability of smallholders’ livelihoods in this labor-intensive crop.

**Box 2. Examples of specific sustainability challenges of tea production in different regions and plantation types.**

Regional differences:

- In Asia pesticides are used on a large scale in tea plantations, while their use in East Africa is minimal.
- HIV/AIDS is a very serious problem among workers on tea plantations in East Africa, while water-related infectious diseases and malnutrition is of high concern in tea plantations in Sri Lanka and India.
- In India, most workers in large plantations have access to basic facilities such as housing, drinking water and sanitation. In Kenya, house-sharing is common on large tea estates that can get overcrowded in peak season when seasonal laborers are employed. In Sri Lanka, most tea workers share rooms in old barracks with no access to (piped) drinking water and proper sanitation facilities.

Large estates have a number of specific challenges:

- High discrimination and gender inequality
- Low representation of workers
- Poor living conditions
- Low wages
- Replacement of permanent workers by casual and temporary ones.

Smallholders also have a number of specific challenges:

- High reliance on tea for livelihood
- Low level of farmer organization
- Lack of land title deeds
- Lack of market information, market access and (technical) training
- Low productivity and low prices versus high production costs

Commodities Market Transformation

The term “commodity market transformation” refers to a deep change in the way a commodity market works, with the goal to induce lasting changes that enable a whole industry to do “much more” and “much better” with “much less.” Influencing and changing market behavior is not a new idea, but as a systemic strategy to promote the production, distribution, commercialization and use of more sustainable commodities, it is still in its early days.

Successful market transformation of commodities requires the collective effort of different stakeholders throughout the entire value chain. The key aspect of commodity market transformation is the removal of market barriers that inhibit the production and commercialization of sustainable agricultural raw materials while creating value for farmers, manufacturers, traders, front-running brands, retailers and consumers.

The Dutch Sustainable Trade Initiative (IDH) uses a maturity model – developed by NewForesight – for market transformation, based on initial research with different commodity sectors and characterized by four phases:

“In the first phase, there is no common vision on sustainability and only fragmented initiatives by first-movers. In the second phase, there are compelling success stories and the first-movers bundle their forces in multi-stakeholder platforms which pull others along. In the third phase, there are several standards in place but first-mover advantage is diminishing. Unless harmonization takes place, rivalry may result in loss of momentum. In the fourth and last phase, sustainability becomes institutionalized in the public domain and it has become a license to operate.”

Today the tea industry is in the early stages of the critical mass phase, as shown in figure 3, as a result of Unilever’s innovative initiative and its subsequent adoption by several other major companies and brands.

Sustainable Agriculture at Unilever

Over the years, Unilever has developed a strong corporate reputation in sustainability management in general, as demonstrated by its nomination in 2010, for the 12th consecutive year, as the food industry category leader in the Dow Jones Sustainability World Indexes. It is recognized among industry peers and a diversity of stakeholders as a pioneer in addressing sustainability issues, including sustainable agriculture, from a strategic business perspective, linking it both to product branding and supply chain management.

Unilever established a sustainable agriculture program in the 1990s. At that time, it developed guidelines for sound agricultural practices for key crops. Indicators covering the three aspects of the “people, profit and planet” view of sustainability – such as water, energy, pesticide use, biodiversity, social capital, working conditions, workers livelihoods and animal welfare – were incorporated into contracts with growers. The guidelines were developed in consultation with key stakeholders and extended to suppliers through various tools such as regular buying visits, self-assessment questionnaires and close monitoring of high-risk suppliers.

In 2005, social and environmental considerations were brought into product brand innovation and development plans using a process called Brand Imprint. In 2009, Unilever launched a new corporate vision to double the size of the business while reducing overall environmental impact across the entire value chain. In April 2010, guidelines for best agricultural practices were converted into a sustainable agriculture code that set out Unilever’s expectations for agricultural suppliers in terms of integrated farming principles to optimize yield while minimizing environmental impacts.

As highlighted in Unilever’s corporate report on sustainability: “Sustainable sourcing not only helps us manage a key business risk, it also presents an opportunity for growth, allowing our brands to differentiate themselves to the growing number of consumers who choose products based on their sustainability credentials.”

Unilever is strongly placed in the global tea market with three leading brands. Lipton, one of Unilever’s 13 major global brands, is the global market leader in both leaf and ready-to-drink tea, with a market share nearly three times larger than its nearest rival. It is present in 110 countries with sales that achieved €3 billion in 2009. Lipton’s main markets are Western Europe, North America, the Middle East and parts of Asia. PG Tips is one of the two market leaders in the UK, with a market share of 25% and consumers drinking over 35 million cups per day. In India, a market that consumes approximately 25% of the tea Unilever sells worldwide, Unilever is also the market leader (for packed tea), with the brand Brooke Bond.

Unilever generated more than half of its turnover in developing and emerging markets in Asia, Africa, Central & Eastern Europe and Latin America. The company’s portfolio is composed of 400 core brands and nearly 75% of sales are generated by its top 25 brands, including Knorr, Rexona, Dove, Hellmann’s, Flora/Becel and Lipton.

In 2009, Unilever generated €39 billion, invested over €5 billion in R&D and employed around 163,000 people. It operates in 170 countries and directly employs 163,000 people. The Anglo-Dutch company describes itself as “a multi-local multinational” with consumers, customers, suppliers and shareholders on every continent.” In 2009, Unilever generated more than half of its turnover in developing and emerging markets in Asia, Africa, Central & Eastern Europe and Latin America. The company’s portfolio is composed of 400 core brands and nearly 75% of sales are generated by its top 25 brands, including Knorr, Rexona, Dove, Hellmann’s, Flora/Becel and Lipton.

Unilever’s expectations for agricultural suppliers in terms of integrated farming principles to optimize yield while minimizing environmental impacts.

As highlighted in Unilever’s corporate report on sustainability: “Sustainable sourcing not only helps us manage a key business risk, it also presents an opportunity for growth, allowing our brands to differentiate themselves to the growing number of consumers who choose products based on their sustainability credentials.”

Unilever is strongly placed in the global tea market with three leading brands. Lipton, one of Unilever’s 13 major global brands, is the global market leader in both leaf and ready-to-drink tea, with a market share nearly three times larger than its nearest rival. It is present in 110 countries with sales that achieved €3 billion in 2009. Lipton’s main markets are Western Europe, North America, the Middle East and parts of Asia. PG Tips is one of the two market leaders in the UK, with a market share of 25% and consumers drinking over 35 million cups per day. In India, a market that consumes approximately 25% of the tea Unilever sells worldwide, Unilever is also the market leader (for packed tea), with the brand Brooke Bond.

In 2005, social and environmental considerations were brought into product brand innovation and development plans using a process called Brand Imprint. In 2009, Unilever launched a new corporate vision to double the size of the business while reducing overall environmental impact across the entire value chain. In April 2010, guidelines for best agricultural practices were converted into a sustainable agriculture code that set out Unilever’s expectations for agricultural suppliers in terms of integrated farming principles to optimize yield while minimizing environmental impacts.

As highlighted in Unilever’s corporate report on sustainability: “Sustainable sourcing not only helps us manage a key business risk, it also presents an opportunity for growth, allowing our brands to differentiate themselves to the growing number of consumers who choose products based on their sustainability credentials.”

Unilever is strongly placed in the global tea market with three leading brands. Lipton, one of Unilever’s 13 major global brands, is the global market leader in both leaf and ready-to-drink tea, with a market share nearly three times larger than its nearest rival. It is present in 110 countries with sales that achieved €3 billion in 2009. Lipton’s main markets are Western Europe, North America, the Middle East and parts of Asia. PG Tips is one of the two market leaders in the UK, with a market share of 25% and consumers drinking over 35 million cups per day. In India, a market that consumes approximately 25% of the tea Unilever sells worldwide, Unilever is also the market leader (for packed tea), with the brand Brooke Bond.

In 2005, social and environmental considerations were brought into product brand innovation and development plans using a process called Brand Imprint. In 2009, Unilever launched a new corporate vision to double the size of the business while reducing overall environmental impact across the entire value chain. In April 2010, guidelines for best agricultural practices were converted into a sustainable agriculture code that set out Unilever’s expectations for agricultural suppliers in terms of integrated farming principles to optimize yield while minimizing environmental impacts.

As highlighted in Unilever’s corporate report on sustainability: “Sustainable sourcing not only helps us manage a key business risk, it also presents an opportunity for growth, allowing our brands to differentiate themselves to the growing number of consumers who choose products based on their sustainability credentials.”

Unilever is strongly placed in the global tea market with three leading brands. Lipton, one of Unilever’s 13 major global brands, is the global market leader in both leaf and ready-to-drink tea, with a market share nearly three times larger than its nearest rival. It is present in 110 countries with sales that achieved €3 billion in 2009. Lipton’s main markets are Western Europe, North America, the Middle East and parts of Asia. PG Tips is one of the two market leaders in the UK, with a market share of 25% and consumers drinking over 35 million cups per day. In India, a market that consumes approximately 25% of the tea Unilever sells worldwide, Unilever is also the market leader (for packed tea), with the brand Brooke Bond.

In 2005, social and environmental considerations were brought into product brand innovation and development plans using a process called Brand Imprint. In 2009, Unilever launched a new corporate vision to double the size of the business while reducing overall environmental impact across the entire value chain. In April 2010, guidelines for best agricultural practices were converted into a sustainable agriculture code that set out Unilever’s expectations for agricultural suppliers in terms of integrated farming principles to optimize yield while minimizing environmental impacts.

As highlighted in Unilever’s corporate report on sustainability: “Sustainable sourcing not only helps us manage a key business risk, it also presents an opportunity for growth, allowing our brands to differentiate themselves to the growing number of consumers who choose products based on their sustainability credentials.”

Unilever is strongly placed in the global tea market with three leading brands. Lipton, one of Unilever’s 13 major global brands, is the global market leader in both leaf and ready-to-drink tea, with a market share nearly three times larger than its nearest rival. It is present in 110 countries with sales that achieved €3 billion in 2009. Lipton’s main markets are Western Europe, North America, the Middle East and parts of Asia. PG Tips is one of the two market leaders in the UK, with a market share of 25% and consumers drinking over 35 million cups per day. In India, a market that consumes approximately 25% of the tea Unilever sells worldwide, Unilever is also the market leader (for packed tea), with the brand Brooke Bond.

In 2005, social and environmental considerations were brought into product brand innovation and development plans using a process called Brand Imprint. In 2009, Unilever launched a new corporate vision to double the size of the business while reducing overall environmental impact across the entire value chain. In April 2010, guidelines for best agricultural practices were converted into a sustainable agriculture code that set out Unilever’s expectations for agricultural suppliers in terms of integrated farming principles to optimize yield while minimizing environmental impacts.

As highlighted in Unilever’s corporate report on sustainability: “Sustainable sourcing not only helps us manage a key business risk, it also presents an opportunity for growth, allowing our brands to differentiate themselves to the growing number of consumers who choose products based on their sustainability credentials.”

Unilever is strongly placed in the global tea market with three leading brands. Lipton, one of Unilever’s 13 major global brands, is the global market leader in both leaf and ready-to-drink tea, with a market share nearly three times larger than its nearest rival. It is present in 110 countries with sales that achieved €3 billion in 2009. Lipton’s main markets are Western Europe, North America, the Middle East and parts of Asia. PG Tips is one of the two market leaders in the UK, with a market share of 25% and consumers drinking over 35 million cups per day. In India, a market that consumes approximately 25% of the tea Unilever sells worldwide, Unilever is also the market leader (for packed tea), with the brand Brooke Bond.
‘We were formidably placed to win; both as a first mover, and as the catalyst of an industry-wide transformation.’

Michiel Leijnse, Unilever

Three years earlier, Leijnse and Birch had embarked on an exciting journey. It all started with Lipton’s decision to source all its tea for teabags from Rainforest Alliance Certified farms. The two executives found themselves in the driving seat of an ambitious market transformation effort.

The first year of roll-out brought quick wins in tea supply chains that were supported by already existing capacities in Lipton’s own tea plantations in Kenya. Years two and three were marked by sturdy efforts to extend training and certification to more fragmented parts of the supply chain. The collaboration with the Rainforest Alliance certification program was successful and by mid-2010, there was enough certified tea to ensure that Lipton Yellow Label teabags sold in Western Europe were fully certified.

On the market side, roll-out was faster than expected. The initial strategy of focusing on the Western European market for the first three years was replaced by the keenness of Japan, the US and Australia to accelerate the commercialization of certified tea in their markets.

However, Leijnse and Birch felt that they would encounter significant challenges in the years to come as certification was extended globally. In addition, demand for certified tea was growing exponentially as other major players in the global market followed on Unilever’s path and began to certify their own brands. Unilever was also actively considering the implications of extending the sustainable tea initiative to large tea producer/consumer countries such as India.

Bedford, UK, July 6, 2010. Mark Birch, global category supply manager for Tea at Unilever, summarized on paper his reactions to the thought-provoking conversation he had just had with Michiel Leijnse, global brand development director of Lipton.
same level of sustainability as that achieved in the company’s own tea plantations was still very challenging.

On the other hand, market research showed evidence that sustainability was a growing concern of consumers in key markets and that it could potentially be turned into an effective differentiator factor when effectively communicated to consumers. However, Lipton’s approach to communication about sustainability was essentially low key and since efforts were not visible to consumers, the potential to harvest positive impacts on brand value and on the bottom line were not being realized.

Jan-Kees Vis, global supply chain director of sustainable agriculture at Unilever, explained: “Back in 2005 Lipton was not perceived as a shiny and vibrant brand and was suffering the consequences in the market. The team decided to rebrand the Lipton brand by positioning it as values-driven. During the brand imprint exercise we conclude that sustainability could potentially be an excellent attribute enabling us to engage in a positive dialogue with consumers and to harvest enhanced brand value.”

Leijns voice Lipton’s business case for sustainable tea: “According to market research, 60% of consumers in Western Europe declare that they take social and environmental factors into account when deciding what products to buy. However, they are often discouraged by price and availability. Lipton, as the world’s biggest and best-known tea brand, had an opportunity to break down those barriers and rebuild market share by making sustainability an integral part of the brand promise. Universally available sustainable tea was a sound and sensible long-term business proposition from the brand point of view; and it was also a good deal for tea growers.”

Leveraging Credibility

Credibility was the crucial issue to be addressed to ensure that the link between Lipton’s brand and sustainable tea growing would be successful. Unilever had built a strong track record of keeping in touch with the pulse of the market through solid market research and consultation with key stakeholders. It did this through participation in a variety of platforms, such as the Sustainable Agriculture Initiative (SAI) Platform and the Marine Stewardship Council (MSC). The company realized that consumers would not necessarily buy into Lipton’s self-declared excellence in sustainability. The Brand Imprint team saw support and endorsement from third parties as the answer to the credibility challenge.

In the following months, the Lipton team sought a third-party certification scheme. Fairtrade, UTZ Certified and the Rainforest Alliance Certified were scrutinized. Vis explained the process and criteria used in Lipton’s choice of partner: “By talking to these three organizations, brand managers realized that they should look for the best match between the shadow brand and the new Lipton brand positioning. They looked for answers to questions such as: Does the shadow brand, or certification seal, have consumer recognition? Is there a risk that the certifier’s message would overshadow Lipton’s message? Does the organization have the requisite scale to certify a big supply base? Does it have the organizational flexibility and capacity to certify large estates as well as smallholders?”

The team took about six months to analyze the three certification schemes. Initially, Unilever staff leaned more toward Fairtrade as the certifying scheme of choice. However, during the analysis they concluded that Fairtrade might lack the scale and the organizational flexibility to certify industrial tea estates. At that point, UTZ Certified had very low consumer recognition and was therefore ruled out. Rainforest Alliance Certified, which ensures compliance with Sustainable Agriculture Network standards, turned out to be the best match.

The Rainforest Alliance is an international NGO created in 1987 with the objective of conserving biodiversity and ensuring sustainable livelihoods by transforming land use practices, business practices and consumer behavior. In 2009, the Rainforest Alliance had nearly 300 staff worldwide and an operating budget of US$30 million. The programs developed by the organization are focused on four areas: agriculture, forestry, tourism and climate. The Rainforest Alliance is a founding member of the Sustainable Agriculture Network (SAN), a coalition of conservation groups linking responsible farmers with conscientious consumers by means of certification of sustainable farming practices according to internationally recognized guidelines and auditing procedures. Tea is one of the 21 commodities grown on farms certified by the Rainforest Alliance. Certification requires three levels of sustainability: worker welfare, farm management and environmental protection.

Vis described the reasons for choosing Rainforest Alliance Certified: “Rainforest Alliance certification had modest, but promising, consumer recognition in Europe. It was a nimble organization, quick on its feet. The program was business minded, willing to grow, to invest and to find co-funding for training farmers. It was expanding from its traditional markets and products to better fulfill the mission of protecting rainforests. Its standards for sustainable agriculture measured and assessed the majority of criteria we considered important to sustainability.”

The Mainstreaming Decision

Once the brand team had decided to go along with Rainforest Alliance certification, they decided to seek the green light from Unilever’s top management to mainstream sustainability in tea production. Their proposal was to convert the whole brand to certified sustainable tea, framing the initiative within a larger context of market transformation of the tea industry.

This meant that every product in Lipton’s teabag range would be made with tea from Rainforest Alliance Certified farms, a contrast to the usual approach of bringing sustainable food and beverages to the market by introducing variant brands. Introducing a variant brand generally means creating a niche market, since sustainable products are distinguished from the main product line by certification and higher prices. By definition, niche markets have a limited reach and invariably lead to a situation in which mainstream consumers continue to purchase standard cheaper products. By only making a variant brand sustainable, a company generally brings economic benefits to a small group of farmers but the vast majority of the others do not benefit economically or socially and society does not see a significant environmental improvement. In addition, variant brands have limited capacity to change mainstream brand positioning and create long-term value, as the link between the new attribute and the brand is weak.

But the discussion with Unilever top executives was tough. Lipton brand executives spent five months of one-on-one discussions with internal key decision makers on issues such as the cost of the initiative, the expected returns for Lipton on the income side and the speed to which conversion could be carried out.
In particular, it was a hard battle for the Lipton team to internally sell the crucial point of the mainstreaming strategy: paying a premium to growers for sustainable tea while keeping the retail price unchanged. At that time, they expected to be paying around €2 million in premiums annually by 2010 and €5 million by 2015. If consumers were not ready to pay more for sustainable tea, did it mean that the additional cost would need to be absorbed in the margin, thus reducing profitability? The solution lay on the income side, since additional costs in the supply chain could be recovered through growth in market share that would be a direct result of Lipton’s move to a sustainable brand.

Unilever top executives also questioned the possibility of similar opportunities for market growth being captured by competitors. Because the Rainforest Alliance certified farms and not buyers, once the tea from certified farms was available on the market, it could be sold to other companies. In other words, the Rainforest Alliance would not give exclusivity to Unilever. Thus, if other major tea brands switched to Rainforest Alliance certified tea it would no longer be a competitive advantage factor.

However, the Lipton team was convinced of the positive economic impacts for Unilever if the entire industry were to convert to certified tea. If a significant share of both tea producers and buyers around the world switched to certified sustainable tea, prices would inevitably increase across the board. With prices moving upward, the historical trend of commoditization of tea would be reverted, allowing retail prices to gradually rise. Because Unilever had the largest global market share, it would be able to capture the lion’s part of the income growth. The company would gain a lot from an end to the downward spiral of prices and quality variance on the global tea market.

Leijnse summarized the rationality for taking the mainstreaming approach: “We saw the possibility of transforming the entire industry and guarding it against commoditization. We were forformably placed to win; both as a first mover, and as the catalyst of an industry-wide transformation.”

Once the team got the buy-in from Unilever’s top executives, PG Tips and Lyons were also included in the certification initiative. In addition, to boost mainstreaming impact and counter critics of the actual reach of Rainforest Alliance certification, Unilever decided to roll out the scheme at a level above the minimum requirements for using the Rainforest Alliance “green frog” seal. It would only start using the seal if a minimum of 50% of the tea originated from Rainforest Alliance Certified farms, instead of the 30% entry point.

In May 2007, following a preliminary review of Lipton’s supply chain carried out by the company in conjunction with the Rainforest Alliance, Unilever went public with its targets: By 2010, the tea in all Unilever mainstream teabags in Western Europe (Lipton, PG Tips, Lyons) would be sourced from Rainforest Alliance Certified farms. By 2015, the tea in all Lipton teabags sold globally would be sourced from Rainforest Alliance Certified farms.

Hitting the Road

Supply-Chain Roll-Out

Once the team had won sufficient internal buy-in, a roll-out strategy was put in place. Unilever hit the road, working concurrently on supply-chain roll-out – making sure that certified tea was available and that key suppliers became certified – and on marketing roll-out. Targets were communicated internally at the company, and externally with suppliers, consumers and key stakeholders. Setting the right priorities and translating them into tangible short-term targets was crucial to enable delivery of Unilever’s public commitments.

The first step of supply-chain roll-out was to work with the Rainforest Alliance to interpret the SAN standard for tea and tea-producing countries. The Rainforest Alliance and other members of the SAN had little experience with tea before the partnership with Unilever, and while the SAN standard is applicable to all crops, local indicators needed to be developed to adjust the standard for tea based on field observations in Kenya.

But in order for the actual certification process to start, the Rainforest Alliance and the SAN had to build capacity on the ground. At that time, the organization had a strong presence in Latin America but very little experience in Africa and Asia. Since it usually worked in partnership with other NGOs, considerable effort had to be put into finding local partners that could build knowledge around the standards and deliver training programs to suppliers. In addition, audit teams needed to be put together and trained.

Unilever chose to be innovative by converting the whole brand, rather than opting for the more usual introduction of variant brands. As planned, the premium was paid to the tea producers without being transferred to consumers. The tough timeframe of three years for the conversion of all tea sold in Western Europe meant that the roll-out had to be highly accelerated. Instead of taking the traditional approach of testing through pilot projects, Unilever decided to leapfrog to mainstream.

On the ground, the main challenge was to motivate suppliers to change their processes. Edward Millard, sustainable landscapes director at the Rainforest Alliance, explained: “We needed to persuade tea growers to change the way they farmed. We needed to motivate growers and convince them that this was the right thing to do. To do this, working with a market leader such as Unilever was a substantial advantage. Unilever’s commitment to fully convert to certified sustainable tea sent a powerful signal to the supply chain that certification was now a market reality.”

Unilever wanted to bring its existing suppliers on the certification journey since switching suppliers risked altering the taste of tea, which in turn would not please consumers. Also, it would be unfair to break long-lasting sourcing relationships with its existing suppliers. Unilever and the Rainforest Alliance thus worked very closely on the development of a plan in which the existing suppliers were prioritized. Selection criteria were based on a combination of work already done on sustainability by suppliers and Unilever’s needs to supply specific markets. Birch explained: “Some suppliers had already invested a lot of time and effort on sustainability. It was relatively straightforward for them to get certified. We were sure that they would pass the audit, as they already had good practices in place. Other suppliers had significant work yet to do and needed to invest in improvements on the ground – buying new equipment and upgrading facilities – before they could attempt to get certified. We also looked at our own needs. We knew that we wanted to communicate in certain markets; we knew how much tea we needed in order to supply them; and we knew where the tea we used in the blend sold in those markets came from.”
From this process, Kenya – the world’s biggest exporter of black tea – was the natural place to start and certification was relatively straightforward since Lipton owned large tea plantations in Kericho, where sustainability initiatives had been carried out for more than ten years. There were also a few large suppliers that already had achieved high standards and could be certified relatively easily. The most challenging part of the roll-out in Kenya was reaching the large base of half-a-million smallholders organized around the Kenya Tea Development Agency (KTDA), which were ranked as high priority in the supply-chain roll-out plan.

Large estate suppliers in India were the second priority since Lipton had suppliers there who had already done some work in sustainability, although they were not as advanced as in Kenya. The Lipton team did not expect to have difficulty in convincing large Indian suppliers to get certified and put in the additional work required to achieve the standards. Also, there was a strong legal framework in place regulating working conditions and employee benefits on tea plantations; and although regulation was not well enforced, plantations that did follow the law were automatically on a good footing.

In producing countries where conditions for roll-out were more complex or where the supply base was more fragmented, a strategy was put in place to gradually bring suppliers into certification by 2015. In Summer 2010, suppliers were certified in Tanzania, Malawi, Argentina and Indonesia. Others were being trained and were making their first steps toward introducing and keeping sustainability criteria in their tea plantations in countries such as Zimbabwe, Burundi, Rwanda, Uganda, Vietnam and Brazil.

Smallholding suppliers of Lipton in India were also included in the gradual roll-out phase and had started working toward certification in 2009.

The scale of the challenge was significantly higher in Sri Lanka, where the government was not in favor of certification,23 and China, where there were major issues regarding pesticides and labor.

Unilever decided to go for the “low hanging fruits” first to accelerate the availability of certified tea. By mid-2010, 69 estates/operations had been certified in six countries, covering more than 95,000 hectares and involving more than 170,000 workers.

Unilever and the Rainforest Alliance worked closely with a large partnership to reach smallholders in Kenya. The Kenya Tea Development Agency (KTDA) and other institutions worked on the ground training and supporting smallholders with the implementation of agricultural and management practices required for certification. Lipton’s commitment to procure its tea exclusively from Rainforest Alliance Certified farms by 2015, together with the premium price paid for certified tea, gave farmers a strong incentive to engage in the certification process.

By mid-2010, 36,000 smallholders were certified. The certification led to benefits such as a 5% to 15% increase in yield through better agronomic practices, 40,000 native trees planted, adoption of water conservation practices and generalization of the use of personal protective equipment. This was an unprecedented achievement in sustainable agriculture and tea. A detailed case study of the roll-out of certification with smallholders in Kenya and Argentina is available at [http://www.idh-publications.com/en/22/]

Marketing Roll-Out

The strategy for the marketing roll-out was to focus on key markets and convert them fully before moving on. This strategy was guided by the limited availability of certified tea in the first years and by the existence of differing levels of consumer interest in sustainability in specific markets. Leijnse recalled:

“Marketing and supply-chain roll-out was deployed concurrently and they completely rely upon each other, because we could not communicate with consumers without having enough certified tea to supply the market. Once we started with a market, we wanted to go all the way. We set up clear targets such as: We are starting now with the Western European market and within three years it will be fully certified. In practice, it meant that all the available certified tea in the first years was channelled to this key market, instead of being spread out across the globe.”

The UK was an example of a very straightforward marketing roll-out. The market was concentrated on one product/brand: black tea, PG Tips. The quantities of tea needed to supply the market were significant, but once the company had identified which producers needed to be certified, it all happened relatively quickly.

Other European markets like France, Italy and Sweden required a different approach. Because the Lipton portfolio covered different flavors and varieties of tea, supply and thus certification became more complex. In these markets, a short-term shift from 0% to 100% as achieved in markets like the UK was less feasible. The Rainforest Alliance Certified seal did not appear on all products and ranges at the same time, and not immediately at the fully certified level. These market characteristics made the launch much more complex as it was necessary to explain to consumers why some products were certified while others were not yet.

The initial strategy of focusing on the Western European market for the first three years was replaced by the keenness of Lipton brand teams in Japan, the US and Australia to accelerate the commercialization of certified tea in their markets.

Box 4. Harvesting results with smallholders in Kenya

Unilever and the Rainforest Alliance worked closely with a large partnership to reach smallholders in Kenya. The Kenya Tea Development Agency (KTDA) and other institutions worked on the ground training and supporting smallholders with the implementation of agricultural and management practices required for certification. Lipton’s commitment to procure its tea exclusively from Rainforest Alliance Certified farms by 2015, together with the premium price paid for certified tea, gave farmers a strong incentive to engage in the certification process.

By mid-2010, 36,000 smallholders were certified. The certification led to benefits such as a 5% to 15% increase in yield through better agronomic practices, 40,000 native trees planted, adoption of water conservation practices and generalization of the use of personal protective equipment. This was an unprecedented achievement in sustainable agriculture and tea. A detailed case study of the roll-out of certification with smallholders in Kenya and Argentina is available at [http://www.idh-publications.com/en/22/]

Box 5. Adapting roll-out to market particularities

The French market was a challenging case, since particularities of the market affected not only the roll-out of certified flavored tea and specialties but also of black tea. French consumers of black tea were relatively older and very traditional, rejecting any kind of change in the pack. Lipton had concerns that if anything changed, sales would drop, as had previously happened following design changes on the front of the pack. Leijnse explained:

“The strategy we took in France was to familiarize existing consumers before putting the seal on the front of the pack. First we put the Rainforest Alliance Certified seal on the interior of the pack. Then we put it on the back. So, consumers of Lipton black tea are being exposed to it and when it finally appears on the front of the pack, they will already know about it, being reassured that the taste of the tea has not changed, they will not be surprised.”

Unilever sustainable tea: Leapfrogging to mainstream — 22

Unilever sustainable tea: Leapfrogging to mainstream — 23
Transforming a market
From the beginning of the journey, Unilever envisaged that Lipton’s conversion to certified sustainable tea would help the integration of sustainable practices in the whole tea industry, through the creation of a significant demand for certified tea and by pushing other players to move in the same direction.

Back in 2006, Unilever had decided to drop out of the Ethical Tea Partnership (ETP), an initiative created by the tea industry in 1997 to work on a pre-competitive basis on supply-chain issues, with a focus on labor conditions through monitoring and self-assessment. According to Vis, Unilever’s decision was motivated by the resistance of other players in adopting broader sustainability criteria and going beyond self-assessment.

Rainforest Alliance certification provided Unilever with a third-party independent endorsement of sustainability efforts in a way that an industry-led organization, such as the ETP, could not. Once Lipton, PG Tips and Lyons certified tea started to appear on shelves in Western Europe, Japan, North America and Australia, a snowball effect took place.

In August 2009, the ETP reviewed its position regarding certification and announced a new collaboration with the Rainforest Alliance certification program to build capacity within the tea industry and streamline the certification process for tea producers. Tallo explained: “Engaging the ETP into recognizing third-party certification schemes was a very effective way of facilitating our work. We jointly developed a program to train producers on how to use ETP monitoring and self-assessment tools as a key step they should decide to pursue Rainforest Alliance certification. Those producers supplying ETP member companies that were already Rainforest Alliance Certified™ would be recognized as complying with the ETP requirements. This agreement was beneficial for tea producers, since it reduced the burden of going through the different and cumulative processes of audit and assessment. This unblocked the availability of certified sustainable tea for the rest of the industry and we saw other mainstream brands committing to Rainforest Alliance certification.”

Subsequently, Yorkshire Tea decided to go for Rainforest Alliance certification, followed by Twinings with its Twinings Everyday brand. In January 2010, Tetley also went public with its commitment to obtaining Rainforest Alliance certification for the Tetley brand globally.

Although it was expected that other major brands would follow Unilever’s steps, the catalyst effect was faster and broader than the Rainforest Alliance had envisaged. Tallo estimated that by the end of 2011, 70% of the volume of the tea sold by UK retailers would be Rainforest Alliance Certified™. She also estimated that by 2016, Unilever, Tetley and other mainstream brands would, in conjunction, convert 20% of the world’s tea producers to certified sustainable tea.

A robust market transformation process took place following Unilever’s pioneering move.

Challenges Ahead
Going beyond the low-hanging fruits
By summer 2010, Unilever had achieved its certification target for the Western European market and was ahead of scale for its 2015 global target, but challenges remained.

On the marketing side, the challenge was to reach other countries where consumer interest in sustainability issues was not at the same level as in Western Europe. Extending to some of the biggest tea markets in the world such as India, Russia, Turkey and Saudi Arabia would not be trivial. The Lipton team expected higher costs related to awareness-building and launching advertising in these countries.

On the supply-chain side the biggest challenge was speed. Once the low hanging fruits were harvested, implementation would require more time and investment. Birch explained: “Business does not operate on wishes; it operates on plans and on putting resources in place to deliver on plans. Farmers need to be trained within short deadlines in Africa, Asia and South America. Once trained, they need to be able to convert practices and structures at a very accelerated pace. The Rainforest Alliance need to build audit capacity for certification in countries it had never worked in before. The speed required is a challenge for the Rainforest Alliance in terms of capability growth. And it is a challenge for Unilever in terms of managing expectations. We have ambitious targets to deliver and we are measuring how quickly we are getting close to that conversion point. My bosses, and my bosses’ bosses, all expect that we will deliver on time, but we need to be realistic that we are relying heavily on a third party to make it happen.”

Entering new producing countries where there was no track record would be increasingly difficult, as it would be more challenging to convert producers without prior experience of sustainable practices.

Certifying tea in Sri Lanka and Vietnam would still be a challenge. However, as of mid-2010 there had been some mindset changes. Leijnse explained: “I believe that since mid 2009 these governments are seeing the impact of certification. They know that we are the world’s biggest tea company and we are committed to certified tea. They know that Tetley, the second largest, is also committed. They see where the wind is blowing. They are starting discussions, they have already seen enough proof that certification is unavoidable.”

Reaping Results in the Market
Creating Brand Value in Strategic Markets
Once certified tea was available in 2008, Unilever deployed its communication campaign with consumers, linking sustainability with the brand promise “Lipton tea can do that.” The main message communicated to customers was that drinking Lipton “helps people to lead a better life, healthier and fitter,” but also “through making production sustainable, lead to a better life for farmers and a better environment.”

The campaign used ads in diverse media, dedicated websites and a special advertising presentation hosted at the National Geographic® website. It was run for PG Tips in the UK and for Lipton in Italy, Norway, Sweden, Switzerland, Australia and the US.

Certified sustainable tea proved to be an effective tool in consumer communication and a driver of market growth. Leijnse explained: “Sustainability has proved to be a major creator of value for Lipton. Our expectations of market share growth have been surpassed, as demonstrated by market research data. In countries where the link between the brand and certified sustainable tea could be done in a straightforward way, sales and market share went up – during and following – the campaign period. Market research also showed that certified tea had an enormous appeal to consumers and that in places like Italy, it was attracting younger consumers.”

Communicating and advertising on certification also had positive indirect impacts. Mercedes Tallo, director of Sustainable Value Chains at the Rainforest Alliance, explained: “Unilever learned that by engaging in a dialogue with consumers on sustainability and certification they could open the door to very powerful messages and imagery which they were not able to communicate before.”

Unilever sustainable tea: Leapfrogging to mainstream — 24

Unilever sustainable tea: Leapfrogging to mainstream — 25
Another challenge Unilever faced was the issue of casual and temporary workers in tea plantations. In May 2009, two of Europe’s largest trade unions – the Dutch FNV Bondgenoten and the UK-based Unite the Union – went public with a declaration that Rainforest Alliance certification did not necessarily mean that suppliers to Unilever comply fully with the social component of the certification requirements, since permanent workers were being replaced by casual, temporary workers who had fewer rights.

However, the major challenge facing Unilever was reaching large markets in countries where tea was mainly sourced internally, such as India, China and Turkey, where the market was dominated by loose leaf tea and local brands, and it was very early days for local producers in terms of sustainability issues.

Making Sustainable Tea Available in the Indian Domestic Market

The domestic market in India is particularly challenging and of high importance to Unilever since it corresponds to roughly a quarter of Unilever’s tea business. Unilever (Hindustan Lever) tea sales in India are made under the brand Brooke Bond.

India is the biggest producer of black tea in the world, and the domestic market accounts for 80% of its production. The domestic market in India is characterized by the predominance of loose, non-branded tea (60% of consumption). India is the fastest growing market for tea in the world.

The tea industry in India faces considerable sustainability challenges. In early 2005, the big players in the tea market withdrew from primary production and concentrated their businesses on blending, packaging and marketing tea, where margins were higher. Between 2005 and 2009, the profitability of plantations was extremely low as prices continued to fall and, in many cases, did not meet costs that had been pushed up by a combination of mismanagement, age and decreasing productivity of the tea bushes, high overhead costs and poor agricultural practices. Tea plantations in India are usually situated in remote and uninhabited areas.

Workers, mostly migrants, are often provided with housing on the tea estate, along with facilities for shops, services, recreation and culture. However, during the years of crisis, companies minimized labor and infrastructure costs. Small tea farms usually employ temporary and casual workers, whose work and living conditions are considerably worse than their plantation counterparts. Energy efficiency is generally low and the use of firewood is a driver of deforestation.

Tea estates usually use pesticides intensively; very few turn to integrated pest management.

On the one hand, pushing tea sustainability from the demand side is not straightforward in India, since it is difficult to demonstrate sustainability in a non-branded, commodity-like, market. In addition, market research shows that consumers of branded-tea in India had little interest in how the tea is produced.

On the other hand, pushing tea sustainability from the supply side is also challenging. Producers does not perceive sustainability benefits, such as improved yields, safety of products and benefits to local communities, to be important.

Birch summarized the challenge:

“The majority of producers supplying the domestic market in India do not see the relevance of sustainable practices. Resistance to certification is particularly high, as standards conflict with some current agricultural practices, such as the use of Paraquat. The challenge that we now face is how to work with these producers. Ultimately, we aim at making sustainability the standard in the tea industry. For some of our brands, such as Lipton, PG Tips and Lyons, certification is already a brand promise and therefore, not negotiable. But Unilever did not make external commitments that require certification for all its brands. Unilever wants to be sure that all its tea is sourced from sustainable sources, but no decision has been made as to whether it should all be certified.”

Box 6. Mainstreaming sustainable tea in the Indian domestic market.

By mid-2010, Unilever was considering the following alternatives for mainstreaming sustainable tea in the Indian domestic market:

• Extend Rainforest Alliance certification to the Brooke Bond brand following the example of Lipton and PG Tips.
• Work with verified sustainable tea in the Indian domestic market, as a step in the journey for certification. Verified sustainable tea means documented sustainability criteria that would move tea producers from their current practices towards more sustainable practices. It would be based on measurable criteria to be agreed across a group of stakeholders, which will compose a national – or regional - standard (they do not necessarily need to be the same internationally recognized criteria which is present in the Rainforest Alliance certification).
• Work with suppliers and assess their level of compliance by measuring their practices against the Unilever Sustainable Agriculture Code.

Unilever sustainable tea: Leapfrogging to mainstream — 26

Unilever sustainable tea: Leapfrogging to mainstream — 27
References

1. This background description of the tea value-chain is based on inputs from Reenen M. van; Panhuysen S.; Weilgmann B. (2010) Tea Barometer 2010, Tropical Commodity Coalition.


5. Although deforestation is an issue at the local level, tea plantation is not as big as driver of tropical deforestation as other commodities such as palm oil and soya.


9. Brand Imprint is a proprietary planning tool developed by Unilever to fuel brand innovation by integrating social, economic and environmental considerations. Information on the Brand Imprint process is available at http://www.unilever.com/sustainability/strategy/vision/.


13. KTDA is the second largest exporter of black tea in the world. The farmer-controlled company representing over half a million smallholders provides management services for the production, processing and marketing of black tea.

14. SAI Platform is an organization created by the food industry to communicate and to actively support the development of sustainable agriculture involving stakeholders of the food chain. It was created in 2002 by Unilever, Danone and Nestlé. http://www.saiplatform.org

15. For detailed information on Unilever’s key role in the creation and development of the MSC, refer to Nick, A; Salzmann, O; Ionescu-Somers, A; Steger, U. Transforming the Global Fishing Industry: The Marine Stewardship Council at Full Sail? IMD case no. IMD-2-0083, 2006.

16. A shadow brand is a type of brand architecture used to endorse, or leverage, a brand (or a product/service) through association with another known organization, or brand, without overstating the relationship. It is a special case of endorsement brand with minimized association and contamination. A well-known example is Disney’s relationship with Touchstone Pictures.

17. In 2006, the total sales of all Fairtrade products, globally, amount to €750 million. At that time, Lipton’s turnover was more than €1billion. What would it mean to Fairtrade if Lipton became 50% of the Fairtrade business? Certifying industrial tea estates would represent a fundamental change in Fairtrade’s mission. Also, although the Fairtrade logo was well known, it had a very strong message that could overshadow Lipton’s message.


19. For a more detailed description of the reasons why Rainforest Alliance certification better matched Lipton’s criteria, refer to Sustainable Food Lab, Innovations for Healthy Value Chains, 2008 (pages 28–30).

20. Companies can use the Rainforest Alliance Certified “frog” seal on the front of a package if at least 30% of the raw material within it originates from Rainforest Alliance Certified™ farms. Critics say that the actual reach of the certifying process is thin, since within a package containing 10 units of a certified product only 3 units would be grown according to sustainable practices. The Rainforest Alliance argue that 30% is just an entry point - allowed in order to recognize the need for companies to build certification over time, as supply capacity increases - and that companies have to commit to scaling up well above 30%.

21. As explained in the background section, each tea product/range uses a complex and unique blend of different origins and qualities of tea. Thus, changing the composition of a tea, in terms of its origins and estates, would mean changing its flavor and quality.

22. The government in Sri Lanka had concerns that certification would give Western NGOs and multinationals the power to set standards and control the tea industry, significantly reducing the reach of public policies on a strategic crop for the country.

23. Twinings started the Rainforest Alliance journey in January 2010 with 30% content. Its commitment was to have its Twinings Everyday brand with 100% of the tea to be sourced from Rainforest Alliance Certified gardens by 2015.

24. Tetley, the world’s second largest tea company, committed to have all branded tea bags and loose tea for black, green and red tea certified in UK and Canada by 2011 and US, Australia and Europe starting in 2012.

25. Paraquat, one of the most widely used herbicides to control broad-leaved weeds and grasses, is explicitly prohibited for use in all plantations and farms that are Rainforest Alliance Certified.
Authors

Dr Tania Braga (tania.braga@imd.ch) is the Research Associate/Project Manager for the Center for Corporate Sustainability Management at IMD. She combines a solid academic background in economics with successful hands-on experience in project management. She has co-authored several cases studies and articles around process and product innovations for sustainability management.

Dr Aileen Ionescu-Somers (aileen.somers@imd.ch) directs the Center for Corporate Sustainability Management at IMD, an applied research and learning center focused on helping companies to integrate social and environmental issues into their corporate strategy. She is an expert on corporate sustainability management and has coordinated several large scale research projects on, for example, the business logic for corporate sustainability in the food and beverage industry.

Dr Ralf W. Seifert is Professor of Operations Management at IMD and holds a tenured professorship at the Swiss Federal Institute of Technology (EPFL). His primary research and teaching relate to operations management, supply chain management and technology network management. Professor Seifert directs the Mastering Technology Enterprise (MTE) program at IMD and the Chair of Technology and Operations Management (TOM) at EPFL.

Acknowledgements

This case was developed with inputs from the staff of both Unilever and the Rainforest Alliance. We gratefully acknowledge the contribution of:

Michiel Leijnse, Jan-Kees Vis, Mark Birch and Jagjeet Kandal, Unilever and of Edward Millard, Mercedes Tallo and Marc Montsarrat, the Rainforest Alliance.

Many thanks to:

Dave Boselie, Wageningen University, LEI,
Marina Piatto, Imaflora
Peter Erik Ywema and Emeline Fellus, SAI Platform
Barrett Brown and Jolande Valkenburg, IDH

Publisher


Design

Dietwee, ontwerp en communicatie (www.dietwee.nl)

Reproduction

This publication may be reproduced in whole or in part and in any form for educational or non-profit services without special permission from the copyright holder, provided acknowledgement of the source is made. IDH would appreciate receiving a copy of any publication that uses this publication as a source.