

**Tool 4.4**

# Designing for resilience and regeneration

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**CLARITY Competence Area:**

Opening up to diverse climate-resilient and regenerative futures

**GreenComp Competence Area:**

Envisioning sustainable futures

**Why use this tool?**

This tool helps learners engage with the design of solutions to address climate change impacts on themselves, their communities and their ecosystems. It invites the group to go beyond the disaster risk reduction approach, which means working on reducing the risks related to extreme events associated with climate change. It fosters a more transformative approach to addressing the root causes of climate vulnerability. Hence, this tool can facilitate the design of solutions that cover social innovation, as much as technical and political solutions.

## Activity 4.4.1

# Investigating projects contributing to resilience and regeneration

## Overview

This activity consists in researching and learning about various projects that take place locally and around the world to foster climate adaptation and resilience. Particular attention should be given to projects that go beyond “disaster risk reduction” (i.e. limiting risks associated with extreme events), and focus on “designing for resilience and regeneration” so as to limit and address multiple climate change impacts, in the long run. These projects could include community-based adaptation projects and lo-TEK projects (i.e. projects mobilising local and traditional ecological knowledge).

## Curriculum linkage

Natural Science (Biology, Physics), (Human) Geography and Sustainability & Climate Education

## Competences built

Adaptability, regenerative thinking, imagination and innovation

## Prep Work

Familiarizing oneself with the concepts of climate adaptation, climate resilience (including transformative/transformational adaptation/resilience) and regeneration.



## BASIC INFO

### Age range:

6+

### Duration:

From a few sessions of 45-60 minutes to a longer term project

### Group size:

Flexible

### Level of difficulty:

Intermediate

### Materials/space required:

Access to libraries, internet and different stakeholders locally to carry out research

### Location:

Flexible

### Engagement of external stakeholders:

Yes, for the research taking place locally



## **Levels in the activity**

1. Exploration
2. Project

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### **Level 1: Exploration**

1. Introduce the concepts of climate adaptation/climate resilience (including transformative/transformational adaptation/resilience) and regeneration to learners (see the teacher's guide for information and guidance). Make clear that climate adaptation and resilience is meant to complement climate mitigation measures. Pursuing adaptation does not mean that we have given up reducing carbon emissions. It merely means that as the climate crisis intensifies, we need to be equipped to anticipate, deal with and recover from the impacts of climate change so as to stay alive and well, and continue doing all we can to limit global warming and restore the health of ecosystems.
2. Explain the interconnection between climate resilience and the regeneration of both relationships between individuals in communities, and of local ecosystems. Healthy ecosystems are essential to sequester carbon, but they can also help with heat waves, storms and heavy rainfalls, including through water absorption, cooling, air filtration...
3. Highlight the potential of regeneration for both marine and terrestrial ecosystems with the right techniques and species, including through local initiatives, and initiatives building upon local and traditional ecological knowledge.
4. During the first session, invite learners to undertake research on the initiatives that are implemented locally to build the climate resilience of their city, or village. Such information can be gathered through public sources and interviews with local officials. Invite learners to look for what scientific foundations the initiatives are based on. The research can be carried out individually or in groups.
5. Invite learners to learn more about the adaptation plan for their region and country, as well as the different actions/activities it covers, including for cities/regions bearing similarity to theirs in terms of geography and demographics.



6. Invite learners to complement this research with research about climate adaptation/climate resilience initiatives, projects or programs from different parts of the world bearing similarity with theirs in terms of geography, or demographics. Invite learners to pay particular attention to projects focusing on community-based adaptation, nature-based adaptation, and projects integrating local and traditional ecological knowledge. Projects focusing on transformative or transformational approaches to fostering climate adaptation, as well as projects at the intersection of resilience and regeneration should also be highlighted.
7. During a second session, after the learners carry out their research, invite learners to present their findings to the class and discuss the initiatives or projects that most inspired them and/or that they feel could be most relevant to inspire action in their locality.
8. Invite learners to reflect on what they feel may be missing in the initiatives, projects or programs they have surveyed, or what they would have liked to see more of. Invite them to suggest ideas or experiments to respond to those needs or fill out those gaps, and to present them to local authorities, if relevant.

## **Level 2: Project**

1. Following this first exploration, invite groups of learners to focus on a specific type of climate resilience project or initiatives, a specific sector, or a specific climate vulnerability issue so as to carry out more in-depth research, including comparative research.
2. Invite learners to develop an original approach to designing for resilience and regeneration in relation to this specific type of project, sector or climate vulnerability. Such projects would need to be tailored to the context and cannot be merely replicated. Examples of such projects include:
  - a. Planting a dense and diverse food forest, including the most climate-resilient mix of species, in the school courtyard
  - b. Creating a climate-resilience and regeneration experimentation lab or club for children and youth to discuss and experiment with new inventions
3. Invite learners to prototype their design in the school, university or in the locality. Learners should be encouraged to be bold and to fail when designing and testing out pioneering ideas and approaches.



4. Invite the local government, parents and other community members to see the prototypes and discuss local designs for climate resilience and regeneration.
5. Look for funding, including crowdfunding at local level, to better develop promising prototypes and test them more accurately.



### Dos and don'ts

#### Do

- Come prepared to respond to technical questions on climate change adaptation, resilience and regeneration.
- Provide learners with some recommendations on how to conduct interviews locally.
- This activity should be implemented before engaging with the following activity 'Drafting a guide book or manifesto' (4.4.2.)

#### Don't

Don't limit the geographical scope of the learners' exploration as many promising projects and initiatives focusing on climate change adaptation and resilience are happening in Asia, Africa and Latin America.

- **Adaptations:**
- Offer learners different options for presenting the findings of their research from traditional presentations in front of the class, to multimedia projects and more creative formats.
- 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.

## References

Activity designed by One Resilient Earth based on activities implemented with various stakeholder groups and communities.



Regarding climate adaptation and resilience:

- The UNFCCC [introduction to climate adaptation and resilience](#)
- The difference between [climate adaptation and resilience](#) (LSE)

Some resources on regeneration:

- <https://regenerationinternational.org/resources/>
- <https://www.regeneration.io/resources>

Chung Tiam Fook, T. (2015). Transformational processes for community-focused adaptation and social change: a synthesis. *Climate and Development*, 9(1), 5–21. <https://doi.org/10.1080/17565529.2015.1086294>

Fedele G, Donatti CI, Harvey CA, Hannah L, Hole DG (2019) Transformative adaptation to climate change for sustainable social-ecological systems. *Environ Sci Pol* 101:116–125

Schreuder, W., Horlings, L.G. Transforming places together: transformative community strategies responding to climate change and sustainability challenges. *Clim Action* 1, 24 (2022). <https://doi.org/10.1007/s44168-022-00024-3>



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## Activity 4.4.2

## Drafting a manifesto or a guidebook

## Overview

This activity builds upon new regenerative narratives (e.g. becoming a good ancestor, more-than-human politics) that are emerging in the climate change and environmental work field today. It consists in working with learners to draft their own manifestos about climate-resilient and regenerative futures. Another option is to write guidebooks to foster the conditions for diverse climate-resilient and regenerative futures to materialize in their locality. This activity builds upon the previous one, "Investigating projects contributing to climate resilience and regeneration" (4.4.1.).

## Curriculum linkage

Ethics, Religion & Philosophy, Language & Literature, (Human) Geography, Civics & Social Studies and Sustainability & Climate Education

## Competences built

Adaptability, regenerative thinking, imagination and innovation

## Prep Work

Familiarize yourself with the purpose/format of manifestos and look for inspiring examples.

## Competences/activities to practice first by the teacher:

Both the teacher and learners will need to first practice "Investigating projects contributing to climate resilience and regeneration" (4.4.1.). They could also benefit



## BASIC INFO

## Age range:

11+

## Duration:

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

## Group size:

Flexible

## Level of difficulty:

Intermediate

## Materials/space required:

Writing material, optional access to digital tools to edit/format text.

## Location:

Indoors

## Engagement of external stakeholders:

No



from a “Futures Literacy Lab” (4.2.2.) as an opportunity to reflect on assumptions, biases and values that drive their actions in the present.

## Levels in the activity

1. Manifesto
2. Guidebook

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### Level 1: Manifesto

1. During the first session, explain that a manifesto is a document publicly declaring the position or program of its issuer. It advances a set of ideas, opinions, or views, but it can also lay out a plan of action. While it can address any topic, it most often concerns art, literature, or politics. Manifestos are generally written in the name of a group sharing a common perspective or purpose.
2. Let the learners know that you are inviting them to write a manifesto about the climate resilient and regenerative world they want to contribute to, and thus offering them the opportunity to synthesize what they have learnt, which values/approaches moved them, and what actions inspired them in a format that conveys a commitment to action.
3. In addition to introducing the purpose of a manifesto, share inspiring examples, and offer learners to start reflecting on key elements they would like to share in the manifesto: this includes their understanding of the context, the vision they developed, and the next steps they intend to take as a group and/or in collaboration with other stakeholders locally.
4. During the following two sessions (or more if necessary), allow learners to work in small groups on different sections of the manifesto and to discuss among themselves the points that lead to disagreements. When possible, promote the possibility of coming up with a third way when some positions appear to be irreconcilable.
5. Let the learners know that the manifesto does not need to be perfect, nor long. The value of the exercise is for learners to reflect upon and integrate what they learnt in activity 3.4.1 “Designing for resilience and regeneration”, as well as to practice collaborative decision-making, which is always challenging.



6. Once the manifesto is written, encourage learners to format and illustrate their manifesto, to have it as a poster in the classroom, and/or to share it with the local authority.
7. Optional activity: every 3 months, invite learners to reflect on their progress in the implementation of the next steps written down in the manifesto, and/or in the deeper change that it may create within them or for the group as a whole.

## Level 2: Guidebook

1. The purpose of the guidebook is to share learnings, suggestions, recommendations, and open questions that can help other learners or community groups create supportive conditions for climate resilience and regeneration locally.
2. It is a more complex and detailed document than the manifesto, and can help learners further integrate their learnings by taking a step back and reflecting on the information, approaches, methods and tools that they found most helpful to understand climate resilience, regeneration, transformative change... as well as to strive to work together within groups to design specific approaches, and/or take actions, if any.
3. The process of writing the guidebook is more important than the actual learnings, suggestions, recommendations, and open questions shared within it. Special attention should be paid not to make it “the only method” to be implemented by everyone worldwide. This exercise can offer a chance to reflect on positionality in relation to the target audience of this guidebook (e.g. other learners at the start of their transformative climate resilience and regeneration journey in the city, local community members...).
4. The guidebook can be a report, or a multimedia format hosted online, including multiple images, audio-visual materials and opportunities for exchanging with others.
5. The guidebook can include information that weaves together science, arts, emotions, connections, technology... It can be creative in its format and the way it looks.
6. Encourage learners to write the guidebook in groups, suggest the writing of several guidebooks, and/or assign different sections of the guidebook to different groups.



7. Allow sufficient time for this activity to enable learners to tap into their creativity, and coordinate with stakeholders of the target group in order to make the guidebook tailored to their needs. Convey that it is better to check with the target group what they would be interested in, rather than assume to know what they need.
8. Encourage learners to share their guidebook widely among their target audience, to organize a presentation session, and to create opportunities to collect feedback about the use and usefulness of the guidebook.



### Dos and don'ts

#### Do

- Organize regular Q/A sessions with each of the groups so as to support them with any technical questions as well as with the writing process.
- Encourage the use of creative approaches to share the content of the guidebook with other learners.
- Request a clear reference system for the sources of the document, which should be public and easily accessible to the readers of the guidebook.
- Check the scientific soundness of the technical parts of the document before publishing, if you choose to go that route.

#### Don't

- Don't have a preconceived vision of what the target audience needs or wants.
- Don't limit the creativity of learners regarding the format of the guidebook.

#### Adaptations:

- Feel free to offer many different options of what a guidebook can be, to allow learners to choose the format that they would like to work with. Encourage them to transform the format as they work on the guide and to choose the modes of dissemination they have researched and would like to experiment with.
- 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.



## References

This activity was designed by One Resilient Earth, based on activities implemented with various stakeholder groups and communities.

Global Center on Adaptation. (2022). Case Studies on Adaptation and Climate Resilience in Schools Schools and Educational Settings. In

<https://gca.org/reports/case-studies-on-adaptation-and-climate-resilience-in-schools-and-educational-settings/>

Gibb, N. (2016). Getting climate-ready: a guide for schools on climate action. In UNESCO eBooks. <https://doi.org/10.54675/moyx1103>



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