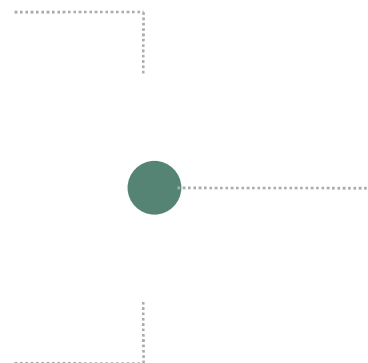


Training Session Plan for Training of Trainers ClimateFarming



Provided by: Janos Wack, Nils Tolle, Alena Holzknecht, Triebwerk
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Intro and Overview

This document presents the structure of the ClimateFarming training. It also refers to the learning objectives, the recommended methods and the required materials. After the training, the participants have received the necessary theoretical background knowledge, discussed it, clarified personal questions and, in addition to the individual exercises, applied the entire methodology at least twice and discussed the results with others. This enables them to apply the method on other farms and to adapt it to the individual needs of the respective projects.

The training for teaching the application of the ClimateFarming Cycle is divided into online and presence formats. It is also possible to offer the content currently planned as an online event in presence. However, this significantly limits the flexibility of the course. The content currently planned as a presence event, on the other hand, should not be offered in an online format. Their successful instruction is based on personal exchange and on working with the materials in groups. The components are based on each other. Nevertheless, they can also be used in modular form, as they are self-contained chapters. In addition to the lectures and exercises, further material is provided for the participants. This includes primarily the comprehensive handbook, in which the presented contents are explained in written form. Reference is also made to further literature. In addition, exercise material is provided for the practical application of the methodology. This includes the description of an exemplary farm and the necessary documents as forms for the ClimateFarming-Cycle.

At best, the training is conducted with about 15 participants. The focus is on people with extensive previous experience in agricultural advisory. Although theoretical background knowledge is also imparted, this builds on previous technical and methodological knowledge. Deviation from the group size is possible. Some methods should then be checked for feasibility and adapted if necessary. In total, the training takes at least 40 hours and should be divided into at least 8 sessions. The time between the dates can be used for practice and self-study. However, the time required can also be greater if the participants do their own research and intensively prepare and follow up on the individual contents (e.g. with the help of the handbook).

The following table provides a compact overview of the contents of the course. The following chapters explain the training process in more detail. The methodology and the material required for the training will also be discussed.

Time [h]	Topic	Format
1,5	Farming in a changing climate	online
1,5	Climate Change Management	
2	Regenerative Agriculture	
2	ClimateFarming-Cycle	
16	ClimateFarming-Cycle Use-Case (First Case-Study Farm)	presence
12	Second Case-Study Farm	Self-Study
5	Presentation of the results	online

The training material is designed as a modular course concept. Single units can also be used independently, depending on the use case. By omitting topics within units, discussions or entire units, the training time can be customized. It is also helpful to be aware of the prior knowledge of the group in a training. Some groups may require a longer unit on climate change to gain awareness while others may be mainly interested in the methodology of the ClimateFarming Cycle or its application.



HOLISTIC RESOURCE MANAGEMENT FOR
CLIMATE RESILIENCE OF FARMING

Online Input Farming in a changing climate

This session will convey the following contents and illustrate their connections with climate change.

- The new challenges which arise from climate change combined with the already existing challenges in the agricultural sector.

This teaching unit raises awareness of the challenges within and for the agricultural sector. This creates a deeper understanding of the interconnection and interrelation between climate change and agriculture. Participants will be prepared to sensitize other people to these connections as well. The focus is on the influences and interactions caused by climate change. On the basis of this, a problem-aware but also solution-oriented approach is developed.

Time [h]	Learning unit	Method	Content	Goal/ message
1,5	Problems and Challenges	Brainstorming		Complex problems with multiple interactions. Knowledge generally available but usually not in detail.
		Lecture & discussion	General - Agriculture and Climate Change - Planetary boundaries, 3 roles of agriculture in climate change	Mitigation is not enough, 1.5°C is not happening → we need adaptation, everywhere & now



			<p>Special</p> <ul style="list-style-type: none"> - Soil degradation - Biodiversity loss / Pests & diseases - Water resources - Nutrient efficiency & yields - Dependance on external inputs - Animal welfare - Changing markets / regionality - Food security 	<p>How are CC and agriculture (and all topics below) interconnected? What are the specific challenges for farmers?</p> <p>We need adaptation. Basic awareness. Understanding the need for Ecosystem Thinking / Agroecology</p> <p>Why we need a more holistic view on farming</p>
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Used Methods

- Lecture
- short queries and discussions of opinions for interaction between participants

Required Material

- Software for online meetings
- Computer
- Presentation slides "Farming in a changing climate"
- Online-document for the whole group to work on it at the same time
- ClimateFarming-Handbook
- Further literature

Online Input Climate Change Management

After this input the participants understand:

- Why uncertainty and complexity are core issues
- Why we need a comprehensive approach to adaptation
- What maladaptation is and what defines successful adaptation

Based on this, students will be able to deal with basic concepts of climate change management and can transfer and operate these concepts in the scope of farm-level adaptation.

Time [h]	Learning unit	Method	Content	Goal/ message
1.5	Climate Change Management	Group work	Transfer the risk-model to the farm-level	Understanding the basic concepts of Hazards, Vulnerability, Exposure and Risk
		Group work	Link between resilience and vulnerability Characteristics of a well adapted farm	Vision for a climate resilient farm and understanding the complex interactions
		Group work	How we can assess whether a adaptation measure at the farm-level is successful or not	Understanding of successful adaptation
		Lecture & discussion	Basic Concepts	Understand basic terminology and concepts concerning climate change
			Transfer to farm-level	Apply these concepts at the farm-level
			Successful Adaptation vs. Maladaptation	Understand how the success of adaptation can be assessed and what maladaptation is



		Discussion	Personal perspective on climate change and agriculture, exchange about hazards, exposure for different farm types	Take-Home/ Wrap-Up Farming in a changing climate and Climate Change Management
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Used Methods

- Lecture
- Short queries and discussions of opinions for interaction between participants
- Group Work
- Individual Work

Required Material

- Software for online meetings
- Computer
- Presentation slides "Climate Change Management"
- Online document for the whole group to work on it at the same time
- ClimateFarming-Handbook (Reference to the existing theoretical material on the IDAP-CC)
- Further literature

Online Input Regenerative Agriculture

After this input the participants can deal with the following requirements:

- Understand why our understanding of regenerative agriculture fits the requirements of climate adaptation
- Know the origins of RA and why it became so popular in the last years
- Understand what the different definitions of RA and other agricultural movements are
- Understand the goal "building soil (health/fertility)" and know some research outcomes and knowledge gaps



Based on these topics the participants can deal with basic soil processes and make their own opinion about regenerative agriculture and carbon credits. For example they can critically evaluate actors and their practices. Finally, the participants will gain a better understanding of the fact that regenerative agriculture has to be designed individually for each farm and has to be implemented in a way that is adapted to its context.

Time [h]	Learning unit	Method	Content	Goal/ message
2	Introduction to Regenerative Agriculture	Lecture	Mitigation - energy consumption (+externalities)	Where does the bulk of on-farm emissions come from? Which other options for on-farm climate actions are there except for C sequestration?
			History & rising popularity of RA	Context und development of the movement
		Task	Write your own definition	Understanding the complexity
		Lecture	Definitions: - similarities/ differences - other "alternative" agricultures & how they differ/ overlap	Overview of different approaches
		Discussion	Soil health/ fertility	What is a healthy soil?
		Lecture	Soil health/ fertility	What do we want when we talk about "building soil (health/fertility)"? Overview, scientific definitions



			Carbon Farming	<p>Understand soil processes, scientific evaluation (it doesn't work as easily), emissions from agriculture, realistic scenarios; Do they make sense? If so, what should be the criteria? → give the background to make own opinion</p> <p>Deepen contents from carbon sequestration lecture → be able to critically evaluate the quality of a certification</p>
			Actors and Stakeholder	<p>Learn to critically evaluate actors and their motivations/ practices; find own viewpoint; which names to know → Side note: greenwashing</p>
			Measures examples and question: Why is this regenerative?	<p>Critical examination of the topic on the basis of selected measures. Understanding of different argumentations.</p>

Used Methods

- Lecture
- Short queries and discussions of opinions for interaction between participants
- Group-Work
- Individual work

Required Material

- Software for online meetings
- Computer
- Presentation slides "Regenerative Agriculture"
- Online-document for the whole group to work on it at the same time
- ClimateFarming-Handbook



- Further literature

Online Input Climate-Farming-Cycle

After this input the participants will understand

- The challenges and concept of Deep Uncertainty
- The individual ClimateFarming-Cycle steps, how they are connected and the related methods

After this input the participants will be able to explain how the ClimateFarming-Cycle responds to climate change challenges at the individual farm level and they can explain theoretically the process of the ClimateFarming-Cycle.

Time [h]	Learning unit	Method	Content	Goal/ message
2	The ClimateFarming Cycle (Theory)	Lecture & discussion	Theoretical Foundation	Understand the issue of Deep Uncertainty and related methods, understand similarities to farm strategic planning
			The ClimateFarming-Cycle	Understand the five steps, their interconnection and underlying methods
			How does the ClimateFarming-Cycle respond to the identified challenges?	Explain the connection between climate change-related challenges and how the ClimateFarming-Cycle responds to them
		Task	Try to formulate an example for a “critical goal”- farm objective	Raising awareness of the relevance of precise goal formulation
		Task	Try to develop adaptation measures for the CS-Farm	Summarizing analysis of the steps taken so far and bundling them into coordinated measures



		Task	Use one of your developed adaptation measures and try to conduct the different checks for the measures	Practical exercise of the application
		Task	Which important criterias for farm climate strategy evaluation come to your mind? How could you assess these criterias?	Understanding the complexity of a monitoring system
		Task	Monitor internal and external changes which could hamper or support the adaptation measures or the farm climate strategy as a whole	Practical exercise of the application

Used Methods

- Lecture
- Short queries and discussions of opinions for interaction between participants
- Group-Work
- individual work

Required Material

- Software for online meetings
- Computer
- Presentation slides "Climate-Farming-Cycle"
- Online-document for the whole group to work on it at the same time
- ClimateFarming-Handbook



Online-Meeting for open questions and personal exchange

After the presentation of the knowledge necessary for the application of the Climate Farming Cycle and the considered interrelationships for the process of the consulting methodology is presented. Despite individual short exercises and discussions, so far mainly lectures were presented by single speakers. Therefore, the space is given afterwards to clarify existing questions. Likewise, discussions can be held for the concrete expression of the individual point of view. Existing open questions and points to be discussed should be collected before the meeting in order to be able to structure the topics.

Time [h]	Learning unit	Method	Content	Goal/ message
1	Open Questions and Discussion	Exchange	Possibility to ask questions and discuss unclear topics	Understand all topics that were talked about

Presence: ClimateFarming-Cycle use case

Based on the presented concept and the ClimateFarming-Handbook, the participants use the ClimateFarming-Cycle for a concrete example. This transfers what has been learned into a practical application. Due to the close supervision of the working process by the trainer, arising questions and uncertainties can be clarified directly and cause an added value for the whole group. A quick and direct learning success is achieved.

After a brief summary of the ClimateFarming Cycle by the trainer, the material for the first use case is introduced to make the work structure clear to everyone. In the following sequence, the trainer presents one step of the ClimateFarming Cycle at a time, defines the task and leads into the group work phase. The role of the speaker is very important in this application-related part with workshop character. The speaker acts as mediator and, if necessary, supplementary role and focuses on the work results of the individual groups without losing sight of the planned schedule and timetable.

The groups present their results so that these are brought together in a cooperative discussion process. The speaker also presents possible results from the work process, integrating possibly missing aspects and pointing out relevant findings.

Depending on the number of participants, groups should be formed with three to four members. The groups should be composed in such a way that sufficient expertise is available in each case. It can also be useful to use several trainers. This format is designed for about 2 days to be able to deal intensively with the individual steps, questions that arise, the approaches of the individual groups as well as the suggestions made by the speaker.



At the end of this unit, homework is given which should be conducted in (different) groups.

Time [h]	Learning Unit	Method	Content	Goal/ message
0,25	Recap	Lecture	Recap of Online Lectures: Climate Change Management, RegAg	Recap concerning climate change management and concepts; understand connections: essentials & take home messages
1	Regenerative Agriculture as part of the solution	World café with suitable images per topic	Topics for 2 groups 1. How can the scaling up of regenerative agriculture be supported? Certifications? Carbon credits ? Other Financing options? 2. To what extent is regenerative agriculture an adaptation strategy to climate change?	Formation of own opinion. Understanding of different arguments
0,5	RA as part of the solution	Lecture + discussion	How can RA provide what we need in terms of climate change adaptation? Examples for practical measures and why do they fit in the concept of RA?	How and why does Regenerative Agriculture fit in the ClimateFarming-Cycle?
0,5	Preparations for the use case	Material Case-Study-Farm 1	explain material, every person reads it	Understanding Case-Study-Farm 1
Break 15 min				



Time [h]	Learning Unit	Method	Content	Goal/ message
2	Step 1: Farm Survey	Lecture	Structure, Documentation Form	Structure, Documentation Form
		Lecture	Farm-Level: Description and Introduction of Case-Study Farm	Farm-Level: Description and Introduction of Case-Study Farm
		Lecture	Field-Level: Soil- + Site-Assessment	Field-Level: Soil- + Site-Assessment
		Lecture +exercise	Objective Formulation	Objective Formulation
Longer break				
2	Step 2: Farm Vulnerability	Lecture + Group Exercise	Analysis of operational vulnerability due to climate change	Understand the SWOT method; understand how to derive and use climate information
2	Step 3: Adaptation Measures	Lecture + Group Exercise	Establish the connection between Step 2 and Step 3 by using the measure catalog	Understand and be able to design the decision-making process for selecting appropriate measures. Understand and apply maladaptation check
Break 30 min				
2	Step 4: Farm Climate Strategy	Lecture + Group Exercise	Selective combination of individual climate change adaptation measures in a defined period of time in order to develop an individual adaptation strategy.	How to combine adaptation measures and recognize synergies and conflicting goals.
Break 10 min				
2	Step 5: Monitoring and Implementation	Lecture + Group Exercise	Develop a timeline to be able to test the success of the adaptation measures. This may then result in changes to the farm-specific climate strategy.	Understand and apply assessment methods based on the catalog of indicators as a first orientation



Break 10 min

1	Feedback and Evaluation	Homework and Feedback	Recap and Summary: Step 1 to Step 5; Feedback round. Introduction of homework	Receiving feedback on methods and content. Understanding the homework
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Used Methods

- Group Work
- Individual Work

Required Material

- Projector and screen
- Computer
- Pointer

- ClimateFarming-Handbook and presentation slides of the online-sessions
- Presentation slides for the single Steps of the ClimateFarming-Cycle for the Case-Study-Farm 1
- Filled out Farm-Survey of the Case-Study-Farm 1
- Blanco material of the Climate-Farming-Cycle
- Presentation case
- Colorful moderation cards
- Colorful pencils
- Blanco posters
- Pin boards
- Pushpins
- Adhesive tape
- Colorful string



Self Study and Homework

The goal of this unit and also the procedure is similar to the joint work on Case-Study-Farm 1. However, the groups now work self-organized in a defined period on another application example. Due to private and professional commitments, it should be possible for the groups to determine the length of the work phase. It may be useful to hold a joint interim status meeting after half of the time. Individual consultations with the trainers are necessary in order to enable a close supervision of the content and a quick clarification of possible questions in a timely manner. The results are recorded using the specified documentation sheets for each step of the ClimateFarming Cycle. Afterwards, they should be prepared on presentation slides. The results should be made available to all other participants for the first search before their final presentation.

Used Methods

- Group Work
- Individual Work
- Online-Meetings

Required Material

- ClimateFarming-Handbook and presentation slides of the online-sessions
- Filled out Farm-Survey of the Case-Study-Farm 2
- Blanco material of the Climate-Farming-Cycle



Online or presence: Presentation of the results of Case-Study Farm 2

In this last unit, the work processes as well as results from the group work with the Case Study Farm 2 materials are presented by each group. Afterwards, the results are discussed critically and questions are clarified. When all groups have presented their results, a summary synthesis is formed to point out possible solutions but also challenges within the ClimateFarming Cycle.

If possible, this unit should take place in presence. However, it can also be conducted online if necessary. In that case, a shortening of the time frame should be voted on. The results including the minutes of this unit should be made available to all participants afterwards.

Used Methods

- One presentation and discussion per Group

Material

- Own presentation slides of the results based on the work with the Case-Study Farm 2