

Sustaining Kenyan smallholders in fresh produce markets

Faced with increasingly tough European Union pesticide compliance and retail quality standards, many actors in the export industry, especially the supermarket chains, predicted that Kenyan smallholders would be unable to continue participation in export markets. Brigitte Nyambo and Ruth Nyagah report on initiatives which show that, with the right support, this need not be the case.

The horticulture sector in Kenya is extremely important for the national economy. Somewhere between 40-60% of horticultural producers are small and medium scale farmers. As many as 60,000 farming families and up to two million Kenyans out of a total population of 30 million depend directly or indirectly on export vegetables for their living. The export sector earned the country about Euro 150 million in 2003, from a volume of 72,000 tonnes fruits and vegetables. Over 60% of these go to the UK with the next largest markets being the Netherlands and France. Consequently it has been critical for the sector to meet not only stricter European Union (EU) legislation on Maximum Residue Levels (MRLs) but also the requirements of European importers and retailers, of which most major UK supermarkets now demand certification under EurepGAP standards (see box).

The Kenya-based International Centre for Insect Physiology and Ecology (ICIPE) has been working for over a decade on Integrated Pest Management (IPM) systems suitable for smallholder production in export and domestic market crops. These include French bean and okra, both important export crops. Surveys in 2002-03 showed that many smallholders growing green beans believed that production was not possible without weekly applications of pesticides (equivalent to 10 applications per cropping cycle). Pesticides accounted for the second largest component of production costs (14%) after labour and over 20% of farmers reported having sought medical treatment for health problems related to pesticide use¹. Harmonisation of EU pesticide legislation in 2000 led to a situation where many of the pesticides widely used in East Africa had their residue levels set at the limit of detection, thus effectively phasing them out for export production. Particularly affected were organophosphate and carbamate insecticides and dithiocarbamate fungicides, all widely used, cheap and available from the rural suppliers used by smallholder producers². Subsequently, the increasing need for the export sector to meet EurepGAP standards led some export

companies to stop sourcing from smallholder groups and outgrowers. To ensure continued participation of smallholders in horticultural exports ICIPE developed a three-pronged strategy for facilitating smallholder compliance with EurepGAP:

- development of private sector extension service providers for outgrower producers
- development of an accredited local certification body
- development of a quality management system (qms) 'shareware' manual

Private sector extension training

It was clear that ICIPE's expertise and outreach work in IPM on its own would be insufficient to meet the challenges, particularly of EurepGAP certification. The centre needed to work more closely with the export sector companies and relevant government agencies, as well as access donor funding. A good start had already been made in re-orienting existing IPM training and materials to include compliance with EU MRLs and food hygiene standards. The next step was to look carefully at the training and extension needs of smallholders and potential channels to supply these. Like many countries in Africa, Kenya's extension services are generally under-funded, poorly motivated, with limited access to information and insufficient experience of the demands of modern supply chains. ICIPE recognized that horticultural export production is profitable and farmers should be prepared to pay for quality services that ensure their further participation in the sector. In 2003 the extension advice programme concentrated on two objectives:

- to develop private service extension providers for small-scale horticulture outgrower groups in Kenya
- to package validated plant protection research information from different institutions for dissemination to end users

The 12 month training involved 15 graduates in close collaboration with export companies, comprising theory and practical

field activities and ending with a three-month supervised attachment to a producer group. At the end trainees made their own business plans and received support to set up as independent advisors. Export companies took some of the graduates on but most remained independent. A further 15 graduates are in training. Over time it became apparent that for trainees to become effective extension service providers they needed not just an understanding of technical issues surrounding IPM and post-harvest hygiene, but also good communication skills to work with farmers, and business management training (Figure 1). Improving their understanding of horticulture supply chain practice has been essential.

In parallel with the capacity-building component, ICIPE has worked closely with the EurepGAP secretariat to explore how EurepGAP protocols could be adapted for Kenyan smallholders while remaining consistent with the aims of the various control points and requirements on record-keeping and traceability. To improve understanding among smallholders about EurepGAP standards, a three month programme of radio slots was broadcast, targeting growers, consumers, input suppliers and policy makers. This work is now being taken further with development of Kenya GAP national standards. The service providers trained by ICIPE have been instrumental in the first EurepGAP certifications of smallholder producer groups in Kenya.

Africa-based certification

The other major initiative to support smallholders was to set up a Kenya-based company to offer cost effective certification services, in response to an identified certification need in the local horticultural

EurepGAP

EurepGAP is the Euro-Retailer Produce Working Group programme to develop global certification of Good Agricultural Practices (GAP). It has a major influence on food supply chains with 275 companies as members and over 35,000 growers registered in 62 countries, including 12 in Africa. EurepGAP protocols for fresh fruit, vegetables and flowers and coffee encompass crop, soil, water, waste and site management, post-harvest treatment, worker health and safety, environmental protection and traceability. Pesticides compliance criteria mainly cover pesticide selection, handling, recordkeeping, storage, and disposal. Of the 64 control points related to crop protection, only two refer to IPM and only eight to selection of less toxic products. PAN UK would like to see a much stronger emphasis on IPM implementation and pesticide reduction in the next version of the protocols, with concrete support to help farmers improve their practice.

(www.eurepgap.org)

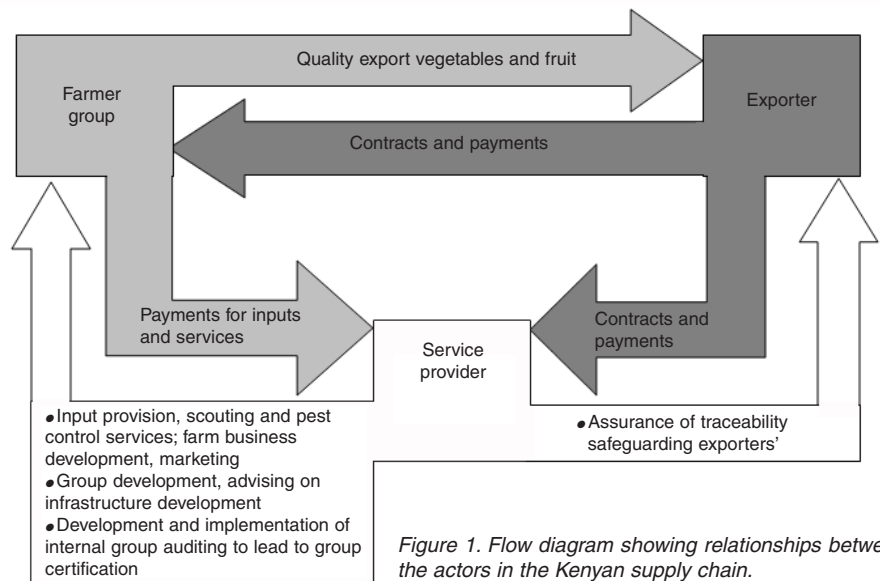
sector. The idea to set up a local certification body was conceived by GTZ (German Technical Development Agency) in 2001 and funded by them through ICIPE, with the aim to set up a company that can offer certification to a wide range of East African producers trading in Europe.

At the time AfriCert was being developed, European-based companies were charging up to US\$8,000 to certify one production unit, which was prohibitive especially to medium and smaller Kenyan export companies sourcing from smallholder farmers. Offering a local alternative has the advantages both of lower costs and of certifiers able to speak local languages and understand the local agricultural situation. The local body also ensures high standards are continuously maintained so as not to be viewed by export stakeholders as lowering standards in any way.

The development of AfriCert began in late 2002 with International Standards Organisation (ISO) Guide 65/EN 45011 document development and training of the first staff. The company was eventually registered in late 2003 and in 2004 received provisional approval from EurepGAP to offer non-accredited certificates. In January 2005, AfriCert was officially launched in Kenya, having acquired the prestigious ISO 65 accreditation, making it the first local company in East and Central Africa to acquire this status and be able to offer internationally accepted certification for the EurepGAP fruits and vegetables scope.

Last year AfriCert certified about a third of Option 1 certified farms in Kenya and five farmer groups. The company also certifies coffee producers under the Utz Kapeh Scheme to ensure responsible coffee production. Under this scheme, AfriCert has 16 major coffee estates belonging to the main two large coffee growers in Kenya and the first coffee mill to be certified in Kenya and Tanzania. AfriCert also has sub-contracting inspection arrangements with Ceres GmbH, a German organic certification body and with a German consumer ethical label for flowers. Recently AfriCert has been provisionally approved as a Starbucks verifier in Kenya and is working on including British Retail Consortium certification and ISO 9001:2000 certification.

Setting up local certification capacity has required immense investment and commitment over the last four years involving international training and external financing from bodies such as COLEACP (the Europe / Caribbean-Pacific Liaison Committee for the Promotion of ACP horticulture products), DfID (UK Department for International Development), GTZ and the local PSDA/GTZ. AfriCert has also collaborated closely with international training institutions and the German accreditation body, DAP. By paying competitive local staff salaries, and eliminating international travel, AfriCert has managed to reduce certification costs dramatically. Kenyan export companies are now more willing to invest in certifying their smallholder suppliers as



evidenced by the number of groups certified last year and the numbers currently preparing. AfriCert plans to expand its certification services elsewhere in East Africa and to attract Tanzanian and Ugandan investors or to open branches in these countries.

ICIPE's 'shareware'

The last component of the smallholder inclusion strategy has been to support smaller export companies to set up quality management systems. ICIPE is now developing a 'shareware' manual to enable these companies to access the relevant software.

Successes

EurepGAP compliant smallholders are no longer using or storing pesticides not authorised in the EU, so this has helped reduce the availability and use of several hazardous pesticides commonly used, such as carbendazim and dimethoate. Farmers are now aware of, and adhere to, pre-harvest intervals and carry out field scouting to decide whether spraying is necessary, rather than calendar spraying. This has helped reduce use, application frequency and input costs. They also carry out properly planned crop rotation and field layout to manage soil pests. Many farmers are using biopesticides, mainly *Bacillus thuringiensis* (Bt) and some are purchasing neem, garlic and natural pyrethrin products available on the local market.

There are tangible benefits for farm families, local consumers and environment. With the construction of chemical stores, smallholders particularly appreciate they can keep pesticides out of their living areas and now rinse spray equipment in special disposal pits to avoid risk of water contamination. In 2005 some input suppliers started collection schemes for empty pesticide containers. Farmers are much more conscious of pesticide and microbiological hazards and now appreciate more why hand washing after handling chemicals is so

important. Likewise, they are applying the same quality and food safety principles for crops grown for the local market.

Developing the smallholder support strategy, from its beginnings in IPM training to EurepGAP certification performed by Africans, has meant that ICIPE has had to broaden its remit beyond formal research to collaborate with a wide range of national and international private and public sector organisations. Considerable donor funding has been received from German, US, UK and Japanese overseas development agencies.

A key measure of ICIPE's success is in the change of attitudes towards smallholders. The work has proven that smallholders are able to comply with strict European market requirements. AfriCert and ICIPE's approach also features strong support to empower smallholders to develop ownership and control of the compliance and certification process, rather than to remain passive recipients, dependent on technical advice from export companies. In a world where import orders and company purchase decisions can change overnight, it is critical for smallholders involved in export supply chains to be able to understand how these chains work and to stand on their own feet.

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