



Ponderful

PONDS FOR CLIMATE

Ponds and pondscapes as nature-based solutions for climate change adaptation and mitigation

Ponds and pondscapes are nature-based solutions for climate change adaptation and mitigation, providing many human wellbeing and biodiversity benefits.

ADDRESSING SOCIETAL CHALLENGES

PONDERFUL discovered that ponds and pondscapes can address the seven major societal challenges identified by IUCN. These include environmental issues (e.g. climate change and biodiversity loss), food and water security, human health and people's wellbeing.



ENVIRONMENTAL DEGRADATION AND BIODIVERSITY LOSS

Ponds are remarkably important for biodiversity conservation, and pondscapes represent biodiversity hotspots. Despite this, ponds have been widely neglected and generally undervalued.



DISASTER RISK REDUCTION

Ponds and pondscapes play a fundamental role in mitigating flooding and also constitute a water reserve to fight fires.



HUMAN HEALTH

Ponds and pondscapes provide a wide range of co-benefits for human societies, such as support for human health and quality of life, spaces for physical activities or social interaction, as well as aesthetic experiences and educational and recreational activities.



CLIMATE CHANGE MITIGATION AND ADAPTATION

Given their abundance and their high productivity, ponds significantly influence the carbon cycle by acting as both carbon sinks and sources.



WATER MANAGEMENT

Pondscapes provide a water reserve that is particularly important in the context of water scarcity. They are particularly useful for providing a water source for animals and for irrigation.



FOOD SECURITY

Ponds and pondscapes are ecosystems which can produce food directly (e.g. crustaceans, fish, amphibians, water birds). Furthermore, they are used for watering animals and also wildlife.



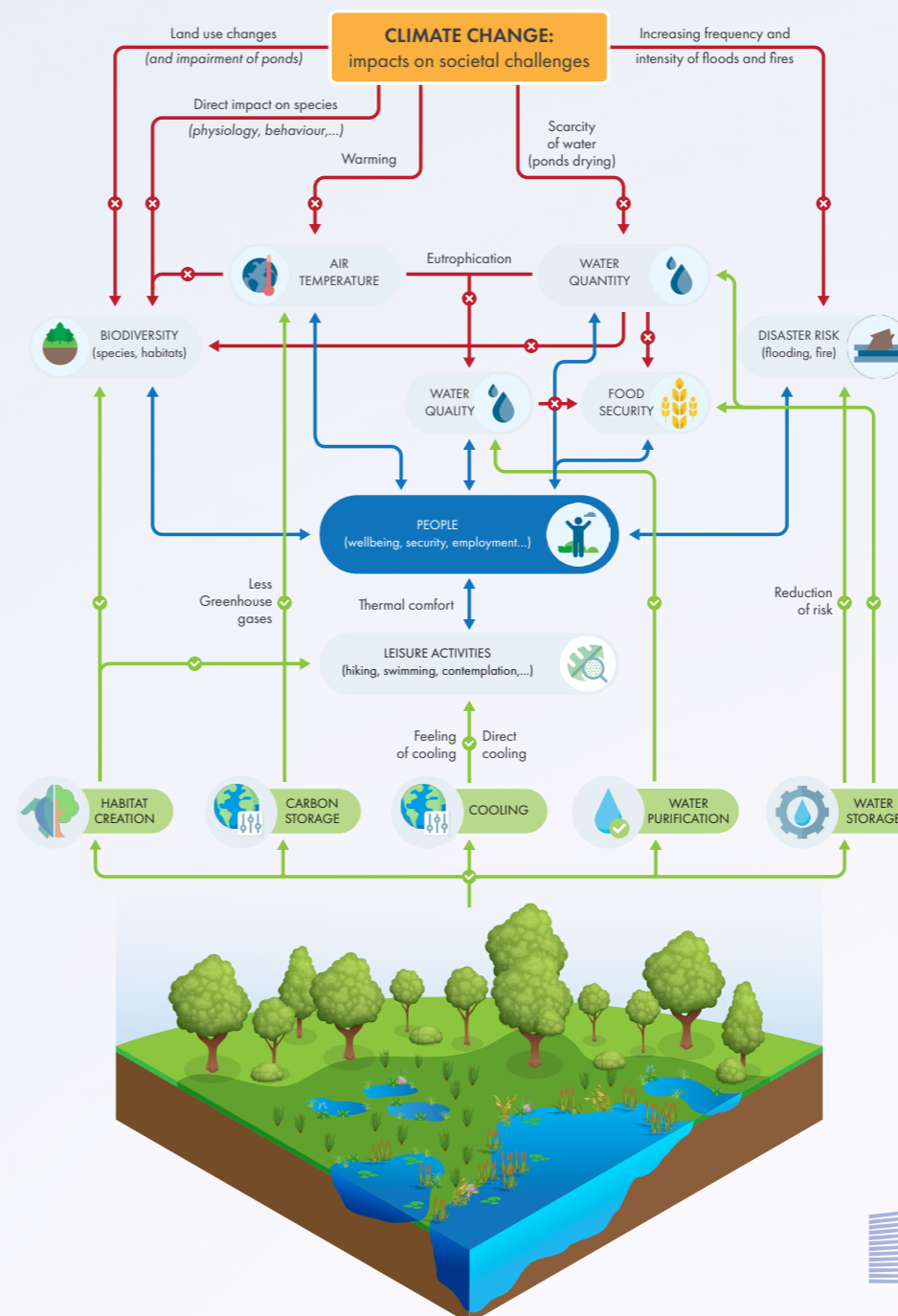
SOCIAL AND ECONOMIC DEVELOPMENT

Most ponds and pondscapes have a close relationship to society. Therefore, many socio-economic activities are developed, linked, for example, to leisure (hiking, water sports), nature experiences (wildlife-watching) or food production (fish, livestock).

SERVICES CONTRIBUTING TO CLIMATE CHANGE ADAPTATION AND MITIGATION

Ponds and pondscapes can be used to address challenges from climate change:

- Managing ponds to reduce their greenhouse gas production.
- Creating ponds to provide cooling leisure activities.
- Increasing water quality and quantity by the creation of ponds.
- Flood risk can be reduced by the creation of stormwater ponds, and fires can be fought with water stored in ponds.
- Food production benefits.
- Biodiversity will gain from the creation of all types of new ponds if they are suitably designed, are protected from pollution, and offer diversified habitats.



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This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No ID869296

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