



CONFERENCE DOCUMENTATION

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# **COCOA PRODUCTION IN TIMES OF CLIMATE CRISIS: Challenges and solutions**

► **31st May - 1st June 2022**

Organizer: Chocolate Museum Cologne, GIZ, SÜDWIND e.V.

Venue: Chocolate Museum Cologne

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 PARTNERS

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On behalf of



 IMPRINT

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Conference Documentation  
Cocoa production in times of climate crisis



# 1 INTRODUCTION

Cocoa trees need a very specific tropical climate to flourish. If this climate changes, the trees come under stress. Farmers specifically in West Africa are already confronted with longer periods with no rain or too much rain, stretches of very hot weather et cetera. The sheer number of reports about changes in weather patterns in cocoa growing regions indicate that there is an underlying pattern: For cocoa growers all over the world, climate change is already a reality and not a faraway future problem.

The climate-related problems add up to other already existing problems in the cocoa sector, namely widespread poverty of cocoa farmers, which leads to child labor, deforestation, and the lack of investment capital.

Many studies project that the cocoa sector will run into significant problems due to climate change. Specifically in West Africa wide areas presently planted will not be suitable for cocoa trees in a decade or two. This is well known, but a reaction of companies and governments is widely non-existent. This might lead to a disaster for at least a part of the estimated 5 million families growing cocoa globally, 3 million of them in West Africa alone.

Therefore, the participants of the conference tried to explore what is known about climate change, consequences of climate change for the cocoa sector and potential ways to adapt to or to mitigate the developments.

As climate change is reinforced by deforestation. Reforestation might be a way to reduce the consequences of the changes in the climate. For this reason, cultivation practices and specifically agroforestry systems were also important subjects discussed at the conference.



Conference participants

Picture: Florian Odijk

We invited representatives of cocoa producers, businesses, civil society, standard-setting organizations and the Federal Government to exchange knowledge and ideas at the Chocolate Museum.

Altogether, around 50 people took part, coming from Côte d'Ivoire, Ghana, Cameroon, Germany, France, the Netherlands, Switzerland, Great Britain and Belgium.

The important subject would have deserved an even bigger audience, but the Ukraine crisis overshadowed the conference. People are struggling with inflation and companies with exploding costs. Nonetheless, climate change with its massive impact on millions of cocoa farmers and on all of us should not slip down the agenda list.

## 2 PROGRAM

### 31 MAY 2022

OVERVIEW- DAY 1	
07.00 PM	Registration
07.30 PM	<b>Welcoming words</b> Christian Unterberg-Imhoff, Managing Director [Chocolate Museum Cologne]
07.40 PM	<b>Key-Note Speech</b> Philipp Kauffmann [Original Beans]: <i>"Generation Regeneration"</i>
08.20 PM	Come together with drinks and snacks

### 01 JUNE 2022

OVERVIEW-DAY 2	
08.30 AM	Coffee and registration
09.00 AM	<b>Welcoming addresses</b> Chocolate Museum, GIZ, Südwind Institute
09.15 AM - 10.45 AM	<b>Part 1:</b> Challenges of climate crisis in cocoa production & <b>Part 2:</b> Climate change adaptation and mitigation strategies  <ul style="list-style-type: none"> <li>▶ Speech by Dr. Alina Gainusa-Bogdan [Climate42]</li> <li>▶ Speech by Dr. Christian Bunn: <i>"The Alliance of Bioversity International and CIAT"</i></li> <li>▶ Session Questions and Answers</li> </ul>
10.45 AM	Coffee break
11.15 AM	<b>Part 3:</b> Panel Discussion  <ul style="list-style-type: none"> <li>▶ Representative of research                             <ul style="list-style-type: none"> <li>- Dr. Christian Bunn</li> <li>- Dr. Alina Gainusa-Bogdan</li> </ul> </li> <li>▶ Government representative of producing country                             <ul style="list-style-type: none"> <li>- Marc Daubrey, CEO, Green Invest Africa</li> </ul> </li> <li>▶ Representatives of Cocoa/Chocolate companies                             <ul style="list-style-type: none"> <li>- Merit Buama [Ritter Sport]</li> </ul> </li> <li>▶ Representatives of NGO and/or producer organizations (cooperatives)                             <ul style="list-style-type: none"> <li>- Obed Owusu-Addai [ECOCARE] Ghana</li> <li>- Julien Tayoro [CPR CANAAN] Côte d'Ivoire)</li> </ul> </li> </ul>
12.30 AM	<b>Part 4:</b> Introduction of the working groups
01.00 PM	Lunch
02.00 PM - 03.30 PM	Working groups on adaptation methods:  <ul style="list-style-type: none"> <li>▶ Cultivation practices</li> <li>▶ Agroforestry</li> <li>▶ Carbon Schemes</li> <li>▶ Payment for environmental services (PES)</li> </ul>

<b>03.30 PM</b> – <b>04.00 PM</b>	Coffee break
<b>04.00 PM</b>	Presentation of the working groups (10-15 minutes per group)
<b>04.45 PM</b>	Final remarks
<b>05.00 PM</b>	End of the workshop

## 3 PROGRAM DETAILS

### KEYNOTE SPEECH

31<sup>st</sup> May 2022

The evening of May 31 started with welcoming words by **Christian Unterberg-Imhoff**, Managing Director of the Chocolate Museum Cologne. He described the efforts of the museum to reduce its own climate footprint and underlined the importance of the subject for the following discussions.



Picture: Florian Odijk

Day1: Welcome and Registration at the Chocolate Museum

Afterwards, **Philipp Kauffmann**, founder of **Original Beans**, described in his presentation called “[Generation Regeneration](#)”, how his company operates to reduce the impact of climate change on the cocoa growing regions. In his presentation, he focused on the potential to change the way cocoa is grown from a negative impact to a tool to improve the situation. The experiences of his company show that agroforestry systems cannot only reduce carbon emissions of cocoa plantations, but they can even be designed in a way to function as carbon sinks. The company invented a “Regeneration Catalogue” which includes “[12 Solutions to end the Climate Crisis together in one Generation](#)” According to Philipp Kauffmann, growing cocoa can in a first step help farmers to adapt to climate change or to mitigate it, but it could also lead to the regeneration of cocoa growing landscapes. By this, cocoa can become a tool to fight climate change.

The evening ended with snacks and drinks accompanied by intensive discussions of the participants of the conference.

## THE CONFERENCE

1st June 2022

Moderation: Conny Czymoch

<b>08.30 AM</b>	Coffee and registration
<b>09.00 AM</b>	<b>Welcoming addresses</b> Christian Unterberg-Imhoff [Chocolate Museum], Vera Morisse [GIZ] and Friedel Hütz-Adams [SÜDWIND Institute]



Picture: Florian Odtijk

Welcoming addresses (from left to right): Christian Unterberg-Imhoff, Vera Morisse, Friedel Hütz-Adams, Conny Czymoch

## Challenges of climate crisis in cocoa production and Climate change adaptation and mitigation strategies

The conference kicked off with a video interview with the head of a cocoa cooperative in Abengourou, Côte d'Ivoire. She stated that the effects of climate change are already clearly noticeable in Abengourou, especially in the absence of rain, in changing rainfall patterns and in rising temperatures. These conditions make farming extremely difficult.

<b>09.15 AM</b>	<b>Part 1:</b> Challenges of climate crisis in cocoa production & <b>Part 2:</b> Climate change adaptation and mitigation strategies
<b>10.45 AM</b>	

The kick off was followed by two interlinked presentations. **Alina Gainusa-Bogdan**, Climate42, and **Christian Bunn**, The Alliance of Bioversity International and CIAT, described the direct influence of climate change on the cocoa sector. Gainusa-Bogdan described the specific requirements of the cocoa tree and the impact changes in climate have on the harvest. Bunn described the difficulties of cocoa farmers with long-term tree businesses to adapt to climate change. According to projections, many areas presently used for cocoa cultivation will no longer be suitable for cocoa trees in the near future. South America is less affected than West Africa, but there are still a lot of uncertainties in the models. Nonetheless, growing cocoa in times of global climate change requires heterogeneous and differentiated adaptation methods for which strategies still have to be developed.

Gainusa-Bogdan marked that good agricultural practices could foster the health and climate resilience of cocoa trees. These practices involve composting, mulching and fertilization. Irrigation, pest, and shade management are other options. However, all of them afford significant investments of farmers.

**CONFERENCE DOCUMENTATION COCOA PRODUCTION IN TIMES OF CLIMATE CRISIS**

According to Bunn, mitigation of climate change and adaptation to it could lead to forest protection and even the use of landscape approaches for agroforestry systems. Cocoa plantations could function as carbon sinks. But this comes with costs and there are many barriers. Farmers need extension services, access to credits, certification, functioning co-operatives et cetera.



Picture: Florian Odijk

Interlinked presentation Alina Gainusa-Bogdan (left) and Christian Bunn (right)

**11.15 AM**

**Part 3: Panel Discussion**

These presentations were followed by an intensive discussion of Dr. Christian Bunn, Dr. Alina Gainusa-Bogdan, Marc Daubrey (CEO, Green Invest Africa), Merit Buama (Ritter Sport), Obed Owusu-Addai (ECOCARE, Ghana) and Julien Tayoro (CPR CANAAN, Côte d'Ivoire).



Picture: Florian Odijk

Panel discussion: Bart von Besien (Oxfam, translator), Julien Tayoro (CPR CANAAN, Côte d'Ivoire), Obed Owusu-Addai (ECOCARE, Ghana), Merit Buama (Ritter Sport), Marc Daubrey (CEO, Green Invest Africa), Dr. Christian Bunn, Dr. Alina Gainusa-Bogdan, and Conny Czymoch

The participants of the panel covered a wide range of problems connected to climate change. The representatives from Ghana and Côte d'Ivoire, Obed Owusu-Addai and Julien Tayoro, underlined that farmers are facing significant problems. There is the risk of decreasing productivity combined with rising production costs. In Côte d'Ivoire, cocoa production to some extent already moved further to the west of the country as farmers in the eastern parts of the country have cut down cocoa trees and planted other cultures. The changing rain patterns are a massive problem for farmers who want to plan their activities in their fields and on the cocoa plantation.

Marc Daubrey described the efforts to support farmers to get access to finances. Additionally, the government of Côte d'Ivoire and Ghana are developing climate change

strategies. They are looking for ways to adapt to climate change. The governments nowadays stress that the protection of the forests and agriculture are first priorities for them. Merit Buama described the experiences Ritter Sport made in Nicaragua. The company has a long-term partnership with cooperatives which grow cocoa in agroforestry systems. Additionally, the company started its own plantation in Nicaragua in 2012. This is accompanied by green buildings and energy-efficient production units in Germany and Austria.

All speakers agreed that farmers need significant support in adapting to climate change. Shade trees, agroforestry systems and economic models that support farmers who change their production methods were mentioned by nearly all speakers as important elements. But governments have a significant responsibility, too. They need to set up an enabling environment, for example, by regulating tree ownership. Presently, farmers are afraid to plant shadow trees as timber companies might cut them down. Laws must become consistent to protect forests and reward agroforestry systems. If carbon credit schemes are set up, these must be transparent and rewarding for farmers, not only for companies.

All in all, there is already a lot of knowledge on what farmers should do to adapt to and to mitigate climate change. But there is also a lot of knowledge that farmers cannot afford the necessary investment, at least not at the present cocoa price. Working with a long-term system like cocoa plantations, projects to support farmers need to have a long-term agenda, committed companies and supportive governments.

The working groups led to similar results.



Picture: Eileen Schwarz

Plenum and results of the working groups.

02.00 PM

-

03.30 PM

Working groups on adaptation methods

## Cultivation practices

There is already much known about cultivation practices which help farmers to adapt to climate change or to mitigate it. But the adoption rate is presently very low. Many farmers cannot practice what they learn in the training courses due to a lack of financial means. Additionally, many projects only have a short-term agenda. Long lasting success needs peer-to-peer learning and access to financial means to invest in change. Without a holistic approach, farmers will not profit.



## Agroforestry

The first big problem concerning agroforestry is the fact that there is no common definition on what it means: Standard setting organizations, companies and even governments of some countries published definitions of agroforestry systems. These include for example different numbers of trees and species per hectare. Meanwhile, farmers need many years, sometimes even up to 20 years, before the conversion of a full sun system into an agroforestry system is completed and profitable. Therefore, research on agroforestry which is adapted to local environment is needed. The research should also lead to the setting of a frame for the definition of agroforestry. Without this, farmers might not profit from investing in changes in their agricultural practices.

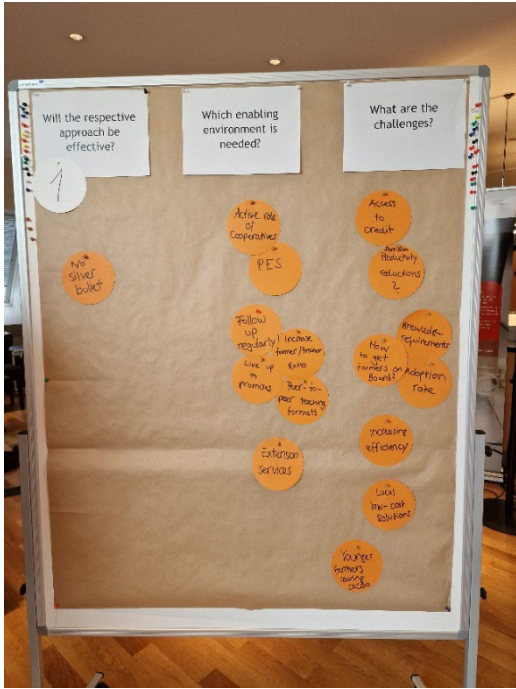
## Carbon Schemes

The aim of carbon credit schemes is to reduce emissions of companies, which often inform the public about the offsetting of carbon. But there is always the risk of greenwashing. Therefore, a legislative framework is key for a credible system. Carbon boards at national levels might be a solution for some of the present problems. Farmers will only benefit from carbon schemes if the ownership of the credits and the transparency of data collection are guaranteed.

## Payment for environmental services (PES)

A study commissioned by the GIZ showed that farmers might profit from payments for environmental services. These services have to be connected to the carbon market and a legal framework is needed. Other industries could fund the transformation of the cocoa sector via PES. The payments could be coupled to landscape approaches, which support the transformation of regions and do not focus on single crops. Again, a holistic, transparent approach is needed to give farmers an opportunity to profit from it.

## Results of the four working groups

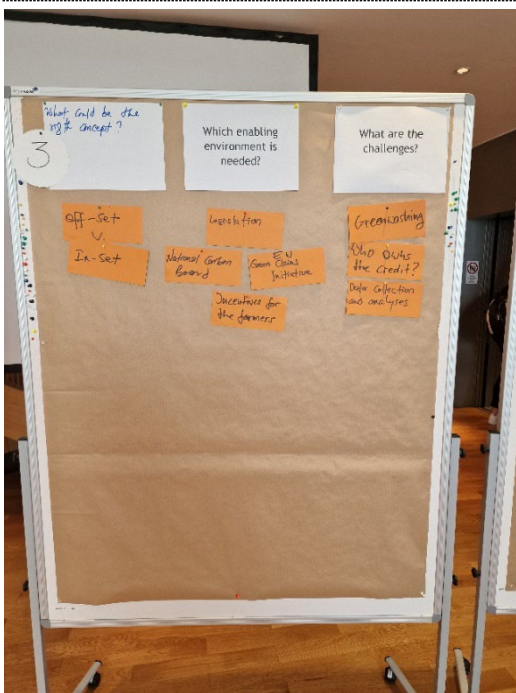


Results of working group cultivation practices

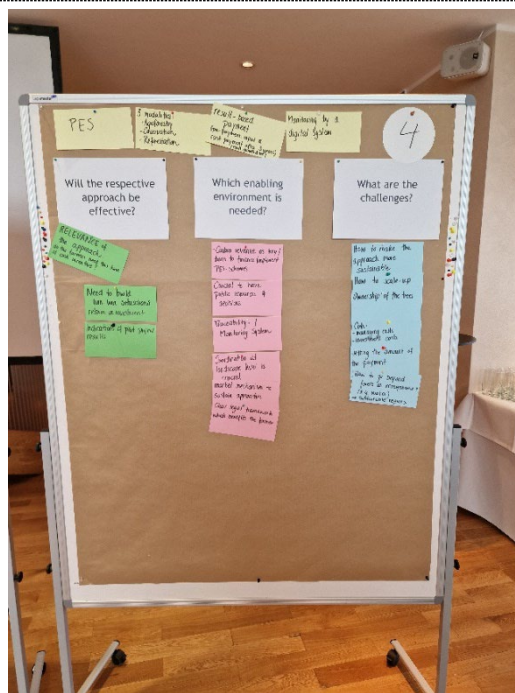


Results of working group agroforestry

Pictures: Eileen Schwarz



Results of working group carbon schemes



Payment for environmental services (PES)

Pictures: Eileen Schwarz

05.00 PM

End of the workshop

## 4 CURRICULAE OF THE SPEAKERS

### **DR. CHRISTIAN BUNN**

Dr. Christian Bunn Associate scientist at the Alliance Bioversity International and CIAT working on adaptation to climate change through interventions in coffee and cocoa value chains. He combines quantitative climate data analysis with participatory and qualitative research to make climate impact assessment actionable to support actors in the cocoa and coffee sectors in their decisions to adapt to climate change. Christian seeks to combine climate impact assessments with business models of value chain actors and to develop actor and site-specific solutions that are readily scalable.

### **DR. ALINA GAINUSA-BOGDAN**

Alina spent 10 years in academic research in oceanography and climate science before moving to cocoa. Keen to apply her scientific training to practical problems with a positive societal impact, she has focused her work over the past 5 years on interdisciplinary applied research in cocoa and climate in order to bring the latest scientific expertise to cocoa farmers in West Africa. Alina leads the R&D activity of Climate42, an agro-climate services company specialized in analyzing the effects of weather and climate on cocoa production. Climate42's team of scientists combine research in climate science and agronomy to create specialized advice on cocoa farming in West Africa and deliver their recommendations through dedicated coaching services for farmers

### **PHILIPP KAUFFMANN**

Philipp Kauffmann is the founder CEO of Original Beans, the multi award-winning chocolate and conservation company that 'makes the world better through chocolate' (Business Week).

### **MARC DAUBREY**

Marc Daubrey is an agricultural economist with 25 years of experience in agro economics; sustainable development; sustainable agriculture; Climate change; REDD+; Clean Development Mechanisms and Low Emission Development Strategies. His current focus with the NGO Impactum in West Africa is on cocoa supply chain projects and the Cocoa and Forest Initiative (CFI).

### **JULIEN N'GUESSAN TAYORO**

Julien N'guessan Tayoro is a cocoa producer from Côte d'Ivoire. He holds a master's degree in Agroforestry / food safety / production quality management. He is the coordinator of an Oxfam project on Living Income at the cocoa cooperative CPR-CANAAN.

### **MERIT BUAMA**

Merit Buama has a degree in agricultural economics and is a cocoa-sector expert. She works at the Alfred Ritter GmbH & Co. KG and is responsible for the company's cocoa programmes worldwide. Prior to that, she worked for the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in West Africa for six years. In addition, Ms Buama has been the Chair of the Forum Nachhaltiger Kakao e.V. since June 2021.

**OBED OWUSU-ADDAI**

Obed Owusu-Addai is the Co-founder and Managing Campaigner at EcoCare Ghana, a non-governmental organization working with cocoa cooperatives on developing capacities of cocoa producers and on strengthening their participation in decision-making processes.