

Nature based Solutions in the Alps

What are NbS and why do we need them?

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Examples for Nature based Solutions



- **reforestation projects in areas of particular importance for water recharge**
- **the protection of coral reefs or seagrass beds for fish stock recovery or maintenance**
- **conservation or restoration of wetlands for climate adaptation and disaster risk reduction**
- **creating green roofs and walls in cities to regulate temperatures and store carbon**

Examples for Nature based Solutions



Examples for Nature based Solutions



Challenges of NbS in the Alps



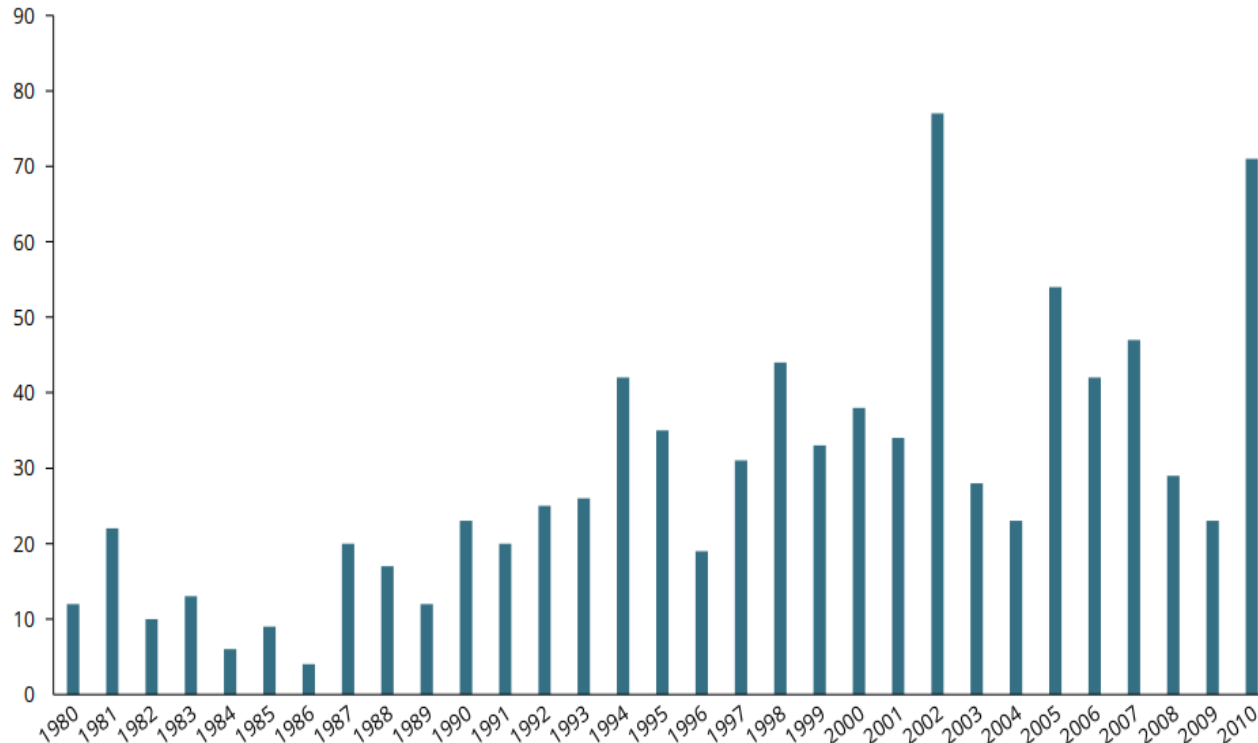
A lot of NbS measures are not on a project-scale but on a landscape-scale and have to include land use and spatial planning.

Why do we need NbS?



severe floods and expected damages in Europe

Number of flood phenomena in severity class 'very high'



- Severe flood events increased over the period of 30 years
- Pluvial floods and flash floods are likely to become more frequent throughout Europe
- The strongest increase in damages caused by floods is projected for Austria, Hungary, Slovakia and Slovenia

Source:

Flood risks and environmental vulnerability — Exploring the synergies between floodplain restoration, water policies and thematic policies, EEA Report No 1/2016, European Environment Agency.

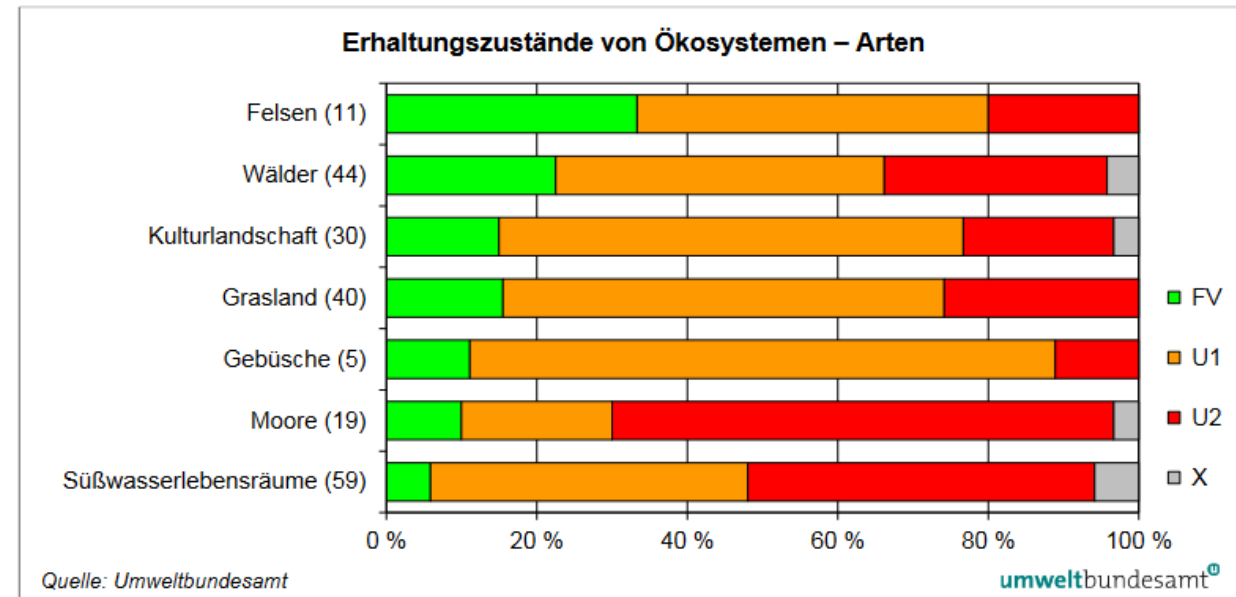
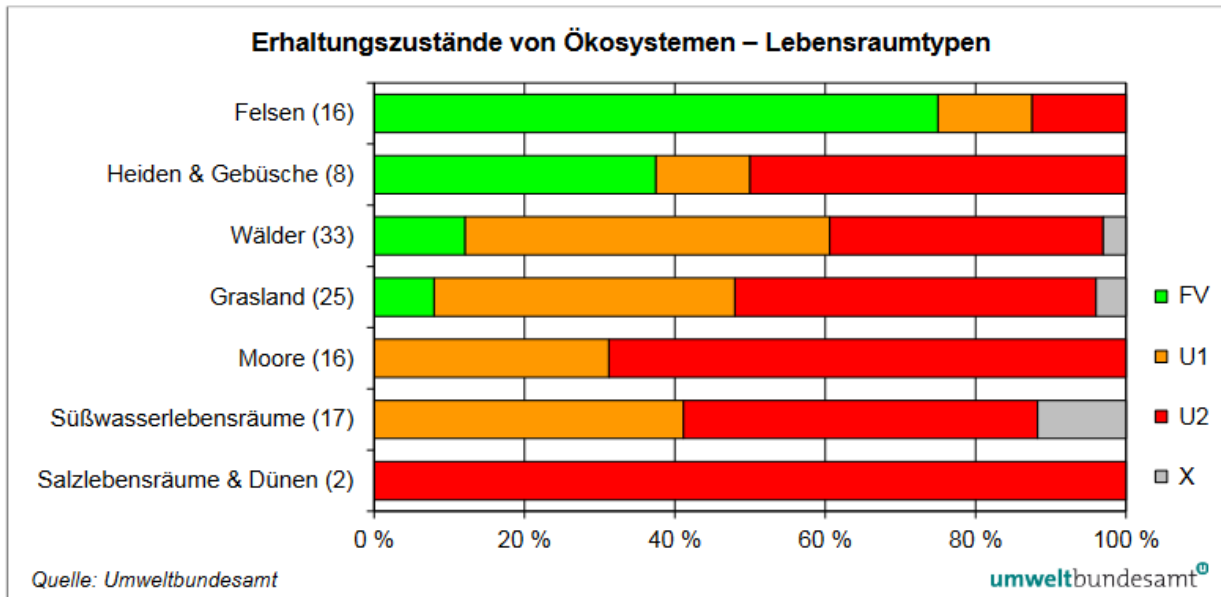
Global projections of river flood risk in a warmer world, Appendix, table S1, Alfieri, L., 2016, European Commission, Joint Research Centre

Why do we need NbS?



Conservation statuses of ecosystems in Austria, based on the assessments of Annex I **habitat types** of the Habitats Directive. Reporting period 2013-2018.

Conservation statuses of ecosystems, based on assessments of **species** listed in Annexes II, IV and V of the Habitats Directive. Reporting period 2013-2018.



FV: favourable, U1: unfavourable–inadequate, U2: unfavourable–bad, X: unknown

Source: Environmental Agency Austria

A wide river flows through a lush, green forested landscape. In the foreground, a large pile of driftwood, including logs and branches, is partially submerged in the water. The riverbank is composed of light-colored gravel and sand. In the background, a steep, forested hill rises under a clear blue sky with a few wispy clouds. A black text box is overlaid on the right side of the image.

Nature based Solutions

Previous approaches to addressing the climate crisis and species extinction and its consequences have often focused on technical measures only. NbS think climate protection, nature conservation and human welfare together. Therefore they have to play a much greater role in the future and become the norm in dealing with the crises that threaten our existence.