Transform It!
The Carbon Market, offsets/compensation, sustainability and the circular economy.

Key projects
Transforming CO2 emission reduction schemes and carbon offset ideas into realizable projects.

Short text
Over 10 workshop sessions, about 8 students where able to get an overview of carbon reduction strategies compensation strategies as well as get the basics of Carbon markets and carbon offsets. The other part of the course was designed to enable participants get the best practices circularity and carbon compensation projects within the context of developing countries with a connection to the various global carbon standards. The goal of the course was to give students the skills to work within sustainable projects and topics, reason why the course ended with students designing their own viable carbon offset projects or map a corporate sustainability scheme in a given scope and present to the rest of the class.
This project was carried out by Tanyi Franç-Martial and Nubaira Nova, 2 masters student from the MIDE Program.

Here is the detailed project overview

Course perspectives, feedback & outcomes

With current trends in the global warming debate, climate justice, CO2 reduction strategies as well as economies striving for a more circular economy, the course involved a lot of debates and participation from students concerning their various points of view. While moving from the general case studies of climate impact and actions in Germany and the EU, participants also had the chance to compare climate mitigation policies in other parts of the world. Another part of the course was to empower the students with an understanding of how different carbon markets work. In doing so, participants were able to not only understand the European carbon credit market (EU emissions trading system-EU ETS), but were also able to approximately determine various footprint profiles at country, city, corporate, household, and personal levels using recommended specific tools. This was important as it gave them the required skills to work as corporate social responsibility coordinators for industries, sustainability officers for organizations as well as policymakers at a global level.

Participants also had a review of case studies in various industries like the aviation and fashion industries to understand how these industries tackle the global warming problem.

Topics covered in the course included carbon compensation, carbon markets, Global mitigation strategies, carbon offset standards, carbon footprint profiles, Berlin sustainability review, sustainability in developing countries, recycling, energy transition as well as the circular economy.
The course as well highlighted the following question;

1. How could a carbon offset scheme be implemented in developing countries?
2. What are the risks to be considered when carrying out a compensation project?
3. What are the benefits of various compensation projects?
4. Climate change, who is responsible?
5. How do companies in Europe interact within the carbon market?
6. How do specific industries fight against or contribute to global warming
7. How can I estimate a company's carbon footprint emission?
8. What are the various ways that exist for companies to compensate for their externalities?
9. Why do developing countries suffer the effect of climate change more than developed countries?
10. Is recycling really sustainable?
11. How can an economy gradually transition to cleaner energy?

It is worth mentioning that students had the chance to exchange with an actor in the field of policy-making from the Berlin city administration over a guest speaker session. Kyra Reiter, Sustainability officer from the Berlin Convention Office was happy to discuss with participants on actions taken in Berlin to make the city greener as well as to make events in the city more sustainable. Students also had the opportunity to connect with Kyra for eventual job opportunities within the city in case they may be interested in having some working experience in the field of sustainability.

General feedback from students: Most of the students loved the topics as well as the questions brought upon for debate. Some were already working within the field of sustainability so could understand the topics and were active participants.

Photos

Profiles

- Novak Djokovic
- Profession:Tennis Player
- Birth place/Nationality (Serbia)
- Residence: **Monte Carlo**
- Endorsement : **Peujot**, Asics, Head, Lacoste, **Netjets**
- **Gross Earning(PM): 9,100,547 Euros**
- **Net earnings(PM): 9,100,547 Euros**
- **Total Earnings (PM+Endorsments) : 38 M Euros**
- **Net Worth: 220+ M Euros**
- **62 Tournaments in 2021**

Who exactly cause Climate Change

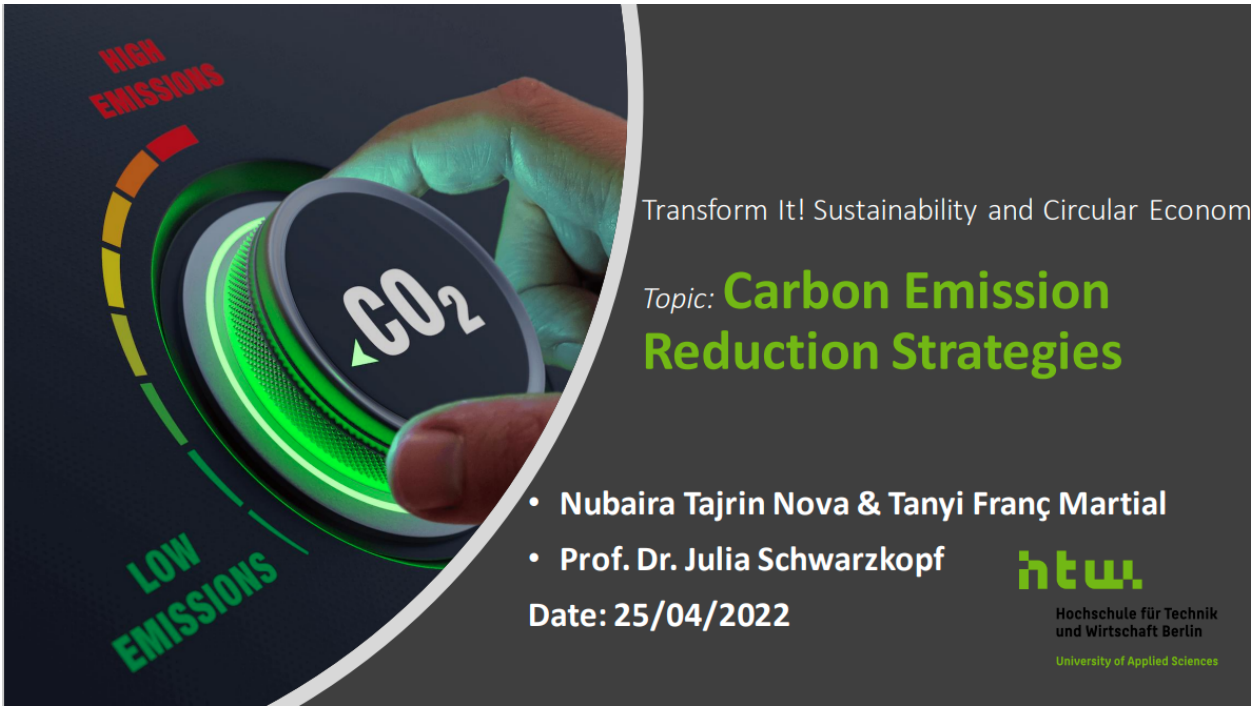
- Task Build a (carbon footprint profile)
- Identify the profiles of those causing the most pollution, emissions, consumption.....

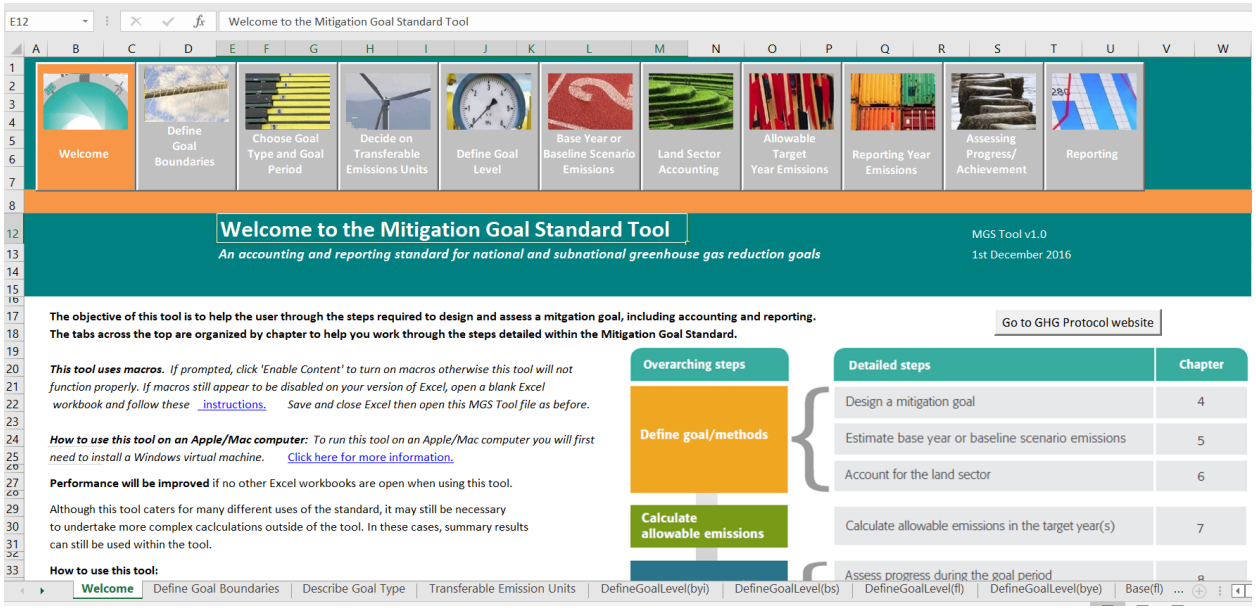
- Based on Age
- Work
- Country/Location
- Earnings
- Professions
- etc


Climate Change
in Africa


UNDERSTANDING, BETTER PREPARATION


MTG
HOW GREEN
IS GERMANY?
euromaxx
SULO
SULO
SULO

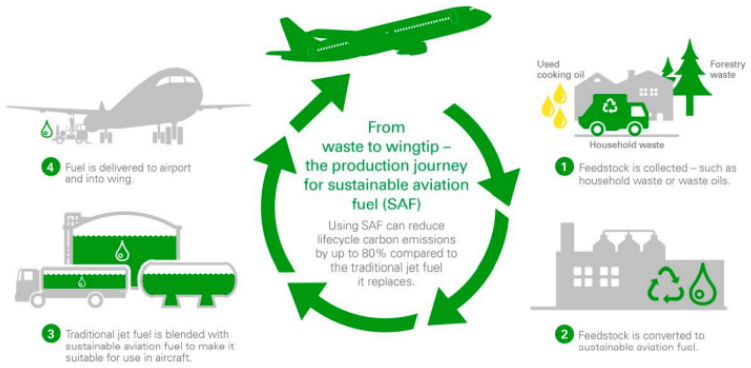

HIGH EMISSIONS
LOW EMISSIONS
CO_2
Transform It! Sustainability and Circular Econom
Topic: Carbon Emission Reduction Strategies
• Nubaira Tajrin Nova & Tanyi Franç Martial
• Prof. Dr. Julia Schwarzkopf
Date: 25/04/2022
htw.
Hochschule für Technik und Wirtschaft Berlin
University of Applied Sciences


Welcome
Define Goal Boundaries
Choose Goal Type and Goal Period
Decide on Transferable Emissions Units
Define Goal Level
Base Year or Baseline Scenario Emissions
Land Sector Accounting
Allowable Target Year Emissions
Reporting Year Emissions
Assessing Progress/ Achievement
Reporting
Welcome to the Mitigation Goal Standard Tool
An accounting and reporting standard for national and subnational greenhouse gas reduction goals
MGS Tool v1.0
1st December 2016
The objective of this tool is to help the user through the steps required to design and assess a mitgation goal, including accounting and reporting.
The tabs across the top are organized by chapter to help you work through the steps detailed within the Mitigation Goal Standard.
Go to GHG Protocol website
This tool uses macros. If prompted, click 'Enable Content' to turn on macros otherwise this tool will not function properly. If macros still appear to be disabled on your version of Excel, open a blank Excel workbook and follow these instructions. Save and close Excel then open this MGS Tool file as before.
How to use this tool on an Apple/Mac computer: To run this tool on an Apple/Mac computer you will first need to install a Windows virtual machine. Click here for more information.
Performance will be improved if no other Excel workbooks are open when using this tool.
Although this tool caters for many different uses of the standard, it may still be necessary to undertake more complex caclculations outside of the tool. In these cases, summary results can still be used within the tool.
How to use this tool:
Overarching steps
Detailed steps
Chapter
Define goal/methods
Design a mitigation goal
4
Estimate base year or baseline scenario emissions
5
Account for the land sector
6
Calculate allowable emissions
Calculate allowable emissions in the target year(s)
7
Assess progress during the goal period
Welcome
Define Goal Boundaries
Describe Goal Type
Transferable Emission Units
DefineGoalLevel(byi)
DefineGoalLevel(bs)
DefineGoalLevel(fl)
DefineGoalLevel(bye)
Base(fl)

Today's Agenda:

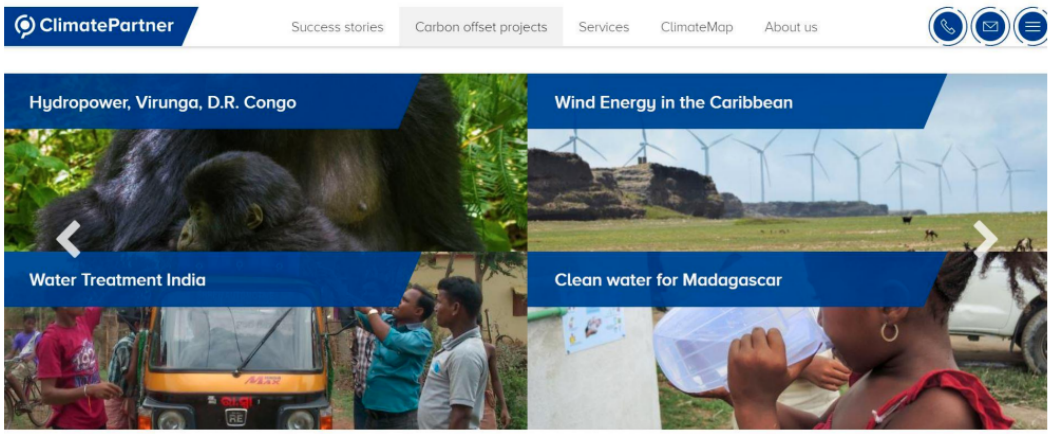
- **CARBON OFFSET STANDARDS (Part 1)**
- Carbon footprint profile (Cont.)
- Carbon Offset projects Overview
- Carbon Offset international/reporting standards
- The GHG Protocol Standards
- CASE STUDY- THE AVIATION INDUSTRY-Global leader in emission or global leader in emission reduction?

How is sustainable aviation fuel made?

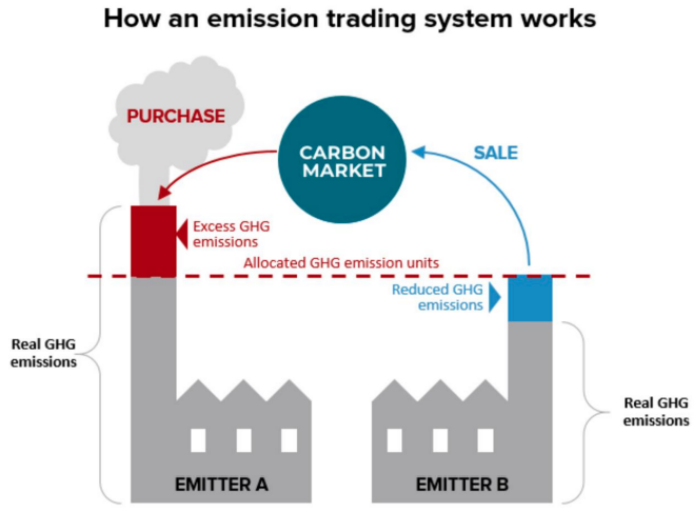


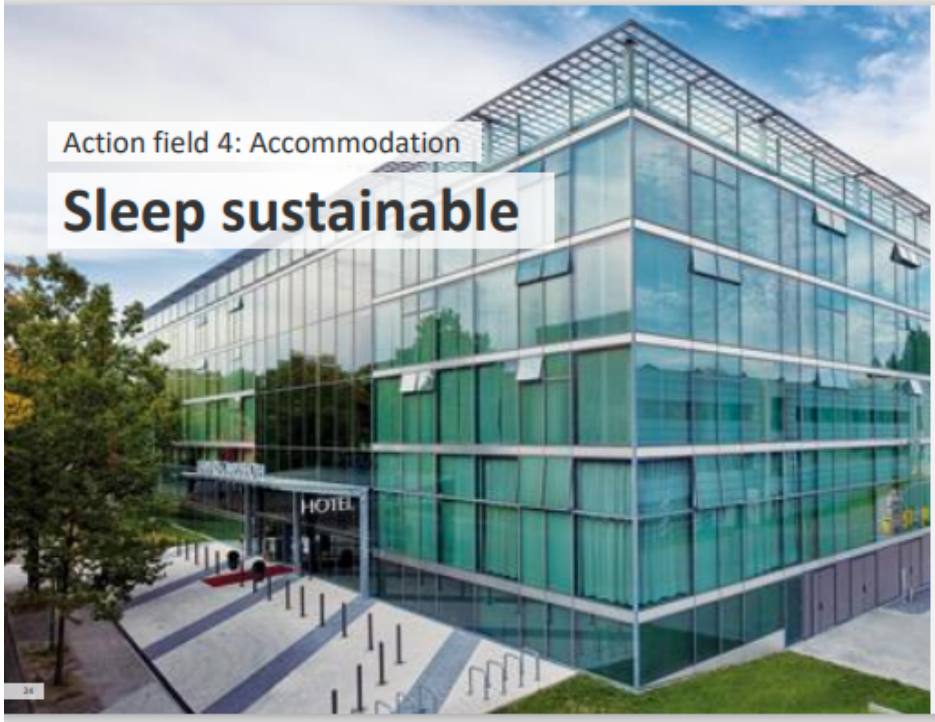
air bp Fuelling a sustainable future

Climate Partner- Highlight



How the ETS Works





Action field 4: Accommodation

Sleep sustainable

Average consumption per night

357 l
water

76 kWh
energy

5 l
waste

27 kg
CO_2

Action field 5: Catering

Seasonal, regional, veggi

CO emissions from catering

1 kg vegetable
0,2 kg CO_2

1 kg chicken
3,7 kg CO_2

1 kg beef
12,3 kg CO_2

GERMANY

Climate Transparency

CLIMATE TRANSPARENCY REPORT: COMPARING G20 CLIMATE ACTION TOWARDS NET ZERO **2021**

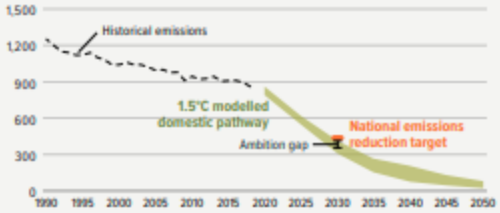
NOT ON TRACK FOR A 1.5°C WORLD

1.5°C

Germany's national target is to reduce emissions 65% below 1990 levels, or to approximately 437 $MtCO_2e$, by 2030. To keep below the 1.5°C temperature limit, Germany's 2030 emissions would need to be around 354 $MtCO_2e$ (or 72% below 1990 levels), leaving an ambition gap of 83 $MtCO_2e$. All figures exclude land use emissions.

Gütschow et al., 2021; Climate Analytics, 2021

1.5°C compatible emissions pathway ($MtCO_2e$/year)[1]



PER CAPITA GREENHOUSE GAS (GHG) EMISSIONS ABOVE G20 AVERAGE

GHG emissions (incl. land use) per capita (tCO_2e/capita)[2] in 2018

Germany's per capita emissions are 1.34 times the G20 average. Total per capita emissions have decreased by just under 9% between 2013 and 2018.

Climate Action Tracker, 2021; Gütschow et al., 2021; United Nations, 2019

KEY OPPORTUNITIES FOR ENHANCING CLIMATE AMBITION

Accelerating coal phase-out to before 2030, followed by natural gas phase-out by 2035, complemented with a rapid scale-up of renewables development.

Moving back the date of the ban on installing oil heating to 2022 and broadening it to include gas heating. **A ban on the operation of existing oil heating by 2030 and natural gas by 2035 should be considered.**

Decarbonising the transport sector by promoting public transport, electromobility, cycling and walking. Investment in railway infrastructure could accelerate a modal shift from emissions-intensive modes of transport.

RECENT DEVELOPMENTS

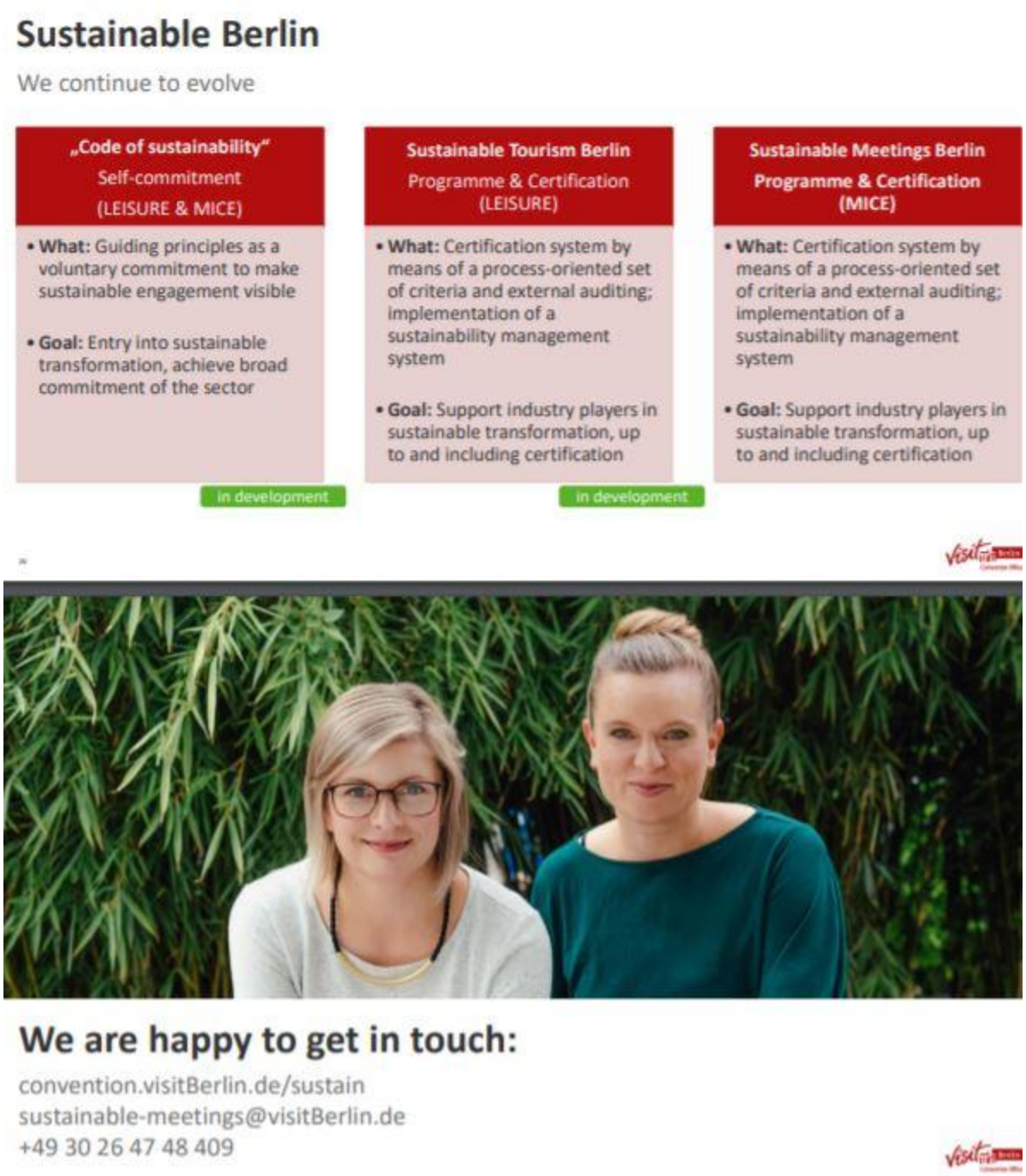
- In June 2021 the German parliament adopted an amendment of the Climate Protection Law, **increasing the 2030 emissions reduction target from 55% to 65%** and bringing forward the goal of reaching "climate neutrality" to 2045.
- The **Climate Protection Emergency Programme 2022** provides EUR 8bn to decarbonise industry and transport, and increase the energy efficiency of buildings.
- The government **failed to propose an amendment of the Renewable Energy Act** that would accelerate the development of renewables to reflect the new emissions reduction goal.

Deutscher Bundestag, 2021; Die Bundesregierung, 2021a

CORONAVIRUS RESPONSE AND RECOVERY

Germany allocated approximately USD 100bn, equivalent to 2.6% of the country's GDP, to recovery efforts. Green spending accounted for 47% of the country's recovery spending. The largest allocation has been towards the creation of "green markets", clean energy infrastructure development, and incentives for electric vehicles (EVs).

Global Recovery Observatory, 2021



At the end of the course, students had the opportunity to apply all the practical skills learned during the course by gathering ideas and working on offset projects of their own and later presenting it to other participants.

1. Locaction, Problem, Solution

Gidole / Village in Central Ethiopia

- Population: 14.799
- Rural area: 500 km south of the capital „Addis Abeba"
- 25% of population have access to electricity
- 10% in rural areas
- 1% of population connected to the power grid
- Unstable electricity network
- 12,8% of population using off-grid solutions

➢ Widespread lighting method: kerosine lamps

- Off-Grid solution/project using sun-power

Implementation of **SHS (solar-home-systems)** for private households, the local medical center and the elementary school

- Droughts & floods
- Grasshopper plague
- Increasing population
- Corona