

The Farmer Field School project

Growing sustainable tea in Kenya





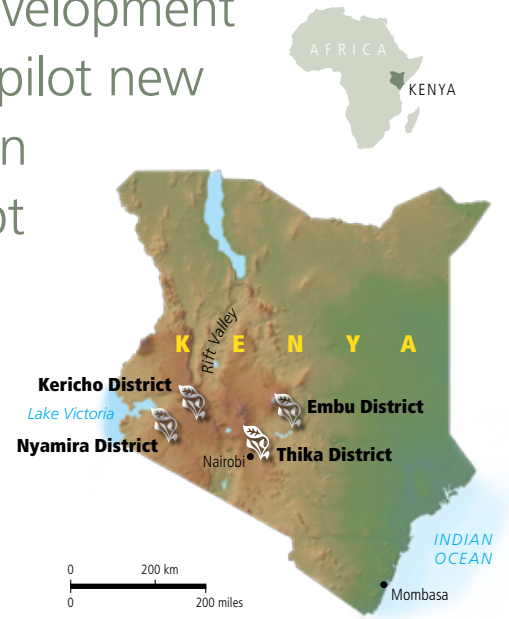
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Zakaria Mitei, Project Manager, (second from left) talks with FFS students.

Lipton and the Kenya Tea Development Agency (KTDA), supported by a grant from the UK's Department for International Development (DfID), joined forces in 2006 to pilot new methods for encouraging Kenyan smallholder tea growers to adopt more sustainable and more profitable farming practices.



Soil sampling on a smallholder farm at the beginning of the project.



The Farmer Field School (FFS) project

The project came to an end in 2008, leaving participants excited and inspired by the improvements they had achieved. Farmers saw their yields grow by an average of between 5 and 15%, with the biggest increases experienced by farmers whose techniques were weakest at the outset.

Better plucking and pruning each brought productivity improvements of up to 6% (gross margin/hectare), with a further boost of 5% in profitability expected as longer-term changes begin to take effect.

These results have secured a long-term future for the initiative, with the KTDA now set to roll it out throughout their organisation, eventually reaching 500,000 small tea farmers and 55 factories.

There's certainly an appetite for the project locally, with many small-scale tea farmers expressing a keen interest in taking part. The launch of Lipton's collaborative work with the Rainforest Alliance in 2007 also meant that almost 30,000 were working towards earning Rainforest Alliance certification – so there's a widespread need for ongoing support and training.

With the market for sustainably grown tea growing fast, there's no doubt that the Farmer Field School approach to farmer training is an idea whose time has come.



Meet the farmers

The farmers who volunteered for the project, mostly men despite efforts to obtain a gender balance, are typical of Kenya's small-scale growers, who together produce 60% of the country's tea crop.

Their farms tend to be between 0.25 and 3.5 acres (0.1 to 1.4 ha). As well as tea, they'll grow maize, beans and vegetables for their family. Often there will be animals too, and sometimes other cash crops such as bananas, coffee, snow peas, or cabbages – usually farmed by the family themselves.

In an ideal world, farmers would all adopt good management practices for their tea crop, such as:

- frequent plucking (ideally every 7-10 days)
- good table management (turning the tea canopy into a solid, flat table-like surface from which shoots protrude and can be easily spotted and plucked)
- infilling (planting new seedlings in the spaces where plants have died).

In reality, it's not that easy. These farmers run complex businesses, with other crops and livestock competing for their time and energy.

At the same time, many farm tasks are time-sensitive - cows need to be milked twice a day, and vegetables, maize and beans need to be harvested at optimal ripeness. In contrast, the tea is 'always there' and can be left until other jobs are done.

While the KTDA, as the buyer of the tea does send out 'Extension Assistants' (people who provide expert advice and support) to the farms – they can't always spend enough time with each farmer to really get improvements underway.

This provides some background as to why the Farmer Field School project was able to make such a difference. It's an approach that has already been used successfully in Kenya, mainly for subsistence crops – so the project had previous examples to learn from. As with these other initiatives, the project was able not just to boost livelihoods but to turn farmers themselves into 'extension workers', promoting their new-found knowledge within the community.





FFS participants discuss their learnings in the field.

"Our current ratio [for field staff] is one TESA [Technical Extension Service Assistant] to 2000 farmers, which is not ideal. By having the farmers teaching other farmers, roll out was quicker. The TESAs were used to discuss major issues, bring new techniques and information, but the farmers were essential in passing the knowledge along."

PETER MBADI
ASSISTANT AGRICULTURE
MANAGER, KTDA

"Farmer to farmer transmission of knowledge and technology is much more acceptable than from technician to farmer. They say 'this person is like me' and they believe it works."

DR WILSON RONNO
DIRECTOR/CEO TEA RESEARCH
FOUNDATION OF KENYA (TRFK)

"We see ourselves in leadership roles within the community. We want to pass on good practices to friends and neighbours."

FFS PARTICIPANT

Approach and methodology


The Farmer Field School project adopted a learner-centred approach, which meant farmers carried out 'hands-on' observation, experimentation and evaluation. Extension agents, researchers and external participants acted as facilitators rather than as traditional 'teachers'.

Learning actively and practically gave farmers the independence and confidence to address challenges and introduce changes in their own farms. It also helped to bond learners together, leading to shared conclusions and a supportive group dynamic.

Results were measured by surveying participants alongside non-participating farmers, and comparing the answers both groups gave. Participants' answers were also compared with responses they'd provided at the start of the project. The KTDA supplied yield data, while extensive direct measurements and observations were recorded (such as the number of gaps that hadn't been infilled).



Collecting information for the baseline survey.



A fine crop of tea and good harvesting techniques being used on an FFS farm.

“The baseline data collection was initially difficult from the four pilot factories and 120 initial farmers. As farmers had never been assessed in the past, they were cautious about what to declare. The later impact evaluation was more credible as the Farmer Field Schools had given both the TESAs and the farmers that extra confidence.”

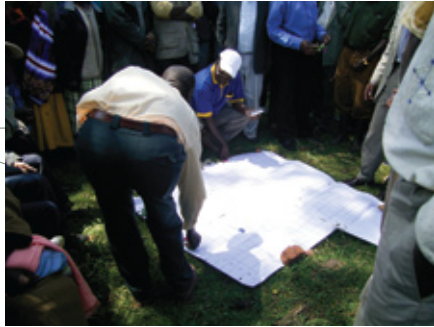
PETER MBADI
ASSISTANT AGRICULTURE
MANAGER, KTDA

“The FFS methodology was one of the best methods to help farmers adopt our recommendations. It encourages farmers to find their own solutions, and brings people together.”

PETER MBADI
ASSISTANT AGRICULTURE
MANAGER, KTDA

Three years of progress

The first FFS sessions started with farmers deciding on curriculum priorities using ranking methods.



“My school studied the plucking trial. They really appreciated to know that 7-8 days is the best interval. They can’t wait to start new trials on tipping in and fertiliser.”

PHILIPH SOTIN
EXTENSION ASSISTANT, KTDA



Year 1 2006

The project began in March 2006, when the first two project assistants were recruited. Their impressive backgrounds in agriculture and strong people skills got the process off to a positive start.

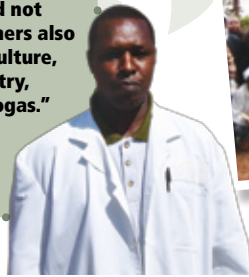
Four sites were selected for the schools: Momul, Nyansiongo (West of the Rift Valley), Ngere, and Mungania (East of the Rift Valley) – each based at the tea buying centre where farmers take their tea to be weighed and collected by the KTDA. These central, familiar locations made it as easy as possible for farmers to get to meetings.

At each school, farmers then agreed how to run their meetings – and what they wanted to learn most of all. For instance, three schools chose to carry out trials on how plucking intervals affect yield, ease of



“We focused not on what we wanted to teach, rather on what the farmers wanted to learn. For instance during the recent visit to Egerton University, they were educated not just about tea, farmers also learnt about horticulture, dairy farming, poultry, pig keeping and biogas.”

ALFRICK SANG
FACTORY MANAGER,
KTDA



FFS farmers on a visit to TRFK.

“The project worked well because of the group dynamics in the schools. Once the group decided what had to be done, the members were themselves responsible for implementation. If a farmer was lazy, he had no option but to comply because of the group. We would not have achieved this with one manager going to farm saying ‘you have to do it like this’”.

ARTHUR RIMBERIA
OPERATIONS DIRECTOR, KTDA

management and agro-ecology, while the other decided to experiment with different heights of tipping-in (cutting new shoots to the same height to create a flat table) as bushes re-grow after pruning.

Facilitators worked with the farmers to decide which issues were best addressed by farmer-led trials and which by short talks, lectures or field visits.

Alongside lively debate, the sessions involved plenty of singing, joking, clapping, dancing, prayers, and storytelling, creating an unforgettable atmosphere.

Special topics, visits and soil analyses

Farmers also had the chance to explore a wide range of ‘special topics’, including the tea supply chain from field to cup, fertiliser application, safe use of agro-chemicals, mechanical pruning and book-keeping. These sessions were presented either by KTDA Extension Assistants, project staff or by external speakers.

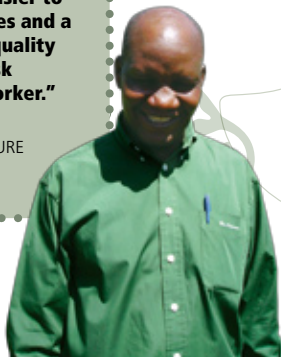
Visits helped bring issues to life, also enabling farmers to meet others involved in their business. According to their interests,

groups visited local tea factories, large tea estates, Egerton University, the Tea Research Foundation of Kenya and another Field School for sweet potato farmers.

During this year, researchers visited farmers’ fields to take samples of their soil – which was all found to be fertile and suitable for tea. These positive results mean the exercise won’t need to be repeated in the next stage of the project.

"Plucking after 7-8 days not only increased yield, but it's actually easier to spot the two leaves and a bud required for quality and makes the task simpler for the worker."

PETER MBADI
ASSISTANT AGRICULTURE
MANAGER, KTDA



"At first we found it hard to understand; challenging. In the plucking trial, they used a long stick to find the tea bush table height and we didn't know why. Now we do, and we can see the results."

FFS PARTICIPANT



Fertiliser demonstration, one of the many special topics covered.



Year 2 2007

This year saw the project grow significantly, with 20 more Farmer Field Schools established. Lessons learned from the first four schools were used to fine-tune the baseline questionnaire filled in by new participants.

With 20 new schools to manage, project staff suddenly had a much more complex challenge on their hands – requiring them to scale down their involvement with the first four schools.

Fortunately, having grown in skill and confidence, these farmers were now more than ready to start running their schools more autonomously.

As farmers began to see the benefits of the model, they expanded their curriculum to include other aspects of farming, with one school becoming a registered self-help group.



"There's a lot that the farmers needed to learn, and do, to get their farm certified. Factory improvements due to the Rainforest Alliance process included measures such as improved safety, waste management, chemical storage and protective clothing."

ALFRICK SANG
FACTORY MANAGER, KTD A



"The information sinks in faster farmer to farmer when they see the real results. A real account of what he has experienced himself, his productivity and achievements has more credibility."

ZAKARIA MITEI
PROJECT MANAGER



Year 2 brought a major landmark when Lipton announced its commitment to procure all its tea from Rainforest Alliance Certified™ farms by 2015 – giving farmers a clear incentive to learn about sustainability and the certification process.

Why Rainforest Alliance certification?

Lipton buys tea from factories that meet the required taste and standard for its consumers. Increasingly it has sought to buy tea from farms where the farmers have put in place

the social and environmental management practices in order to become Rainforest Alliance Certified™.

To achieve certification farmers (including smallholder farmers) must:

- pay the minimum wage to their workers
- comply with Kenyan law on worker terms and conditions
- have been trained in pesticide management on their farms including provision and use of personal protective equipment*

- work to conserve and improve the biodiversity-value of their farms and the farmed landscape.

*No pesticides are applied on all Kenyan teas but many of the farmers use pesticides on other crops or spray their cattle against ticks, and herbicides are sometimes used at the edges of tea crops.

"One of the most impressive things we've ever seen is the way the farmers teach other farmers. At the field day we saw people saying: "If these people can learn and then teach me, maybe I can learn to do this as well! This is something I can also achieve."

PETER MBADI
ASSISTANT AGRICULTURE
MANAGER, KTDA



"We have learnt so much from these schools, not just about tea, but other farming skills as well. And we are teaching it to our neighbours too!"

FFS PARTICIPANT



Year 3 2008

This year saw celebrations for the first wave of participating farmers, who officially graduated and took stock of their achievements. After a special graduation ceremony, they opened up their farms for other local farmers to visit, enabling them to conduct demonstrations and share their new knowledge.

However, it's by no means the end of the story for these farmers, who have all decided to keep their meetings going on a regular basis, moving beyond tea to cover a range of community and agricultural topics.

After graduation, half of the participating farmers were interviewed to assess their level of knowledge, skills and livelihood, with their answers then compared to the equivalent responses of non-participating farmers.

Participating farmers reported that they had changed the way they manage their crops as a result of the project – and that they now

"At first I wasn't sure why I would want to join – it seems like a lot of work. But now, my tea is better and I have more money to send my children to school."

FFS PARTICIPANT

Tea pests and diseases are discussed as a 'special topic'.



"The dedication and commitment shown by the farmers involved in the programme have been impressive indeed. They quickly understood the long-term economic, environmental and social benefits they, their families and their communities could gain by meeting the sustainability standards required to earn the Rainforest Alliance Certified™ seal."

EDWARD MILLARD
DIRECTOR SUSTAINABLE LANDSCAPES,
RAINFORREST ALLIANCE

felt more knowledgeable and empowered than before, believing their methods to have improved. They valued the schools highly, wanting them to keep going and widen their focus to cover other topics, such as honey production or goat-keeping.

Meanwhile, the 20 further schools launched in 2007 continued their activities over the year, with graduation set to take place beyond the official conclusion of the pilot.

Participating tea factories also began working towards Rainforest Alliance certification, with the first certification audits taking

place in December 2008. This enabled everyone involved with the project – farmers, managers and facilitators – to advance their understanding of sustainability, working on issues such as managing pesticides (not used in tea but on other crops in farms) and conserving biodiversity.

MOMUL TEA FACTORY CO LTD

"Lipton has worked with the KTDA for many years as a buyer, so we understood each other very well. The best thing we did was to involve all the stakeholders right at the grassroots level. From the KTDA Board right to the farmer, we were all working towards the same goal, for the same reasons.

We also worked closely with the factory boards where the Farmer Field Schools were being established, to explain the long-term benefits of sustainability. Even if we failed, we accepted that we would fail together. But everyone did their job to make it a success and we won together."

ARTHUR RIMBERIA
OPERATIONS DIRECTOR,
KTDA

"I've learnt how to capture their minds. Trying to lead lots of different farmers isn't easy, and most of them are barely literate. You need to start at their level and find the right way to bring them up."

PHILIPH SOTIN
EXTENSION ASSISTANT, KTDA

"We noticed that farmers were picking the ideal two leaves and a bud. We were amazed at the improvement in quality. This is now being rolled out to non-FFS farmers."

PETER MBADI
ASSISTANT AGRICULTURE
MANAGER, KTDA

Meet the partners



The Kenya Tea Development Agency (KTDA)

The KTDA acts as an agent and buyer for most of the tea grown by small-scale growers, making up over half of the tea exports from Kenya, the world's biggest tea exporter.

Aiming to obtain the best-possible quality of tea, which can command the best-possible price, the KTDA is keen to provide farmers with support and advice.

Before the Farmer Field School project, the organisation already provided help and advice through its Extension Officers and TESAs. Wanting to scale up its efforts in this area, the KTDA made its network of extension staff fully available to the initiative.

Senior-level involvement

A number of KTDA Board Members, as well as senior, technical and factory managers, devoted substantial time to the project, ensuring it was well-managed and fully integrated into the KTDA business culture. It was vital to have them on board – especially as the project will now be rolled out to all their factories and farmers.

From their perspective, the project has been a tremendous success, inspiring change and improvement for their extension services, bringing them closer to Lipton and the other project partners, and giving them a more in-depth understanding of sustainability (now proving a real boost in their mission to secure Rainforest Alliance certification).



Factories on board

KTDA factory managers have also applauded the impact of the project so far and are strongly in favour of the wider roll-out which will now be taking place. They've been delighted to see visible improvements in leaf quality in the buying centres where the first four Farmer Field Schools were based.

A chance to upskill

As for the extension staff, they found it a deeply rewarding experience which enabled them to develop facilitation skills, boost their knowledge of sustainable agriculture and learn management techniques for group meetings. Needless to say, they're all excited to see the project move on to the next stage and reach thousands more farmers.



Lipton

Unilever buys around 12% of the world's internationally-traded tea – and is the world's largest private buyer of Kenyan smallholder tea. The sheer scale of Unilever's purchasing power means that its brands can make a huge difference by committing to sourcing sustainably-grown tea: Lipton is now playing a lead role in that process.

After assessing estate suppliers against a range of social, environmental and economic criteria, Lipton turned its focus to small growers – realising that the best way to improve sustainability standards would be to work in partnership with the KTDA.

Income first

Improving farmers' income was an essential starting point for Lipton. Without financial security, how could small-scale growers progress to wider improvements in social responsibility and environmental care?

Lipton contributed to the project by providing a project manager, along with financial and office administration, data analysis and project reporting. Lipton people also contributed insights gained from large Kenyan tea estates such as Unilever's own Kericho plantation. At the same time, it was able to explain consumer needs and trends to participating farmers.

A stepping stone

Overall, Lipton sees the project as a crucial stepping stone in its journey towards a fully sustainable future – all the more important since the brand announced its pledge to source all the tea for its tea bags from Rainforest Alliance Certified™ farms by 2015. In fact, the expertise generated by the project, and the close bonds forged with the KTDA, will prove essential to the certification mission.

“By educating farmers about sustainability in preparation for Rainforest Alliance certification, we’re helping the environment, as well as improving the farmers’ long-term economic prospects. It also makes sound business sense... ensuring we have a long-term supply of tea from Rainforest Alliance Certified™ farms which we know is important to our consumers and retailers.”

MICHEL LEIJNSE
GLOBAL BRAND DEVELOPMENT
MANAGER, LIPTON





DfID and the Business Linkages Challenge Fund

The Farmer Field Schools pilot won a grant of £509,000 from the Business Linkages Challenge Fund (BLCF) – a private-sector business development initiative set up by the UK government’s Department for International Development (DfID).

The grant financed the baseline assessment, data analysis, continuous monitoring and periodical evaluation needed by the project. It also went towards training enumerators and facilitators, carrying out soil analyses, and procuring safety equipment for farmers. In addition, the funds were used to acquire some capital equipment, pay for two project assistants, and provide additional training and feedback sessions for both farmers and facilitators.

The BLCF grant amounted to nearly half of the total project funding (see page 19).



Tea Research Foundation of Kenya (TRFK)

TRFK scientists are exceptionally knowledgeable when it comes to local tea production. In fact, the TRFK originally selected most of the tea bushes now planted on smallholder farms for their high yield and quality. They’ve also developed a wealth of practices and ideas that, if adopted, could improve the quality of the crop grown by small-scale farmers, and by implication, their income.

It was therefore vital to include these experts in the project. TRFK advisors visited the schools to give talks on subjects such as fertiliser management and application.

How the partnership worked

Representatives from each business partner sat on a Steering Committee, chaired by an independent Kenyan Chairman. Sub-committees on various aspects of the project met regularly to discuss relevant management issues.

The project saw a strong network of relationships develop amongst all participants – farmers, partners, managers and facilitators. The trust that grew between them enabled the project to continue even when Kenya itself became a deeply divided country during the 2008 elections.

For several months after the elections, ongoing disruption prevented project staff from travelling between the Farmer Field Schools – but the farmers persevered with their learning throughout.



"We want everyone to walk under one roof, achieve one goal."

DR WILSON RONNO
DIRECTOR/CEO, TRFK

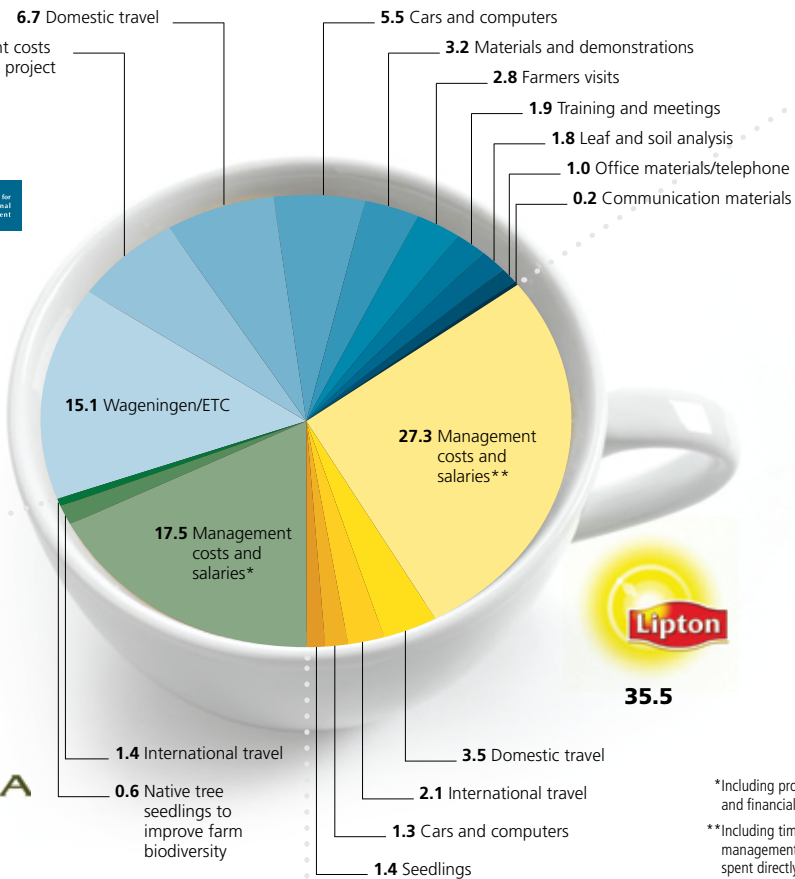
Project contributions and expenditure
% of total



45.0



19.5



35.5

*Including project manager and financial management.
**Including time of management and staff spent directly on the project.

Learning opportunities

As with any ambitious project, the initiative came up against several challenges along the way – every one a learning opportunity for the future.



Proper training is needed to ensure mechanical pruning is done correctly and safely... to help farmers improve profitability.

For instance, the involvement of so many partners – while greatly enriching – meant lengthy discussions had to take place prior to launch: four years of preparation in total. The process would have been easier to manage if all parties had understood the DfiD advice that three to four participants in a project is a maximum workable number, yet all of these parties need to be fully involved in the initial discussions.


At the same time, the complexity of the partnership brought diverse business cultures face to face – sometimes leading to a mismatch in expectations and priorities.

Most of the difficulties involved with forming farmer groups were avoided in this project, by linking FFS into existing KTDA structures and buying centres already familiar to the farmers. Even so, given the distances between farms in rural Kenya, it wasn't always easy for farmers to get to their school – with some having to walk for over an hour. This meant meetings often started late and ran over, or that farmers had to miss them altogether.

And while the farmers loved learning through group discussion and visits, they found the written exercises harder – as it's rare for them to communicate in this way.

Discussion on the use of mechanical pruners caused serious misgivings on the part of local unions, who feared people would lose their jobs as a result. Project staff had to work hard to convince them of the dramatic benefits: mechanical pruners mean workers can trim 5000 plants a day, at a cost of 0.05 shillings a plant, instead of just 70 by hand, at a cost of two shillings a plant to the farmers.

Future projects would benefit from working more closely with Kenya's Ministry of Agriculture and the Ministry of Environment. Future programmes will hopefully benefit more from the knowledge and resources of these bodies.



FFS farmers discussing the baseline survey results for their own farms.

The farmers prefer talking, but unfortunately, the system requires that you record the data. Sometimes they viewed this as a bit of a punishment!"

PHILIP SOTIN
EXTENSION ASSISTANT, KTDA

We have learnt a lot in terms of building synergies. Previously, communication between smallholder farms and the large plantations hardly existed at all. It's brought the two sub-sectors together, and I think even more than that, the suspicion between these sub-sectors has been removed. At the end of the day we are looking at how to improve the value of tea in Kenya – and that's the overall goal.

DR WILSON RONNO
DIRECTOR/CEO, TRFK

Looking ahead

The Farmer Field Schools project exemplifies public-private partnerships at their most effective. Here, government support reached smallholder farmers and their representatives through a major food business which buys their products and markets them to consumers.



It's a model that could well be replicated by other supply chains in order to boost the value of the crops produced by small-scale growers. Of course, when the value of their crops increases, farmers' income will also rise, with whole families and communities reaping the benefits.

That's certainly set to happen in rural Kenya, with the KTDA now committed to rolling out the Farmer Field School approach across its entire organisation.

For this to really work, however, the KTDA will need to train many more Extension Officers and Assistants as facilitators. On-going external support will be crucial, too, given the scale of the proposed roll-out to almost half a million farmers.

As the Rainforest Alliance certification programme looks at farms as a whole, rather than crops in isolation, the approach will also need to expand its scope to cover other crops and livestock. This could bring even more benefits for farmers – who may ultimately be able to sell all their products as 'certified' after a single 'whole farm' audit.

The way the project evolves will depend to a large extent on farmers' own aims and aspirations. They have already communicated some of their priorities, which include:

- access to starting capital (in farm activities)
- training in market access and avoiding trade brokers
- training in diversification (for example, into biogas, tree nurseries and dairy production)
- better gender equality management – involving more women in the schools
- extended training hours to cover three topics per session (instead of two).

The farmers are also keen to see others share in the benefits of their new knowledge, by inviting them to field days or visiting them to explain what they've learned.

Thank you so much for this opportunity. I have learnt so much and promise I will use my new skills!"

FFS PARTICIPANT

It's our responsibility as a producer to make our consumers happy. In this case, Lipton took the lead to change their buying concept to include sustainable tea and the FFS project provided a way to achieve this.

CHARLES MBUI
GENERAL MARKETING
MANAGER, KTDA

Farmers now realise that the consumer is important – it's about quality, not where the tea is grown. The Rainforest Alliance certification process allows the farmer to see the connection between the consumer and their own growing efforts, at the same time as providing the consumer a connection back to the farmer who grew the tea.

IAN NEATHERCOAT
TEA STANDARDS AND
COMPLIANCE DIRECTOR,
UNILEVER

It took a long time, but we were on a learning curve, and we had to invent the way for this project to work. There were a lot of challenges, and no one was really sure that it would succeed. But it has been a great success, and now we know exactly what to do.

ARTHUR RIMBERIA
OPERATIONS DIRECTOR, KTDA



A wider commitment

The Farmer Field School project exemplifies Unilever's commitment to sustainability.



Even in the late 19th Century, the businesses that would later become Unilever were passionate about their products' social benefits – with Lever Brothers, the manufacturers of Sunlight Soap, setting out to promote hygiene as well as increasing sales.

Decades later, that ethos is stronger than ever, with brands such as Lipton, Knorr and Ben & Jerry's now applying sustainability principles as a matter of course.

We call it 'doing well by doing good', summing up how, for Unilever, ethical values and business benefits are inextricable. For instance, when it comes to agriculture, we have to secure our supply of raw materials in the long term – which means promoting sustainable practices now.

The Farmer Field School project also shows the importance of partnerships in our mission to promote sustainable agriculture. In fact, it's just one of a number of high-profile

collaborative ventures we've helped found, including the Roundtable on Sustainable Palm Oil (RSPO) and the Round Table on Responsible Soy (RTRS). In all our partnership initiatives, we leverage the expertise of a wide range of bodies – academic and public as well as private.

There's no doubt that sustainability at Unilever is here to stay, our commitment standing firm both through prosperous and less certain times.

As CEO Paul Polman said: "I sincerely believe that businesses like Unilever can be a positive force for good in the world, and that such an approach is in the interests of all our stakeholders – our investors, our consumers and customers, our employees, and the communities where we operate."



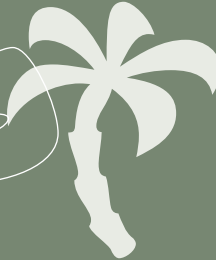
Thanks to Andre de Jager for several of the photographs used.

A detailed report of the assessment of the Farmer Field Schools is available as: Sustainable tea production by Sabine Hiller, Davies D. Onduro (ETC East Africa) and Andre de Jager. Report 2008-078. Project code 20711, LEI Wageningen UR, The Hague. February 2009.

Credits

Writing: Unilever
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