

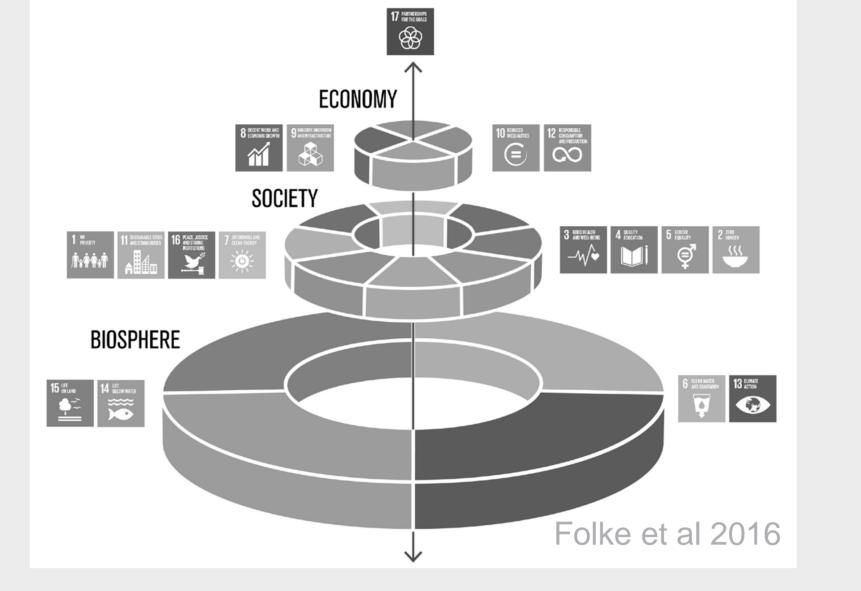
## On the role of Climate Services supporting Ecosystem Services in securing Sustainable Development Goals

Juliane Otto, Paul Bowyer, Daniela Jacob, Swantje Preuschmann, Diana Rechid

**Ecosystem Services** serve as the 'biosphere'

foundation' upon which prosperity and development ultimately rest (Folke et al 2016) and are thus key players in securing the Sustainable Development Goals (# 6,13,14,15).

However, climate change may alter the quantity, quality, and timing of Ecosystem Services. The question is how to secure the provision of Ecosystem Services under climate change?



## **Solutions by Climate Services**

**Co-developing** innovative climate service products that enable **decision makers** to **effectively adapt** the management of ecosystems to climate change.



Climate Services cover the transformation of climate-related data [...] into customised products [...] and evaluation of solutions and any other service in relation to climate that may be of use for the society at large. As such, these services include data, information and knowledge that support adaptation, mitigation and disaster risk management (European Commision 2015).

Ecosystem services are defined as the contributions that ecosystems make to human well-being; their fundamental characteristic is that they retain the link to underlying ecosystem functions, processes and structures (CICES 2013). The three main types of services are: Provisioning // Regulation // Cultural.

What are **Ecosystem Services**?

Ecosystem Services

> GOAL: Securing management and provision of Ecosystem Services under climate change

Climate

Services

## Key research & application priorities:

- Complex and nonlinear ecosystemclimate interactions can dampen or amplify climate change
- Interacting disturbance effects of climate change on ecosystems
- Resilience and adaptive capacities of ecosystems
- Finding synergies in developing adaptation strategies that also meet mitigation requirements

Selection of GERICS products for Ecosystem Services to effectively adapt their management to climate change



**GERICS Assessment reports** 

GERICS

## **GERICS** Adaptation toolkit for cities





Multi-sectoral analysis identifies areas which may be exposed to more than one negative climate impact (codeveloped with KfW).



Assessment reports transferring climate data into user tailored and easy accessible information.



Modular designed advisory tool supports cities in developing and implementing adaptation policies, considering both climate change mitigation and adaptation.

Climate Service Center Germany (GERICS) • Helmholtz-Zentrum Geesthacht • Fischertwiete 1 • 20095 Hamburg • Germany • Phone +49 (0) 40 226 338 450 • Fax +49 (0) 40 226 338 163

Contact: Juliane Otto• Email: juliane.otto@hzg.de • http://www.gerics.de

**References: CICES**: Haines-Young, R. and Potschin, M. (2013): Common International Classification of Ecosystem Services (CICES):EEA Framework Contract No EEA/IEA/09/003. // **Folke**, C., R. Biggs, A. V. Norström, B. Reyers, and J. Rockström. 2016. Social-ecological resilience and biosphere-based sustainability science. Ecology and Society 21(3):41. <a href="http://dx.doi.org/10.5751/ES-08748-210341">http://dx.doi.org/10.5751/ES-08748-210341</a> // **European Commission** (2015): A European Research and Innovation Roadmap for Climate Services. ISBN 978-92-79-44342-8, DOI:10.2777/750202,