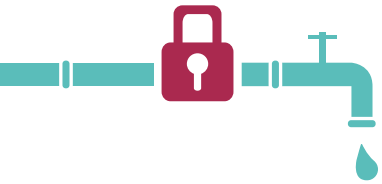
Climate Solutions

MEDIA

Food security 1

About 800 million people globally suffer from chronic undernourishment. The situation is becoming even worse due to the ongoing climate crisis. In the world's poorest areas, around 500 million micro-farms produce 80% of the food. To ensure food security, these micro-farms need financial assistance.



Water security 2

In addition to food, it should be ensured that every person in the world has enough clean drinking water. The climate crisis is exacerbating the drinking water shortage in about 20 countries.

Protection from weather extremes 3

Sea level rise and increasingly frequent extreme weather events such as heavy rain and hurricanes are destroying the homes and livelihoods of countless people, especially in the poorest countries.

Halting deforestation 4

An immediate global halt to deforestation of native forests would have a rapid and enormous effect on the carbon cycle. By absorbing CO_2 and storing carbon, old-growth forests act as climate protectors.

Intensify transnational cooperation

International action groups after Climate Summits, for example

Sources: Bai et al. (2018), Gitz et al. (2016), Scherer & Tänzler (2018)

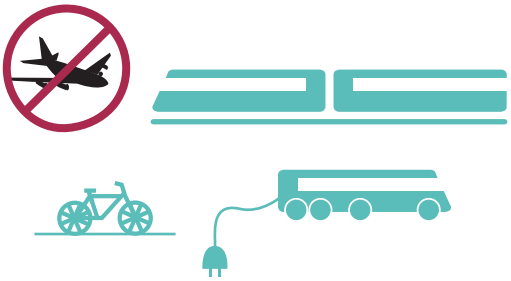
MEDIA

10 Personal change

.. become a climate hero!
Read more on page 198.

9 Mobility turnaround

An expansion of local transport through trains, electric buses, and cycle paths can help reduce overall traffic volume, including for the transportation of goods. For example, long freight trains can be used instead of individual trucks.

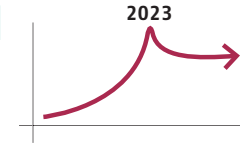


8 Agricultural turnaround

We should move away from harmful pesticides and monoculture, towards organic farming, permaculture, and healthy soils that store CO_2. Innovative food production methods like aquaponic-towers should be subsidized.

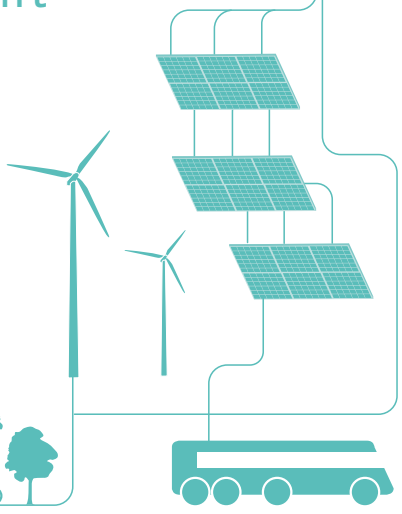
7 Economic turnaround

Top priority should be given to sustainability, recycling, green production, and resource conservation instead of expansion and exploitation. The focus should be on "green efficiency" and "zero emissions" targets.



6 Energy and policy shift

The emphasis of subsidies should shift to the expansion of solar energy and efficient storage, while coal and gas-fired power plants ought to pay CO_2 levies instead of receiving subsidies.



5 Smart cities

More than half of the world's population lives in cities, where 75% of global energy emissions are produced. Sustainable green infrastructure conversion, energy production, and home insulation should be top climate goals.

Expand educational (net)work

Online platforms, climate weeks, education, media, TV, books

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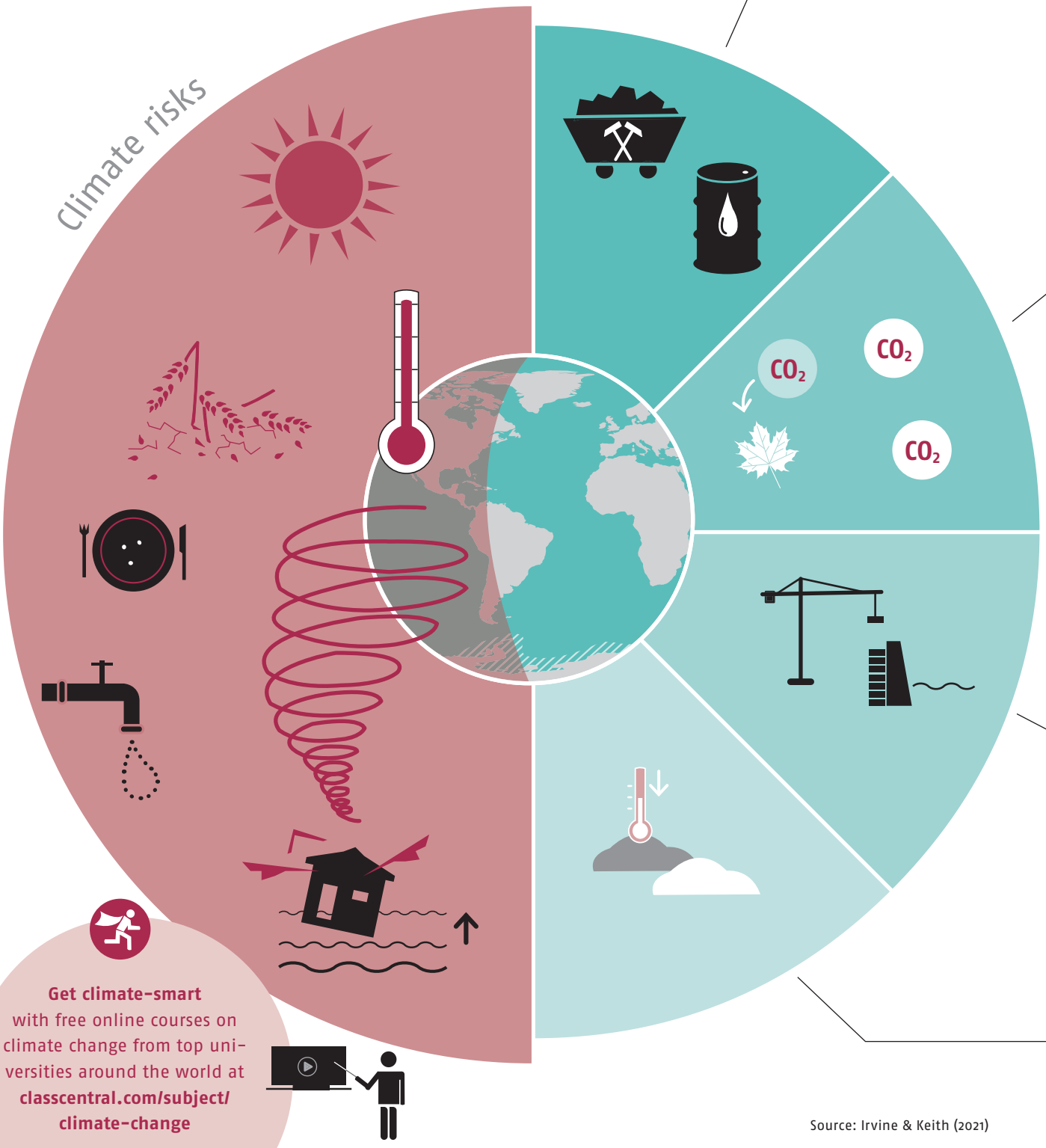
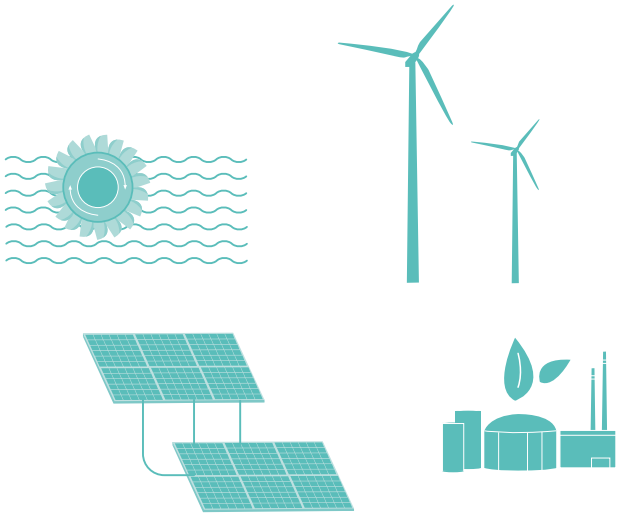
Four Tools to Minimize Climate Risks



Get climate-smart with free online courses on climate change from top universities around the world at **classcentral.com/subject/climate-change**

Source: Irvine & Keith (2021)



1 Decarbonization

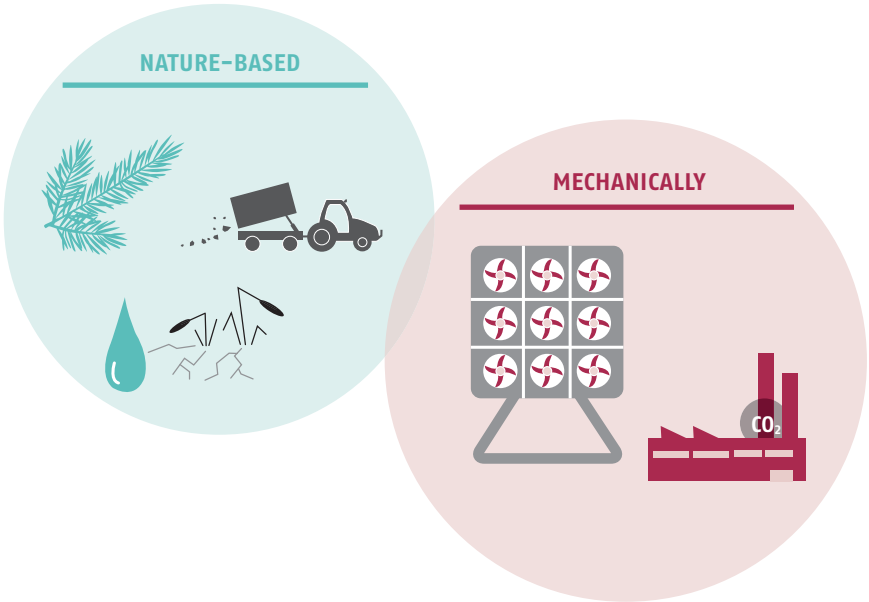
Stop industrial greenhouse gas emissions so that the greenhouse effect is not fueled further. Instead, advance the transition to renewable and carbon-free energy.

see p. 44–51

2 CO_2 removal

Explore nature-based and mechanical methods for extracting CO_2 from the atmosphere. In addition, future emissions that are difficult to eliminate could be offset by CO_2 removal.

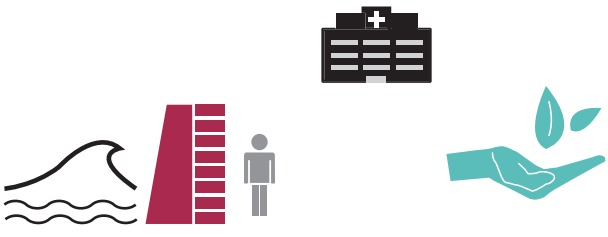
see p. 52/53



3 Climate adaptation

Prepare societies and ecosystems to better cope with the threats of a changing climate.

see p. 54/55



4 Mitigating climate impacts with technology

Techniques such as solar geoengineering could be used to actively change the Earth's energy balance and thus temporarily cool down the climate.

see p. 56/57