



Nature-based Solutions

Heatwaves Regional Meeting

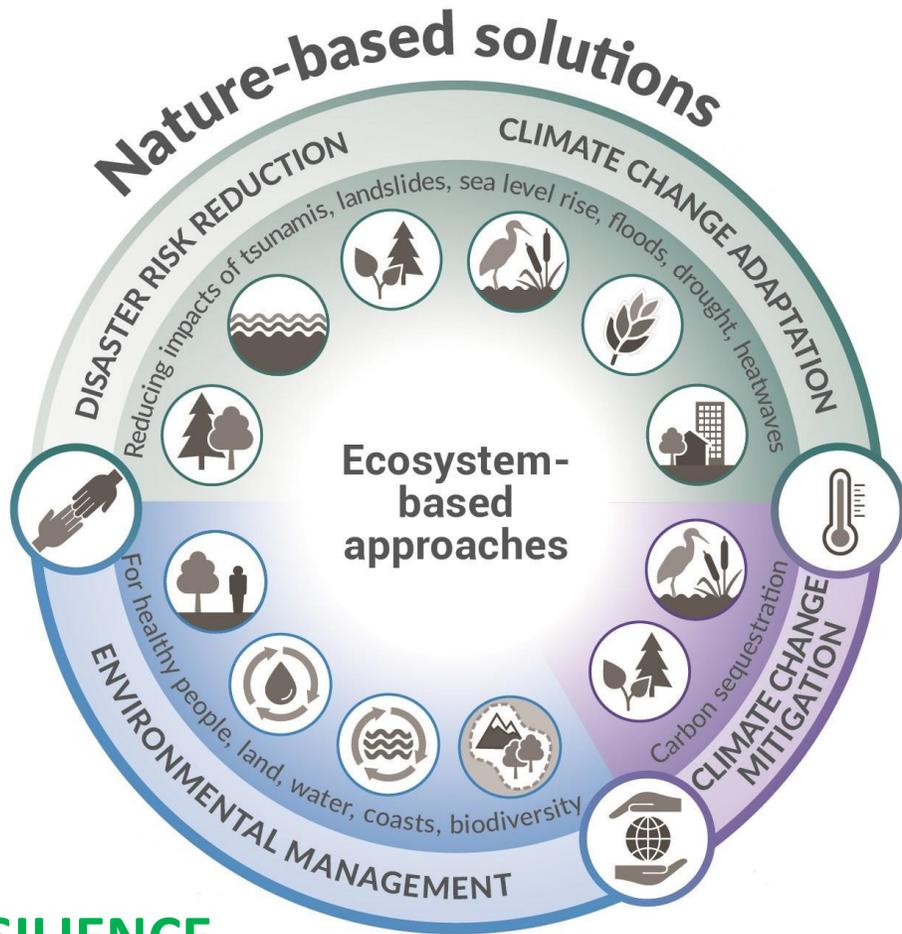
1 June 2021

What are Nature-based Solutions (NbS)?

What do you think of when you hear "Nature-based Solutions"? Please write down 3 words.

- Go to www.menti.com
- Enter the code 9299 9807

“Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”



Meeting the needs of people



Green infrastructure



Blue infrastructure



Landscape restoration



Taking care of our planet for the long-term



Wetland restoration



Climate smart agriculture/agroforestry



Urban greening



Sustainable land & integrated fire management



Dealing with climate change



Integrated water resource management



Integrated coastal zone management



Protected areas

RESILIENCE

PEDRR and UNEP, 2020

REDUCE

Greening humanitarian aid

- Response and recovery focus
- Carbon and environmental footprint
- Reduce local (e.g. plastic pollution) and global impact (e.g. GHGs fleet), in/direct

NbS have prime potential to help address global challenges such as:



climate change



economic and social development



human health



food and water security



disaster risk reduction



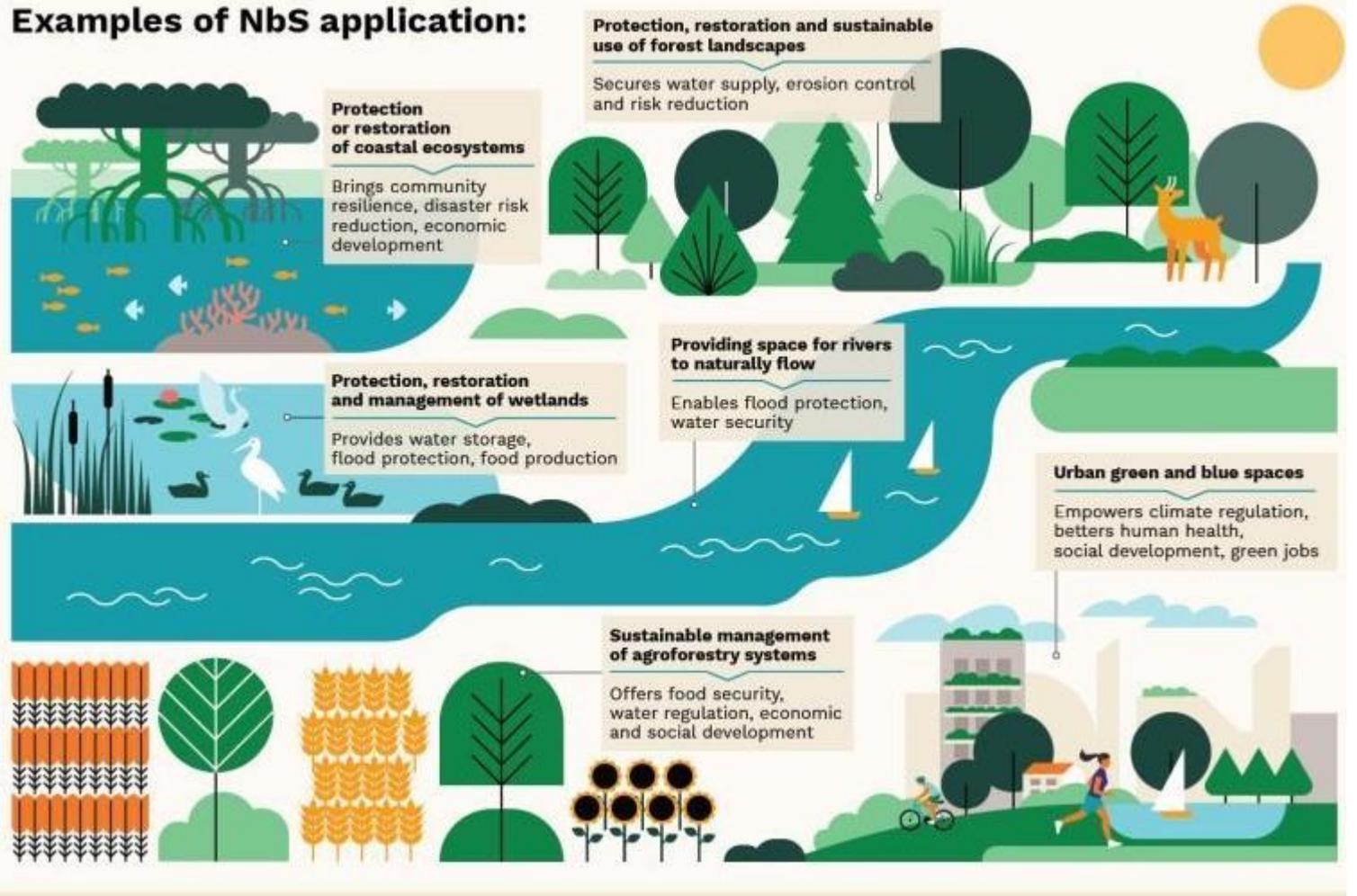
ecosystem degradation



biodiversity loss

Alongside other DRR, climate change adaptation and climate change mitigation solutions!

Examples of NbS application:



Examples of NbS in Asia-Pacific

Within cities

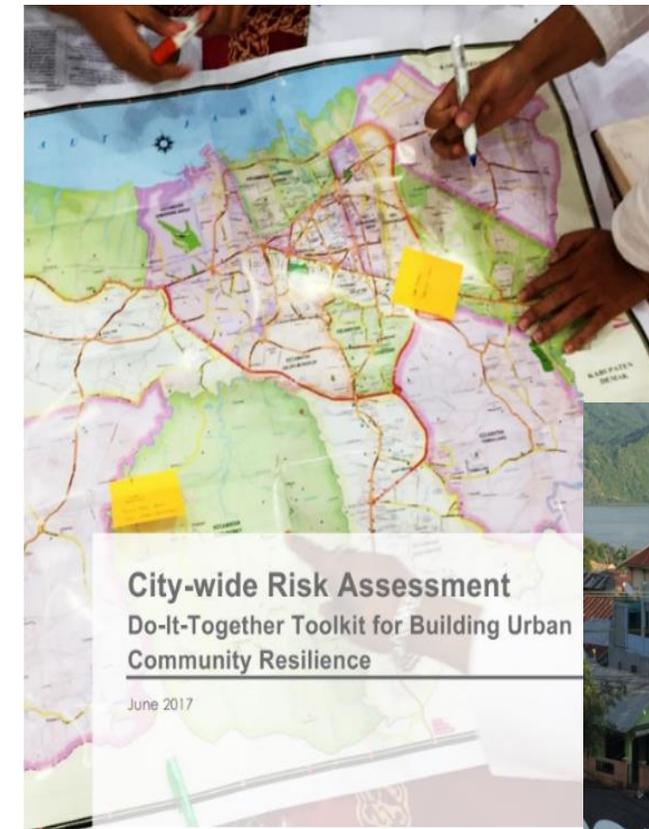
- **Urban green spaces** (large): Purify air; regulate local climate by preserving heat, cooling air and humidifying, benefit both within and around green area (study of 8 cities in China)
- **Green roofs**: reduce heat transfer to buildings, esp. in summer, energy saving (Shanghai, HK)
- **Sponge Cities**: environmentally urban systems to absorb, store, infiltrate and purify rainwater. (so far 30 cities in China)

Beyond cities

- **Restoring upland forests** can regulate water flows of large cities, help manage more extreme floods, economic savings (e.g. Tokyo)
- **Sustainable management of agricultural lands** to provide both food and water for cities (Ganges basin, India, Yellow River, China)

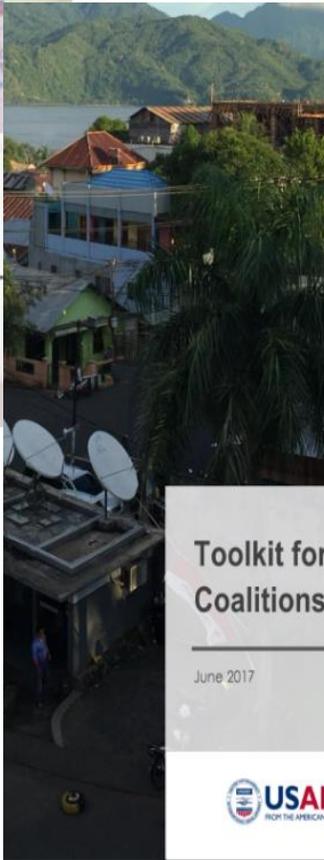
Conclusions

- Nature-based Solutions can reduce exposure and increase resilience to disasters and climate change impacts, incl. heatwaves
- NbS are relevant in both urban and rural settings
- NbS build on and strengthen community resources and skills
- NbS require: scale and systems-thinking; local and scientific knowledge; partnerships; being part of broader plans for disaster management and climate change



City-wide Risk Assessment
Do-It-Together Toolkit for Building Urban
Community Resilience

June 2017



**Toolkit for Building
Coalitions for Resilience**

June 2017

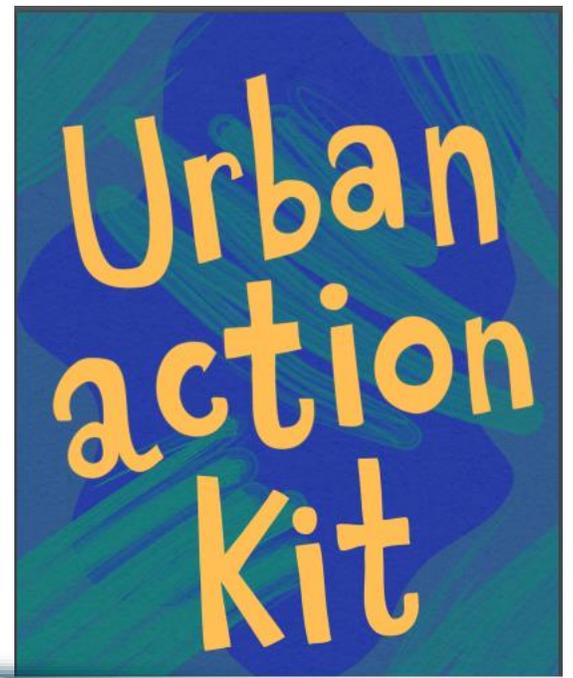


**PART
1/3**

**Designing Solutions for Urban
Community Resilience**

A methodology to co-design viable, inclusive and
sustainable community resilience solutions

May 2019



The Nature Navigator

Protecting ecosystems.
Reducing risk.
Raising resilience.

A handbook for DRR practitioners

www.preparecenter.org