

# Private sector serves horticultural industry in Kenya

RIU

## Validated RNRRS Output.

Small companies are springing up in Kenya to help growers comply with international food safety standards. The export market for fresh vegetables is fairly well-developed but small growers are often left out when it comes to know-how on food safety and hygiene, and consumer preferences. But, by following advice from new small businesses, more than 23 farmer groups in the Central, Eastern and Rift Valley provinces have become certified, and more are in the pipeline. These business services spread very quickly to the Rift Valley, Coast and Western Kenya, and are rapidly expanding to other areas. Private-sector extension services could have a major impact on small-scale horticultural producers in East Africa, particularly for high-value crops where producers are more able to pay.

Project Ref: **CPP64:**

Topic: **5. Rural Development Boosters: Improved Marketing, Processing & Storage**

Lead Organisation: **ICIPE, Kenya**

Source: **Crop Protection Programme**

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## Document Contents:

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## Description

**CPP64**

## Research into Use

NR International  
Park House  
Bradbourne Lane  
Aylesford  
Kent  
ME20 6SN  
UK

## Geographical regions included:

[Kenya](#),

## Target Audiences for this content:

[Crop farmers](#), [Processors](#), [Traders](#),

**A. Description of the research output(s)**

1. Working title of output or cluster of outputs.

*In addition, you are free to suggest a shorter more imaginative working title/acronym of 20 words or less.*

**Development of private sector service providers for the horticultural industry in Kenya**

2. Name of relevant RNRRS Programme(s) commissioning supporting research and also indicate other funding sources, if applicable.

**Crop Protection Programme and DFID-Business Services Market Development project-Kenya**

3. Provide relevant R numbers (and/or programme development/dissemination reference numbers covering supporting research) along with the institutional partners (with individual contact persons (if appropriate)) involved in the project activities. As with the question above, this is primarily to allow for the legacy of the RNRRS to be acknowledged during the RIUP activities.

**R 6616, R7403, R 8296 and R8341 provided supporting research to R8438 and R 8297.**

**R8438, R8297 was implemented by the International Centre of Insect Physiology and Ecology (ICIPE) in collaboration with the NRI-University of Greenwich-UK, the Business Services Marketing Development Project (BSMDP)-Kenya, The Kenya fresh produce exporters, PACT-Kenya, Outgrower farmer groups in Central and Eastern provinces, Africert Ltd, EUREPGAP Food Plus Secretariat and individuals. The contacts are as follows:**

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4. Describe the RNRRS output or cluster of outputs being proposed and when was it produced? (**max. 400 words**). This requires a clear and concise description of the output(s) and the problem the output(s) aimed to address. Please incorporate and highlight (in bold) key words that would/could be used to select your output when held in a database.

An efficient extension service with the ability to create awareness among **small-scale horticultural** producers about **health and environmental risks**, market demands and compliance with current International food standards was not in place in Kenya. Thus many farmers, farm workers and consumers are exposed to the risks inherent to the current production practices, particularly excessive use of synthetic agro-inputs (pesticides and fertilizers). To minimize the risks, R8297 and R8438 piloted the development of **private sector extension services provision** for advice, input supply and plant protection for the horticultural industry in Kenya from 1<sup>st</sup> April 2003 to 31<sup>st</sup> December 2005 under the **Peri-Urban Vegetable** cluster to facilitate continued **market access** and improved **livelihoods** for small-scale farmers. The pilot addressed issues related to fresh produce export market: the current EU MRLs, food safety and hygiene requirements, and, the EUREPGAP Standard. The project was a pilot for the privatization of government extension services in Africa, and was therefore a learning platform. The lessons learnt are applicable to other small-scale horticultural production systems in East Africa particularly in areas where private payment for services, as in high value crops, would be available.

5. What is the type of output(s) being described here?  
Please tick one or more of the following options.

Product	Technology	Service	Process or Methodology	Policy	Other Please specify
	X	X	X		

6. What is the main commodity (ies) upon which the output(s) focussed? Could this output be applied to other commodities, if so, please comment

**Vegetables. Yes it can be applicable to other high value crops and production systems**

7. What production system(s) does/could the output(s) focus upon?  
Please tick one or more of the following options. Leave blank if not applicable

<b>Semi-Arid</b>	<b>High potential</b>	<b>Hillsides</b>	<b>Forest-Agriculture</b>	<b>Peri-urban</b>	<b>Land water</b>	<b>Tropical moist forest</b>	<b>Cross-cutting</b>
	X			X			

8. What farming system(s) does the output(s) focus upon?

Please tick one or more of the following options (see Annex B for definitions).

Leave blank if not applicable

<b>Smallholder rainfed humid</b>	<b>Irrigated</b>	<b>Wetland rice based</b>	<b>Smallholder rainfed highland</b>	<b>Smallholder rainfed dry/cold</b>	<b>Dualistic</b>	<b>Coastal artisanal fishing</b>
	X		X			

9. How could value be added to the output or additional constraints faced by poor people addressed by clustering this output with research outputs from other sources (RNRRS and non RNRRS)? (**max. 300 words**). Please specify what other outputs your output(s) could be clustered. At this point you should make reference to the circulated list of RNRRS outputs for which proformas are currently being prepared

The R8297 and R8438 project limited its activities to small-scale farmer vegetable production systems in Kenya with emphasis on the export sub-sector. The Kenya fresh vegetable export sub-sector is fairly well developed and therefore the industry is well versed with information about market access and quality control. However, the participation of small-scale farmers was being threatened by a lack of efficient extension services for input and plant protection to be able to comply with the current EU MRLs and the EUREPGAP Standard. The outputs piloted the establishment of a private sector extension service provision that would be able to create awareness among small-scale outgrowers farmer groups about health and environmental risks, market demands and how to comply with International food standards. This pilot phase was constrained by (1) lack of enabling policy framework for the establishment of private sector extension services provision, (2) farmer's reluctance to pay for extension services perceived to be free, (3) lack of transparency (between farmers and produce buyers), and (4) lack of cohesiveness at group level. The lessons learned in the process would be valuable in the establishment of private extension services provision in other East African countries. However, since the knowledge and experience on market access and quality control, particularly the export sub-sector in the other East African countries are not as developed as in Kenya, resources will be required to develop and facilitate market access. This would be achieved by forging linkages with R8182, R8418, R8296, which dealt with participatory market chain analysis and R7530 that addressed food safety in the supply chain.

## Validation

### B. Validation of the research output(s)

10. **How** were the output(s) validated and **who** validated them? Please provide brief description of method(s) used and consider application, replication, adaptation and/or adoption in the context of any partner organisation and user

groups involved. In addressing the “who” component detail which group(s) did the validation e.g. end users, intermediary organisation, government department, aid organisation, private company etc... This section should also be used to detail, if applicable, to which social group, gender, income category the validation was applied and any increases in productivity observed during validation (**max. 500 words**).

**R 8297 output was validated in November/December 2004 by a DFID independent team through discussions and interviews with project partners (small-scale farmer groups, fresh produce export companies, private service provider graduates, DFID –Business Services Market Development Project, and the project implementers) and, field visits to participating institutions (Project Number: ZA 0630, Contract Number 2910). The evaluation team found the project has been able to demonstrate that small-scale outgrowers for the export sector can adopt traceability system, sound IPM and good agricultural practices required under the EUREPGAP Standard and can be certified. This ensuring their continued participation in the export sector, and, opened up other market opportunities for local consumers due to improved quality of produce grown in association and/or rotation with the export crops. Consequently, this contributed to improved livelihoods among farm families and workers (through income from sale of produce, employment in the supply chain), reduced health hazards for farm workers and their families, and, improved food quality.**

11. **Where and when** have the output(s) been validated?

Please indicate the places(s) and country(ies), any particular social group targeted and also indicate in which production system and farming system, using the options provided in questions 7 and 8 respectively, above (**max 300 words**).

**R8297 and R8438 have not been validated elsewhere other than in Kenya where the technology has been highly popular with small-scale vegetable outgrower farmer groups, product-marketing organization (PMOs) and export companies. The outputs are being promoted in the high potential peri-urban horticultural production systems and small-scale highland rainfed/irrigated farming systems of Kenya.**

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## Current Situation

### C. Current situation

12. **How and by whom** are the outputs currently being used? Please give a brief description (**max. 250 words**).

**The outputs of R8297 and R8438, are extensively used by small-scale outgrower farmer groups in Kenya to improve market access with emphasis on the export sub-sector; fresh produce export companies have employed some of the graduates either as fulltime or part-time extension service providers to small-scale outgrower farmer groups. The graduates of 2004 formed a private company “Agribusiness and Allied Services Company Ltd” that serve as information and service center, for small-scale outgrowers’ groups,**

this created employment opportunities to college graduates. EUREPGAP Secretariat in collaboration with FPEAK, MOA, HCDA and BSMDP used the outputs to facilitate benchmarking of KenyaGap, this contributing to improvement of the local production, food and environmental standards. MOA modified their training approach on the EUREPGAP Standard based on the outputs. Other development agencies e. g. the USAID-funded HDC and Care Kenya Kibwezi, are promoting the technology among small-scale horticultural production outgrower groups. As a result, more than 23 outgrowers farmer groups, each with 15-30 members (men and women) has been EUREPGAP certified to date.

13. *Where are the outputs currently being used? As with Question 11 please indicate place(s) and countries where the outputs are being used (max. 250 words).*

The outputs of R8297 and R8438 are currently being used in Kenya by the fresh produce horticultural industry (export and domestic markets) in the major horticultural production areas, particularly in Central, Eastern and Rift Valley provinces.

14. *What is the scale of current use? Indicating how quickly use was established and whether usage is still spreading (max 250 words).*

As indicated above, the outputs of R8397 & R8438 spread very fast from the initial study areas in 2004 in Central and Eastern provinces to other parts of Kenya (Rift Valley, Coast and Western Kenya), and is still spreading to other areas in Kenya. Whereas only one outgrowers' farmer group was EUREPGAP certified in December 2004, currently there more than 23 small-scale outgrower farmer groups certified, and more are in the process of being certified.

15. *In your experience what programmes, platforms, policy, institutional structures exist that have assisted with the promotion and/or adoption of the output(s) proposed here and in terms of capacity strengthening what do you see as the key facts of success? (max 350 words).*

**R8297 and R8438:** At ICIPE, there were already on-going programmes on training of trainers (TOT) to improve provision of efficient extension services to small-scale farmers for French beans, tomatoes, brassica and okra in collaboration with fresh produce export companies and development agencies. The Kenya fresh produce export is basically private sector driven and therefore knowledgeable about marketing and quality control. Kenya government was in the process of privatization of extension services, an opportunity for the project to develop a role model. Linkages and collaboration with other DFID funded projects enhanced promotion of the outputs: The DFID-BSMDP provided additional resources for publicity, capacity building and scaling up. The establishment of Africert Ltd, a local EUREPGAP certification body accredited to ISO EN 65 45011, ensured that certification costs were affordable by small-scale outgrower farmer groups. The key factors of success were the existing market demands and requirements (export sub-sector was the driving force for technological uptake and spread), good private-public partnerships, enabling national and International policy environment for private-public sector partnerships, adequate financial resources, multi-

## disciplinary and inter-institutional team approach in project implementation.

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### Current Promotion

#### D. Current promotion/uptake pathways

14. **Where** is promotion currently taking place? Please indicate for each country specified detail what promotion is taking place, by whom and indicate the scale of current promotion (**max 200 words**).

**R8297 and R8438: In Kenya, the outputs are being promoted through the fresh produce export sub-sector (FPEAK, export companies, HCDA, MoA) and development partners (the DFID-BSMDP-Kenya, the USAID-HDC funded project and the GTZ-PSDA/MOA).**

17. **What are the current barriers preventing or slowing the adoption of the output(s)?** Cover here institutional issues, those relating to policy, marketing, infrastructure, social exclusion etc. (**max 200 words**).

**The current barriers slowing the adoption of R8297 and R8438 in Kenya are: (1) Lack of supportive policy environment for private sector extension services provision, (2) farmers reluctance to pay for extension services, which are perceived to be “free” (3) issues related to farmer group development, cohesion and sustainability (4) inadequate contractual arrangement between outgrower farmer groups and produce buyers (contracts not binding, lacks transparency) and (5) lack of standardized information which could cause misconceptions and misunderstandings about international food safety standards and requirements.**

18. **What changes are needed to remove/reduce these barriers to adoption?** This section could be used to identify perceived capacity related issues (**max 200 words**).

**A number of changes will be required to enhance adoption of the outputs: (1) establishment of an enabling national policy on private sector extension services provision (2) publicity and awareness creation about the new policy to all stakeholders (3) capacity building in the development and management of commercial farmer group associations (4) development and formulation of code of practice for private sector services providers (5) establishment of credible and functional market information centers to ensure access to harmonized information, (6) development and enforcing of a culture of transparency among business partners based on mutual trust and respect, and (7) establishment of credit facilities (micro-finance) for input and services for small scale commercial farmer groups.**

19. **What lessons have you learnt about the best ways to get the outputs used by the largest number of poor people?** (**max 300 words**).

**Reliable market access, continuous capacity building and information update on markets**

and consumer demands, use of a combination of communication tools (radio and TV programmes, posters, fliers, field guides, field days) to publicize and raise awareness, formation of cohesive commercial farmer groups, good sustainable linkages between growers, service providers and produce buyers based on transparency that fosters healthy business relationship, enabling policy environment that fosters public-private partnerships for service provision, and, provision of quality, affordable services, would be key to fast uptake and spread of the outputs.

## Impacts On Poverty

### E. *Impacts on poverty to date*

20. *Where have impact studies on poverty in relation to this output or cluster of outputs taken place? This should include any formal poverty impact studies (and it is appreciated that these will not be commonplace) and any less formal studies including any poverty mapping-type or monitoring work which allow for some analysis on impact on poverty to be made. Details of any cost-benefit analyses may also be detailed at this point. Please list studies here.*

As mentioned above, only preliminary evaluation of the outputs was conducted in November-December 2004. This was the first pilot in Africa in the direction of trying to develop a model for privatization of the extension services in Africa, and was therefore a learning ground. The lessons will be tested elsewhere before its real impact on livelihoods can be assessed. However, starting with one group that was EUREPGAP certified in December 2004, about 23 outgrowers farmer groups (each with about 15-30 members) have been EUREPGAP certified under option 2 in Kenya since then. The EUREPGAP compliance strategies (grading sheds, hand-washing facilities, toilets, etc) developed by the project has spread all over Kenya wherever produce for the export market is grown. The Nation-wide radio and TV series conducted by the programme raised awareness about the EUREPGAP Standard across Kenya.

List of studies conducted:

***Lenne J. and Ward A. 2004. Lesson Learning study from the Vegetable Cluster with Special emphasis on the links with the private sector. The Crop Protection Programme, ZA 0630, R2910, 15th December 2004.***

21. *Based on the evidence in the studies listed above, for each country detail how the poor have benefited from the application and/or adoption of the output(s) (max. 500 words):*

- *What positive impacts on livelihoods have been recorded and over what time period have these impacts been observed? These impacts should be recorded against the capital assets (human, social, natural, physical and, financial) of the livelihoods framework;*
- *For whom i.e. which type of person (gender, poverty group (see glossary for definitions) has there been a positive impact;*
- *Indicate the number of people who have realised a positive impact on their livelihood;*



- *Using whatever appropriate indicator was used detail what was the average percentage increase recorded*

**NOT YET DONE**

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## **Environmental Impact**

### **H. Environmental impact**

*24. What are the direct and indirect environmental benefits related to the output(s) and their outcome(s)? (max 300 words) This could include direct benefits from the application of the technology or policy action with local governments or multinational agencies to create environmentally sound policies or programmes. Any supporting and appropriate evidence can be provided in the form of an annex.*

**R8297 and R8538 emphasized good agricultural practices in production to minimize environmental and human health risks, and reduction of production costs (environmental and human health). These outputs addressed issues of international policies, e.g. the EU MRLs and the new food safety and hygiene regulations, and will contribute favorably to the Tanzania National Environmental policy of 1997, the plant protection act of 1997, the crop sub-sector policy of 2005, the 2015 national strategy to reduce loss of environmental resources and the 2025 Tanzania MDG.**

*25. Are there any adverse environmental impacts related to the output(s) and their outcome(s)? (max 100 words)*

**None that are likely**

*26. Do the outputs increase the capacity of poor people to cope with the effects of climate change, reduce the risks of natural disasters and increase their resilience? (max 200 words)*

**yes. R8297 and R8438 emphasize sustainable use of natural resources, raise awareness about potential hazards of misuse and abuse of synthetic pesticides and fertilizers, and promote good agricultural practices through hands-on training and farmer-farmer learning. These are likely to improve their capacity to make informed decisions beyond project life.**

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## **Annex**

### **Annex: Bibliography**

**Anon 1997a. The Plant Protection Act, 1997. The United Republic of Tanzania, July 1997.**

**Anon 1997b. National Environmental Policy. United Republic of Tanzania, Vice Presidents's Office Dar es Salaam. December 1997**

**Anon 2000a. Farmers training handbook for fruits and vegetables propagation and management. Compiled by H. Rogg and edited by Horticulturalists-SECAP-Lushoto). GTZ/SECAP Lushoto, GTZ/ITSP Nairobi-Kenya and DED Dar es Salaam**

**Anon 2000b. Tanzania Poverty Reduction Strategy Paper.**

**Anon, 2001. Agricultural Sector Development Strategy, October 2001. United Republic of Tanzania.**

**Anon (??). IDT/MDG Progress Report: United Republic of Tanzania**

**Anon 2005. Crop Sub-Sector Policy 1st Draft. United Republic of Tanzania, Ministry of Agriculture and Food Security Dar es Salaam, April 2005**

**Lenné, J.M., Pink, D.A.C., Njuki, J., Wanyonyi, C. and Spence, J. N. 2005. Opportunities and constraints for future economic development of sustainable vegetable seed business in Eastern and Southern Africa. A scoping study commissioned by the Rockefeller Foundation, the Department for International Development, and the Gatsby Charitable Foundation, January 2005.**

**Nyambo, B.T., 2005. Needs assessment for WSSD-Horticulture partnerships East Africa-The Netherlands on improving market access: Tanzania Mission Report, 29th June to 5th July 2005 (unpublished). International Centre for Insect Physiology and Ecology (ICIPE), P.O. Box 30772-00100 Nairobi-Kenya**

**Nyambo, B and Verschoor, R. 2005. Partnership for market access: towards a sustainable market-oriented horticultural sector in Tanzania. The export horticulture in Tanzania, Wageningen UR Position paper, August 2005**

**RAS Kilimanjaro 2003. Kilimanjaro Vision 2025. Regional Secretariat-Kilimanjaro Region, April 2003 (unpublished)**

**RAS Kilimanjaro, 2005. Proceedings of the Kilimanjaro Regional Investors/Business round table meeting 7th June 2005, Uhuru Hostel-Moshi. Regional Administration and Local Government, RAS Kilimanjaro Region.**

**Soini, E. 2002. Livelihoods on the southern slopes of Mt. Kilimanjaro, Tanzania: Challenges and opportunities in Chagga homegarden system. Natural Resource Problems, Priorities and Policies. Working paper Series, World Agroforestry Centre.**

**Stevenson, C., Kinabo, J. and Nyange D. 1994. Urban Horticulture in Tanzania: A situation analysis of the production, marketing and consumption of fruits and vegetables in Dar es Salaam, Dodoma and Arusha.**

