



NTFP

South-West Ethiopia

Non Timber Forest Products Research and Development Project in S-W Ethiopia

STUDENT RESEARCH SERIES No. 2

**Poverty Alleviation through NTFP Development in S-W
Ethiopia:
Options for Certification of Coffee and Honey for Poverty
Alleviation and Forest Conservation**



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PREFACE

This study was produced through the collaboration of Wageningen University and the Non-Timber Forest Products Research and Development Project in South-west Ethiopia. The following students were involved in the production of this study concerning certification:

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Acronyms

AOC	Appellation d'Origine Controlle
AB	Area Based
NTFP	Non timber forest products
FAO	Food and Agriculture Organization of United Nations
EU	European Union
eur	Euregap
EUREP	Euro Retailer Produce Working Group
FSC	Forest Stewardship Council
FLO	Fair Trade Labelling Organization
FLO1	Fair Trade Labelling Organization International
FT	Fair Trade
GAP	Good Agriculture Practices
GIO	Geographic Indicators of Origin
GIS	Geographic Information System
GMO	Genetic Modification of organisms
GPS	Global Positioning System
HACCP	
HMF	Hydroxymethylfurfural
ICM	Integrated Crop Management
IFOAM	International Federation of Organic Agriculture Movements
ILO	
IPM	Integrated Pest Management
ISO	International Standards Organization
MCA	Multi – Criteria Analysis
Org	Organic
SCAA	
SKAL	
UC	Utz Capeh
USAID	
WTO	

1 Introduction

1.1 Background

The NTFP Research and Development project – SW Ethiopia is a 4-year EU-funded project that aims to contribute to the reduction of rural poverty through exploring and developing the role which NTFPs can play in the livelihoods of the rural poor. This sub-project focuses on certification options for the main NTFPs from the area, namely coffee and honey, under various production schemes, as sustainable means to alleviate poverty and conserve the forest in the project area. The project area encompasses some of the last natural tropical montane forest in Ethiopia, but this forest is increasingly degraded and is being cleared rampantly for agricultural expansion. These forests are a rich source of NTFPs, which form an important livelihood base for many of the local communities, but the use of NTFPs is often unsustainable, and the degradation of these forests is linked to the decline in living conditions of the population. The recent fall in world coffee prices has also had a devastating effect on small coffee producers in Ethiopia. This project hopes to address both the degradation of the montane forest and the poverty of the rural population by promoting sustainable options for the use of NTFPs and possible certification schemes that will encourage better management and also open the access to niche markets for responsible produce. Forest certification is a process whereby stakeholders agree and commit themselves to maintaining defined management standards, as verified by independent certification bodies who are accredited nationally and internationally; it often also involves independent verification of the chain of custody (Bekele, 2003). Certification has rapidly evolved over the last decade as a significant tool to promote sustainable forest management. A variety of voluntary social and environmental standards and certifications have appeared during the past 20 years, in an attempt to differentiate products that are produced meeting specific ethical criteria from those produced in mainstream production systems. While meeting these criteria may be beneficial to both the land and the people, the costs of actually undergoing official certification may not always be financially worthwhile, depending on the current conditions, production system and markets in question. As well as meeting the additional requirements to access these niche markets, export producers in the developing world are facing increasingly complex import regulations, which do not contribute to added value but are

necessary to sell their produce on the international market. It is against this background that this report will present several different certification options for coffee and honey produced in the study area, this is further complicated by the spectrum of production systems currently in use in the region. The focus will be on FSC, organic, Fair-Trade and Utz Kapeh certifications, with a brief exploration of the area-based certification concept. Several other prominent schemes have been excluded from the report because they are not considered relevant at present to the situation in SW Ethiopia: the Social Accountability SA8000 certification, for example, focuses on labour conditions of hired labourers in larger production systems; and the Smithsonian “bird-friendly” shade coffee label is only applicable to production in the Americas at present (FAO 2003).

1.2 Research Objective

The objective of this (sub)-project is to research the various options for certification of NTFPs from SW Ethiopia by evaluating the criteria, benefits and constraints of various certification schemes in relation to the current socio-economic and environmental situation in SW Ethiopia, and to potential market developments for the products. This research will contribute to the larger project by suggesting a potential next step for project intervention in terms of certification of NTFPs.

1.3 Research Questions

1. What are the options for certification of the regional NTFPs that can contribute to poverty alleviation and forest conservation in the project area?
2. What are the relative benefits and disadvantages of the certification systems for achieving the project’s objectives?
3. What should the project do next in terms of certification of NTFPs?

1.4 Structure of the Report

This short introductory chapter aims to provide context for the project and a brief introduction to the principle of forest certification schemes.

The next 4 chapters will provide general guidelines to 4 specific certification schemes: chapter 2 will look at FSC, chapter 3 is dedicated to organic production, chapter 4 introduces the Fair-Trade system, and chapter 5 examines the Utz Kapeh code for “certified responsible coffee.” In each of these chapters, the aim of the initiative is presented, along with the general criteria and procedures

for certification; each chapter concludes with general benefits and disadvantages of the scheme. Chapter 6 is a brief discussion of the options of area-based certifications. Chapter 7 focuses specifically on coffee production in the study area, noting the product-specific criteria, opportunities and constraints for the different certification schemes; chapter 8 does the same for honey in the region. Chapter 9 summarizes the strengths and weaknesses of the various schemes for the project through a multi-criteria analysis, and chapter 10 concludes with the recommendations for the project in terms of certification directions.

2 Forest Stewardship Council (FSC) Certification

2.1 Introduction

The Forest Stewardship Council (FSC) is an independent, not for profit, non-government organization based in Bonn, Germany, that provides standard setting, trademark assurance and accreditation services for companies and organizations interested in responsible forestry.

Founded in 1993, FSC's mission is to promote environmentally appropriate, socially beneficial and economically viable management of the world's forests. FSC forest management standards are based on FSC's 10 Principles and Criteria of responsible forest management.

Over the past 10 years, 48 million hectares in more than 60 countries have been certified according to FSC standards while several thousand products are produced using FSC certified wood and carrying the FSC trademark. FSC operates through its network of National Initiatives in more than 34 countries.

A group of timber users, traders and representatives of environmental and human-rights organizations met in California (USA) in 1990 to discuss how they could combine their interests to improve global forest management. Their meeting confirmed the need for an honest and credible system for identifying well-managed forests as acceptable sources of forest products. It was from these beginnings that the Forest Stewardship Council developed.

2.2 General Principles

- Compliance with laws and FSC principles: the production of NTFPs must comply with all applicable national laws and international agreements.
- Tenure and Use Rights and Responsibilities: long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.
- Indigenous Peoples' Rights: legal and customary rights of indigenous peoples to own, use and manage their lands and resources shall be respected.
- Community Relations and Worker's Rights: forest management shall enhance long-term social and economic well-being of forest workers and local communities.

- Benefits from the Forest: forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits. The rate of harvesting forest products shall not exceed levels which can be permanently sustained.
- Forest management should conserve biological diversity and its associated natural resources.
- An appropriate Forest management plan shall be written, adopted and kept up to date.
- Monitoring and assessment: forest conditions, management activities and impacts shall be monitored
- Maintenance of High Conservation Value Forests
- Role of plantations: plantations should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

2.3 NTFP Criteria

- All NTFPs that bear the FSC Logo on-product and use the FSC Logo and Trademark for promotions off-product must come from fully FSC certified forests.
- Before clients are able to use the FSC Logo and Trademark for a particular NTFP, the management system of the NTFP must be evaluated by a certification body.
- When evaluating NTFPs, the certification body should use existing regional standards, or other existing NTFP standards. If these are not available, the certification body should prepare NTFP standards through the process of national or regional consultation.
- The certification body does not require approval by the FSC Secretariat of the standards they use.
- In the future certifications bodies may submit draft NTFPs standards to the FSC Board for endorsement.
- Chain of custody certification may be issued for NTFPs following the guidelines for timber based products
- If requested by the certification body, the FSC will register the FSC Trademark for the specific NTFP at an approximate fee of US\$500 per trademark per country and category.

- Claims and labels should use wording described in the FSC Logo Guide with full consultation between the client, the certification body and the FSC Secretariat.
- More intensive forest evaluations should be conducted by the certification body when NTFPs are harvested for commercial sale or when non-commercial harvesting has important impacts, even if the harvested NTFPs are not FSC certified

(Source – Forest Stewardship Council; www.fscoax.org)

2.4 Procedures, Time-frame and Costs

- FSC evaluates, accredits and monitors certification bodies.
- Application to FSC accreditation is open to all organizations or legal entities.
- Of the eight certification bodies accredited for forest management, three have carried out NTFP certification. These are Rainforest Alliance's Smart Wood program, Soil Association's Woodmark programme and SGS Qualifor
- FSC certification bodies provide two types of FSC certificates, These are:
 - Forest Management (FM) Certificate
 - Chain of Custody (COC) Certificate
- NTFP certification bodies should be accredited for both.
- Accreditation is granted to certification bodies for a maximum period of 60 months (5 years) with possibility to extend via reapplication.
- The following are important stages in accreditation process
 - ✓ Contact FSC at: accreditation@fsc.org
 - Request application that will cost €200.
 - Return the application form with application fee of €1,000.
 - ✓ Review of documents: the applicant should attach all the required FSC's normative and guiding documents together with their application.
 - ✓ Evaluation of the office(s) of the applicant and field audit to check the implementation of FSC rules and regulations.

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- ✓ Based on the field report, the FSC Executive Director will make an accreditation decision
 - ✓ The accreditation contract will be made between the applicant and the FSC Executive Director.
 - ✓ At least one surveillance audit to the head office of the certification body and to at least one certificate holder will be done annually.
 - ✓ Fees related to each steps will be covered by applicant.
 - ✓ Detailed procedures for termination of application and accreditation appeals are found on the documents.
- Time-frame: the accreditation process may take 6-18 months to complete, depending on accreditation and the experience of the applicant certification body with certification and quality management systems.
 - Costs: € 20550 is needed to get accreditation, per product.

FSC criteria address wider issues than other certification options, addressing the ecological, social, and economic factors associated with sustainable harvesting; it offers the highest standard of forest protection of the various certification schemes. Certification aims to guarantee the conservation and sustainable utilization of not only NTFPs, but also promotes buffer tree plantations around natural forest areas to relieve pressure on the forest, there may also be international government support for responsible forest management.

Constraints to FSC certification include a fairly low consumer recognition for NTFPs, and a very high cost of certification (€ 20550 per product). This cost lies entirely on the producers, so it can be prohibitive for small-scale forest producers; it is also a time-consuming process that does not usually result in price premiums. It is also difficult to apply one system to more than 126 different types of NTFPs; there must be sufficient research and knowledge on sustainable harvest levels and regeneration rates for each NTFP, as well as the use of the species by other human, animal, or plant communities, and in many cases this knowledge is lacking.

There is currently much debate in the FSC on how to make certification more accessible to small-scale producers, including ideas on group certification to reduce costs; so in the near future perhaps FSC certification will become more feasible.

3 Organic Certification

3.1 Introduction

According to the definition of the Codex Alimentarius, ‘organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological and mechanical methods, as opposed to using synthetic materials, to fulfill any specific function within the system’ (Codex Alimentarius)

The International Federation of Organic Agriculture Movements (IFOAM), a non governmental organization promoting organic production on the international level, has established guidelines for organic production and processing that have been widely adopted. Organic agriculture has become more and more widespread (Engels 2004, FAO 2003) but supply has lagged behind, and the resulting price premiums have been proved to be an incentive to cheat (FAO 2003). As a reaction, organic standards were created on a national level, to protect organic farmers against misleading organic claims in a growing market (For the European Union the EC-2092/91 regulation was created). To produce or export products labeled as organic, certification according to these standards is necessary by an authorized certification body.

This certification ensures that products claiming to be organic are actually produced according to organic farming principles. The aim of organic certification is to support and strengthen biological processes without recourse to technical remedies such as synthetic fertilizers and pesticides. Furthermore the genetic modification of organisms (GMO) is prohibited and the health of both the environment and consumers ensured. Within the organic market one clear certification system is needed to guard against the use of misleading labels within an extending market. In the end certification also helps producers to access organic markets and obtain premium prices. Some general principles and criteria are listed below (IFOAM 2000). The procedure is extracted, according to the latest version, from Skal International.

3.2 General Principles

- To produce food of high quality and in sufficient quantity
- To interact in a constructive and life-enhancing way with natural systems and cycles.
- To consider the wider social and ecological impact of the organic production and processing system.
- To encourage and enhance biological cycles within the farming system, involving micro-organisms, soil flora and fauna, plants and animals.
- To maintain and increase long-term fertility of soils.
- To maintain the genetic diversity of the production system and its surroundings, including the protection of plant and wildlife habitats.
- To promote the healthy use and proper care of water, water resources and all life therein.
- To use, as far as possible, renewable resources in locally organized production systems.
- To minimize all forms of pollution.
- To process organic products using renewable resources.
- To produce fully biodegradable organic products.
- To ensure producing farmers a quality of life that meets their basic needs and allows an adequate return and satisfaction from their work, including a safe working environment.
- To progress toward an entire production, processing and distribution chain which is both socially just and ecologically responsible

3.3 Criteria

- Soil fertility must be maintained or improved
- Chemical products such as pesticides or inorganic fertilizers may not be used
- Animal welfare must be guaranteed
- When organic seed and plant materials are available, they shall be used. The certification body shall set time limits for the requirement of certified organic seed and other plant material.

- When certified organic seed and plant materials are not available, chemically untreated conventional materials shall be used.
- Where no other alternatives are available chemically treated seed and plant material may be used. The certification body shall define conditions for exemptions and set time limits for any use of chemical treated seeds and plant materials.
- The use of genetically engineered seeds, pollen, transgenic plants or plant material is not allowed.

3.4 Procedure, Costs and Time-frame

- Information phase: application forms can be filled in to gain an insight into the costs and time scale of the certification.
- Admission and Contract phase: certification body will judge whether criteria (EU regulations) can be met and will make an offer for the inspection and certification services. Finally the farmer and certification body sign a contract.
- Inspection and certification phase: certification is carried out continuously on the basis of ongoing monitoring and inspection
- Farmers are required to provide basic information about the farm, such as size of fields and crop rotation during the information phase
- Inspection will verify that production is carried out in accordance with the certification standards
- Certification confirms that production conforms to the required standards
- Time Frame and cost of certification are not precise; the time frame will depend on the availability of buyers and the present institutional set-up. The costs will depend on the remoteness of the area and the number of farmers to be certified.
- Certification procedures should make it possible to track and control the flow of products from the farm to the final consumer

The organic market is developing rapidly. For certified tropical organic products, the main markets are Europe, Japan and United States. Certification can open market access to small-scale farmers, however, certification is costly, and the market, although growing, is still comparatively small. The lack of harmonization between various certifying bodies makes the international trade in organic products quite complex, but IFOAM and the Codex Alimentarius Commission (FAO/WHO) are working to develop international standards. Organic products are not regulated by an international price, and face stiff price competition with conventional products. Small farmers may also lack knowledge to adopt organic production methods, it is worth noting that IFOAM has already developed criteria for wild-harvested products (Mallet 1999).

4 Fair-Trade Certification

4.1 Introduction

The Fair-Trade initiative was established to improve the position of poor and disadvantaged producers in the southern Ethiopia and to promote alternative trade channels to counteract global and regional inequality. The first direct purchasing project was between Latin American craftspeople and the North American “10,000 villages” program in the 1940s; Oxfam followed in the 1950s, and the first Fair-Trade shop was established in the Netherlands in 1969. These initial projects were all based on direct purchasing and alternative trade channels. The movement made its first step towards mainstream channels in 1988 with Max Havelaar Fair-Trade coffee marketed in conventional supermarkets in the Netherlands, and now is actively pursuing a mainstreaming policy. Although there are some concerns about the departure from alternative trade channels into the mainstream, and the possible negative effects this might have on the smallest producers (Taylor, 2004), it is clear that selling to the conventional market has had an enormous impact on the size of the market. The aim of the movement continues to focus on social aspects, although ecological goals are receiving more emphasis and new ecological criteria standards will come into effect in July of this year. In general, Fair-Trade is an initiative for small-scale, family-based producers, who have been disadvantaged by trade conditions, and who must be organized into politically independent democratic associations. Buyers must purchase directly from growers’ organizations in contracts extending beyond one harvest cycle, and must offer pre-financing, a guaranteed minimum price plus a social premium. The Fair-Trade Labeling Organization International (FLO-I) follows internationally recognized standards, especially those of the ILO, and then sets 2 types of requirements: minimum requirements, which must be met on certification, and progress requirements, which must show permanent improvement in reports to FLO each year.

What follows is a quick summary of the general criteria for Fair-Trade certification. (For the complete detailed document, please consult FLO International: www.fairtrade.net) It should be noted that FLO is moving towards ISO (International Standards Organization) certification, which may involve more official documentation along the chain of custody in the future.

4.2 Criteria

- *Social development:*
 - Fair-trade revenues will promote social and economic development of small farmers
 - The majority of members must be small producers, mainly family-based
 - Producer organizations will be based on democracy, participation and transparency
 - There will be no discrimination in membership
- *Economic development*
 - The fair-trade price premium will be used based on a democratic decision of the members
 - Export ability – producers must have access to the logistical, administrative and technical means to bring a quality product to the market
 - Economic strengthening of the organization – the members will gradually take on more responsibility over the whole export process
- *Environmental development*
 - The producer organization will conduct impact assessments, as well as constant environmental planning and monitoring
 - The producers will work towards a constant reduction of agrochemicals, following an ICM (Integrated Crop Management) system
 - Wastes will be reduced, reused, recycled and composted
 - Producers are expected to maintain and enhance soil fertility
 - Producers will prevent fire
 - Producers will avoid GMOs, and are encouraged to work toward organic certification

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- *Standards on labour conditions (if organization employs significant number of workers)*
 - FLO follows ILO conventions on forced labour and child labour
 - Workers have the right to freedom of association and collective bargaining
 - FLO follows ILO conventions on conditions of employment
 - Occupational health and safety – workplaces and equipment must be safe, and people at risk are not allowed to handle pesticides

4.3 Procedure, Time-frame and Costs

- To become certified as a Fair-Trade producer group: first, read standards and decide if they can be met
- Contact FLO at certification@flo-cert.net and indicate:
 - What type of legal entity is your organization? (association, cooperative, company, etc.)
 - Number of members and / or workers and how they participate in the decision-making process
 - Market position: if you currently export, indicate where and how
 - Product type / variety, quality and quantity available for export
 - Is (part of) your production certified by an organic certifying body?
- If FLO sees market potential for your product, it will send a standard questionnaire about your organization
- If questionnaire evaluation is positive, FLO performs a first field inspection
- If report is positive, finalized with a contract
- Time frame: 6 months maximum; FLO will speed this up if you have a market ready
- Costs: traditionally, certification costs were assumed by the buyer, but as this limited market developments, the cost has now shifted to the producer organizations. Presently, costs are based on volume of export, at 0.25% of export earnings, but once FLO becomes ISO certified, this process will have to be discontinued, and the actual cost of certification will have to be paid by the producer organization. Funds are available to help smaller

organizations meet these costs. The range of these costs is not yet known, but a ballpark estimate for a large organization might be in the order of 2000 Euros per inspection visit (Jos Harmsen, Stichting Max Havelaar, personal communication).

In general, Fair-Trade is often an attractive option for small producers who cannot access the mainstream market. Although its roots lie in the alternative trade movement, selling to World shops and Fair-Trade shops, it now also markets extensively to mainstream stores and chains. The main benefits include a guaranteed price for the producers, as well as a social premium used to strengthen the cooperative's technical support of the producers; improved access to credit; and collaboration of producer groups to work within Fair-Trade and influence policy. However, it has been observed that the premium is actually only a small part of the benefits, and that the organizational progress, better bargaining positions, credit-worthiness and economies of scale are actually more influential benefits of Fair-Trade (FAO, 2003). This is important, as the price premium is often limited because only a portion of exports is usually sold via the Fair-Trade market. Fair-Trade is also usually interlinked with other mutually supporting agencies, and seems to lead improved product quality, which is very valuable on the conventional market. Despite its successes, Fair-Trade is not a panacea for all small producers. The alternative trade channels are generally saturated and a large portion of Fair-Trade certified products are sold on conventional markets, with no price premium. There are also instances of Fair-Trade fomenting competition between producer groups; the Amber project in the Kaffa region reports tensions among non-certified growers only 50 km distant from certified growers, who are producing the same quality product but only receiving the standard world market prices (Jorg Volkmann, Amber Foundation, personal communication). As well, the new requirements that the producers must bear the costs of certification, and the upcoming requirements for more complete documentation along the entire chain of custody, are both increasing the costs of certification.

5 Utz Kapeh and Eurepgap

5.1 Introduction Utz Kapeh

Utz Kapeh means “good coffee” in the Mayan language; it is the name of a certifying organization founded in 1997 by Ahold International and a Guatemalan coffee producer. It certifies responsible coffee and is based on the principles of traceability and responsibility, ensuring that coffee is produced decently with respect to growers and the environment. Worldwide producers are Utz Kapeh certified in Ethiopia, Tanzania, Nicaragua, Brazil, Colombia, Peru, Uganda, India, Indonesia, Bolivia, Costa Rica, Guatemala, Honduras, Kenya and Zambia. Buyers that purchase Utz Kapeh certified coffee are settled in the EU, Japan, USA, Brasil, Colombia, Peru, South Africa and Vietnam. In the Netherlands, C1000 and Albert Heijn coffee are 100% Utz Kapeh certified. Utz Kapeh does not only guarantee traceable and responsibly produced coffee, it also supports producers with technical assistance and marketing and helps them to contact buyers (www.utzkapeh.org). Utz Kapeh is an official bench mark of Eurepgap. In the following text Eurepgap is explained.

5.2 Introduction Eurepgap

EUREP, ‘Euro Retailer Produce Working Group’, is a platform of leading retailers in Europe active in the agricultural food industry. GAP stands for ‘Good Agricultural Practice’ (International Production Standards and the Position of Developing Countries in International Trade 33), a minimum production standard for good agricultural practice of horticultural products. EUREP uses GAP as a production standard for the certification of good agricultural practice in the agricultural and horticultural industry. The certification focuses on risk prevention, risk analysis (among others through HACCP) and sustainable agriculture by means of Integrated Pest Management (IPM) and Integrated Crop Management (ICM), using existing technologies for the continuous improvement of farming systems. Eurepgap was developed in answer to consumer concerns about the quality of agricultural products. It ensures that every step of the primary production complies with international and national standards and regulations regarding safe production of food. Eurepgap was founded by 26 European supermarket organizations in 1997; since then, 26 supermarkets have joined Eurepgap and over a 10000 producers have been Eurepgap certified in more than 35 countries. Its mission statement is food safety and traceability. Since the beginning of 2005, Eurepgap has launched a reference code for coffee, but Eurepgap recognizes Utz Kapeh as an official benchmark, meaning that compliance with the Utz Kapeh

code of Conduct also meets the standards set by Eurepgap. Producers can only carry the certificate of one of the 2 certification organizations, though, the one through which they were certified (Engels, 2004).

5.3 Criteria Utz Kapeh

Social and Cultural Criteria

- Workers are paid according to national laws.
- Workers are protected by national laws and ILO conventions regarding age, working hours, pensions, working conditions, syndicates and safety.
- Workers receive training in their own language about safely handling chemicals.
- Workers receive appropriate work clothing.
- Access to health care for the workers and their families.
- Access to education for children, and access to housing with sound walls, floor, roof and a ventilated place to cook.
- Access to clean drinking water, showers and latrines.
- Freedom of cultural expression.

Environmental Criteria

- Minimize soil erosion.
- Responsible and minimal use of agrochemicals.
- Recording of soil history.
- Adapting Integrated Pest Management.
- Minimize water usage and environmental pollution.
- Minimize energy use.
- Optimize use of sustainable energy sources.
- Treatment of contaminated water.
- Protecting water sources.

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- Prohibiting deforestation of primary forests.
- Conserving forest patches.
- Using native tree species for coffee shade.
- Protecting endangered species.
- Allowing native vegetation to grow along streams.
- Not using fertilizers or crop-protection products within 5 meters of any permanent stream.

Economic Criteria

- Business processes monitored and managed as efficiently and effectively as possible.
- Crop records up to date and available.
- Good housekeeping is standard practice.
- Employees schooled and trained properly.
- Accident and emergency procedures in place.
- Hygiene rules and practices implemented and respected.
- Providing traceability of Utz Kapeh coffee to farm level.
- Keeping all records for at least two years.
- Yearly performed internal audits.

5.4 Procedure and Time-frame

The steps to get Utz Kapeh certified are:

- Contact the Utz Kapeh office in Guatemala by e-mail, phone or personally. They will explain the Utz Kapeh program in detail to you and answer your questions.

You will receive a copy of the Code of Conduct, Procedures, a Registration Form and a Self-Assessment Form. For contact information see the website: www.utzkapeh.org
- Fill out the the Registration Form and the Self-Assessment Form and return these to the Utz Kapeh Guatemala office.
- With your Self-Assessment Form, Utz Kapeh can suggest how you can comply with the requirements of Code of Conduct.
- When you feel that you meet the code requirements, Utz Kapeh will inform an independent certification body. They will contact you to discuss the procedures of inspection.
- When the certification body gives their approval, you have passed the inspection. As an official Utz Kapeh-certified producer, you will receive your Utz Kapeh unique producer number.

Time-frame to become certified varies from a minimum of 6 months to 1 year.

5.5 Opportunities and Constraints

Utz Kapeh certification offers several advantages. Firstly, they sell to a very large mainstream market. Secondly, they have no criteria yet for wild coffee but are eager to collaborate in developing standards; this could indicate a large potential untapped market that would be entered if the project were to work with them in developing wild coffee criteria. It takes a relatively short time to get certified, is not prohibitively expensive, and Utz Kapeh will provide training to increase the quality of coffee.

Constraints of Utz Kapeh certification are primarily that they do not get involved in price negotiations, and thus they do not guarantee decent prices, and also that there is very limited protection of natural forest included in their criteria. Skilled staff is also required to monitor production chain as per Utz Kapeh code of conduct.

5.5 General Advice

Generally, Utz Kapeh coffee certification has great potential for wild coffee. The scheme requires producers organized in groups of 20 to 50 people to harvest the coffee from the forest; that would make one collection unit (A lot of these collection units form coffee producers cooperatives).

In the project area, the existing social groups like Gots and Kebeles can fit the institutional structure that Utz Kapeh requires. This makes Utz Kapeh potentially very suitable for the project. The other criteria that Utz Kapeh demands is the selection of farmers' leaders from each group to serve as a contact with the administrative system offices that will be established in the project area. Normally Utz Kapeh gives training to these farmers' leaders on codes of conduct, so that the farmers will produce quality coffee that meets the requirements of Utz Kapeh. However, it must be kept in mind that one of the key project aims is to protect the natural forest, so there must be enforceable criteria on forest protection and sustainability of harvest included in the development of standards for wild coffee, or otherwise this promising market opportunity will actually undermine project objectives.

6 Area-based Certification in SW Ethiopia

6.1 Introduction

Area-based certification is a relatively new means of certification. Since it is restricted to a certain area, there are no static criteria or procedures; each area can create its own unique certificate. In this chapter some examples of area-based certifications will be given. In some cases whole areas have been certified, and every product that comes from this area carries the certificate; an example of this is “de Wadden products” from the Wadden islands in the Netherlands. There are also examples of particular products of the certified area only; this is done sometimes for coffee, but the most well-known example is the French AOC appellation and its wine certification by region and quality.

In the case of the Kaffa region, there is no area-based certificate presently, so ideas can be taken from the different cases to develop an area-based certification for the region. At the end of this chapter a conclusion in the form of advice is given.

6.2 Examples of Area-based Certification

6.2.1 The Wadden Products

The Wadden products label is a collective initiative of producers on the Wadden islands. Under the Wadden logo, a variety of products from the Dutch islands are being sold, ranging from cranberry tea to bread, from bath soda to fruit. Any producer can join as long as they comply with the Wadden products criteria. The buyers are 400 stores, including supermarket chains. Product sales have increased since the Wadden logo was introduced (<http://www.waddenproducten.nl/>). It is interesting to note that the Wadden group is involved in partnerships with Costa Rica, Benin and Bhutan to encourage sustainable development in their own countries.

6.2.2 General Criteria for Wadden Products

- Products should be organic, certified through SKAL
- At least 51 % of the raw materials have to be from the Wadden area
- All the processing of products has to be done in the Wadden area
- The producers pay together for the development of the product name
- Promotion costs are included in the product price (consumers pay)

6.2.3 AOC Appellation

France's wine certification system, the "Appellation d'Origine Contrôlée (AOC)", which roughly translates as "registered designation of origin", is a famous example of how small producers in separate regions can work together to distinguish their products both in terms of regional characteristics and quality levels. The AOC label guarantees that a wine comes only from grapes grown in a specific place. A similar system for coffee might be a partial solution to the current coffee crisis, placing the emphasis in marketing on origin and taste, raising quality levels and promoting the unique features of various regional coffees (Jörg Volkmann, personal communication). Significantly, the history of AOC development shows some parallels to the coffee situation today. The AOC started in the 1930s in the wake of a wine-growers catastrophe; rampant vine disease and economic crisis had brought the French wine industry to its knees, so the wine-growers banded together to defend their common heritage and rebuild the quality, reputation and market for regional French wines. The idea has some potential for the coffee industry, and would be beneficial to small producers; however, it will need wide-scale cooperation and communication, and at this point is still a long way off.

6.2.4 Single Origin Coffee

Single origin coffee is a type of certification used by the Amber foundation as a certification for coffee in the Kaffa region, Ethiopia. The Amber Foundation is a German operational charitable foundation with the aim of supporting ecologically sensitive and economically productive small-scale farming operations in developing countries (<http://www.amberfoundation.com/>). Their project in Ethiopia is developing wild coffee as an export product. Single origin coffee is their answer to the difficulty of certifying wild coffee, since it is almost impossible to delimit 100% wild coffee; in their experience, wild coffee includes a variety of definitions, and not exclusively coffee picked from wild plants in the forest. Some coffee comes from wild plants, but some comes from plants that were planted in the forest, and other beans come from plants that were domesticated from the forest and planted in their backyard. Therefore they decided to certify the "wild coffee" as single origin coffee, which is defined as coffee from local non-selected varieties. This is a certificate based on quality and origin. The name used for this certificate of origin is Certo®, which is a genetic fingerprint typical to the Kaffa area coffee. Samples are tested on their genetic code to protect the coffee from product piracy (personal communication: Jörg Volkmann, Amber Foundation).

It is known that Fair-Trade organizations are also selling regional coffees under the name “single origin coffee.”

6.2.5 Geographic Indicators of Origin (GIO)

GIO identifies a crop by its specific growing area that is often defined by satellite-aided location or Global Positioning System (GPS). For GIO coffees, the predominant criteria are national geophysical standards that in some cases are supported by international agencies helping to map and define the standards (The most effective method is using Geographic Information Systems (GIS) which supplements satellite imagery with on-the-ground verification). Since coffees often carry the distinct characteristics of their particular microclimate, many of the world’s finest and most expensive coffees have been GIO certified. Similar to the wine AOC model, there is ample room in the marketplace. The SCAA and USAID are central to many of the GIO efforts, with mapping results already achieved in Costa Rica, Peru, and Guatemala. There have been discussions at the WTO level, stimulated by the EU proposals for the establishment of a multilateral system of notification and registration of GIO in order to protect producers and consumers (Lewin, Giovannucci & Varangis 2004).

6.3 Opportunities and Constraints

One of the opportunities for Area-based certification is that it can be set up according to the area specifics, with no external criteria or procedures established, allowing regions to create their own criteria. This provides the flexibility to design standards that are uniquely appropriate to the region. Furthermore, an advantage of certifying a whole area is that when the entire area is certified, including a variety of products, if one product is well-known it may also promote the other regional specialties; for example, if Kaffa coffee establishes a name for itself, honey and other NTFPs might benefit from the fame of the primary product. For this NTFP project, there is a potential advantage in a regional label in that the project area is the place of origin of Arabica coffee, which could create a special position for the coffee. Other specialty appellation coffees have promoted their regional origins alongside tourist development that fosters consumer recognition of the area, such as Jamaica’s Blue Mountain coffee which made itself quite famous and captured a thriving domestic market based on the tourist trade (Lewin et al. 2004). Finally an important advantage of the single origin system is that it can help with the tricky definition of wild coffee. As well, if the product is of good quality, it allows room to distinguish itself in the market and command higher prices.

And an AOC-type appellation would be good for all the small coffee producers worldwide in that it would promote differentiation, raise quality standards, allow prices to reflect both quality and uniqueness, and widen the niche market for specialty coffees. But also some constraints can be mentioned, there is no developed market now for SW Ethiopian products, since there is no area-based certificate yet. To develop, this would involve a lot of investment in organizational structure, extensive and focused marketing and quality improvement. If the investments were made, then the next challenging step would be to convince the outside world of the quality of the regional coffee, since it has no name established yet. Regional product promotion could in part be assumed in conjunction with the tourist board. Last but not least, maintaining sustainability is another challenge if the NTFP and the certificate were to become a success, this goes for other certificates as well, strict rules should be developed to keep the harvest sustainable and to prevent over-harvesting. Finally, it is wise to consider that the concept of an AOC appellation for coffee is still only an idea; although interest is growing, any realization is still a long way off.

6.4 Conclusion

A general assessment of area-based certification for this project is that it would require a lot of investment as there is no name recognition or certificate organization established yet; and there is no guaranteed market even if the investments were made, this means a big risk on a substantial investment. Therefore our overall advice would be first to improve the quality of the product to establish a name; cooperate with other producers in the region in order to increase the amount of coffee produced; and then, if Kaffa coffee starts to get noticed, start to develop the local sustainable criteria needed for the possibility of an area-based label. Certainly in order to get recognition, labeling the coffee as single origin “wild coffee” is needed to distinguish the coffee from all the other coffees on the market; this also appeals to specialty food and coffee shops, commanding higher prices than the world market. Similarly, it is advisable to work in cooperation with other schemes in the area, such as the Amber project, so that the producers are not faced with conflicting requirements and specifications as to what constitutes wild coffee.

7. Coffee in SW Ethiopia

7.1 Introduction

Although the study area is the home of wild coffee, and the sustainable harvest of wild coffee would be the most forest-friendly approach to coffee development in the region, there are a variety of different coffee production schemes in the area, ranging from wild plant harvests, to bushes that were planted in the forest, to home-gardens and plantations. In Appendix 2 a brief summary of the primary coffee growing conditions per kebele in the study area can be found.

7.2 FSC

FSC has no specific standards or criteria for coffee production, there is little experience in NTFP certification of coffee; it is unknown how much wild coffee can be harvested sustainably, but research is being done in this field at present by the University of Bonn in SW Ethiopia, and it is anticipated that FSC certification will become more accessible in the next few years. The advantages of FSC certification for the project include more focus on the forest itself and more emphasis on protecting biodiversity; this is a key goal of the project that does not get much direct attention under most other schemes. The emphasis on sustainable harvesting is also positive, helping to develop local criteria for sustainable harvesting of wild coffee to FSC accreditation would encourage national working groups to adapt their principles and criteria to local ecological, economic and social conditions to create regional or national standards, which would facilitate other Ethiopian projects to achieve FSC certification, this would all be good for the remaining Ethiopian forests. In this vein, it might enhance the possibility of getting funding for development from international conservation organizations like WWF. Improved social investments, job opportunities, and bridging gaps between conservation and development are all aspects of FSC certification, and these might improve the country's credibility for future financial support for developments. However, at the moment FSC certification for the project faces fairly daunting constraints. It is very expensive and time consuming to become certified, and coffee with the FSC logo does not have strong consumer recognition, and thus there is no price premium. Sustainable yields have yet to be determined for wild coffee, and there are no existing FSC certifiers in Ethiopia at present. This certification alternative would have to wait for new developments in the FSC certification evolution.

7.3 Organic

Organic certification of coffee in the study area has the advantage that most of the present small-scale production of coffee in the region meets the organic production criterion already; fertilizer is not applied to coffee in Ethiopia, and the poor do not have access to chemical pesticides, so home-garden coffee is probably all already organic. IFOAM also has standards for wild-harvested products, which might be met by current practices, as well, over the past 5 years, more Ethiopian farmers have been choosing to certify for the international market, where consumers are showing a growing preference to buy organic foodstuffs. Organic certification alongside regional or Fair-Trade certification seems to market better than singly certified produce. Constraints of this certification option include the absence of a certification body in Ethiopia at present, which contributes to the fairly high cost of certification. There is also little domestic market for organic produce within Ethiopia, and quality requirements are becoming higher in international markets. There is also a lack of knowledge among small-scale farmers in Ethiopia about certification and potential markets

7.4 Fair-Trade

There are no product-specific FLO standards for coffee production, but there are trade standards for coffee, specifically for coffee Arabica.

- Buyers and producers must procure a long-term and stable relationship, signing contracts that specify volume, quality, shipment schedule, price fixes, etc.
- International customary conditions must be met, e.g. ECC (European contract of coffee)
- Producers are guaranteed at least FLO minimum price; if market prices are higher, the market price will be met. FLO minimum price for washed Arabica from Africa is 121 US cents / pound, and for non-washed Arabica, 115 US cents / pound
- Producers are also guaranteed the Fair-Trade premium of 5 US cents / pound on top of that price
- If the coffee is certified organic, the producers will receive an organic premium on top, of 15 US cents / pound green coffee

- Pre-financing of up to 60% of contract value must be made available to the producers if requested

For the project area in SW Ethiopia, Fair-Trade standards are probably realistically within reach provided organizational and capacity-building goals are pursued. This applies mainly to wild coffee, forest-planted coffee and home-garden coffee; plantation coffee has another set of Fair-Trade criteria, but as plantations are generally detrimental to the aim of the project, they have been deliberately left out. Fair-Trade certification is most marketable and most remunerative when combined with organic certification, the criteria for which are probably already met by wild and forest-planted coffee, as well as a large percent of home-garden coffee. There are several cooperatives in southern Ethiopia that are already Fair-Trade certified, in Sidama, Oromia and Yirgacheffe; this certification has certainly contributed to the success of the Oromia Coffee Farmers' Cooperative Union, which has diversified to include membership in the Progreso Fair-Trade coffee shop in Covent Garden, London (Oxfam, November 2004). The relatively low cost of certification and the availability of funding to help defer the costs, combined with the guaranteed prices, premiums and access to credit make this a relatively attractive option. Constraints to this certification in the project area include a fairly saturated Fair-Trade coffee market; unless the regional coffee can differentiate itself in terms of its origins or characteristics, it will probably have difficulties breaking into the market. There is a definite need to improve the quality of the coffee, but this is probably true of any certification or marketing scheme. As well, government permission is required to bypass the central auction in Addis Ababa, but this does not seem to have posed much of a hurdle to other cooperatives. Some difficulties in official traceability of coffee beans back to individual farmers is to be expected, but this new emphasis on traceability is anticipated to expand across all international marketing channels, so it will have to be tackled at some point anyway. The other key constraint of Fair-Trade certification for coffee from the study area is that environmental standards are secondary to social criteria, so this scheme does not specifically protect primary forest. More emphasis is being placed on environmental factors, and the general trend in Fair-Trade is to head towards organic criteria, but care would have to be taken to include forest protection as a primary function of local cooperative policy.

7.5 Utz Kapeh

Coffee certification with Utz Kapeh looks very promising for the project so far. Certification might be quite simple, as many of the existing social structures can probably be used as the organizational basis; Gots and village leaders that organize 20 to 50 farmers are good focal points. Utz Kapeh is confident that there is a good market for wild coffee from Kaffa; they market internationally, including to Japan, and they assured the team that they will find a buyer for the coffee if the project is interested in working with them. The project would then be involved in developing the defining criteria for wild coffee, so they could ensure that conservation of natural forest and sustainable harvesting levels are included in strict criteria for labeling standards. It would take a relatively short time to get certified; Utz Kapeh has already some representatives in Ethiopia, and has done certification there in the past, they would also provide training to producers to increase the quality of coffee. Constraints to this certification are topped by the fact that Utz Kapeh is not involved in price negotiations, so they do not guarantee decent prices; but they have information that wild coffee has a high demand on the international market, and as a specialty coffee, it would presumably fetch higher prices than the world market baseline. Some restructuring of the existing social institutes is required, and offices for record-keeping and administration work will have to open in the project area. There is a need to train farmers to be conscious about the quality of coffee they produce, and skilled staff is required to monitor the production chain as per Utz Kapeh code of conduct. It is also very important to remember that unless forest conservation is deliberately added to the wild coffee labeling criteria, the potential for a large market could undermine the project's conservation objectives.

8. Honey in SW Ethiopia

8.1 Introduction

With honey production estimated to be around 26000 tons per year, Ethiopia is regarded as a potential beekeeping giant (Hussein 2000). With this production level Ethiopia is the largest honey producer in Africa and the tenth largest honey producer in the world (Hussein 2000). Only a small portion of the honey produced is marketed, and the remaining 80% goes into the production of local Tej, a honey wine widely consumed in Ethiopia (Hartman 2004). Today Ethiopia owns, with around 10 millions of bee colonies, the largest bee population in Africa. One of the challenges for the NTFP project (Sustainable Livelihood Action) is to find ways to open markets to Ethiopian honey and in that way improve local development and ensure honey exports for the future, together with ensuring sustainable forest use. Beekeeping in Ethiopia can be divided into beekeeping as practiced in Southwest Ethiopia and beekeeping in the rest of the country (Hussein 2000). It is not in the scope of this project to focus on other regions than Southwest Ethiopia, most of the Ethiopian honey is produced in traditional beekeeping systems (Hussein 2000). Over three million traditional hives and one million farmer-beekeepers can be found in Ethiopia, but only thirty farmers are using modern hives at this moment (Hussein 2000). The honey is produced on different scales (20-100 hives per farmer in the Sheka zone, maximally up to 1000 in other regions, Hartman 2004) and in different land use types (home gardens, primary forest, secondary forest and grazing land) (baseline description 2004), which can be divided over different kebeles in Ethiopia.

The main pillar of income-generation for small-scale farmers in the forests of Southwest Ethiopia is beekeeping (Hartman 2004, Baseline description 2004) in a traditional way. The small-scale farmers are using this system because of the low management effort, low investment (only a knife is used) and the high efficiency (Hartman 2004), but some major disadvantages can be mentioned: high time demand for manufacturing the beehives (only natural materials used), low yields (c.a. 5kg honey/ colony), no reproduction of the bee colonies, destruction of the bee population during honey removal, high competition (more beehives in the forest, land-use rights) and the dangerous nature of the job (Hartman 2004).

It is clear that the resilience of the beekeeping system in South West Ethiopia is decreasing, and currently priority is given to subsistence agriculture over beekeeping, with the negative effect of clearing rainforest for other uses (Hartman 2004). It is therefore important that new approaches of increasing income from modernized beekeeping should be investigated, however, this will demand the exploration of new markets, bridging of different criteria of quality standards and the adaptation of new technologies of beekeeping (Hartman 2004). In this honey chapter different certification options will be presented to gain more insight in the opportunities for potential new honey markets.

8.2 FSC

FSC certification for honey production in the study area faces many of the same challenges and opportunities as FSC certification of coffee for this project (see chapter 7). Generally, the certification offers good protection of the forest and sustainable harvesting criteria, and as such might attract funding by WWF or other conservation groups, but at present, the high costs, low consumer recognition, lack of price premiums, lack of local sustainability knowledge and criteria, and absence of certifier in Ethiopia make this option unfeasible. The forests from which the honey is gathered are not FSC certified so under current criteria, the honey is not eligible for certification; however, within the FSC people are working hard to overcome these barriers to small NTFP producers, so the project should keep abreast of developments in this field, and maybe before the end of the project period we will already see changes that will make this option more accessible.

8.3 Organic

To access the European market as an organic product, the production of honey has to meet special criteria specified in the European Council regulation (1804-1999) on beekeeping and beekeeping products. These criteria are based on strict ecological and natural principles (Bommel, unpublished) and are directed towards good quality honey production (see appendix 1 for complete list of criteria). The requirements cover different fields of beekeeping, origin of the bees, siting of the apiaries, feed, disease prevention and treatment, bee management and the characteristics of the hives. The most important general principles and criteria are listed below (extracted from: EC 1804-1999). First the general principles are shown:

- Beekeeping is an important activity that contributes to the protection of the environment, agricultural and forestry production through the pollination action of bees.

- The qualification of beekeeping products as being from organic production is closely bound up both with the characteristic of the hives' treatments and the quality of the environment. This qualification also depends on the conditions for extraction, processing and storage of beekeeping products.
- When an operator runs several beekeeping units in the same area, all the units must comply with the requirements of this regulation. By derogation from this principle, an operator can run units not complying with this regulation provided that all the requirements of this regulation are fulfilled with the exception of the provisions laid down in the paragraph on the citing of the apiaries. In that case, the product cannot be sold with references to organic production methods.

The conversion period is defined as:

- Beekeeping products can be sold with references to the organic production method only when the provisions laid down in this Regulation have been complied with for at least one year. During the conversion period the wax has to be replaced according to the organic requirements

Finally some specific criteria are listed:

The citing of the apiaries must:

- Ensure enough natural nectar, honeydew and pollen sources for bees and access to water
- Be such that, within a radius of 3 km from the apiary site, nectar and pollen sources consist essentially of organically produced crops and/or spontaneous vegetation and crops treated with low environmental impact methods
- Maintain enough distance from any non-agricultural production sources possibly leading to contamination, for example: urban centers, motorways, industrial areas, waste dumps, waste incinerators, etc. The inspection authorities or bodies shall establish measures to ensure this requirement.
- **Feed:**
- At the end of the production season hives must be left with reserves of honey and pollen sufficiently abundant to survive the winter.

- The artificial feeding of colonies is authorized where the survival of the hives is endangered due to extreme climatic conditions. Artificial feeding shall be made with organically produced honey, preferably from the same organic-production unit.

Husbandry management practices and identification:

- The destruction of bees in the combs as a method associated with the harvesting of beekeeping products is prohibited.
- Mutilation such as clipping the wings of queen bees is prohibited.
- The replacement of the queen bees involving the killing of the old queen is permitted.

Characteristics of hives and materials used in beekeeping

- The hives must be made basically of natural materials presenting no risk of contamination to the environment or the apiculture products.
- The beeswax for new foundations must come from organic production units. By way of derogation, in particular in the case of new installations or during the conversion period, beeswax not coming from such units may be authorized by the inspection authority or body in exceptional circumstances where organically produced beeswax is not available on the market and provided that it comes from the cap .
- The use of combs, which contain broods, is prohibited for honey extraction.
- Physical treatments such as steam or direct flames are permitted.

8.3.1 Marketing Channels

Figure 1 below shows how the institutional build-up for a honey market in Ethiopia should be designed. The organization of small-scale beekeepers (less than 100 hives) into small cooperatives seems to be a vital prerequisite (Bommel unpublished) because certification bodies in Europe (Skal int, Naturland, Biosuisse) only certify bigger cooperatives with considerable market potential (Skal int, unpublished).

Furthermore, cooperatives could provide small-scale honey producers with necessary education, stronger position (towards government), equipment, skills etc. The cooperative can function as a middle-man between the small-scale farmers and the European market, arranging the necessary relations and opening markets (Bommel unpublished)

In figure 1, different symbols are used to show the different relations between the components. A=inspection visit by certification body, C=collection of honey by cooperation, I= incidental inspection visit by importer, R=regulation by European Union, S= sale on market, T=trade to importer.

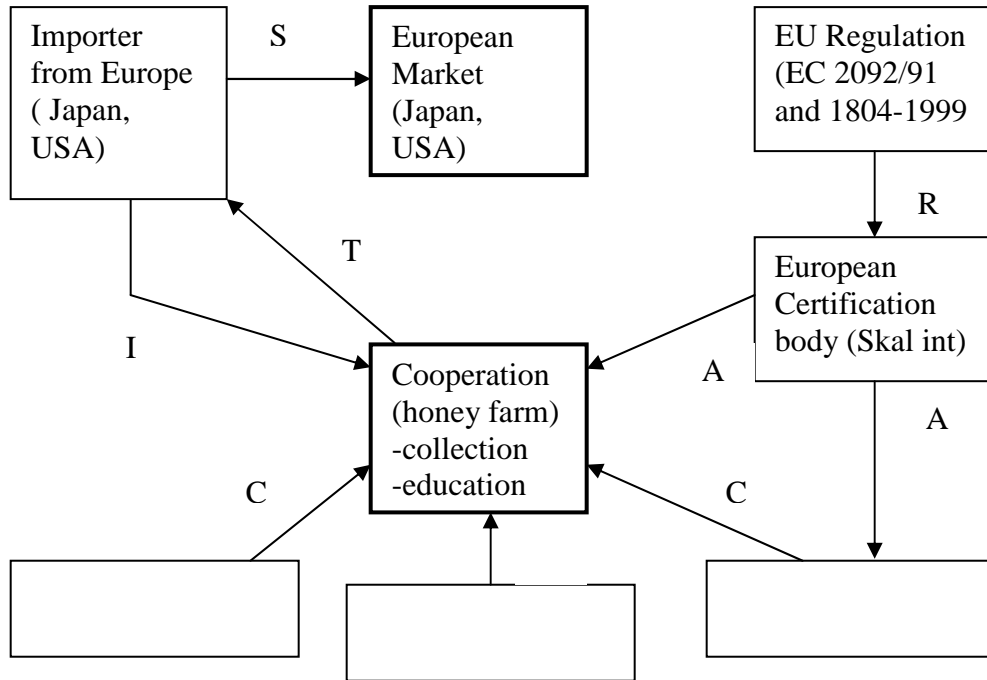


Fig1. Market and Institutional Set-up for Organic Honey in scheme (after Bommel, unpublished)

8.3.2 Opportunities and Constraints

In this section first some general opportunities and constraints for organic honey production will be discussed. Beekeeping in Ethiopia is conducted in different land-use systems and some more specific opportunities and constraints for these systems will be discussed hereafter.

For Ethiopia, as a potential honey producing giant (Hussein 2000), organic certification (with an internationally recognized EKO label) could provide access to new markets all over the world. Entering these markets will improve local economic development, and farmers in cooperatives will gain access to knowledge and skills and in that way improve their livelihood and chances on the market. However, the international quality standards for organic honey are high and many criteria must be met to get an organic label. It is generally known (Bommel unpublished) that African honey has a relatively high water-content. International quality standards require a water-content lower than 21%. Hartman (2004) has published a quality analysis of Ethiopian honey from the Masha woreda (Sheka zone) and found that the water content was 23.7%. To get more insight into the quality of honey in other regions within the project area, more analysis should be carried out, both from traditionally-produced honey and from honey from modern production systems. Furthermore, high investments are necessary to change traditional beekeeping to organic production. These investments include certification, education, processing equipment, administration (traceability and Eurepgap), working capital and processing infrastructure (Bommel unpublished). It can be expected that small-scale farmers will not be able to make these investments on their own, therefore it is strongly advised to organize into cooperatives to be able to acquire loans from the government. Last but not least, class systems and social exclusion of minority groups (Hartman 2004) could constrain the institutional set-up required for certification, as some groups are not recognized or have limited access to forest areas. It is therefore not sure whether different cooperatives can be set up democratically and without competition between each other. Opening up markets could increase the pressure to provide constant supplies of honey, and more and more hives might be placed in the forest. However, a higher number of hives in the trees does not necessarily increase yields; Hartman (2004) showed that bees occupied only 30-40% of one hundred hives. Indirectly, more hives will lead to more competition for resources between different farmers and higher pressure on the forest. One last general constraint regards the social and cultural perceptions of the local people. It is unknown to what extent they will be willing to adapt to more modern beekeeping and in that way change from beekeeping methods that were inherited for hundreds of years from generation to generation.

Finally some specific opportunities and constraints per production system will be discussed. Hartman (2004) found that home garden systems are vulnerable to red ant attacks, which are mainly located near houses. From an organic point of view it could be difficult to combat the red ant with pesticides. but Hartman (2004) also states that by increasing the range of beekeeping around home gardens larger areas are preserved, which is a positive development. Furthermore, home garden systems are mainly small-scale, which limits the possibility to get certified by an organic certification body in Europe (Skal International), as they only certify cooperatives; therefore the home-garden systems should be unified in cooperatives to gain certification and a trading position within the honey market. There is a lack of information on other land-use systems (primary forest, secondary forest and grazing land), but as traditional beekeeping is widespread in Southwest Ethiopia, most general benefits and constraints discussed earlier will also apply.

8.4 Fair-Trade Honey

There are no product-specific FLO standards for honey production, but there are trade standards for honey. Exported honey has to meet EU and Swiss quality standards:

- There must be no taint from foreign matter during processing or storage, and no fermenting
- The honey must be free from any residues of medicinal applications to bees
- No foreign sugar may be added to the honey
- Feeding of sugar to bees is strictly limited to the non-producing season and must be kept to a minimum
- Quality must be controlled prior to shipment by an independent agent
- Only new export-quality barrels can be used for bulk shipment

There are 2 grades of honey quality, based on water content and hydroxymethylfurfural (HMF) content, which are rated on a point system:

- A water content of 16.9% or less = maximum (20 points)
 - 19.6% water or more = 0 points
- A HMF content of 5ppm or less = maximum (15 points)
 - 20ppm HMF or more = 0 points

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- The points are added: 18+ points = A quality, with a minimum Fair-Trade price (FOB) of 1.80 USD / kg
 - 17 points or less = B quality, with a minimum price (FOB) of 1.65USD / kg
- On top of this price, buyers will pay a Fair-Trade premium of 0.15 USD / kg
- The organic differential on top of that price is 0.15 USD / kg
- Credit of up to 60% of the contract value must be made available to the producers on request
- Continuity – the buyer must guarantee a contract of at least 1 year

Similar to Fair-Trade possibilities for coffee, the criteria can presumably be met by the project, provided organizational and capacity-building goals are achieved. And similarly to coffee, options are increased if they are combined with organic certification; it would probably also be advisable to differentiate the honey by emphasizing its origins and wild nature for the production schemes that involve wild honey. A major constraint might be the water content of the honey, which is generally high in African honey (Severine van Bommel, personal communication), and quality and production knowledge in general. There is also a limited market for honey, especially in the Netherlands, although markets are greater elsewhere, especially in Switzerland.

9. Results: Multi-Criteria Analysis (MCA)

This multi-criteria analysis was constructed (table 1 below) based on the knowledge and expertise of the group members. It is meant to give a general impression of our relative ratings of the different certification systems, and in that way present a summary and comparison of the different certification options. The grading system (ranging from -2 to 2) varies from strongly negative (-2) through neutral (0) to very positive (+2). Obviously these are very subjective values, and are only meant to give an impression of our perceptions of the relative rankings.

Table 1. Multi Criteria Analysis for different certification systems

Multi Criteria Analysis					
	FSC	FT	Org	AB	UK(eur)
Economic (costs)					
certification (application, inspection, control)	-2	2	-1	2	1
conversion (organisation, adm, equip etc)	-2	1	0	-1	1
production (adm, market, etc)	-1	0	-1	-2	1
investment risk ratio	-2	1	1	-2	2
Total (1)	-7	4	-1	-3	5
Economic (revenues)					
market opportunities (short term)	-1	1	1	-1	2
market opportunities (long term)	?	0	1	?	2
price premium (ensure income, future)	-1	2	-1	0	-1
Total (2)	-2	3	1	-1	3
Ecological/ Environmental					
forest protection	2	-1	0	?	0
sustainable harvest levels	2	0	0	?	0
soil protection	2	1	2	?	1
Total (3)	6	0	2	0	1
Social					
labour environment (child labour, laws)	1	2	1	?	1
social (price) premium	1	2	-1	0	0
capacity building	2	2	2	2	2
Total (4)	4	6	2	2	3
General/technical					
time needed to get certified	-1	1	0	?	1
Total (5)	-1	1	0		1
Total	0	14	4	-2	13

FSC= forest stewardship council

FT= fair trade

Org= organic

AB= area based

UC= Utz Capeh

eur= eurepgap

To make this table clearer, the different criteria and terms are further explained below:

Certification: Certification provides independent confirmation that the producers that are adhering to the standards of the certification body. Here we refer to the costs of the actual certification process, namely application and inspection fees, and the costs of control visits.

Conversion: During the conversion period, producers introduce new management practices in accordance to the principles of the certification body. Here it refers to the added costs of this process, including changes in organization, administration, equipment and other facilities.

Production: Here we evaluate the additional costs that certification will add to the production process, including additional administration and the need for more marketing.

Investment risk ratio: Here we estimate the ration between the investment required to certify and the risk of not finding an expanded market.

Market opportunities (short term): Here we evaluated in general the likelihood of gaining access in the short term to new markets due to certification.

Market opportunities (long term): Here we evaluated in general the long term market prospects for coffee and honey internationally under different certification schemes.

Price premium: This reflects the potential of better prices due to certification.

Forest protection: In this section we evaluate how well general forest protection goals are addressed by the various schemes.

Sustainable harvest levels: Here we evaluate how well sustainability goals are addressed by the various schemes.

Soil protection: Here we evaluate how well soil protection goals are addressed by the various schemes.

Labour environment (child labour, laws): Here we evaluated the strength of the certification system in guaranteeing a healthy and ethical work environment.

Social (price) premium: This refers to additional social premiums that will result from certification, on top of produce price premiums, such as the social premium guaranteed by Fair-Trade to be used for community development, or such as the likelihood of receiving community support from conservation agencies to encourage sustainable management practices.

Capacity building: Here we evaluated different potentials for intuitional development and capacity building of the workers as well as mangers under different certification systems.

Time needed to get certified: Here, a relative assessment of the time-frame needed to certify.

10. Recommendations

The selection of certification options offer their own advantages and constraints for the project, and obviously it is difficult to be sure which options are best to pursue. This is especially true as what now may appear to be the most promising alternative might no longer be as advantageous by the time decisions have been made, production methods have been changed and certification has finally been attained; markets change, local circumstances change, and even certification requirements and options change. As well, the variety of production schemes in use across the project area does not lend itself to one uniform certification, with the exception of an area-based certification; but even in this case, an area-label might also choose to be organic certified or Fair-Trade to improve marketing options or to provide third-party verification of standards. This lack of uniformity suggests that some producers in the project area might be best certified under one scheme, while neighbouring producers in the project might be best under another and in some cases, especially for smaller, more isolated groups of farmers, it will be better not to certify at all (Mallet, 1999). This complicated multi-certifying arena is confusing to producers and expensive in time, effort and money. In fact, most of the schemes share a significant overlap in standards, and this is becoming increasingly true as management schemes aim for more holistic, well rounded approaches. IFOAM has adopted more social criteria, and is working towards organic forestry; FLO will introduce new environmental criteria in July 2005. FSC is also trying to introduce more social aspects and to make FSC certification more accessible to small producers (Mallet 1999). The organizations themselves are trying to increase collaboration, including harmonizing standards, joint field assessments and common promotion and marketing. For the moment, double certification is already proving advantageous for marketing, and Fair-Trade and organic labels are often seen on the same products, as well as single origin claims. Multiple certification should become less costly and time consuming if collaborative ventures are actualized. It must be remembered that certification has limited applicability; it is only one tool to help move to sustainable production (Mallet 1999). In many cases, the costs of certification are not justifiable.

However, in general it should be encouraged among producer groups and development projects to strive to meet criteria even if there are no plans for certification in the near future, because the criteria are developed to promote environmental and social sustainability, so they will always lead to better and more sustainable management schemes; the exercises in capacity-

building, organizing, educating and developing involved are also of themselves valuable developments, that lead to improved coordination, collective bargaining positions, economies of scale, market accessibility and self-determination. Also, meeting criteria now will facilitate the process later if it is decided to certify at some point when costs are reduced; it leaves open more doors to future markets. And finally, by implementing criteria regardless of actual certification, it allows for responsible standard-setting if a region decides to implement its own area-based certification criteria. After all, the principle of certification is as a means to ensure sustainable management, rather than as an end in itself. One more conclusion that has become evident is that the quality of products may be as important as certification in terms of market access. Poor quality products will always command poor prices, if they can even be sold on the world market at all. In fact, raising minimum quality standards for export on the world coffee market has been suggested as a means to combat the excess production by reducing supply short-term and raising the overall quality, price and value of exports (Ponte, 2002); if that idea is carried out, poor quality coffee simply will not be able to be sold. In discussion with the Amber Foundation project in the Kaffa region (Jorg Volkmann, personal communication), the predominant reflection was that quality, taste and origin should maybe receive more attention than certification, as certified products still will not sell if they are of low quality. In the same vein, with either area-based labels in mind or potentially an AOC-type appellation, producer countries need to raise the reputation of individual origins and refine marketing skills, “selling a story”: in essence, cultivating educated, quality consumers (Ponte, 2002). That said, we still feel that certification would be beneficial to at least parts of this project. In our relative rating of the different options for certification, the multi-criteria analysis scored 2 schemes significantly higher for the project than the other schemes: these were Fair-Trade and Utz Kapeh. Both have potential, and perhaps both schemes should be adopted in different parts of the study area; but we do feel that at the moment, the one fact we can state clearly is that Utz Kapeh is showing a keen interest in working with the project, and has almost promised that they can sell wild coffee if the project produces it, so this opportunity should definitely be pursued, and possibilities should be explored immediately.

It must be noted that in terms of project goals, the criteria might be better met by the more stringent standards of Fair-Trade, but the saturated Fair-Trade market might be problematic, and the Utz Kapeh option could be a great opportunity to both access the larger mainstream market and to help to develop the criteria to define responsible harvesting of wild coffee. It must be emphasized that forest conservation and sustainable harvesting goals must not get lost in a

market frenzy; the project may well have the opportunity to work with Utz Kapeh in developing wild coffee criteria, and forest protection should top that list (Utz Kapeh says it will help with training for quality issue).. In terms of volume produced, it is still not clear what sustainable yields are, and contact should be made with the Bonn University group studying the issue; if Utz Kapeh is concerned about the supply being too limited, we highly recommend that the project collaborates with the Amber Foundation project, who would be very keen to expand their sales into the Dutch market; this networking might also strengthen the name of Kaffa wild forest coffee, and ensure that local producers are not being given conflicting requirements by the 2 projects. Of course such cooperation would also strengthen the position of small-scale farmers throughout the region.

So firstly we recommend that contact should be resumed immediately with Utz Kapeh; the experience in organization-building, criteria-setting and quality training in the region will doubtless aid further project ambitions and other certifications, as well, this idea promotes wild coffee production in the forest, rather than domestication, and is well in line with the project goals; it may also help to raise awareness of wild coffee as a specialized coffee, opening specialty niche markets and encouraging a name for Kaffa regional products. Of course, Utz Kapeh addresses the next step for coffee certification, but not for honey; for honey, both organic and Fair-Trade simultaneously seems to be the best solution, although the water content of Ethiopian honey warrants further investigation before any resources are diverted in that direction. The “wild forest” nature of forest-collected honey might also be a selling point on a label to differentiate itself on the market, we suggest that the project keep the Fair-Trade / organic double certification idea in mind while first investigating quality potential for regional honey. Overall it must be kept in mind that diversifying certification schemes throughout the area is not a bad idea anyway; it reduces reliance on a single market, and with time may facilitate joint certification. Also, the project should keep abreast of changing criteria and options in the various schemes, as certainly FSC certification is rapidly trying to adapt itself for poorer, small-scale producers, and joint efforts may make certification of all systems easier in time.

References

- Alexandria Conference 2004. [Internet site] available from:
<http://www.millenniumassessment.org/documents/bridging/papers/hartman.ingrid.pdf>
[Cited 16 February 2005]
- Beyond the bean: redefining coffee quality. Chemonics international, 2005. (Internet site). Available from: <http://marketstandards.chemonics.net> [Cited 5 February 2005]
- Bekele.Taye, 2003.The potential of Bonga Forest for certification: a case study. Paper for National stakeholder workshop on forest certification, IBCR (Institute of Biodiversity Conservation and Research), FARM Africa, and SOS Sahel, Addis Ababa.
- Bommel.S, 2004. Conserving a global treasure, sustainable forest conservation and organic beekeeping in Chile. Thesis. Wageningen University, The Netherlands.
- Council Regulation (EC) no 1804-1999, 2092/91, available from: <http://www.skalint.com>
- Codex Alimentarius, available from: http://www.codexalimentarius.net/web/index_en.jsp
- Denkins.Cora, 2003. Environmental and social standards, certification and labeling for cash crops.FAO, Rome.
- Engels. Regina, 2004. International Production Standards and the Position of Developing Countries in International Trade. Wageningen University, Department of Law and Governance.
- Forest-coffee conservation and business development project in Ethiopia, 2005.The Amber Foundation. (Internet site) Available from:
http://www.amberfoundation.com/en/?Projects:selected_projects
[Cited 20 January 2005]
- Giovanucci.D & Koekoek, Van F. 2003. The state of sustainable coffee: a study of 12 major markets. International Coffee Organization.
- Hussein, M.H., 2000. Beekeeping in Africa, North, East, North-East and West African countries, *Apiacta* 1: p 32-48. [Online journal]. Available from:
http://www.beekeeping.com/apiacta/beekeeping_africa.htm
[Cited 16 February 2005]
- Jacobsen.T. Birthe, 2002. Organic Farming and Certification .International Trade Center. (Internet site) Available from: <http://www.intracen.org/mds/sectors/organic/certify.pdf>.
[Cited 25 January 2005]

JJIG Advice Agency. Baseline description of project area; NTFP Research and Development Project South-West Ethiopia, Dec 2004.

Kebele Level PRA Study, Final Report.

Lewin, B., Giovannucci, D. & Varangis, P. 2004. Coffee Markets: New Paradigms in Global Supply and Demand, World Bank: Agriculture and Rural Development Discussion Paper 3. pp: 109-126.

Mallet, P., 1999. Certifying the harvest: developments in NTFP certification. NTFP Conference proceedings, October 1999, Kenora, Canada.
<http://www.ncrs.fs.fed.us/pubs/gtr/other/gtr-nc217/>

Organic Agriculture. Certification Programs, 2004. (Internet site). Available from: www.skalint.com [Cited 4 February 2005]

Organic Farming. Guide to Community Rules. European Commission, 2000. Directorate General For Agriculture. (Internet site). Available from: http://europa.eu.int/comm/agriculture/qual/organic/brochure/abio_en.pdf. [Cited 22 January 2005]

Oromia coffee farmers' cooperative union, 2005 (Internet site). Available from: <http://www.greendevlopment.nl/progreso/ocfcu/>. [Cited 25 January 2005]

Ponte, S., 2002. The 'latte revolution'? Regulation, markets and consumption in the global coffee chain. *World Development* vol.30, p1099-1122.

Proceedings of a regional workshop on development of capacity building strategies in forest certification in Eastern Africa Limuru. 2002. Conference Center. 15 – 17 May. (Internet site) Available from: <http://www.iac.wageningen-ur.nl/ForestCertification/files/Workshop%20proceedings%20July%202002.pdf>. [Cited 25 January 2005]

Recent developments in the certification of forest products. (Internet site) Available from: <http://www.nri.org/NRET/pwb4.pdf> [Cited 9 January 2005]

Taylor, P. Leigh, 2005. In the market but not of it: Fair trade coffee and forest stewardship council certification as market-based social change. *World Development* vol.33, p.129-147.

The Forest Stewardship Council and Non-Timber Forest Product Certification: A discussion paper. (Internet site) Available from: http://www.fsc.org/keepout/en/content_areas/77/59/files/NTFP_paper_with_new_header.PDF [Cited 12 January 2005]

Alternative Strategies Consultancy Group

Utzkapeh code of conduct 2004. [internet site]. Utz Kapeh Available from:
http://www.utzkapeh.org/archive/downloads/utzkapeh_code1104eng.pdf [Cited 20 Jan 2005]

Wadden produkten, 2005. [Internet site]. Available from:
<http://www.waddenproducten.nl/> [Cited 16 Jan 2005]

Workshop on NTFP Guidance to Certifiers, 2000. FSC NTFP Working Group. Oaxaca, Mexico. (Internet site) Available from:
http://www.etfrn.org/etfrn/newsletter/nl32_on.html [Cited 10 January 2005]

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- Severine van Bommel, Severine.vanBommel@wur.nl (expert on honey in Alterra, Wageningen University)

Relevant Institutions

- www.coffee.uni-bonn.de; Centre for Development (ZEF) of University of Bonn
- www.fairtrade.net; Fair trade certification
- www.ifoam.org; International Federation of Organic Movements organic certifier
- www.skalint.com; Skal International, Netherlands; organic products and forest management certification
- www.naturland.de; Naturland , Germany organic certifier
- info@amberfoundation.com
- www.amberfoundation.com
- www.fairtrade.org.uk; Fair trade certification
- www.organic-business.com; Organic certifier
- www.gtz.de; GTZ, Germany, certification advisory body
- www.fao.org; Food and Agricultural Organization, Rome
- www.teaandcoffee.net/0201; Information about Ethiopian coffee
- www.beekeeping.com/apiacta/beekeeping_africa.htm; Site on beekeeping

Appendix 1

Criteria for organic Honey Production

General Principles:

- Beekeeping is an important activity that contributes to the protection of the environment and agricultural and forestry production through the pollination action of bees.
- The qualification of beekeeping products as being from organic production is closely bound up both with the characteristic of the hives 'treatments and the quality of the environment. This qualification also depends on the conditions for extraction, processing and storage of beekeeping products.
- When an operator runs several beekeeping units in the same area all the units must comply with the requirements of this Regulation. By derogation from this principle, an operator can run units not complying with this Regulation provided that all the requirements of this Regulation are fulfilled with the exception of the provisions laid down in paragraph 4.2 for the siting of the apiaries. In that case, the product cannot be sold with references to organic production methods

Conversion Period:

- Beekeeping products can be sold with references to the organic production method only when the provisions laid down in this Regulation have been complied with for at least one year. During the conversion period the wax has to be replaced according to the requirements laid down in paragraph 8.3.

Origin of the Bees:

- In the choice of breeds, account must be taken of the capacity of animals to adapt to local conditions, their vitality and their resistance to disease. Preference shall be given to the use of European breeds of *Apis mellifera* and their local ecotypes.
- Apiaries must be constituted by means of the division of colonies or the acquisition of swarms or hives from units complying with the provisions laid down in this Regulation.
- By way of a first derogation, subject to the prior approval by the inspection authority or body, apiaries existing in the production unit not complying with the rules of this Regulation can be converted.
- By way of a second derogation, swarms on their own may be acquired from beekeepers not producing in accordance with this Regulation during a transitional period expiring on 24 August 2002 subject to the conversion period.

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- By way of a third derogation, the reconstitution of the apiaries shall be authorized by the control authority or body, when apiaries complying with this Regulation are not available, in case of high mortality of animals caused by health or catastrophic circumstances, subject to the conversion period.
- By way of a fourth derogation, for the renovation of the apiaries 10 % per year of the queen bees and swarms not complying with this Regulation can be incorporated into the organic-production unit provided that the queen bees and swarms are placed in hives with combs or comb foundations coming from organic-production units. In the case, the conversion period does not apply.

Siting of the apiaries:

- The Member States may designate regions or areas where beekeeping complying with this Regulation is not practicable. A map on an appropriate scale listing the location of hives as provided for in Annex III, Part A1, section 2, first indent shall be provided to the inspection authority or body by the beekeeper. Where no such areas are identified, the beekeeper must provide the inspection authority or body with appropriate documentation and evidence, including suitable analyses if necessary, that the areas accessible to his colonies meet the conditions required in this Regulation.
- 4.2. The siting of the apiaries must:
 - Ensure enough natural nectar, honeydew and pollen sources for bees and access to water
 - Be such that, within a radius of 3 km from the apiary site, nectar and pollen sources consist essentially of organically produced crops and/or spontaneous vegetation, according to the requirements of Article 6 and Annex I of this Regulation, and crops not subject to the provisions of this Regulation but treated with low environmental impact methods such as, for example, those described in programs developed under Regulation (EEC) No 2078/92 which cannot significantly affect the qualification of beekeeping production as being organic
 - Maintain enough distance from any non-agricultural production sources possibly leading to contamination, for example: urban centres, motorways, industrial areas, waste dumps, waste incinerators, etc. The inspection authorities or bodies shall establish measures to ensure this requirement.

The above requirements do not apply to areas where flowering is not taking place, or when the hives are dormant.

Feed:

- At the end of the production season hives must be left with reserves of honey and pollen sufficiently abundant to survive the winter
- The artificial feeding of colonies is authorized where the survival of the hives is endangered due to extreme climatic conditions. Artificial feeding shall be made with organically produced honey, preferably from the same organic-production unit
- By way of a first derogation from paragraph 5.2, the competent authorities of the Member States can authorize the use of organically produced sugar syrup, or organic sugar molasses instead of organically-produced honey in artificial feeding, in particular, when it is required by climatic conditions that provoke crystallization of honey
- By way of a second derogation, sugar syrup, sugar molasses and honey not covered by this Regulation may be authorized by the inspection authority or body for artificial feeding during a transitional period expiring on 24 August 2002
- The following information shall be entered in the register of the apiaries with regard to the use of artificial feeding: type of product, dates, quantities and hives where it is used
- Other products different from those indicated in paragraphs 5.1 to 5.4 cannot be used in beekeeping that complies with this Regulation
- Artificial feeding may be carried out only between the last honey harvest and 15 days before the start of the next nectar or honeydew flow period

Disease Prevention and veterinary treatments:

- Disease prevention in beekeeping shall be based on the following principles:
 - The selection of appropriate hardy breeds
 - The application of certain practices encouraging strong resistance to disease and the prevention of infections, such as: regular renewal of queen bees, systematic inspection of hives to detect any health anomalies, control of male broods in the hives, disinfecting of materials and equipment at regular intervals, destruction of contaminated material or sources, regular renewal of beeswax and sufficient reserves of pollen and honey in hives.
- If despite all the above preventive measures, the colonies become sick or infested, they must be treated immediately and, if necessary, the colonies can be placed in isolation apiaries.

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- The use of veterinary medicinal products in beekeeping which complies with this Regulation shall respect the following principles:
 - They can be used in so far as the corresponding use is authorized in the Member State in accordance with the relevant Community provisions or national provisions in conformity with Community law
 - Psychotherapeutic and homeopathic products shall be used in preference to allopathic products chemically synthesized, provided that their therapeutic effect is effective for the condition for which the treatment is intended
 - If the use of the abovementioned products should prove or is unlikely to be effective to eradicate a disease or infestation which risks destroying colonies, allopathic chemically synthesized medicinal products may be used under the responsibility of a veterinarian, or other persons authorized by the Member State, without prejudice to the principles laid down in paragraphs (a) and (b) above
 - The use of allopathic chemically synthesized medicinal products for preventive treatments is prohibited
 - Without prejudice to the principle in (a) above formic acid, lactic acid, acetic acid and oxalic acid and the following substances: menthol, thymol, eucalyptol or camphor can be used in cases of infestation with *Varroa jacobsoni*
- In addition to the above principles, veterinary treatments or treatments to hives, combs etc., which are compulsory under national or Community legislation shall be authorized
- If a treatment is applied with chemically synthesized allopathic products, during such a period, the colonies treated must be placed in isolation apiaries and all the wax must be replaced with wax complying with the conditions laid down in this Regulation. Subsequently, the conversion period of one year will apply to those colonies
- The requirements laid down in the previous paragraph do not apply to products mentioned in paragraph 6.3(e)
- Whenever veterinary medicinal products are to be used, the type of product (including the indication of the active pharmacological substance) together with details of the diagnosis, the posology, the method of administration, the duration of the treatment and the legal withdrawal period must be recorded clearly and declared to the inspection body or authority before the products are marketed as organically produced

Husbandry management practices and identification:

- The destruction of bees in the combs as a method associated with the harvesting of beekeeping products is prohibited
- Mutilation such as clipping the wings of queen bees is prohibited
- The replacement of the queen bees involving the killing of the old queen is permitted
- The practice of destroying the male brood is permitted only to contain the infestation with *Varroa jacobsoni*
- The use of chemical synthetic repellents is prohibited during honey extractions operations.
- The zone where the apiary is situated must be registered together with the identification of the hives. The inspection body or authority must be informed of the moving of apiaries with a deadline agreed on with the inspection authority or body
- Particular care shall be taken to ensure adequate extraction, processing and storage of beekeeping products. All the measures to comply with these requirements shall be recorded
- The removals of the supers and the honey extraction operations must be entered in the register of the apiary

Characteristics of hives and materials used in beekeeping

- The hives must be made basically of natural materials presenting no risk of contamination to the environment or the apiculture products
- With the exception of products mentioned in paragraph 6.3(e) in the hives can be used only natural products such as propolis, wax and plant oils
- The beeswax for new foundations must come from organic production units. By way of derogation, in particular in the case of new installations or during the conversion period, bees wax not coming from such units may be authorized by the inspection authority or body in exceptional circumstances where organically produced beeswax is not available on the market and provided that it comes from the cap
- The use of combs, which contain broods, is prohibited for honey extraction
- For the purposes of protecting materials (frames, hives and combs), in particular from pests, only appropriate products listed in part B, Section 2, of Annex II are permitted
- Physical treatments such as steam or direct flame are permitted

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- For cleaning and disinfecting materials, buildings, equipment, utensils or products used in beekeeping only the appropriate substances listed in Annex II Part E are permitted

Appendix 2

Different Kebeles in S-W Ethiopia and their specific production systems

For coffee:

Kebele	Production systems
Uwa Kebele	forest zone located near the coastal area of Baro river
Beto Kebele	Extensive forest found in the northern part of the Kebele along Baro river which is rich in wild coffee.
Yokichichi Kebele	This is found between Ayachi and Dukechi rivers (strands). Plantation coffee is also grown
Wachito-Yeri Kebele	Plantation coffee within the homestead.
Chegecha Kebele	These forest areas are used for coffee. Plantation of coffee started in the forest.
Anderacha Kebele	Wild coffee is exclusively found within a forest area located in Chata village.
Shimi Kebele	The Coffee in this and the surrounding Kebeles is managed/grown in the forest with out any inputs (be it organic or chemicals). Plantation of coffee is available in this Kebele.
Shayita Kebele	All forestlands of the Kebele have coffee under it, named as Shayita coffee forest, Kertiqa coffee forest and Weruqa coffee forest.
Janchuta Kebele	The forest areas and homesteads are used for coffee production
Fanika Kebele	Most of the houses have coffee gardens (with taro temporarily intercropped, which is the major means of livelihood). This land use type consists of plantations of domesticated forest coffee with home garden fruit crops of mainly mango, papaya, orange, and avocado. It may in some cases include forest coffee with in these forest areas.

For Honey

Kebele	Production systems
Uwa Kebele	The forest land is abundant with defined ownership right for beekeeping. An average 'kobbo' can accommodate an estimated 50-100 trees that can be used for hanging up beehives.
Beto Kebele	The less disturbed extensive forest of the northern part of the Kebele along Baro river is the ideal place for honey production since there are flowering plants through out the year.
Yokichichi Kebele	The area they described as forest (forest with trees) is the area where they do the majority of 'bee keeping' this is a forest relatively less disturbed. This forest used by all members of the Kebele for hanging up beehives.
Wachito-Yeri Kebele	Beehives are place on remnant trees found on farm and grazing land, fallow forest (secondary forest) and slightly disturbed forest for honey production.
Chegecha Kebele	These forest areas are rich in NTFPs; it is used for honey production.
Anderacha Kebele	Honey obtained from the forest obtained from all forest areas in the Kebele.
Shimi Kebele	The second type of forest is located in relatively inaccessible parts of the Kebele is mainly used by the Mejengars for beehives.
Shayita Kebele	Big old trees of indigenous species in forest as well as in homestead have also hives on it.
Janchuta Kebele	The forest areas are used for hanging up beehive (for honey production),
Fanika Kebele	This forest with trees is used mainly for bee keeping. This forest is used by all members of the Kebele for hanging up beehives but with Dembi, Zanika, and Yamuka 'Nius' Kebeles having relatively more access right due to closer distance to the resource.