Resilience

The concept of resilience

Facilitator: Rita Muckenhirn

Image source: https:// images.app.goo.gl/ RDy2TY9wPtEHcPz26

Systways

Resilience - Dimensions

Resilience - Concepts

"The **ability of people, households, communities, countries, and systems** to mitigate, adapt to and recover from shocks and stresses in a manner that **reduces chronic vulnerability and facilitates inclusive growth**." (USAID)

Resilience of social-ecological systems (SES):

The capacity of a SES to **sustain human well-being** in the face of disturbance and change, both by buffering shocks and by adapting or transforming in response to change. (Biggs et al.)

Resilience - Concepts

The "capacity that ensures adverse stressors and shocks do **not have long-lasting adverse development consequences**" (Costas et al., 2014a, p. 6).

Resilience can be viewed as "a capacity that **prevents** individuals, households and communities **from falling below a normatively defined level for a given developmental outcome** (e.g., food security, poverty level, well-being)" following a shock or stress (Ibid., p. 7).

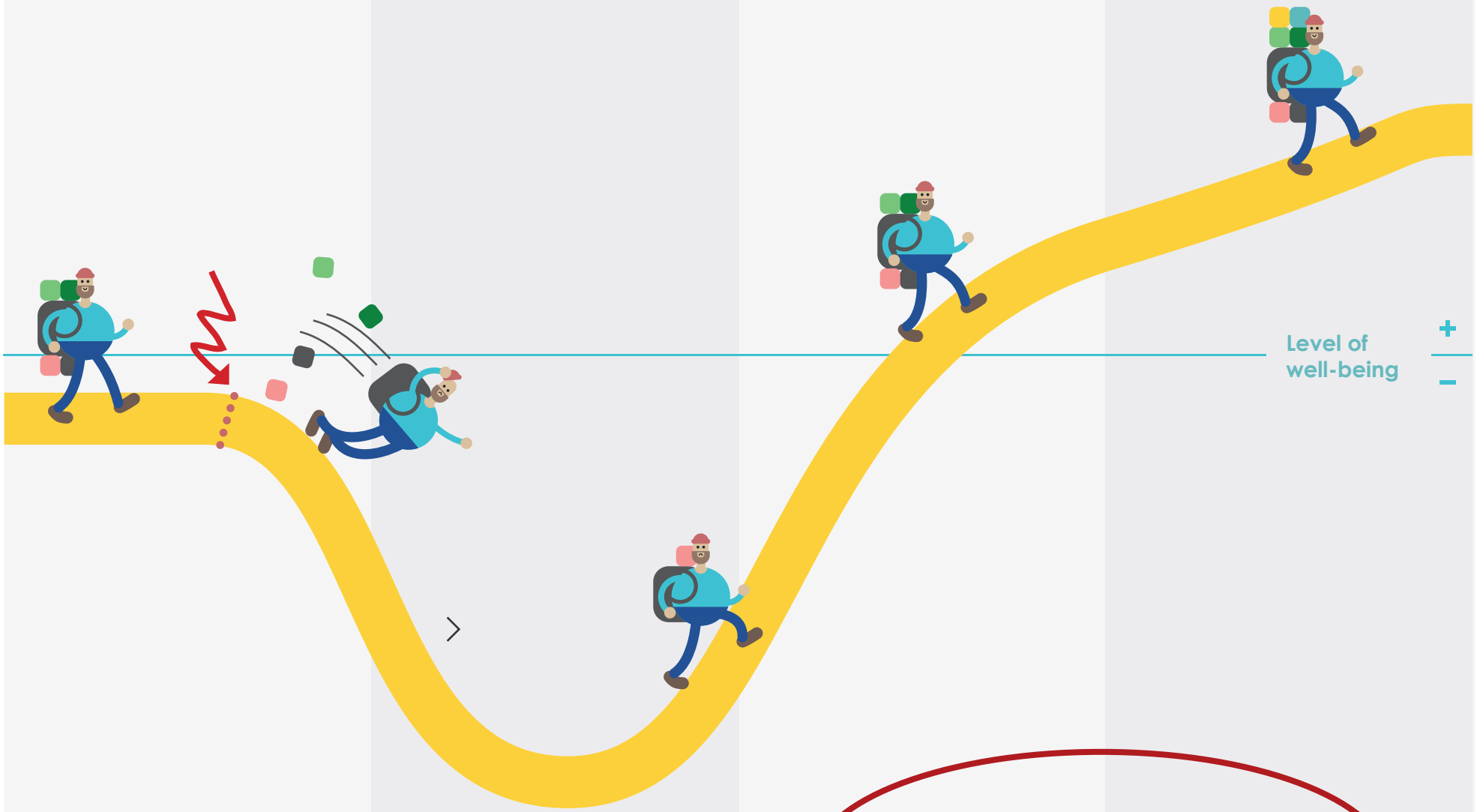
Resilience - Concepts

"The capacity of a **system** – be it a forest, city or economy – to **deal with change and continue to develop**; **withstanding shocks and disturbances** (such as climate change or financial crises) and using such events to **catalyze renewal and innovation**." (Stockholm Resilience Centre).

Resilience

Graph: Rita Muckenhirn

Resilience



Social - Ecological System(s) (SES)

Systems and structures

Graph: Rita Muckenhirn

Types of systems

Mechanical systems:

Devices such as a van or an iron.

Biological systems:

Living organisms such as the dog and cat we have at home, eco-systems or like each ourselves or, more specifically, our bodies.

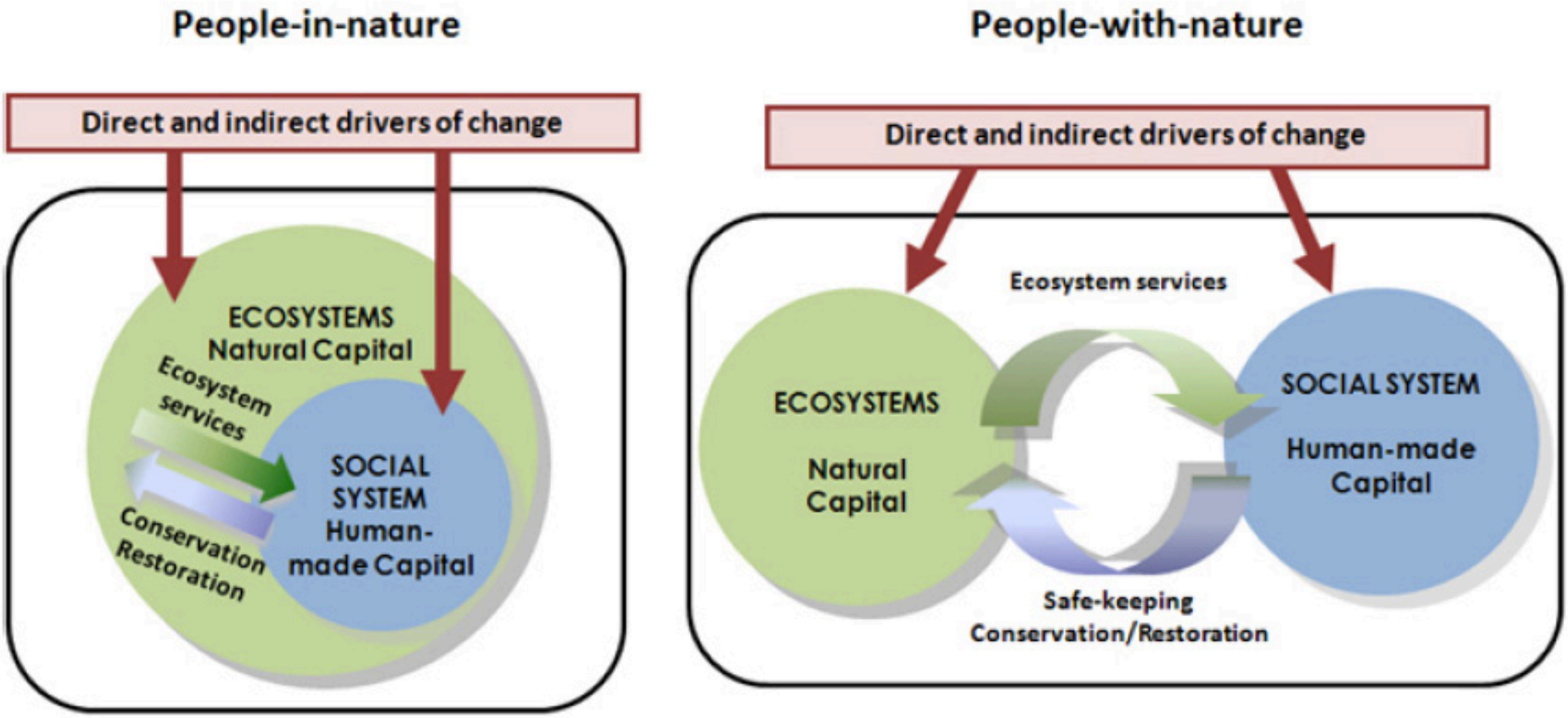
Social systems:

Organizations like our families, communities, organizations or institutions, our government or our country (which is not the same thing).

Systems of ideas, beliefs or behaviour:

Ideologies, religions, cultures.

Social-ecological systems (SES)



Social-ecological systems are **linked systems** of **people** and **nature**, emphasising that **humans** must be seen as **a part of, not apart from nature**.

Berkes and Folke, 1998

Source: Marta Pérez-Soba, Marta (Wageningen Environmental Research); Dwyer, Janet (CCRI). 2016

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Social-ecological systems… Definitions

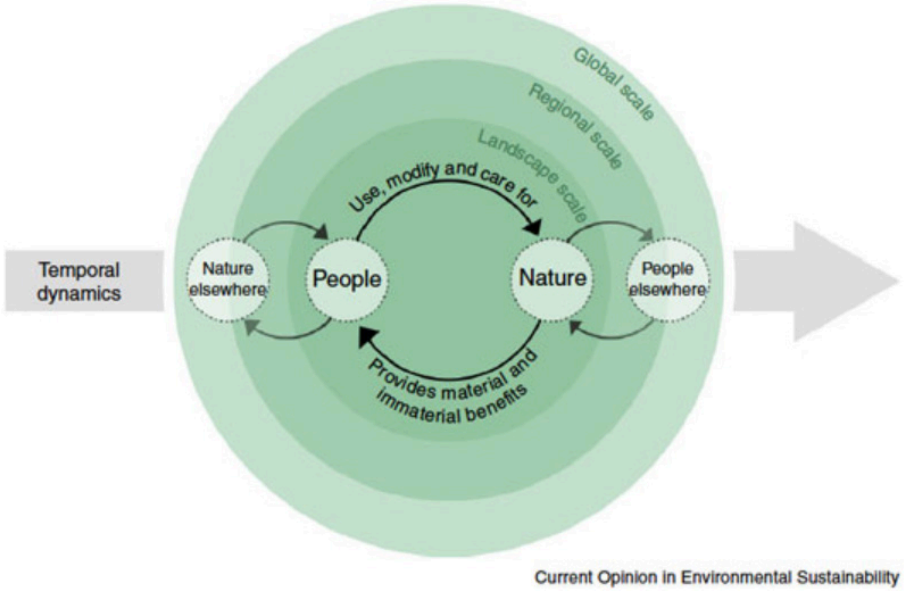
- A **coherent system** of biophysical and social factors that **regularly** interact in a **resilient, sustained** manner.
- A system that is defined at several spatial, temporal, and organisational **scales**, which may be hierarchically linked.
- A set of **critical resources** (natural, socioeconomic, and cultural) whose flow and use is regulated by a combination of ecological and social systems;
- A perpetually **dynamic, complex** system with **continuous adaptation**.

Source: Redman, C., Grove, M. J. and Kuby, L. (2004). Integrating Social Science into the Long Term Ecological Research (LTER) Network: Social Dimensions of Ecological Change and Ecological Dimensions of Social Change. Ecosystems Vol.7(2), pp. 161-171. In *Marta Pérez-Soba, Marta (Wageningen Environmental Research); Dwyer, Janet (CCRI). 2016*

Social-ecological systems... Definitions

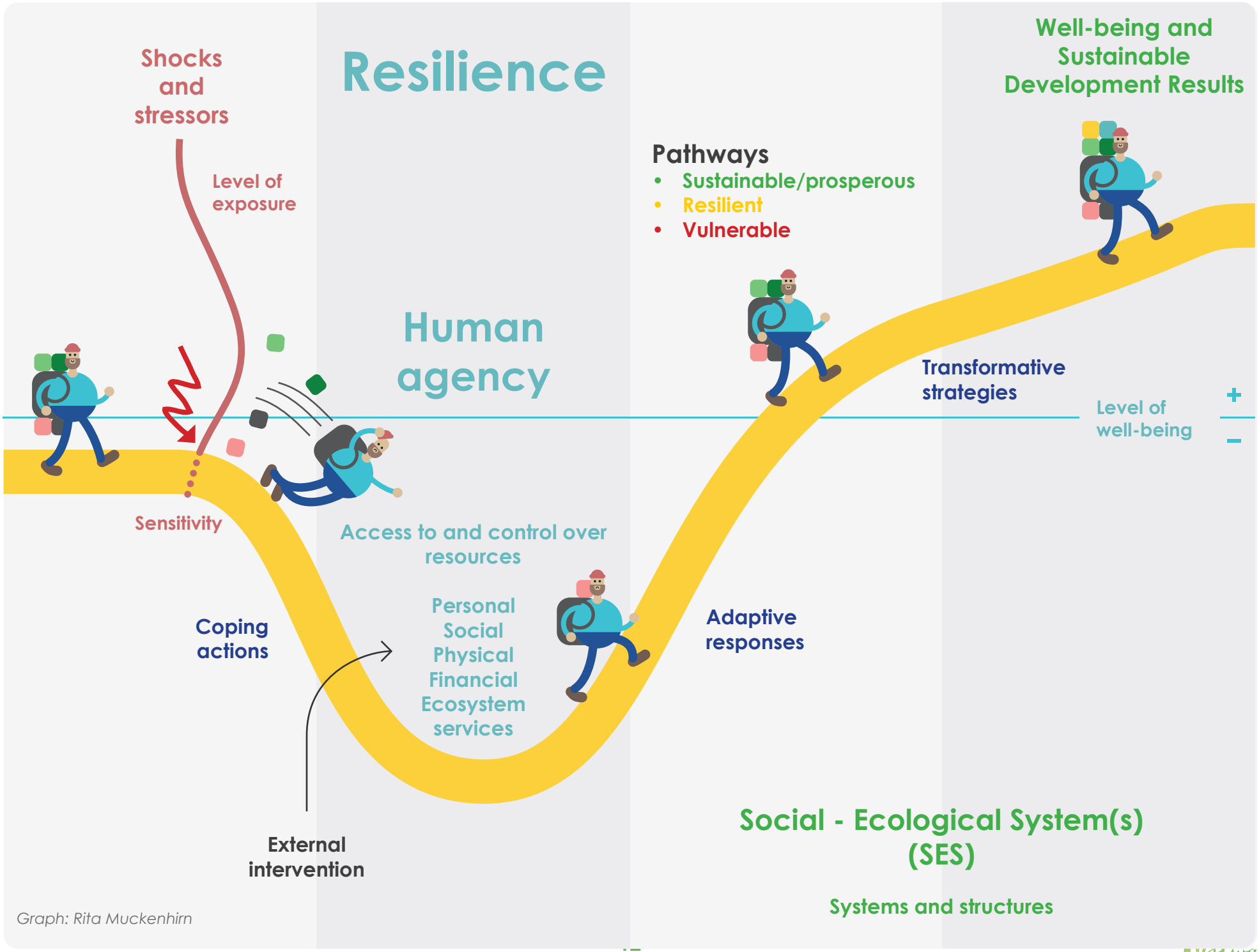
Integrated systems of humans and nature that constitute **complex adaptive systems (CAS)** with ecological and social components that **interact dynamically** through various **feedbacks.**

Biggs et al. Principles for Building Resilience. 2015, p. 23



Source of the Graph: https://www.stockholmresilience.org/research/research-news/2015-08-11-a-social-ecological-lens-for-the-future.html

Systways


Resilience
Shocks and stressors
Level of exposure
Sensitivity
Human agency
Access to and control over resources
Personal
Social
Physical
Financial
Ecosystem services
Coping actions
External intervention
Adaptive responses
Transformative strategies
Pathways
Sustainable/prosperous
Resilient
Vulnerable
Well-being and Sustainable Development Results
Level of well-being
+
−
Social - Ecological System(s) (SES)
Systems and structures
Graph: Rita Muckenhirn

Sources

In addition to the already cited sources, the presentation is based on insights from the following authors:

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