Agroforestry systems: opportunities and limitations for the cocoa sector

Conference at the 26th June 2019 in Cologne

Chocolate Museum Cologne,
Am Schokoladenmuseum 1a, Bel Etage
Time: 9 am – 5 pm

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BACKGROUND

Despite having discussed the social situation of cocoa farmers in numerous meetings for at least 20 years, cocoa production still causes many economic, human rights-related and ecological challenges in cocoa producing countries. Additionally, the discussion about illegal deforestation to enlarge cocoa plantations has intensified during the last years. This leads to the crucial question, how to reform the cocoa sector in a way that tackles all challenges.

In this context, agroforestry production systems are often mentioned as a possible solution for different problems as for example ecological challenges, the increase of income or the diversification of income sources.

However, many questions remain open: Is cocoa production in agroforestry production systems profitable with current cocoa prices? Which challenges does the introduction of the system face? Which political environment is needed to support a large-scale introduction of agroforestry systems?

Aim of the conference was to discuss all these questions. As introduction, speakers illustrated fundamental questions concerning agroforestry systems. However the main focus of the conference was to create the chance for an exchange of experiences amongst different companies and organisations who already work with changed production systems.

PROGRAMME

25. June 2019
07.00 pm | Registration
07.30 pm | Welcoming words: Christian Unterberg-Imhoff, Managing Director, Chocolate Museum Cologne
07.35 pm | Welcome note, Elfi Scho-Antwerpes, Vice Mayor of the City of Cologne
07.40 pm | Key-Note Speech: Felix Finkbeiner, Founder Plant-for-the-Planet: Cocoa a Chance for development and climate
08.20 pm | Come Together with drinks and snacks

26. June 2019
08:30 am | Coffee and registration
09.00 am | Welcoming addresses
09.15 am | How do agroforest production systems function and what could they offer for the cocoa sector?
  •  Fergus Sinclair, World Agroforestry (ICRAF)
  •  Christophe Kouamé, World Agroforestry (ICRAF): Cocoa agroforestry: A viable practice for cocoa landscape rehabilitation in West Africa
  •  Elsa Sanial, CIRAD/ University of Lyon: What could make trees acceptable in cocoa systems?
  •  Monika Schneider, FiBL: Research in Bolivia, applicable in West Africa?
10.00 am | Practical experiences
  •  Agnese Mancini, Mondelēz: First experiences of agroforestry on smallholder cocoa farms in Côte d’Ivoire
  •  Fabian Calvo, Rainforest Alliance: Chances and challenges of trying to implement agroforestry systems in Ghana
11:00 am | Coffeebreak
  •  Merit Buama, Ritter Sport: A snapshot - experiences in Nicaragua
12:30 pm | Introduction of the working groups
01.00 pm | Lunch
02:00 pm | Working groups: How to optimize the impact of measure to support farmers?
  
  • **Agroforestry: What’s the business case for farmers?**
    Introduction: Monika Schneider, FiBL
    *Moderation: Martina Gaebler*
  
  • **Agroforestry: Who owns the trees?**
    Introduction: Henriette Walz, Rainforest Alliance
    *Moderation: Christian Schnier*
  
  • **Agroforestry: What is the impact on climate?**
    Introduction: Agnese Mancini, Mondelēz
    *Moderation: Vera Morisse*
  
  • **Agroforestry: How to share knowledge along the value chain?**
    Introduction: Daniel Scholler, Welthungerhilfe
    *Moderation: Torben Erbrath*
  
03.30 pm | Coffee Break
04.00 pm | Presentation of the Working Groups
04.45 pm | Final remarks
  
  • Wolf Kropp-Büttner, GISCO
05.00 pm | End of the Workshop

**DAY 1**

The conference started with a Come Together the evening before. In the beautiful setting at the chocolate fountain in the Chocolate Museum, participants of the conference were welcomed by Christian Unterberg-Imhoff, Managing Director of the Chocolate Museum Cologne and Elfi Scho-Antwerpes, Vice Mayor of the City of Cologne.

The evening continued with a speech by Felix Finkbeiner, Founder of Plant-for-the-Planet. First of all he described the work of the movement Plant-for-the-Planet. Additionally, he linked the discussion about agroforestry with policies to reduce climate change. Felix Finkbeiner had a clear message to all participants of the meeting, but also to policy makers and industry: mankind has to reduce CO2 emissions. Additionally, he pointed out that planting trees could support the efforts to reduce the climate change in binding the CO2 emissions. Agroforestry could be a way to increase the number of trees.

See full presentation: [https://t1p.de/SW-Finkbeiner](https://t1p.de/SW-Finkbeiner)
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09.00 am | Welcoming addresses

- Dr. Christian Unterberg-Imhoff (Managing Director, Chocolate Museum Cologne)
- Friedel Hütz-Adams (Senior Researcher, SÜDWIND e.V.)
- Christel Weller-Molongua (Head of Department Rural Development and Agricultural Economy, GIZ)

How do agroforest production systems function and what could they offer for the cocoa sector?

- Fergus Sinclair, World Agroforestry (ICRAF)

Fergus Sinclair has a long-standing research background concerning agroforestry. In his presentation, he explained that agroforestry systems look very different depending on the utilized crops and the landscape. Contrary to what many people in the cocoa sector think, agroforestry is widespread. Approximately 46% of the global agricultural land area consists of agroforestry systems. In the cocoa sector, agroforestry systems shrank during the last decades and were often replaced by full sun plantations. Nevertheless, research proves, that well-managed cocoa agroforest systems could increase productivity and help to adapt to climate change. Additionally, biodiversity, soil fertility and water management could be improved and prevalence of diseases could decrease. Agroforestry systems have to be adapted to the landscape. As a result of this, there is no absolute definition of how an agroforestry system could work, but there are several definitions depending on the landscape and the ecosystem where cocoa is produced. Furthermore, significant investments are needed to transform present full sun plantations into functioning agroforestry systems.

See full presentation:
https://t1p.de/SW-Sinclair

Practical experiences

- Christophe Kouamé, World Agroforestry (ICRAF): Cocoa agroforestry: A viable practice for cocoa landscape rehabilitation in West Africa

Christophe Kouamé was engaged in many research projects on agroforestry in the cocoa sector. One of the results of his studies is, that agroforestry could tackle many of the challenges in the cocoa sector, including environmental, economic and social issues. To scale up agroforestry in West and Central Africa, a number of success factors are essential. This includes innovation in agricultural practices, functioning farms organisation and extension services, markets for the diversified products and added values. This all has to be accompanied by a supporting policy framework. This policy framework includes a supporting regulation on land and tree tenure, access to finance and a reliable infrastructure.

See full presentation:
https://t1p.de/SW-Kouame
• Elsa Sanial, CIRAD/ University of Lyon: What could make trees acceptable in cocoa systems?

Elsa Sanial conducted data collections and summarised existing literature on agroforestry systems in the cocoa sector in the Côte d’Ivoire. One of the striking results of many studies is the so-called “agroforestry paradox”. Most of the farmers see the advantages of associated trees in cocoa plantation. Nonetheless, many of the projects promoting agroforestry systems are not successful or at least not as successful as they could be. The implementation of an agroforestry system can lead to many problems. For example, presently farmers have no ownership of the timber trees that grow on their farms. This might change soon as the Ivorian government is preparing a new law which gives the farmers who own the land the ownership of the timber trees. Without this, many of the online projects are not successful as farmers cannot be sure that they will be able to sell the timber trees. Additionally, species of the trees used in agroforestry systems were sometimes not meeting the needs of the farms and extension services for training are not available. Meanwhile, some farmers innovated systems by themselves for example by using agroforestry to produce fodder for their livestock.

See full presentation: https://t1p.de/SW-Sanial

• Monika Schneider, FiBL: Research in Bolivia, applicable in West Africa?

Monika Schneider described the experiences the FiBL made in a pilot projects in Bolivia. The project area, a well-managed cooperative, not only produced cocoa, but also made chocolate for the local market. The farms are on average much bigger than the typical West African farms: Farmers own 12 ha and have legal land titles. The farmers planted 600 cocoa trees per hectare in an agroforestry system. Already in the first years after planting, their income measured by income per labour day was the double of that of farmers working with full sun systems. This resulted of the fact that they could sell by-crops, specifically banana and plantain, which grew between the young cocoa trees.

Discussion

Part of the discussion went around the question whether the situation in West Africa and Latin America is comparable. Specifically the problems around land tenure and timber tenure rights in West Africa came up several times.

• Agnese Mancini, Mondelēz: First experiences of agroforestry on smallholder cocoa farms in Côte d’Ivoire

Agnese Mancini described briefly the Cocoa Life Program of Mondelez. Part of this program is not only a holistic approach to support the situation of cocoa
farmers, but also efforts to reduce deforestation. Promoting a certification of crops combined with agroforestry systems is according to Mondelez one tool to achieve more sustainable livelihoods. Presently, pilot projects test methods to pay farmers for environmental services. Again, agroforestry is one pillar of the ongoing projects, specifically these in the Nawa-region of the Cote d’Ivoire. Mondelez wants to combine agroforestry with reforestation and forest conservation. To achieve this, the company negotiated contracts with more than 500 farmers. The project is struggling with challenges, including the achievement of economic benefits and the general challenges concerning the ownership of trees and land.

See full presentation: [https://t1p.de/SW-Mancini](https://t1p.de/SW-Mancini)

- **Fabian Calvo, Rainforest Alliance: Chances and challenges of trying to implement agroforestry systems in Ghana**

According to Fabian Calvo the implementation of agroforestry systems is one of the core aims of the Rainforest Alliance (RA). The standard setting organisation wants to create a harmony between people and nature. Therefore, RA worked with a landscape approach to foster agroforestry in Ghana. Doing this, they had to overcome challenges including missing ownership of trees, the weak governance structure of the sector and climate change. RA works on a project with 3,033 farms, trains farmers, hands out shade trees, improves market access and productivity. The canopy cover of at least 30% is part of the criteria of the Rainforest Alliance certification system.

See full presentation: [https://t1p.de/SW-Calvo](https://t1p.de/SW-Calvo)

- **Merit Buama, Ritter Sport: A snapshot - experiences in Nicaragua**

Merit Buama drew a line from the first experiences of the Ritter Sport with agroforestry on cocoa plantations in Nicaragua in the 1990s to present work in Côte d’Ivoire. The company buys cocoa in Nicaragua from cooperatives, which work with agroforestry systems. Additionally, the company founded a plantation in 2012, which has set up an agroforestry system. Since 2016, the company has cooperating projects with its trader, who delivers cocoa from Côte d’Ivoire. Since 2018, all cocoa used by the company is certified. In 2019, Ritter Sport started a similar project in Ghana. Agroforestry is part of the program. Buama sees many differences between the situation in Nicaragua and in West Africa. In Nicaragua, cattle were the main driver for deforestation, while in Ghana and Côte d’Ivoire cocoa is the main driver. In the West African countries, the cocoa sector is much more politicized than in the Middle American country.
Monika Schneider from the Research Institute of Organic Agriculture (FiBL) presented an agroforestry project of her organisation in Latin America to kick off the discussion on the economic viability and benefits of agroforestry projects for cocoa farmers. The discussion focused on the need to make existing data on economic viability available. In order to better understand the added value of agroforestry for farmers it is necessary to analyse existing data and derive models that inform on the economic viability of agroforestry farming systems in different social and ecologic contexts. In addition to existing data, long-term monitoring and collection of economic data as well as better explanation of the background and purpose of agroforestry is necessary. The role and situation of migrants should receive special attention. In order to more effectively provide information to farmers, the introduction of measures and tools such as farmer field schools, social media, better collaboration between private sector and NGOs or a multi-stakeholder platform along the value chain were proposed.
Henriette Walz from Rainforest Alliance gave an introduction into the issue of tree ownership in West Africa using the example of a Rainforest Alliance project in Ghana. The resulting discussion in the working group showed that tree tenure is a complex topic depending on multiple factors such as national and even local differences in culture and legislation. There is also a substantial difference between formal legislation and its actual implementation due to a lack of
knowledge about legal provisions among cocoa farmers. Participants in the working group agreed that local communities should be more strongly informed on their legal ownership rights regarding trees through awareness raising campaigns. The official registration of trees was welcomed as a promising way forward that should be made as easy and cheap as possible.

**Agroforestry: What is the impact on climate?**
Introduction: Agnese Mancini, Mondelēz  
Moderation: Vera Morisse

Agnese Mancini, Mondelēz, gave a short introduction into the topic “Impact of agroforestry systems on climate” and raised several questions related to the financing of agroforestry systems, the importance of developing economic viable systems and potential trade-offs between carbon sequestration and poverty alleviation. In general, the participants of the working group underlined that agroforestry systems can have positive impacts on climate and have the potential to contribute to both, mitigation and adaptation to climate change, e.g. enhance carbon sequestration, enhance the resilience of farmers to climate change.

The discussion showed that it is a complex topic and the impact depends on several factors such as the agroforestry model introduced, the acceptability and the context, which varies from country to country. It was emphasized that further research is needed, especially on species and on different agroforestry models. The
complexity of agroforestry systems needs to be taken into account. Introducing a coherent policy framework and subsidies for introducing new trees were mentioned as key success factors. When introducing agroforestry systems to have a positive impact on climate, the needs of the farmers and their families also need to be considered and should be linked to economic opportunities for the farmers.

It was emphasized that the existing momentum related to climate change should be used to promote the topic of agroforestry systems. For scaling-up activities, a clear communication on the benefits of agroforestry systems is needed. Within this context, the need for an international coalition to drive change has been mentioned.

**Agroforestry: How to share knowledge along the value chain?**
*Introduction: Daniel Scholler, Welthungerhilfe  
Moderation: Torben Erbrath*
The working group dealt with how knowledge transfer along the value chain can be ensured. Based on the initial presentation by Daniel Scholler (Welthungerhilfe), the participants agreed that the exchange of information must be to the benefit of farmers. Speed and acceptance are some of the factors. Many means of knowledge transfer were discussed, such as classical training (Farmer Field Schools) and demo fields. Innovative solutions for alphabetized farmers via social media were also considered.

**Final remarks**

Wolf Kropp-Büttner (GISCO), chairperson of the German Initiative on Sustainable Cocoa, summarised the day. He focused on the fact, that while some information about agroforestry systems are available, there are still many open questions. In addition, he stressed that agroforestry has to be introduced in a holistic approach which includes the policy framework.
**CURRICULAE OF THE SPEAKERS**

**Merit Buama**
Merit Buama is trained Agric. Economist by profession (M. Sc.) and has been working with the West African cocoa sector since 2012. From 2012 to 2018 she was based in Accra and served as GIZ Advisor for a regional programme focusing on the agribusiness of cocoa smallholders in 5 West African countries. Since 2018, she supports the German chocolatier Alfred Ritter GmbH & Co. KG as Program manager for the company’s programs in West Africa. Her particular interest lies in developing economically viable solutions for cocoa smallholders and their organisations.

**Christophe Kouamé**
Mr Kouamé is Regional Director of the World Agroforestry Centre (ICRAF) in West and Central Africa. He has over 25 years of experience in Agricultural Research for Development.

**Agnese Mancini**
Cocoa Agricultural Systems Scientist, Mondelēz International
Agnese is working in Research and Development in the cocoa crop science team at Mondelēz International since April 2018. She is involved in various projects regarding cocoa agroforestry and good agricultural practices. She holds a PhD in soil microbiology from the University of Cranfield, UK.

**Fabián Calvo Romero**
Fabián Calvo Romero is a tropical agronomist specialized in natural resources management. He is currently working as Global Environment Officer for the Rainforest Alliance. Fabián has analyzed different cacao production systems in Latin America and West Africa with emphasis in Climate Smart Cocoa practices. Currently he facilitates the development of the environmental chapter of the new Rainforest Alliance Standard, which contains the Agroforestry criteria.

**Elsa Sanial**
Ms. Sanial is a researcher for land and environmental geography. She wrote her dissertation on Cocoa agroforests management and ecosystem services provisioning in post forest Ivory Coast. Ms. Sanial works scientifically on the management of forest and agricultural resources in various tropical contexts.

**Monika Schneider**
Monika Schneider works at the Department of International Cooperation of the Research Institute of Organic Agriculture (FiBL), which was founded in 1973 and is situated in Frick (Switzerland). She leads the group working on agroforestry and cacao and is involved in many research projects.

**Daniel Scholler**
Managing Director, Lizard Earth, formerly: Head of Project, Welthungerhilfe.
“Daniel Scholler knows the Sierra Leonean cocoa sector from a civil society and corporate perspective: Since early 2014 he’s been dedicated to shaping a new, responsible and collaborative, yet competitive and market-oriented cocoa ecosystem, in which communities, local agri-entrepreneurs and international cocoa investors alike thrive on innovating the future of cocoa and chocolate. Bridging the realms of supply chain-accountability, land governance, smallholder empowerment and environmental sustainability, he conceptualizes, advises and builds shared-value partnerships with farmers, aggregators, exporters and support organizations. In September 2018 he founded the ethical cocoa grower Lizard Earth. Together with 12 rural host communities, the company cultivates agro-forestry cocoa gardens under a responsible business model which he developed in collaboration with the NGO Welthungerhilfe.”
**Fergus Sinclair**
Mr. Sinclair is the Head of System Sciences at the World Agroforestry Centre (ICRAF). In addition, Mr. Sinclair leads the CGIAR Research Program on Forests Trees and Agroforestry (FTA) and is the project team leader for the report on agroecology for the High Level Panel of Experts of the UN Committee on World Food Security (CFS).

**Henriette Walz**
Henriette Walz is working as the Global Theme Lead on deforestation within the Rainforest Alliance. She joined UTZ in 2014 to work in a similar position. Since the merger she coordinates projects that RA implements in the field on topics related to deforestation, such as for example on landscape planning and tree tenure in Cote d’Ivoire; besides that she is involved in interpreting and implementing the current standard as well as developing the new standard with respect to preventing deforestation.