

Ethical Trade and Export Horticulture

Summary of First Year Findings

Prepared for the London workshop, 10th March 1999



Natural Resources Institute (UK)
Agro-Eco (Netherlands)

ETHICAL TRADE AND EXPORT HORTICULTURE SUMMARY OF FIRST YEAR FINDINGS

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2 HOW TO USE THIS DOCUMENT

We hope you can find time to read this document which has been prepared for the London workshop on 10 March. If time is tight, then please read the Introduction, the Methodology and the section For Further Thought.

3 INTRODUCTION

For the past year, collaborators in the Natural Resources and Ethical Trade programme have been looking at **How to make ethical trade work in export horticulture in developing countries**. In particular it has been asking the following questions:

- Who are the stakeholders in the trading chain?
- What are the ethical priorities for these different stakeholders?
- Are these ethical priorities reflected in existing and proposed ethical codes of practice?
- What needs to be done to improve ethical standards in export horticulture?

By ethical trade we are talking about trade that seeks to improve both the environmental and social performance of production, particularly in developing countries. From the outset we have taken the position that in agriculture at least to separate social and environmental issues is to miss an opportunity for contributing towards sustainable business practice.

3.1 TARGET AUDIENCE

The project aims to inform and bring together those engaged in ethical trade in Europe and Africa. Over 130 people in Africa and Europe were consulted in the initial consultations, and regular contact has been maintained with workers, growers, exporters, importers and retailers throughout the project so far. Workshops for these stakeholders were held in Harare and Accra in February 1999.

This Summary presents the findings of the first year's work, and will be used to inform discussion between different stakeholder groups at a London workshop, and to design a second phase of the project beginning April 1999. A full report on the first year's work will be published by June.

4 METHODOLOGY

The commodities and countries covered by the project can be seen from Table 1. These were identified through an initial consultation process in the UK and Africa. This process also highlighted the need to identify and include the different systems under which horticultural products are grown, and the wide variety of stakeholders that affect the horticulture trade (Tables 2, 3 & 4).

For people to talk openly about their ethical norms, values and priorities, a single interview is rarely enough, and **one of the lessons of the project is that repeat visits are necessary to build up trust, confidence and understanding.** Furthermore, while each stakeholder has preconceptions about other stakeholders, they often find it difficult to communicate with each other. Therefore, **involving and encouraging dialogue between stakeholders was fundamental to the project approach.**

A third element of the methodology was to **adopt the type of open-ended, exploratory, participative research approaches found in 'participatory rural appraisal'.** Formal questionnaires were rarely used; rather emphasis was placed on consultation over a relatively long period using wherever possible local languages.

Table 1: Commodities

Commodity	Country
Fresh fruit (pineapples)	Ghana
Fresh vegetables	Zimbabwe
Additional information has been incorporated from the cut flower (Uganda, Kenya) and fresh vegetable (Kenya) sectors.	

Table 3: Secondary stakeholders affecting the horticulture trade (Africa)

Banks	Traditional institutions	Neighbouring communities
National government	Local government	Overseas government
Local transporters	International transporters	International donors
Extension service providers	Environmental NGOs	
Education service	Social NGOs	
Health service	Trade unions	

Table 4: Research sample

Country	Number of farms	Other respondents
Ghana	9 commercial farms 4 smallholder associations	Sea-Freight Pineapple Exporters of Ghana 1 air freight company Horticulture Association Ghana Ghana Agricultural Workers' Union Agricultural Development Bank
Zimbabwe	4 commercial farms 2 smallholder/outgrower schemes	Horticulture Promotion Council Commercial Farmers Union Zimbabwe agricultural workers' union Save the Children Fund
In both Ghana and Zimbabwe additional farms, government officials and international donor agencies contributed to the in-country workshops.		

4.1 NON-JUDGMENTAL AND CONFIDENTIAL

Two fundamental features have been applied throughout the project:

1. The project is **non-judgmental**. The project is about finding out what issues are important to different stakeholders, and **not** trying to assess the performance of different producers.
2. The project guarantees **confidentiality**. All those participating in the project have done so voluntarily, and the names of individual farms are not available to any other than the project team members.

4.2 SHORTCOMINGS

This methodology is not without its faults. It is time intensive which in turn has resource implications. By adopting a participative approach, it does not identify issues of which respondents are unaware and thus, for instance, certain environmental issues were not identified. Although the approach identifies stakeholders, it does not guarantee access to them, and we are aware that certain groups (e.g. women workers on smallholder farms) were not adequately consulted, and certain distinctions were not fully explored (e.g. the priorities of migrant versus non-migrant workers).

Table 2: Primary stakeholders

Growers and Exporters	
Type	Characteristics
Exporter-growers	Central farm, pack-house and exporting facilities. Pack-house supplied by own produce, and possibly large-scale and some small-scale outgrowers.
Exporters	Pack-house and export facilities but no central farm. Supplied by different sized outgrowers.
Large and medium growers	Central farm and pack-house facilities. Pack-house supplied entirely by company farm.
Outgrowers	Large, medium, small farm with contractual agreement to sell to exporter.
Smallholders	Indigenous, small-scale, family-owned/managed farms supplying exporters but not under contract.
Workforce	
Characterised by type of job	Other relevant characteristics
Senior management/owners	Male - Female
Middle management	Married - Single - Female-headed household
Smallholder farm managers	Age
Permanent labourers	Migrant - Local
Casual/seasonal labourers	Unionised - Non-unionised
Smallholder labourers	
Importers	
Selling through wholesale market	Selling to multiples
Retailers	
Multiples	Individual outlets

5 ETHICAL PRIORITIES - FINDINGS

5.1 COMMERCIAL FARM WORKERS

5.1.1 General Features

The workforce is divided between permanent and temporary/seasonal workers. Temporary workers are greater in number, reflecting the seasonal nature of the industry. However, there are often large numbers of 'permanent casuals' where people work on the farm for several years but are not given permanent status.

Women make up the majority of the workforce, although there is significant gender division of labour with some tasks dominated by men (e.g. spraying, machine operation, management). Where workers live on the farm, accommodation is often allocated to men with female family members providing temporary labour.

In both Zimbabwe and Ghana there is comprehensive labour legislation and union recognition. In some cases, the issues identified by workers are already enshrined in law but are not enforced. Although some farm-owners are not friendly to unions, the main constraint is that unions are under-resourced and many workers do not feel they adequately represent worker interests.

At peak times during the week and during certain seasons, workers are expected to work long hours, perhaps in excess of that set out in national labour laws.

There is high unemployment, in part caused by the large number of children (under 18 years) unable to attend school. Public health and education services are generally poor in terms of quality and capacity. In some areas, children must work to support themselves and their families (e.g. because parents have died from AIDS). There are also a large number of female-headed households where the woman has to support her children and perhaps elderly relatives.

5.1.2 Key Issues

The following is a summary of key issues identified by female and male workers on commercial farms. The summary sets out what workers list as fair and just, although the listing does not reflect priorities¹. Some farms already meet these standards, and no inference about the performance of individual farms or countries should be drawn from the comments.

Terms of Employment: Workers should have clear basic terms of employment including the tasks they are expected to perform. These terms should include:

¹ Prioritisation was carried out in the consultation with workers but for reasons of space is not given here.

- Identification of permanent (year-round) tasks which should only be done by permanent workers.
- Identification of seasonal tasks which should be performed primarily by temporary workers.
- Setting out the policy and procedure for making temporary workers permanent employees.
- Provision of adequate information on workers' rights and responsibilities (e.g. explaining social security and other deductions).

Remuneration: Wages should be sufficient to meet the basic needs of workers and their families. In Ghana and Zimbabwe there is a minimum wage for the sector negotiated with the trade unions. However, this is seen as insufficient and some farm-owners pay significantly more than the minimum wage. The remuneration package should include:

- Provision of an adequate basic wage based on an agreed working week.
- Provision of performance-related bonuses where appropriate and incentive payments.
- Facilitation of credit schemes to enable purchase of consumer goods.
- Provision of small plots for subsistence farming.
- Payment of social security contributions for permanent and temporary workers.

Working Hours: Working hours should not undermine personal safety and quality control. Workers should receive adequate compensation for any over-time based on national labour laws, including additional compensation for working on public holidays. This should be paid based on a transparent and explained over-time system.

Leave: Companies should have a clear and explained policy on leave, including annual leave, compassionate leave, maternity leave and public holidays.

Worker health and safety: The working environment should be safe and conducive. This should include:

- Adequate first aid facilities (including trained personnel) should be available throughout the farm and pack-house.
- Access to free and accessible medical facilities for work-related illnesses, including regular medical checks for sprayers and treatment for endemic diseases such as malaria.
- Adequate rest periods, particularly in pack-houses.

- Injured workers (e.g. with open cuts) should be relocated from operations where they might contaminate food (e.g. picking and pack-houses)
- Provision of adequate protective clothing.
- Acceptable noise levels and ventilation.
- Adequate work space to carry out tasks effectively.
- Adequate training for hazardous tasks (e.g. spraying).
- Provision of potable water at a reasonable distance from the work site (e.g. in the field or near the pack-house).
- Companies should have a policy agreed with workers on the treatment of long-term sick employees (e.g. HIV sufferers).
- Provision of information on compensation procedures for work-related injuries and illness.

Worker facilities:

- Workers needing transport to return to their homes should have access to transport facilities at times when they are required. For instance, workers that finish in the early afternoon should not have to wait for a later shift to end; workers finishing late at night should have transport provided after public transport has ceased.
- Companies should ensure that adequate and affordable food is available during working hours.

Accommodation: Not all workers require the company to provide accommodation, and workers should be free to decide whether to utilise accommodation provided. However, if accommodation is provided, this should be of adequate standards as agreed through worker-management consultation and take into consideration cultural and demographic factors (e.g. size of family, the needs of migrant compared to non-migrant workers, the needs of female-headed households). There should be clear and explained policy and procedures to prevent workers in company accommodation from being exploited (e.g. through being on permanent call, or through threats to dismiss and evict).

Accommodation should include adequate living space, and cooking and sanitation facilities.

Where workers do not want to use company accommodation, a housing allowance should be paid.

Maternity leave and child care:

- Pregnant women should not be discriminated against.
- Women should receive maternity pay sufficient to meet their needs, and should not be allowed to return to work until after the statutory period of maternity leave is completed.

- Women should have adequate rest periods for attending to babies (e.g. breast feeding).
- Crèche facilities with adequate food and staffing should be provided for babies and infants (3 months and over), or where this is not feasible adequate shelter and rest facilities should be provided.
- Companies should facilitate nutritional feeding programmes for infants (under 5 years).

Representation: Workers should have authentic representation within the company. This should include:

- Defined procedures for negotiation, consultation and appeal with management.
- Management recognition of elected worker representatives.
- Representation of both temporary and permanent workers.
- Transparent and explained procedures on promotion and dismissal.
- Provision of information on company performance to workers.

Child labour:

- School children should be eligible to work as casual labour during holidays.
- Upon completion of schooling, children should be eligible to work on the farm regardless of age.

Social benefits for workers and families:

- Company subsidised health facilities should be available to workers' families. These should include consultation/treatment on non-work related illnesses (e.g. HIV/AIDS).
- Company subsidised education facilities should be provided where alternative services are unavailable.
- Company subsidised social amenities should be available (e.g. sports field, meeting hall, children's playground).
- Companies should facilitate and encourage adult education programmes.

5.2 SMALLHOLDERS AND OUTGROWERS

5.2.1 General Features

Outgrowers vary in size between farms with a large workforce and those that are managed mostly using family labour. The latter are distinguished from smallholders only by the fact that they have a fixed contractual relationship with exporters or middle-men.

Smallholder farming systems are complex, reflecting the ecological and cultural diversity of the African continent. But as a rule of thumb, smallholders

use their own labour and that of their families, supplemented by hired labour during peak periods (e.g. planting and harvesting) or contracted farm managers. Smallholder farms tend to be labour intensive with little mechanisation. Crops are grown sometimes for cash and sometimes for domestic consumption.

National governments often have policies of promoting smallholder production, and this is one reason why some larger growers and exporters buy from smallholders. They also offer a means of filling orders when other sources (own farms or contracted outgrowers) cannot do so, something that is particularly important when selling to the more volatile European wholesale markets.

Women are active in smallholder production, although in some cases their inputs may be hidden as part of the family labour force, and there is some evidence that women lose control of land and decision-making when the farm begins to produce for export.

Smallholders have survived political upheaval, population growth and climatic change, and responded to market boom and bust is evidence of smallholder resilience and adaptability. Many claim that the smallholder production systems are friendlier to the environment than commercial farming, although there is also evidence that poor understanding of chemicals, availability of proscribed chemicals, and the fact that chemicals are not sold in small quantities suited to smallholder needs have all contributed to poor environmental management.

5.2.2 Key Issues

Contracts: Clear contractual agreements should be established between smallholders (including outgrowers) and middlemen/exporters which do not undermine the interests of either party, including:

- Minimum price not below the sustainable cost of production, and sufficient to meet the basic needs of the smallholder.
- An effective planning system that does not undermine the operations of either party.
- A clear description of obligations of each party to the other (e.g. transparent procedure for price negotiation between smallholders and exporters, specification of maximum time period between harvest and payment)
- A clear explanation of criteria for selecting or rejecting produce, and of what happens to rejects (e.g. commitment by exporter to buy all de-greened fruit at a specified export price).

Complementary procedures: In order for contracts to be effective, there should also be:

- Stipulation of minimum price before planting.
- Explanation of pricing structure and how this relates to the grading of produce.
- Appropriate records.
- A system for monitoring of smallholder fruit to accurately identify source of quality problems.
- Incentive payments to exporters' employees for spraying, harvesting and packing of smallholder fruit should be prohibited.
- A practicable, affordable mechanism for traceability.

Specifically for outgrowers:

- Commitment to purchase all outgrower fruit which meets specifications of exporter.
- Access to loan and input facilities.
- Adequate repayment period for loan, payment in local currency and clear specification of interest rate.

Specifically for smallholder workers:

- To ensure that workers receive remuneration which allows them to save to set-up their own venture within a reasonable space of time.
- To ensure that working hours are such that workers have sufficient time to conduct other business.
- To ensure provision of adequate protective clothing.

5.3 ENVIRONMENTAL ISSUES

5.3.1 General Features

The environmental situation varies according to location and commodity, and rather than over-emphasise common features, it is perhaps more important to stress the need for a common approach to identifying environmental issues. Annex 1 gives an example of environmental criteria for the Ghana pineapple industry.

Larger growers and exporters appear to have had significant exposure to the importance of environmental issues, not least because of European food safety requirements and perhaps also organic standards.

Smaller growers have had less exposure, and have sometimes entered into mono-cropping without consideration of sustainability. Awareness of environmental issues is therefore often limited to some knowledge of health and safety issues (e.g. pesticide application).

5.3.2 Key Generic Issues

- Adoption of appropriate levels of technology for smallholders as well as commercial producers.
- Adoption of soil conservation measures.
- Adoption of appropriate and safe methods for pesticide usage.
- Maintenance of biodiversity and nature conservation.
- Sustainable management of water resources.
- Appropriate management of waste and emissions.
- Reduction of post-harvest losses.

5.4 FARM-OWNERS AND EXPORTERS

The list of workers', smallholders' and environmental issues has been discussed by farm-owners, exporters, smallholders and workers, and it was agreed that the lists were aspirational, describing what should be the case and not necessarily what was practicable at the present time. Furthermore, in some instances, management was already taking action but workers were not responding (e.g. on protective clothing, this is often provided but the available clothing is not suited to tropical conditions).

5.4.1 Communication and Partnership

Nonetheless it is agreed that companies should work with workers to prioritise and have in place a programme to address the issues. A key issue is how to achieve this. It is important for workers to understand why some issues can be tackled and others can not, and that a key issue is building a partnership between workers and management so that workers can express their views without fear and management can explain constraints. Likewise, smallholders and outgrowers need to understand the constraints faced by the exporter.

A repeated request from all sides is the need for greater transparency - between management and worker, exporter and buyer, smallholder and exporter. It is not sufficient to have information, but that information needs to be disseminated in such a way that it is understood and used as the basis for dialogue.

On commercial farms, trade unions could play a useful role in building better communication, but this in turn requires that local union representatives have sufficient capacity.

5.4.2 Ethical Space

Management feels it is under various constraints that restrict its 'ethical space' - i.e. the room in which to improve ethical performance without threatening commercial viability. The ethical space is constrained by factors such as freight comprises a major part of farmer costs, and also host country policies,

laws and practices. For instance, it is illegal under national legislation to employ children regardless of financial need and the wishes of their parents: indeed, because of international attention, it is harder to do this in export horticulture than less visible sections of the economy.

For management, it is vital that ethical trade principles be developed for all stages in the value chain, and that other stakeholders (e.g. suppliers of chemicals, freight companies) also be encouraged to employ ethical standards.

This includes overseas buyers who should also assess how their practices impact upon the ethical space. For instance, long periods between delivery and payment mean that farm-owners have to borrow more money than would otherwise be the case, often at high rates of interest (nearly 50% in Ghana and Zimbabwe).

It should also include a reassessment by the consumers that are an important driving force behind ethical trade. For instance, much of the chemical input used to produce certain fruits is needed to improve cosmetic qualities, not improve taste, size or storage.

In relation to European buyers, exporters listed the following issues that should be addressed:

Relationship between exporters and European buyers:

- To ensure that the exporters receive a fair price which reflects the cost of sustainable production. This includes:
 - transparent procedure for price negotiation between exporters and buyers;
 - prices which keep pace with increases in retail/wholesale price in Europe as well as cost of production; and
 - specification of maximum time period between purchase and payment.

- To ensure that contracts are adhered to by buyers as well as exporters. This includes:
 - adequate notice of change in order size provided by buyers;
 - commitment from buyers to purchase a specified quantity of fruit for a specified time period (six months?) at a minimum guaranteed price;
 - avoidance of undue pressure on exporters by buyers; and
 - no undercutting between exporters to secure contracts.

- To ensure that effective quality and traceability systems are in operation to safeguard interest of buyers as well as exporters. This includes:

- a traceability system which can accurately identify source of quality problems;
 - abolition of cosmetic quality standards which in themselves do not detract from inherent quality or safety of fruit; and
 - sensitivity of buyers to seasonal fluctuations affecting fruit quality and availability.
- To ensure adequate investment in production and research facilities which will assist with quality improvement and gearing the product towards market specifications. This includes:
- assistance from buyers in provision of loans and investment for improving production and research capacity.

5.4.3 Commercial Advantage and Disadvantage

Nonetheless, farm-owners and exporters agree that they can do more and also that improved social and environmental conditions could result in a better business. For instance, workers without adequate on-site sanitation pose a hazard to food safety which could jeopardise future orders. There is anecdotal evidence that improved environmental practices save farms and exporters money, both from reducing the amount of chemical inputs and from generally encouraging companies to think about their management practices.

However, there is still concern that ethical standards will lead to increased costs and no clear answers as to who will pay for these. These costs include both auditing, and improvements and modifications to farms and pack-houses. Large growers and exporters accept that any increased costs will be a part of retaining access to certain more secure, lucrative markets. Smaller growers, who may be very significant to a developing country's economy but relatively insignificant to major buyers, fear that they will be driven out of business or increasingly restricted to sell to the wholesale markets where prices and volumes are more prone to fluctuation.

5.4.4 The Business Environment

The ethical space is confined by the general business environment. Ethical trade cannot resolve all the issues farmers and exporters see as constraints, and just as smallholders see buyers as affecting their interests and exporters see foreign buyers as affecting theirs, so too importers and European retailers also operate under constraints.

Nonetheless, a partnership rather than a confrontational environment throughout the value chain should be promoted more widely to help remove distrust and suspicion.

6 FOR FURTHER THOUGHT

6.1 CODES OF PRACTICE

At the 10 March workshop, we shall be looking at the implications of these findings for codes of practice. Many growers and exporters support codes of practice, but are concerned about the cost of implementation and their ability to capture the values and priorities of African stakeholders. The experience to date has been that there has been little consultation with African stakeholders about what should be in codes of practice, and little attempt to understand the realities of horticultural production in developing countries.

Some issues to consider are:

- Are current codes of practice adequate to capture the values and priorities of the African social and environmental condition?
- Can codes of practice be developed to cover different commodities and production systems?
- What issues that affect the realisation of ethical trade cannot be addressed by codes of practice?

6.2 METHODOLOGIES

This project has used a particular methodological approach designed to identify and consult with stakeholders, and to bring the stakeholders together in a constructive dialogue. We believe that this approach has brought out certain issues that would have otherwise gone unnoticed.

However, it is a resource intensive approach that in the context of ethical trade raises the following questions:

- What aspects of the approach can be incorporated into ethical trade monitoring and verification systems?
- What aspects cannot be incorporated, and what will be the consequences?
- What does the approach have to tell us when we are developing monitoring and verification systems for ethical trade?

6.3 ENVIRONMENTAL AND SOCIAL STANDARDS

The project has looked at social and environmental standards as part of a single package. We felt this was relevant because when dealing with agriculture, it is impossible to separate social and environmental well-being. The project shows that some environmental and social issues are inter-related (e.g. worker safety and chemical use), and that there are also related issues to do with food safety (e.g. inadequate sanitation leading to workers endangering food safety). Nonetheless, it is an unanswered question whether social and environmental issues must be treated together. To find an answer the following questions need consideration:

- Where do social and environmental concerns overlap?

- What are the 'ethical' advantages of treating social and environmental issues as part of a single package?
- What are the 'business' advantages of treating social and environmental issues as part of a single package?

6.4 HEARING VOICES

The project shows the importance of identifying the stakeholders, and finding out each of their ethical priorities and what affects their decisions. The project has also shown the difficulties in finding out the opinions of certain stakeholders such as women, marginalised groups such as migrants, and not least the environment itself.

- Has the project captured all of the relevant stakeholders?
- How can these stakeholders be represented when implementing codes of practice?
- What stakeholder perspectives are not covered by existing codes of practice?

6.5 STANDARDS FOR SMALLHOLDERS

Smallholders are an important part of horticultural production. There are also strong reasons why national governments and international donors do not want to see them excluded from the export trade. Yet, there are fears that for reasons of quality, quantity and accessibility, smallholders will be excluded from export horticulture.

- Can ethical trade help encourage smallholders to export?
- Can codes of practice be developed to address smallholder needs?
- Should the same requirements be placed on smallholders regarding the environment and employment practices as are being placed on commercial farm-owners?

6.6 FROM VALUE CHAIN TO VALUES CHAIN

Finally, stakeholders have emphasised the way that other stakeholders throughout the value chain affect the decisions they take, and this in turn can influence ethical decision-making. **In many ways, for ethical trade to succeed it needs to turn the value chain into a values chain.**

Common themes arise amongst the different stakeholders: greater stability in terms of price and orders, prompt payment, transparency, the need for greater communication and understanding.

- To what extent should ethical trade cover relations away from the site of production (e.g. between producer and buyer, between retailer and consumer)?
- To what extent are other stakeholders prepared to change to support an ethical trade environment?

- How can partnerships be built that bridge the values chain?

7 FINAL WORD

We look forward to your input in exploring these issues further on 10 March. Further information on the findings and the issues raised will also be provided at that workshop. A full report on the project's first year will be published by June.

Natural Resources and Ethical Trade Programme
March 1999

8 ANNEX I - ENVIRONMENTAL CRITERIA FOR THE GHANA PINEAPPLE INDUSTRY

ENVIRONMENTAL ISSUES IN PINEAPPLE GROWING

Issue ²	Associated problems ³	Objective	Measures to be taken	Management tool	Min. standard	Progress standard
The crop	Export crops grown in competition with food crops	To assure that export crops are not grown while food crops are short in supply	Sufficient food crop production in vicinity Cash crop to be used as food crop in case of food scarcity.			
Pesticide ⁴ use	Occupational health hazards (toxic or chronic) Local public health hazards (toxic or chronic) Food safety hazard (at retail) Ecological hazards (residues downstream, pesticide resistance)	To reduce the quantity and hazard level of pesticides. To guarantee safe and appropriate use	Crop monitoring with pest /predator scouting Appropriate usage (proper pesticide use in proper dosage at proper time) Appropriate crop rotation Instructions to applicators Choice of least impact pesticides Development of alternative methods Effective implementation of protective clothing rules Herbicides replaced by mechanical measures Active pest prevention measures, e.g. protection of natural enemies	Identification of excessive use Five year plan to reduce the quantity of pesticides Policy on the safe and appropriate use of pesticides Annual pest management plan Pesticide usage report motivating and recording each application	Excessive use reduced All pesticides mentioned on PIC ⁵ , DD ⁶ lists or classified under WHO I and II categories are excluded.	Implementation of own five year plan Progress in developing alternative treatments Progressive application of alternative treatments

² Issues are not listed in priority. Some cross-over with each other, or with socio-economic issues.

³ The severity determines how necessary measures should be taken

Ethical Trade and Export Horticulture Annexes

Issue ²	Associated problems ³	Objective	Measures to be taken	Management tool	Min. standard	Progress standard
			<p>Effective implementation of protective clothing rules</p> <p>Herbicides replaced by mechanical measures</p> <p>Active pest prevention measures, e.g. protection of natural enemies of pests</p> <p>Insecticides replaced by biological control</p>	<p>plan</p> <p>Pesticide usage report motivating and recording each application</p>		treatments
Water use	<p>Overuse, increasing competition with other users (more dams)</p> <p>Sinking or rising groundwater levels</p> <p>High water use leads to high volume of drainage water or effluent</p> <p>Eutrophication of surface waters</p>	<p>To reduce water use</p> <p>To re-use water</p>	<p>Priority to water for drinking and sanitary purposes</p> <p>Economise on water usage</p> <p>Proper drainage system</p>	<p>Calculating the water balance stating critical points and suggesting improvements</p> <p>Three year plan to address all critical points</p>		Progressive implementation of own three year plan
Drainage water and packing station effluent	Hazardous drainage and effluent quality (pest & disease carrier, fertiliser and pesticide residues)	<p>To avoid pollution of water sources and soil</p> <p>To re-use water</p>	<p>Separation of solid waste</p> <p>Drainage/effluent treatment</p>		Excesses addressed	
Use of non-renewable resources, incl. CO ₂ emissions	Unsustainable fossil fuel and mineral consumption through the use of inputs (fertilisers, pesticides, plastics, electricity,	To limit use of non-renewable resources	<p>Reduced use of high E inputs like pesticides, fertilisers, and plastics.</p> <p>Appropriate use of farm mechanisation and transport</p>	Calculating energy balance and/or energy use/kg product, stating critical points,		Progressive implementation of own three year plan

Ethical Trade and Export Horticulture Annexes

Issue ²	Associated problems ³	Objective	Measures to be taken	Management tool	Min. standard	Progress standard
	diesel)		Introduce recycling of organic wastes, making them into organic fertilisers	suggesting improvements. Three year plan to address all critical points		
Soil fertility/ degradation	Chemical soil sterilisation Over-fertilisation leading to nutrient leaching or and/or soil depletion Compaction Soil erosion because of run-off between beds Pest/disease/weed build-up due to bad rotation	To reduce the quantity of synthetic fertilisers in order to stop soil degradation and nutrient leaching. To limit soil degradation	Use of organic matter as stabilising factor Reduction of use of farm equipment when soil is wet Non clean weeding Mulching Contour planting Run-off check dams	Calculation of nutrient balance identifying excesses, indicating other critical points and suggesting improvements. Annual soil fertility plan	Excesses addressed	Progressive implementation of own plan
Biodiversity and nature conservation	Unnecessary problems with pests & diseases due to varieties not adapted to local circumstances Monocultures making farms vulnerable to p&d outbreaks Ecological dessert due to absence of nature refuge areas like hedges and trees	To protect or enhance nature conservation and biodiversity	Local breeding Variety diversity Crop diversity Preserve non-cropping areas	Annual cropping/ rotation plan Nature promotion plan Variety trials	Prohibition of the opening of new land in primary forest Halt to further destruction of ecological niches	Implementation of nature promotion plan

Issue ²	Associated problems ³	Objective	Measures to be taken	Management tool	Min. standard	Progress standard
Packaging	Waste problem at retail	<p>To reduce packaging material to the bare necessity</p> <p>To use environment-friendly, monomaterial, recyclable packaging material</p>		<p>Analyses of current critical points.</p> <p>Plan to address problem in dialogue with enduser</p>	Agreement packer/enduser on packaging with timing for introduction	Agreement followed-up
Waste	<p>Re-use of pesticide containers</p> <p>Dispersion of plastics in the environment</p> <p>Rotting plant residues or second/third quality rejects causing human sanitation (rats mosquitoes) and crop sanitation problems (spread/pool of p&d)</p>	<p>To guarantee safe disposal, recycling and re-use</p> <p>To prevent (human) disease hazards</p>	<p>Prevention of waste where possible</p> <p>Separation of wastes, allowing recycling</p> <p>When not recycled, burned at high T</p> <p>When not burned, controlled disposal</p> <p>Refer to packaging directive</p> <p>Composting</p>	<p>Analyses of waste problem, identifying excesses, indicating other critical points and suggesting improvements</p> <p>Three year plan on improved waste management</p>	Excesses addressed	Progress in better waste management