The organic tea and coffee market - a comparison of their development

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Abstract
At the same time as in 1986 the first teagarden in Sri Lanka was converted to organic agriculture, started in Mexico the first smallholder organization with the production of organic coffee. Comparing the development of the two perennial crops in the market, the organic coffee production is much more developed worldwide. The main challenges in the organic tea production to comply with the organic principles are the nutrition of tea bushes with organic fertilizers (mainly compost) and the prevention of diseases and pests, which is only possible if the ecosystem in the garden is well established. In addition the different requirements for certification depending on the export country about documentation and traceability have to be fulfilled. From the beginning organic coffee was mainly produced by small holders and exported by cooperatives. There is a new trend in the tea production, which supports small holder organizations producing their own organic tea. In comparison with coffee, the tea is finally processed in the producing country. Special knowhow and machinery is hardly available for small holders. Small holders plug their tea and sell it as "fresh leaves "to the factories.

Introduction
India is the second largest tea producing country, with almost 1 Million tons of made tea in the year 2006, after China. One of the most famous and oldest regions for high quality tea in India is Darjeeling, which is located in the Himalaya foothills. The tea gardens are up to 2000 meters on the steep mountain sides. More than 100 years ago the British introduced the tea production in this area. During this time there was 40 ha natural forest calculated for the same size of tea garden, to assure a certain ecological balance in the system on one side, as well as resources (e.g. fire wood, herbs, fruits) for the people living and working in the tea garden. Since this time the tea area has been extended tremendously by de-forestation of the natural forest. Land slides are the result and today environmental programs try to encourage the people to replant more trees. Soil erosion and soil degradation is one of the major problems in tea gardens in hill regions with heavy rainfalls. In addition pests and diseases develop much faster in monoculture systems and prophylactic pesticide use is the consequence. For coffee plantations similar problems are observed. Under this circumstances people looked for an alternative way of agriculture production in these sensible eco-systems which can be organic coffee and tea production.

The organic principles
The concept of organic agriculture is a holistic approach, which sees the farm unit as an organism under specific ecological conditions. Soil fertility and soil protection is an important objective. The main challenges in the production of perennial crops (like coffee and tea) to comply with the organic principles are the nutrition of the soil with organic fertilizers and the prevention of
diseases and pests, which is only possible if the ecosystem is well established. In organic coffee plantings this is supported by a less density of only 4000 coffee plants per ha and by different types of shade trees, which have to be integrated. Similar methods are used in organic tea gardens. The remaining natural forests are maintained and exceeded as puffer zones. Fertilization is mainly done by compost, which is distributed after pruning. Most of the organic tea gardens have a highly developed production of wormy-compost. In addition to the principles of production the different requirements for certification depending on the export country about documentation and traceability have to be fulfilled to get organic tea or coffee.

**Development of organic tea production**

In 1986 the first teagarden in Sri Lanka was converted to organic agriculture. The conversion to organic agriculture has been initiated by the German Fair-trade Organisation gepa in cooperation with their partner in Sri Lanka, the teagarden Idulgashina and the international organic association Naturland in Germany.

![Development of Naturland certified made tea](image)

Figure 1: Development of Naturland certified made tea

20 years later the tea garden is still organic and other projects have followed the concept, but the total organic area (including tea) in Sri Lanka doesn't reach 1%. In Darjeeling, India the first tea garden was certified in 1988. Here the organic production of tea got more support and today around 30% of the 87 Darjeeling tea gardens are converted to organic agriculture.

**High technical equipment for tea processing**

In the organic tea production only a few individual small farmers are involved, unlike in all tea producing countries where are a lot of individual farmers growing tea bushes or plugging tea in abandoned tea gardens. In Sri Lanka more than 50% of the tea leaves are produced and plugged by small holdings, farmers with less than 4 ha of tea bushes. Contrary to coffee, tea is finally processed in the producing country. As the leaves have to be directly processed after plucking, many larger tea gardens have their own tea factories directly at the site. The special knowhow and machinery is hardly available for small holders. The only possibility for individual farmers with mixed cropping systems is to sell their harvest to the nearest tea factory. In the last five years projects have been started, where organized groups find support by tea garden owners who processes the tea in their facilities. The marketing of the made tea is done by the group itself.
Development of organic coffee
Comparing the development of organic tea and coffee, the organic coffee market is with a market share of 1.5% in 2005 much more developed. In Mexico, the country with the largest organic coffee production the proportion of organic coffee has already reached 18.9%. In comparison with organic tea produced in medium sized tea plantations, organic coffee was already from the beginning mainly produced by small holders. Especially in Latin America the cooperatives organize individual coffee producers following an extensive production method in secondary forest zones. For them the organic production method and at the same time the direct marketing of their organic coffee is an opportunity to add value on their raw product and to get more income for their farmers. In the last five years the organic proportion of fair trade coffee in Germany has raised up from 33% to over 50%. The association Naturland, which certified in 1987 the first coffee cooperative UCIRI in Mexico, registered 20 years later 74 coffee cooperatives as members, with almost 30.000 farmers producing on 74.000 hectares 29.900 tons of organic coffee.

![Figure 2: Development of organic coffee in the German fair trade market](image)

Easy technique for post-harvest processing - different certification system
The post-harvest processing of the coffee beans doesn't need highly developed machineries. Often the pulping is organized by the cooperatives or even by the farmers themselves. The green coffee can be stored without loss of quality and will be exported to the coffee roasters. The major coffee companies don't roast the coffee in the production countries.

For the organic certification of cooperatives with up to 1000 members producing coffee under their specific local conditions certifiers have developed a - so called - Internal Control System (ICS) to monitor the inspection and certification. An Internal Control System is a documented quality assurance system that allows delegating the annual inspection of individual group members to local inspectors within the certified operator. Annual external inspections are carried out as a check to verify the quality of the internal control system. The certificate belongs to the cooperative and allows them to sell their coffee as organic.

Outlook
With all the differences of these two crops, there is one major and very important experience for both: organic agriculture methods are functioning and sustainable for perennial crops under tropical conditions. 25 years ago this was doubted by many. World-wide the global sales of organic food and drink increased by 9% in the year 2004. Increases of 12% in the total organic sales have been registered in Germany, the largest organic market in Europe. The prognosis of the global organic market are positive and there is still a lot of potential for organic tea and...
coffee. It will be interesting to see in which direction this development will proceed. The organic coffee production is strong in cooperatives with mainly smallholdings. There are some new and interesting projects starting in the organic tea sector as well. Let’s work together, that this production method finds still more supporters for a sustainable future of coffee and tea.

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