



SDG 13: Climate Action

University of Applied Sciences Burgenland



13 CLIMATE ACTION



**Interpretation
of climate action**



Main goal: to take urgent action for combatting climate change and its impacts

The number and extent of extreme weather events are increasing, more and more periods of drought and floods are destroying cities and thus depriving many people of their food and livelihoods. Through our way of production and our way of life, we have emitted vast amounts of CO₂ into the earth's atmosphere since industrialization began in mid-18th century. Too much CO₂ in the atmosphere leads to constant global warming, which is associated with more and more intense extreme weather events. The main victims are people from the Global South such as Africa or Asia, although it is the industrialized countries that are mainly responsible for CO₂ emissions. To limit global warming, the UN calls for rapid national policy measures, for instance, conversion to renewable energies, a reduction in CO₂ emissions and financial aid for the Global South.

What is the Paris Agreement?



Photo by [Mika Baumeister](#) on [Unsplash](#)

Adopted in 2015, the Paris Agreement aims to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels, while pursuing means to limit the increase even further to 1.5 degrees.

Source: [un.org](#)



Did you know that to keep the goals of the Paris Agreement, greenhouse gas emissions must begin falling by 7.6% each year starting in 2020?

Source: [un.org](#)



13 CLIMATE ACTION



„I think going for net zero needs to be based on targets grounded in science that are comparable and standardised, otherwise turning carbon neutral might not be more than lip-service“.

What is the "Green Deal"?



Photo by Mika Baumeister on Unsplash



It is the European action plan for implementing the Paris Agreement. It means to transform Europe to climate neutrality by 2050 — boosting the efficient use of resources by moving to a clean, circular economy and restoring biodiversity and cutting pollution. The plan outlines investments needed and financing tools available. It explains how to ensure a just and inclusive transition.

Source: ec.europa.eu



Did you know that one third of the 1.8 trillion Euro investments from the NextGenerationEU Recovery Plan, and the EU's seven-year budget will finance the European Green Deal.

Source: ec.europa.eu



"COVID-19 brought countries and economies to a standstill and showed us how much more there is still to be done in order to reduce emissions."



What is climate justice?

Photo by Mika Baumeister on Unsplash



It acknowledges that climate change can have differing social, economic, public health, and other adverse impacts on underprivileged populations. Advocates for climate justice are striving to have these inequities addressed head-on through long-term mitigation and adaptation strategies.

Sources: [yaleclimateconnections](http://yaleclimateconnections.org) and teachclimatejustice.ca



Did you know that the emissions of the richest 1% of the global population account for more than twice the combined share of the poorest 50%?

Source: unep.org, in particular, [this video](#)



13 CLIMATE ACTION



"The global earth strike in September 2019 organized in Vienna by Fridays for Future was one of a kind because of the participants — young people and families with kids went to demonstrate."



Model: climate future

Global greenhouse gas emissions and warming scenarios



- Each pathway comes with uncertainty, marked by the shading from low to high emissions under each scenario.
- Warming refers to the expected global temperature rise by 2100, relative to pre-industrial temperatures.

Annual global greenhouse gas emissions
in gigatonnes of carbon dioxide-equivalents

150 Gt

100 Gt

50 Gt

Greenhouse gas emissions
up to the present

0

1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100

No climate policies
4.1 – 4.8 °C

→ expected emissions in a baseline scenario if countries had not implemented climate reduction policies.

Current policies
2.8 – 3.2 °C

→ emissions with current climate policies in place result in warming of 2.8 to 3.2°C by 2100.

Pledges & targets
2.5 – 2.8 °C

→ emissions if all countries delivered on reduction pledges result in warming of 2.5 to 2.8°C by 2100.

2°C pathways
1.5°C pathways

Data source: Climate Action Tracker (based on national policies and pledges as of December 2019).
OurWorldinData.org – Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the authors Hannah Ritchie & Max Roser.



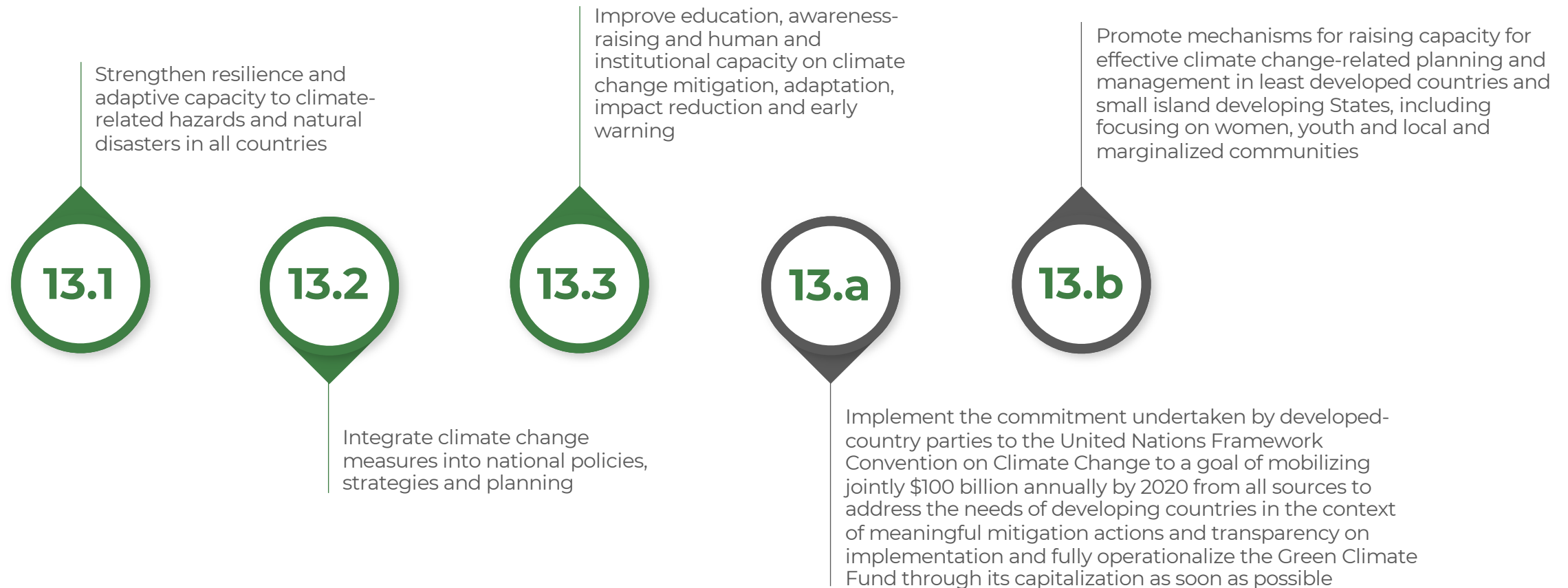
Do you know how climate change really works? Check out [this clarifying summary!](#)

13 CLIMATE ACTION



Source: ourworldindata.org

Subgoals: targets and measures



Source: un.org

Targets = Numbers, Measures = Letters



13 CLIMATE ACTION



**Current state of
climate action**

Report 2020

The Sustainable Development Goals Report 2020



Source: un.org

The Sustainable Development Goals Report 2021



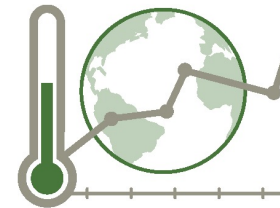
Source: un.org



TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

BEFORE COVID-19

GLOBAL COMMUNITY SHIES AWAY FROM COMMITMENTS REQUIRED TO REVERSE **THE CLIMATE CRISIS**



2019 WAS THE SECOND WARMEST YEAR ON RECORD

GLOBAL TEMPERATURES ARE PROJECTED TO RISE BY UP TO 3.2°C BY 2100



ONLY 85 COUNTRIES HAVE NATIONAL DISASTER RISK REDUCTION STRATEGIES ALIGNED TO THE SENDAI FRAMEWORK

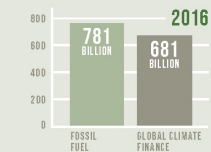
COVID-19 IMPLICATIONS



COVID-19 MAY RESULT IN A **6% DROP IN GREENHOUSE GAS EMISSIONS FOR 2020**

STILL SHORT OF 7.6% ANNUAL REDUCTION REQUIRED TO LIMIT GLOBAL WARMING TO 1.5°C

CLIMATE FINANCE: INVESTMENT IN FOSSIL FUELS CONTINUES TO BE HIGHER THAN INVESTMENT IN CLIMATE ACTIVITIES



CLIMATE CHANGE CONTINUES TO EXACERBATE THE FREQUENCY AND SEVERITY OF **NATURAL DISASTERS**



MASSIVE WILDFIRES



DROUGHTS



HURRICANES



FLOODS

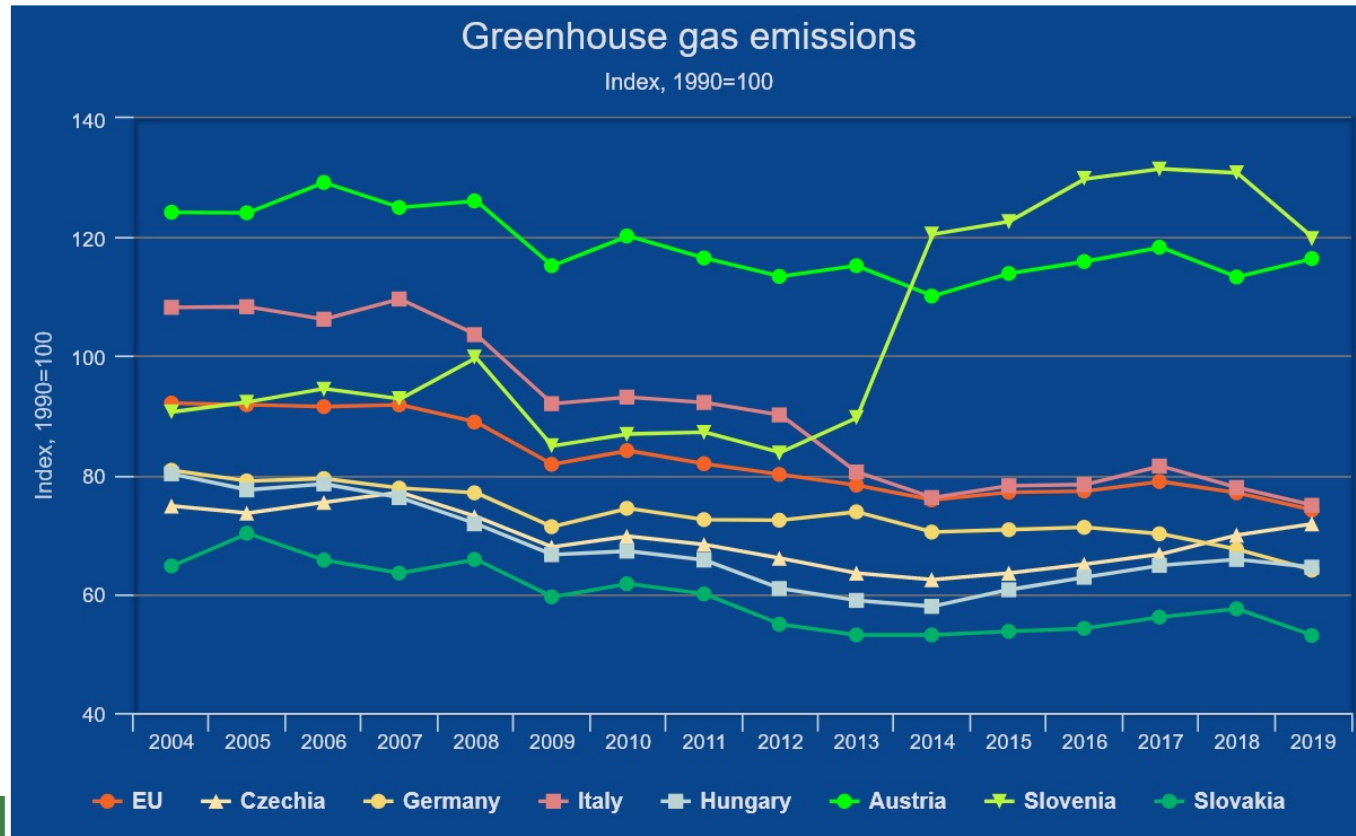
AFFECTING **MORE THAN 39 MILLION PEOPLE** IN 2018

Source: un.org

13 CLIMATE ACTION



Some European statistics



Source: ec.europa.eu

?

Did you know that Austria is one of the highest emitters of greenhouse gas emissions within the EU?

Source: ec.europa.eu

"I am hoping that the discussions about CO₂ emissions and the awareness of the pandemic will lead us towards more sustainable green pandemic recovery policies."



Implementation in Austria as of 2020

Target	National indicators (selected)	Trend
13.1	Deaths attributed to natural disasters per 100,000 population	↑
	Heat-related excess mortality	:
	National crisis and disaster management	✓
	Soldiers deployed for disaster relief operations in Austria	:
13.2	Austrian strategy for adaptation to climate change	✓
	Greenhouse gas emissions	↗
	Non-ETS greenhouse gas emissions (= effort sharing)	↘ TARGET

Source: Statistics Austria. 8-year trend 2010–2018 (if figures missing, at least 7-year trend) in 4 categories (↑↗↘↓) if there is a clear target (quantitative/normative); ✓ (part of the) indicator target achieved; : calculation of trend not possible. More information about methodological questions can be found in the National Indicator Report 2020.

- > Austria has a strategy for adaptation to climate change and a national crisis and disaster management system in place.
- > National greenhouse gas emissions declined from 84.7 million tonnes of CO2 equivalent (2010) to 79.0 million tonnes (2018).
- > Emissions from non-ETS sectors were above the national target of 48.9 million tonnes in 2018.
- > Per capita emissions in Austria were around 8% higher than the EU-28 average in 2017.



Did you know that according to the relevant data Austria has been experiencing an above-average rate of heat-related mortality in recent years?



Main issues to solve in Austria as of 2020



Achieving the goals of the Paris Agreement (reduction of GHG emissions, energy transition, etc...)



Raising awareness on CO₂ footprint of products and services (including our supply chain from other countries) and thereby inspiring social transformation



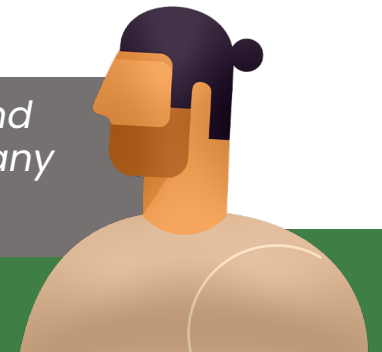
Protecting people and infrastructure from climate-related risks and extreme events (prevention measures to adapt to climate change)



Did you know that carbon dioxide levels today are higher than at any point in at least the past 800,000 years, and that they keep rising every year?

Source: climate.gov

"Austria is offering lots of public funding to individuals and companies for fostering e-mobility, photovoltaics and many more opportunities to counteract climate crises."



13 CLIMATE ACTION



**Potential
contributions
Learning activity**

Before thinking about potential contributions...

- Imagine an organization (business).
What is the core purpose of this organization*?
- Who are this organization's internal and external stakeholders?
- How do “climate change” and “climate action” impact this organization (its purpose, its stakeholders, its operation, its viability)?
- What challenges and/or costs emerge from this impact?
- On the other hand, what opportunities and/or benefits arise?
- With all this in mind, what contributions** might this organization make to reach SDG 13 within its sphere of influence via inward and outward actions?

* Meant here are all sizes, all types

** Consider contributions inside the organization (referring to everything that is a resource to the organization and is directly or indirectly controlled by the organization, for instance, human resources, know how, monetary and material resources) and the outside of the organization (referring to everything outside of the organization that it can influence but lies outside of its control, for instance, policy change, partnering with other organizations, etc..)



Potential contributions by educational institutions

The purpose of educational institutions is to educate and train for life and for particular professional interests.

In terms of SDG 13, the tasks lie in role-modeling, researching and teaching about the reality of climate change and the potential of climate action and how to achieve it, as well as raising awareness about its need and process.



Did you know that the UNESCO provides educational and pedagogical resources to train especially climate change issues to young people using, for instance, the game Simon Says “Save the Climate”?

Sources: en.unesco.org and yumpu.com

Potential contributions by educational institutions, cont.

Potential inward actions:

- adjust educational programs to include topics related to climate change and climate action, starting from Kindergarten all the way through tertiary education
- focus research on topics for finding new contributions to achieve the Paris Agreement
- reduce own greenhouse gas (GHG) emissions and move towards “GHG negative” contributions

Terms: [compensate.com](https://www.compensate.com)

Potential outward actions:

- collaboratively create (innovation) competitions that and showcase potential solutions to the climate challenge
- together with other partners (institutions or businesses) raise awareness about climate change dynamics, mitigation, adaptation and impact reduction
- collaborate with other organizations on research projects that mitigate GHGs

Potential contributions by municipalities

The purpose of municipalities is to plan, manage, and improve public work and services to the community.

In terms of SDG 13, the tasks for municipalities lie in encouraging its citizens to adopt low carbon alternatives for everyday needs and in setting and communicating relevant policies.



Did you know that hydrogen is considered one of the enablers of a net zero energy system?

Source: citizensenergycongress.com

"We are thinking about buying an air conditioning unit for our flat in Vienna. We have been living here for over 10 years, but in the last two years the heat has become unbearable. However, we are aware of the irony: the warmer it gets, the more we use air conditioning. The more we use these devices, the warmer it gets."

[More Info about this dilemma on this page.](#)



Potential contributions by municipalities

The purpose of municipalities is to plan, manage, and improve public work and services to the community. In terms of SDG 3, the task lies in creating policies and local regulations that motivate the community to contribute to climate action.

Potential inward actions:

- plant trees, create public green spaces and green roofs and building facades
- shut down further sealing of land, instead fund regeneration of land and future-fit renovation of old buildings
- include learning activities about reaching climate neutrality in Kindergarten (children are multipliers)

Potential outward actions:

- as a community participate in regional initiatives for reaching climate neutrality
- plant wild green areas (waste lands as biodiversity heavens) together with neighboring towns
- learn together and exchange experiences with public service officials from other towns about what municipalities can do to contribute to climate action: [klimaaktiv.at](https://www.klimaaktiv.at)



"I volunteer in the kindergarten in our village, so that I can introduce our little ones to healthy habits at an early age (nature trips, growing vegetables, having fun outdoors together, etc...)."

Potential contributions by corporations and other organizations

The purpose of for-profit organizations (i.e. business) is to provide a service in exchange for resources (i.e. money). The purpose of non-profit organizations is to impact society in a certain way — both need to generate and/or collect adequate resources to pay for their operations and activities and/or make profit.

In terms of SDG 13, the opportunities for contribution may vary greatly between different types or sizes of organizations, but their core contributions to society for reaching SDG 13 are to reduce proprietary emissions to net-zero as fast as possible throughout the entire organization and to take responsibility for emissions created along the supply and value chains.



Did you know that according to the World Business Council for Sustainable Development, SDG 13 is the most prioritized goal by two thirds of companies interviewed?

Source: [wbcsd.org](https://www.wbcsd.org)

Potential contributions by corporations and other organizations, cont.

Potential inward actions:

- educate employees and set authentic goals towards decarbonization of operations and climate neutrality, join the Net Zero initiative with science-based targets
- reduce the carbon footprint of products and services along the value chain by exploring transport optimization, etc.
- move away from defense-oriented mindsets towards more proactive offence-oriented approaches that include an understanding of how the climate is changing, what that means for the organization at the strategic level, and how to institutionalize climate risk management

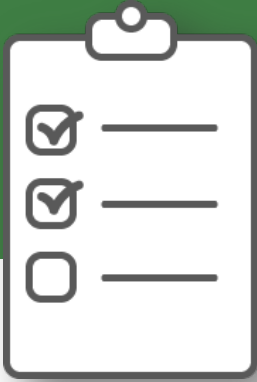
Potential outward actions:

- collaborate with universities, governments and other businesses to innovate solutions for decarbonization and adaptations to climate change challenges
- reduce the carbon footprint of products and services along the supply chain by exploring local sourcing, etc.
- participate within the industry in collaborative research to mitigate climate change and/or sink carbon

"One of my friends introduced me to Oatly (an Oat-drink instead of milk) that labels CO² figures on the back of the packaging and in some cases, in a small bubble on the front of the box, country-specific calculations by a company called CarbonCloud that demonstrate the product journey all the way from grain field to store, including transportation and packaging. I would love to see more of such initiatives, so that I can make my buying-decisions based on facts."



Activity: potential contributions by an organization of your choice



The purpose of xyz organization is to...

In terms of SDG 13, the tasks for this organization might be:

Potential inward actions:

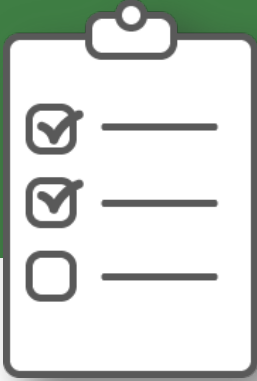
Potential outward actions:

How do inward and outward actions interact and impact each other?

Are partnerships necessary for the desired impact?



Activity: checking design of potential contributions



Returning to the opening questions:

- In which ways do the designed actions support the core purpose of xyz organization?
- In which ways do the designed actions serve the internal and external stakeholders of xyz organization?
- What balance between costs vs. benefits (or challenge vs. opportunity) can be noticed for xyz organization concerning climate change and / or their climate actions?
- How do the designed inward and outward actions cohere and create synergy for xyz impact?



13 CLIMATE ACTION



**Reflection and
resources
Learning activity**

Reflection and some resources

- How does climate change work? What are the associated tipping points that we worry about?
- What are the consequences of climate change?
- How do you feel about introducing CO² taxes?
- How do you feel about adjusting subsidies to support climate actions instead of speeding up climate change (automobile industry, agriculture, stock farming)?
- Who are the main players for achieving targets of SDG 13?
- What do you know about the carbon footprint of products that you regularly buy?

Further Infos:

- [SDG definition of the UN](#)
- [EU progress report on SDGs 2020](#)
- [SDG Compass on SDG 13](#)
- [COP26 goals](#)
- [Website of UNEP](#)
- [Information about Net-Zero](#)
- [Interface climate action](#)
- [Climate risk management](#)
- [SDG Report 2021](#)
- [Climate change report 2021](#)



Activity: SDG journey

- Put your SDG glasses on and observe your environment under the SDG 13 umbrella for a week and try to understand the Earth's climate system and how you (personally) impact it. Think about the carbon footprint you are producing...where, what and how much are you buying. How informed are you about the products, their origins, the disposal options, etc.?
- If appropriate and allowed, take pictures of the found circumstances and catalogue the photos (begin making a scrapbook) — they will lead to a final assignment at the end of the series. Before you venture out, it might be a good idea to inform yourself about legal responsibilities when taking photos of people: [oesterreich.gv.at](https://www.oesterreich.gv.at) (If you are not in Austria, look for the regulations of the respective country!)

Possible resource for online scrapbook (free for classrooms and non-profits): [canva.com](https://www.canva.com)



"I recently did an online assessment of my lifestyle and my footprint on [footprint.wwf.org.uk](https://www.footprint.wwf.org.uk). I was shocked by the results!"

13 CLIMATE ACTION



**User authorization
Disclaimer
Sources**

Legal Info

Downloading und Usage of Images and Information

The content of this slide deck is made available under CCO license.

SDG-related infographics and SDG icons have been either created for this purpose by the authors and/or drafted from information made available for fair use to the general public (sources mentioned).

Unless otherwise noted next to the images, photos and images were downloaded on Pixabay and belong to the public domain in accordance with the Creative Commons CCO disclaimer. As far as legally possible, Pixabay (and their authors) have relinquished all copyrights and related rights for their images. Pixabay images are therefore not subject to any copyright claims and can — changed or unchanged — be used, free of charge, for commercial and non-commercial applications, in digital or printed form, without having to list picture credits.

http://pixabay.com/de/service/terms/#download_terms



Disclaimer

This slide deck was created with the information available to the authors during the first half of 2021. They assume no liability for information being up to date, correct, complete, nor for the quality of information provided.

Sources

Slide 3:

- <https://germanwatch.org/en/node/14072> (download Arbeitsblätter)

Slide 4:

- <https://www.un.org/en/climatechange/paris-agreement>
- <https://www.un.org/sustainabledevelopment/climate-change/>

Slide 5:

- https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

Slide 6:

- <https://yaleclimateconnections.org/2020/07/what-is-climate-justice/>
- <https://teachclimatejustice.ca/glossary/>
- <https://www.unep.org/emissions-gap-report-2020> in particular this video: <https://www.youtube.com/watch?v=1KBpiPUVQO8&t=33s>

Slide 7:

- <https://grist.org/climate-tipping-points-amazon-greenland-boreal-forest>
- <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions>

Slide 8:

- <https://www.un.org/sustainabledevelopment/climate-change/>

Slide 10:

- <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>
- <https://www.un.org/sustainabledevelopment/climate-change/>
- <https://unstats.un.org/sdgs/report/2021/>

Slide 11:

- <https://ec.europa.eu/eurostat/web/sdi/climate-action>

Slide 12:

- https://www.bmk.gv.at/themen/klima_umwelt/agenda2030/bericht-2020.html
- https://sustainabledevelopment.un.org/content/documents/26511VN_R_2020_Austria_Report_English.pdf

Slide 13:

- <https://www.uninetz.at/beitraege/perspektivenbericht-executive-summary>
- <https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>
- <https://transparenzportal.gv.at/tdb/tp/situation/buerger/bauen-wohnen-und-umwelt/>

Slide 16:

- <https://en.unesco.org/themes/education/sdgs/material/13>
- <https://www.yumpu.com/en/document/view/55735469/simon-says-save-the-climate-teaching-handbook>

Sources

Slide 17:

- <https://www.compensate.com/articles/understanding-carbon-neutral-carbon-negative-net-zero-climate-positive>

Slide 18:

- <http://www.citizensenergycongress.com/>
- <https://www.theguardian.com/environment/2019/aug/29/the-air-conditioning-trap-how-cold-air-is-heating-the-world>

Slide 19:

- <https://www.klimaaktiv.at/gemeinden.html>

Slide 20:

- <https://www.wbcsd.org/Programs/People/Sustainable-Development-Goals/Resources/A-survey-of-WBCSD-members-and-Global-Network-partners>

Slide 21:

- <https://sdgcompass.org/sdgs/sdg-13/>

Slide 25:

- <https://www.un.org/sustainabledevelopment/climate-change/>
- <https://ec.europa.eu/eurostat/documents/3217494/11011074/KS-02-20-202-EN-N.pdf/334a8cfe-636a-bb8a-294a-73a052882f7f?t=1592994779000>
- <https://sdgcompass.org/sdgs/sdg-13/>

Slide 25 (cont.):

- <https://ukcop26.org/cop26-goals/>
- <https://www.unep.org/>
- <https://sciencebasedtargets.org/net-zero>
- https://www.interface.com/US/en-US/sustainability/climate-take-back/Four-Pillars-en_US
- <https://www.chathamhouse.org/2021/06/climate-risk-management-international-organizations>
- <https://www.ipcc.ch/report/ar6/wg1/#FullReport>
- <https://unstats.un.org/sdgs/report/2021/>

Slide 26:

- https://www.oesterreich.gv.at/themen/bildung_und_neue_medien/internet_und_handy_sicher_durch_die_digitale_welt/7/Seite.1720440.html
- <https://www.canva.com/>
- <https://footprint.wwf.org.uk/#/>

Slide 28:

- http://pixabay.com/de/service/terms/#download_terms