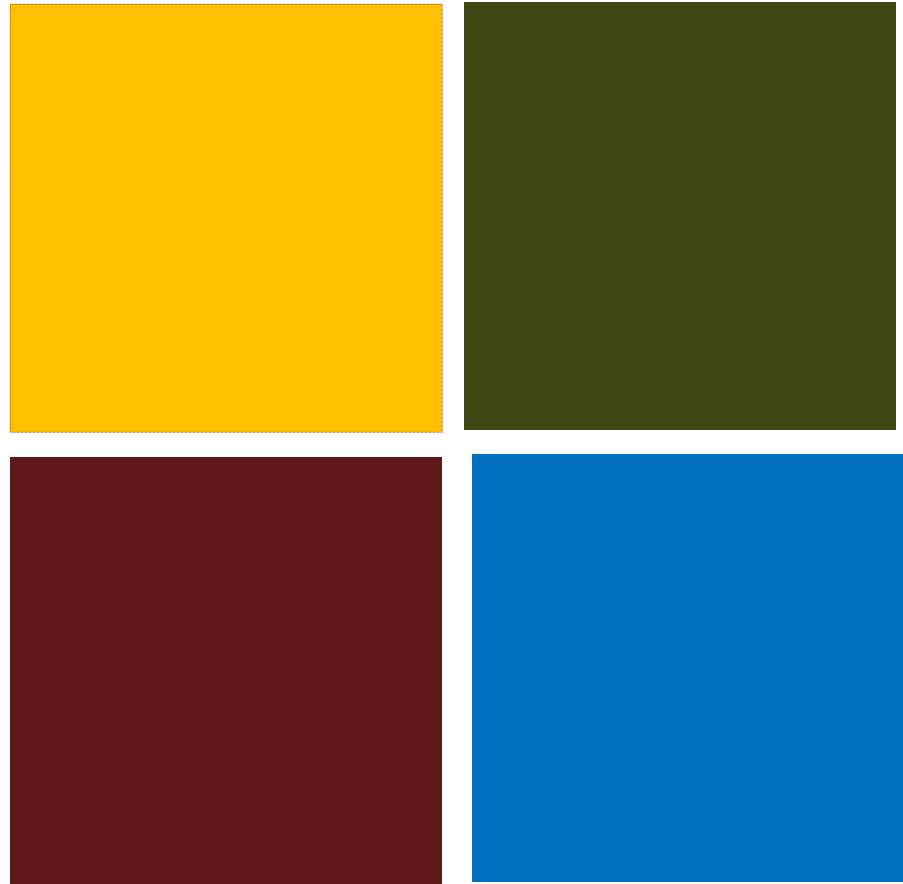




# Understanding Resilience and Nature-based Solutions (NbS)



**Regional workshop on communicating project results to different audiences**

**July 17-21, 2017  
Niamey, Niger**



**[www.sawap.net](http://www.sawap.net)**

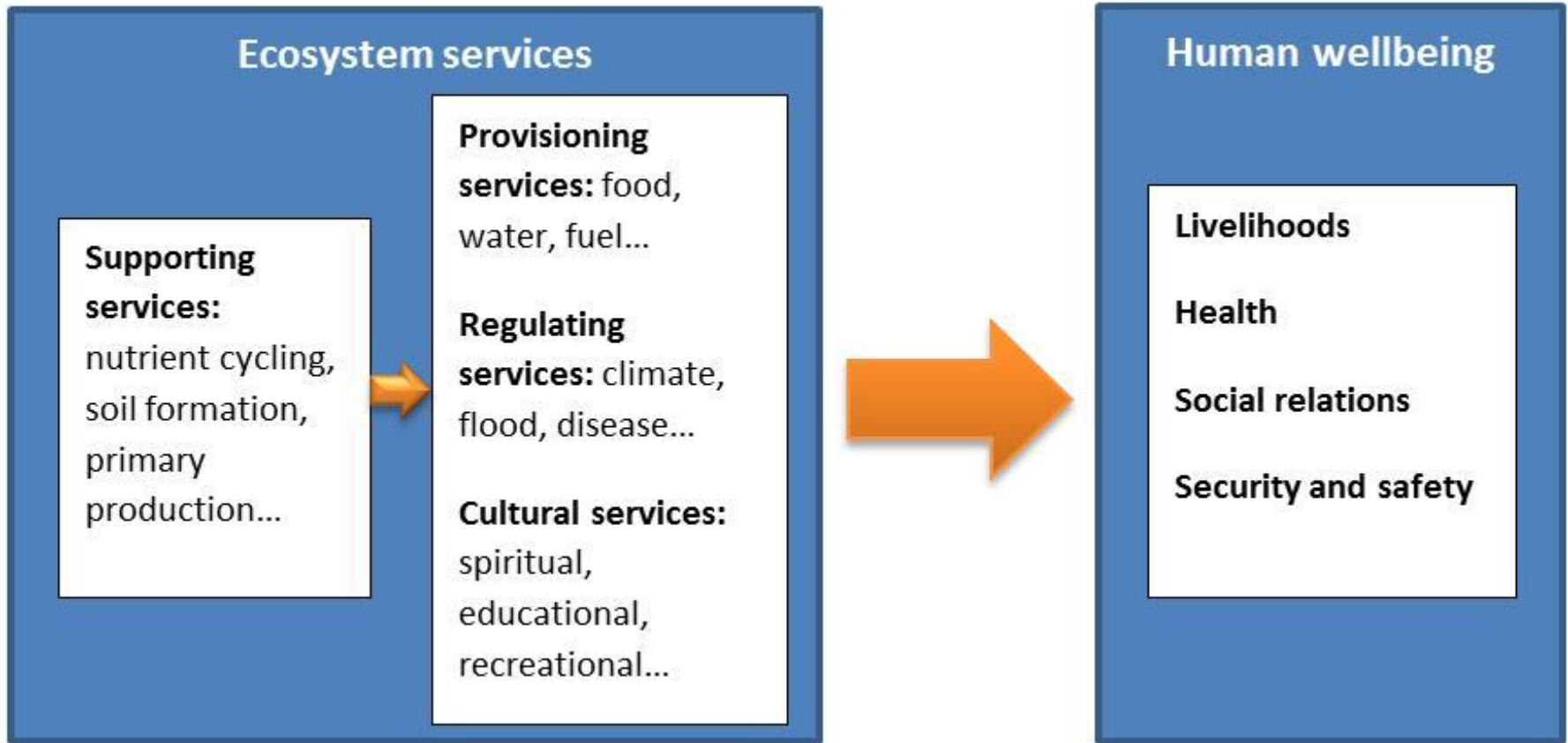


# Key points to be addressed

- Introduction
- What is resilience?
- Resilience, biodiversity and ecosystem services
- What are Nature-based solutions (NbS)?
- How do resilience and NbS relate to one another?



# + Introduction



Source: Davies, J. 2011. Conservation and Sustainable Development: linking practice and policy. Earthscan



# + Introduction

- Ecosystems are subject to natural disturbances and human-caused disturbances: floods, droughts, disease outbreaks, fires.



# + What is resilience?



- Resilience concept exist in many disciplines
- It is the **ability** of a system (ecosystem or habitat, or species or population of species) subject to disturbance to **respond to shocks and long-term stresses**: the system retain its essential structure, function, and return to its pre-disturbance state
- *Example: forest ecosystems have the ability to recover from fires because of the presence of seeds' bank within the soil or because these seeds can be transported by wind, water, or animals*

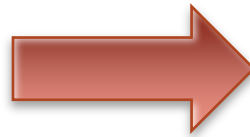


# + Resilience, biodiversity, and ecosystem services

## ■ The house of cards



**Removal or  
destruction  
of key features**



**Decreased  
resilience**



# + Resilience, biodiversity, and ecosystem services

- **How do we manage** forests, for example, for them to **resist** the shifting into a savanna through periods of extended drought or frequent fire episodes?
- What **factors** within the system allow for more rapid and more complete **recovery**?



# + What are nature-based solutions?

- Actions to **protect, manage** and **restore** natural or modified ecosystems (*living solutions*), which address societal challenges, effectively and adaptively, providing **human well-being** and biodiversity benefits.



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# Categories of Nature-based Solutions approaches

## 1. Ecosystem restoration approaches



## 2. Issue-specific ecosystem-related



## 3. Infrastructure-related approaches



## 4. Ecosystem-based management



## 5. Ecosystem protection approaches



# + How resilience and NbS relate to one another?

- Identification of the **features** that might reduce the risk of collapse or endow a system with the ability to recover from a disturbance
- Strategies and approaches of NbS **depend on biodiversity conservation** because biodiversity is a resource that allows facing climate change



# + How resilience and NbS relate to one another?


NbS provide **opportunities for adaptation to climate change**, thus **increasing resilience to risks**, such as droughts and floods, as well as **opportunities for climate mitigation through increased carbon storage**

So nature-based solutions is about managing resilience?







# Merci

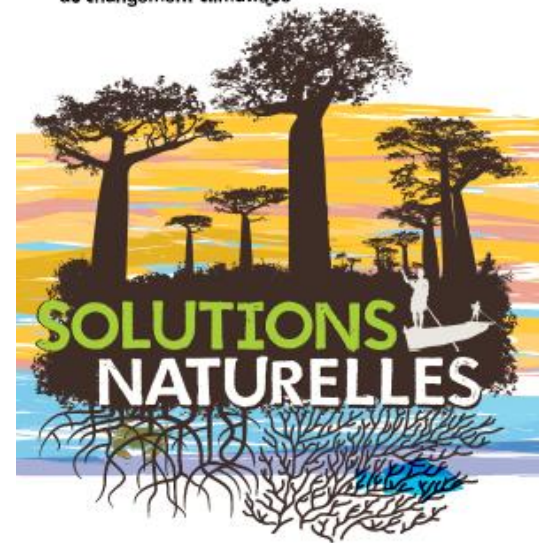


Nature-based Solutions  
to address global societal  
challenges

Editors: E Cohen-Shacham, G Walters, C Janzen,  
S Maginnis



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