SOCIAL ECOLOGICAL RESILIENCE NETWORK

THE SOCIAL-ECOLOGICAL RESILIENCE APPROACH

WHAT IS ITS ADDED VALUE IN INTERNATIONAL COOPERATION?

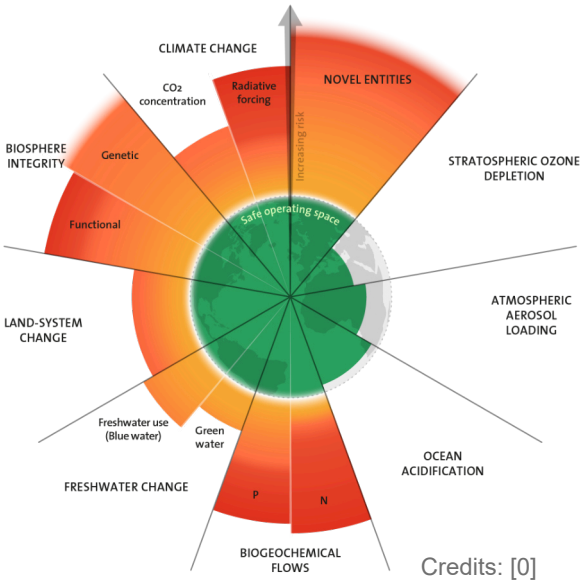
THE SUSTAINABLE DEVELOPMENT PARADIGM

'Sustainable development'[1] is currently the leading paradigm in development cooperation, elaborated in the agenda 2030 and the UN Sustainable Development Goals (SDGs). This set of broad goals is a political compromise, still often interpreted and used in a 'narrow' way prioritizing economic growth over the social and ecological needs. In that way, the SDGs often fall short in taking into account the complex root causes and drivers of unsustainability and inequality and the (mostly non-linear) social and ecological risks the world is increasingly facing like climate change induced crises (floods, heat waves etc.), armed conflicts, pandemics like COVID 19, etc.

To better capture these (interacting) risks at a global scale, scientists identified 9 planetary boundaries within which humanity can continue to develop and thrive for generations to come[1]. In 2023, already 7 out of these 9 boundaries have been crossed[2] (see figure).

However, a lot of people on earth lack basic access to food, water, housing, healthcare, education, etc. Therefore, planetary boundaries have been linked to social boundaries, between which lies a socially just and environmentally safe space in which humanity can thrive, via the doughnut economic model[3]. The model promotes an economy whereby human well-being is ensured within the planet's carrying capacity.

In short, the current sustainable development paradigm falls short in addressing these global risks and their impacts on the social-ecological planetary system. Instead of a system which accepts the pursuit of economic growth at the expense of the planet (incl. biodiversity, climate) and human rights, we need a system that not only operates within the planetary boundaries, but also actively enhances the resilience of the planet and its inhabitants.



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Social-ecological resilience (SER) offers this highly needed holistic approach, taking into account the planetary boundaries and social foundations, to be incorporated into the existing development paradigm.

SER is the capacity to adapt or transform in the face of change in social-ecological systems (linked systems of people and nature), particularly unexpected change, in ways that continue to support human well-being [4]

Resilience thinking is getting increasingly popular throughout a wide range of disciplines, from psychology to urban planning and ecology. Resilience practice is increasingly focusing on development issues in the Global South, together with a movement away from expert-led towards locally driven participatory approaches [5].

SOCIAL-ECOLOGICAL RESILIENCE IN INTERNATIONAL COOPERATION

Incorporating social-ecological resilience thinking in international cooperation can offer strategic guidance at organisational or project level (i.e. striving towards resilient social-ecological systems), as well as operational guidance in project management (e.g. by using a 'resilience lens' at different project stages, or by developing resilience indicators for monitoring). Putting SER at the centre of cooperation projects will allow for a more holistic understanding of the context, which in turn will enable more effective results contributing to strengthening the resilience of social-ecological systems.

'Classical' environmental analyses do not systematically consider adaptations or transformations of a system which are needed to continue to support environmental stability and human well-being in the future. While the environment is an integral part of SER, and improving the environment will contribute to strengthening resilience, a SER-approach goes beyond an environmental assessment.

To this end, concrete approaches exist to contribute to the resilience of social-ecological systems: e.g. agroecology, nature-based solutions, circular economic models, etc. [6]. These approaches go beyond a 'static' environmental analysis and look at the current state, pressures and systemic impacts.

TOWARDS OPERATIONALISING SOCIAL-ECOLOGICAL RESILIENCE

There is no blueprint SER approach with a prescribed set of criteria to be used in cooperation project. Yet, what many existing tools and scientific literature on SER have in common, is the importance of thoroughly understanding the social-ecological system whose resilience is to be strengthened.

To this end, 5 key questions are [7] :

1. Scope (resilience of what?)
   It is important to define the geography of a system and its boundaries (how big is it?) and its key social (governance, cohesion, diversity of actors, communities,…), ecological (ecosystems, biodiversity,…) and economic (diversity of income, resources…) components.

2. Objective (resilience to what end?)
   It is also essential to be clear about what social, ecological and economic components will be strengthened by building resilience.

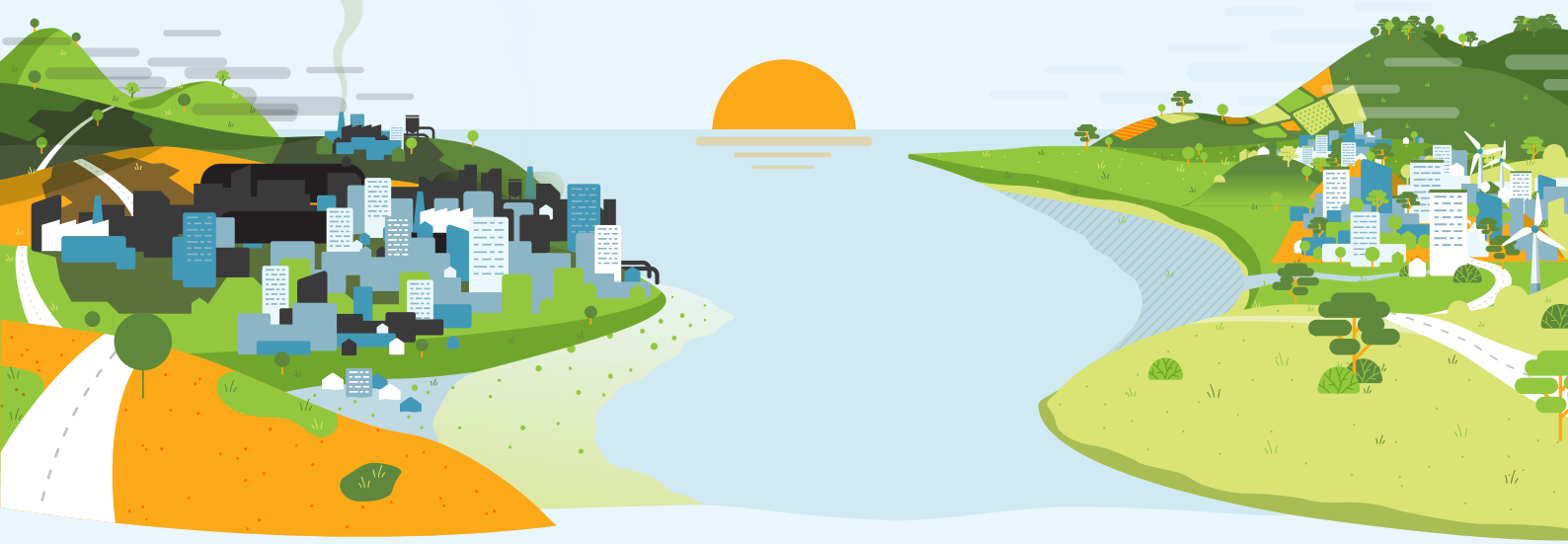
3. Target audience (resilience for whom?)
   Aligned with the objectives to be achieved, the people or groups, including their environment, whose resilience needs to be strengthened should be identified, which requires understanding why and how different people and their environment are vulnerable to different shocks and stresses (risks).

4. Disturbances (resilience to what?)
   A fundamental part of resilience-thinking is the identification of shocks and stresses (risks) linked to (unexpected) shocks and stresses in social-ecological systems that you want to respond to by strengthening resilience.

5. Approach (resilience through what?)
   Finally, an approach needs to be developed that defines how and which capacities should be strengthened to respond to the identified shocks and stresses (risks).

These questions can be applied to different systems to better understand what happens if we don't consider SER in a development context, which will make the added value of a SER approach clear.

Let's have a look at some hypothetical examples of how a SER approach could look like.



AN URBAN RIVER SYSTEM

Let's say we have an urban river system, where urban communities face regular flooding while having a lack of access to clean water and basic sanitation services. Installing a local floodwall, a drinking water system and some toilets can reduce flooding and water pollution, and improve access to water. Yet, these interventions alone will not lead to a resilient social-ecological system.

By taking a SER approach, the different components of the system become more visible. People in the urban river valley benefit from the system (e.g. water, energy, leisure, local climate regulation), but are also at risk from the system (e.g. flooding). At the same time, people can cause disturbances in the system (e.g. reducing water infiltration into the soil, releasing untreated wastewater, damaging ecosystems, reducing biodiversity, increasing urban heating). Fortunately, people can also develop solutions to improve the SER of the system by working with nature in urban areas.

Scope? An urban area and its surroundings along the river, characterized by human-environment interactions.

Objective? Ensure urban communities are protected against flooding and keep access to water under different climate and socio-economic conditions, while maintaining social equity, stable livelihoods, biodiversity, and well-being at both human and ecological level.

Target audience? Urban residents and communities downstream of the urban area.

Disturbances? Flooding, leading to loss of life and damages (ecological and economical).

Approach? Working with nature in an urban context through participatory river management by supporting social and ecological diversity, education.

AN AGRICULTURAL SYSTEM

Now, let's have a closer look at an agricultural system. Suppose the yields of a farmer are decreasing year by year because the soil is becoming depleted of nutrients. A possible solution could be to use more fertilizers. But just as with the water pump, fertilizers alone are not a solution at the level of the entire system and will not in itself lead to higher social-ecological resilience.

Similar to a river system, an agricultural system allows people to generate benefits from it (e.g. food, income), but the system also exposes people to risks (e.g. crop failure due to drought). Part of that risk can be exacerbated due to human action (e.g. no soil conservation practices). Fortunately, people can also develop innovative techniques to improve the SER of the system. For example, agroecology is a strategy that considers the different components of the system.

Scope? Agricultural lands, social interactions, biodiversity, communities and villages depending on it.

Objective? Improvement of food and nutrition security, functional agricultural lands, social equity, biodiversity, stable livelihoods, long-term well-being outcomes.

Target audience? Communities depending on agricultural yields (farmers, consumers of food produced,...)

Disturbances? Droughts, pests, diseases, floods

Approach? Recognizing the planetary boundaries of the system at the local scale through agroecology by promoting sustainable management of natural resources and maintaining biodiversity, better adaptation to local conditions, greater participation of local communities, and improvement of food and nutrition security.

SECORES is the Belgian Network for Social-Ecological Resilience founded by BOS+, CEBioS, Join For Water, Uni4Coop, Via Don Bosco and WWF in 2022, with the objective to mainstream social-ecological resilience (SER) in Belgian development cooperation.

Concretely, SECORES aims at:

- improving knowledge on SER via learning and exchanging;
- putting SER higher on political agendas via advocacy and dialogue;
- stimulating synergies on SER between interested actors

More information on https://secores.org/

SECORES is open to receive new members! Please contact us at: info@secores.org

NOTE

This document has been elaborated by the SECORES members, but does not necessarily reflects the position of each member organisation. The note has been elaborated as an attempt to jointly forge our understanding of the added value of SER in international cooperation. Nevertheless, the debates (within SECORES and beyond) are still ongoing, especially on the links between SER and the SDGs .

References

[0] Azote for Stockholm Resilience Centre, Stockholm University. Based on Richardson et al. 2023, Steffen et al. 2015, and Rockström et al. 2009.

[1] Rockström, J., W. Steffen, K. Noone, Å. Persson, et.al. 2009. Planetary boundaries:exploring the safe operating space for humanity. Ecology and Society 14(2): 32

[2] https://www.stockholmresilience.org/research/planetary-boundaries.html

[3] https://www.stockholmresilience.org/research/research-videos/2018-09-24-doughnut-economics-economics-for-a-changing-planet.html,

[4] Folke, C. (2016). Resilience (Republished). Ecology and Society, 21(4). http://www.jstor.org/stable/26269990

[5] Enfors-Kautsky, E., Järnberg, L., Quinlan, A., & Ryan, P. (2021). Wayfinder: a new generation of resilience practice. Ecology and Society, 26(2). https://www.ecologyandsociety.org/vol26/iss2/art39/

[6] Rockstrom & Gaffney, 2021, 'Breaking boundaries - The Science of our Planet', Dorling Kindersley Limited;