

**Tool 5.2**

Taking local action for climate-resilience

CLARITY Competence Area:

Taking collective action for climate resilience, ecosystem regeneration, and societal transformation

GreenComp Competence Area:

Acting for sustainability

Why use this tool?

This tool introduces activities that can help actively build the climate resilience of the local community and local ecosystems now and in the long run. They contribute to re-building a community of support, and to restoring the health of local ecosystems. Besides, this tool fosters agency by increasing the learner's confidence that they themselves can make a difference. They also build collaborative competences that are critical to pursue collective action in any field.

Activity 5.2.2

Local cartographies

Overview

Cartographies can help understand and visualize the climate risks inherent to a specific ecosystem and community, as well as the resources (e.g. local knowledge and expertise, as well as possible volunteers, sources of money or material) that can be mobilized locally to address those risks now and in the future, including by fostering regeneration. Those activities can tie into geography lessons, and each map can be made in creative manners, including with 3D elements or elements from nature to represent the surrounding ecosystems. Such maps can help move from understanding to action.

Curriculum linkage

Geography

Competences built

Societal agency, collaboration and systems thinking.

Prep Work

- Read the teachers' guide section on climate resilience and vulnerability
- Familiarize yourself with the local impacts and future risks associated with climate change in your local ecosystem.
- Explore the different levels of climate vulnerability of different communities and population groups, in relation to their exposure, sensitivity and capacity to cope.
- Research the presence of local expertise and/or local organizations that could help with building resilience and fostering regeneration.

BASIC INFO



Age range:

7+

Duration:

2-3 sessions of 45-60 minutes or a longer-term project

Group size:

Flexible

Level of difficulty:

Advanced

Materials/space required:

Local maps with a big scale, drawing material, and other materials that can be used to do 3D maps and represent the local ecosystem

Location:

Indoors and outdoors

Engagement of external stakeholders:

Not necessarily



Competences/activities to practice first by the teacher:

- Tool 4.4 “Designing for climate resilience and regeneration” includes activities that help understand climate vulnerability and approaches to building climate resilience locally.

Levels in the activity

1. Exploration
2. Project

Level 1: Exploration

1. Give learners maps of the village and its surroundings, of the city, or of the watershed their locality is part of. Working at the watershed level is more coherent from a scientific climate-resilience-building perspective. However, it could make the space quite large for younger learners. For them, it may be easier to start with the locality or even the district if the city is particularly large.
2. Use the maps to explain **exposure, sensitivity and capacity to cope** as they determine climate vulnerability. Exposure to certain climate change impacts is dependent on the topography. Climate change impacts include flooding in case of coastal areas or presence of a river, heat island effect in dense urban areas with limited tree cover, and forest fires in case of forested areas around the local settlement. To explain climate sensitivity, you can explain that certain groups of people are more likely to suffer from the effects of climate change: those groups include infants and the elderly, in case of heat waves or flooding for instance. Regarding capacity to cope, one can give the example of what it would cost to repair a house that has been damaged by a flood and of the mean revenues of different population groups. Who would be able to afford repair? Who would get support from family and or friends while the repair takes place?
3. Invite learners to map the areas that are exposed to various impacts of climate change (see resources for a list of impacts of climate change, and related loss), as well as highlight the locations of population groups that may be the most at risk, if doable.



4. Invite learners to highlight the areas that constitute resources or assets in building climate resilience, including natural areas with green cover that can cool down the city/district/ village, and/or parks, and certain rivers/lakes/ canals/wetlands in and around the city, where people can swim for instance if there is a heatwave, or that can help limit flooding by acting as sponges. Among resources, learners are also invited to indicate local projects contributing to climate resilience building or ecosystem restoration, including places where they can learn and get involved. Learners can look for:
 - a. municipal climate adaptation plans, if any
 - b. Initiatives or projects that contribute to greening, rewilding, permaculture or urban agriculture
 - c. Initiatives or projects that support vulnerable populations (e.g. elderly people, homeless people) in case of heatwaves
 - d. University projects that contribute to analysing local climate data or climate action
 - e. Initiatives or projects working at the intersection of mental health and climate change (e.g. Running climate circles or climate cafés).
5. The maps can be done with color coding, with multimedia tools, or as 3D sculptural maps, including elements of the ecosystem (e.g. moss, twigs) outside to represent the ecosystem on the map. The will offer a first picture of both climate change-related risks and climate resilience responses at the scale of the city, district or locality.

Level 2: Project

1. Turning this activity into a project implies that learners will have more time to collect some information that is not readily available in existing maps or online. This can contribute to collecting information and creating new knowledge, including in relation to non-economic loss and damage already experienced locally (see resources below for a graphic representation of both climate impacts and loss and damage).
2. Additional information that learner may want to collect can include places where climate change impacts have been felt already (e.g. forest fires or bugs infestation destroying forests, low water levels in rivers or in aquifers), specific species of animals, plants or fungi that have been affected, any damaged tangible or intangible cultural heritage, as well as ecosystems or locations that are still recovering from those impacts.



3. Learners could map out information about climate anxiety or climate grief locally, particularly when an extreme event associated with climate change already took place. They could map out inhabitants' engagement in addressing climate change and building climate resilience, as well as the types of actions they are implementing. They could indicate spaces where collective organizing to address climate change and its impacts is taking place. Any other information that learners find would be helpful to know more about climate impacts and take collective action for climate resilience could be indicated on the map.
4. The map could become a very helpful, possibly interactive tool for the community to learn more about itself and take action. It would also make non-economic loss and damage concrete, which can offer a sense of relief to inhabitants as well as provide very helpful information for those organizing for such losses and damages to be better addressed at policy levels.
5. Besides, the numerous interviews learners will run to develop the map can play a significant role in laying the foundation for future collaborations in the locality.



Dos and don'ts

Do:

- Encourage learners to look across multiple databases and maps already available to them online and locally
- Connect with the local authority to have access to some maps and offer them to share the maps that learners will develop in collaboration with the local authority

Don't

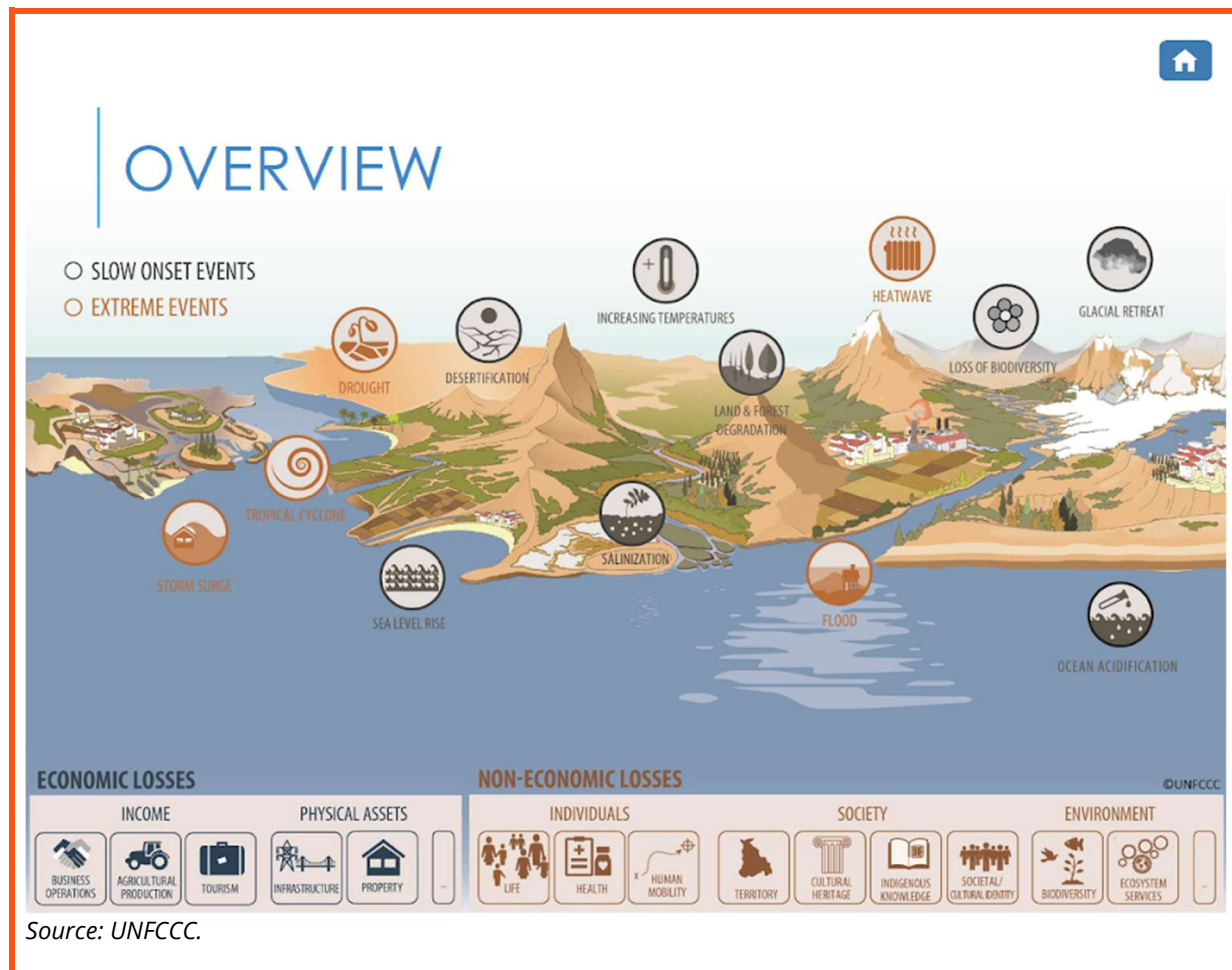
Don't gather personal information about inhabitants without making sure it is anonymized and inhabitants are aware of the use of their data.

Adaptations:

- Feel free to research and use some online tools to create 3D mapping if those are available to the school or university.
- We invite you to adapt this activity to the specific needs of your learners, including by taking into account their neurodiversity. When adapting tools and activities for neurodivergent learners, please note it is not about treating others how you want to be treated, but how they want to be treated. Ask, listen, and stay open to different ways of learning and engaging.



Resources



References

This activity was designed by One Resilient Earth.

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