

GRoW – Water as a Global Resource Midterm Conference

Welcome Note

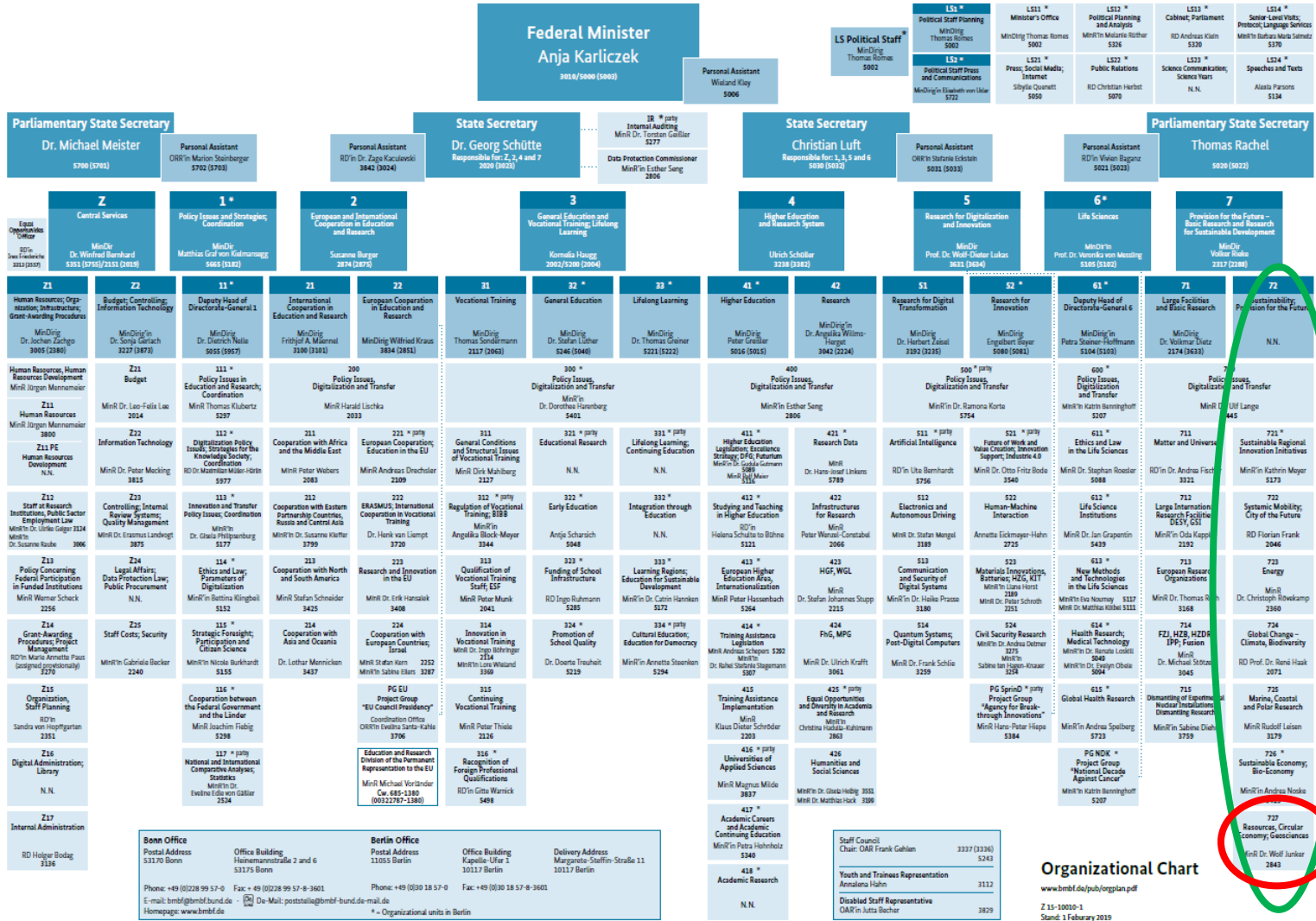
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BMBF Subdivision 72: Sustainability; Provision for the Future



FONA

Water Research

Perspectives of BMBF Water Research

Challenges:

- Worldwide increasing water demand and overexploitation of water resources
- Pollution of water resources
- Extreme weather events, climate change



Perspectives:

- Transformation towards sustainable and resilient societies
- Implementing the Sustainable Development Goals





Water as a global risk

Top 5 Global Risks in Terms of Impact

2015	2016	2017	2018	2019
Water crises	Failure of climate-change mitigation and adaptation	Weapons of mass destruction	Weapons of mass destruction	Weapons of mass destruction
Rapid and massive spread of infectious diseases	Weapons of mass destruction	Extreme weather events	Extreme weather events	Failure of climate-change mitigation and adaptation
Weapons of mass destruction	Water crises	Water crises	Natural disasters	Extreme weather events
Interstate conflict with regional consequences	Large-scale involuntary migration	Major natural disasters	Failure of climate-change mitigation and adaptation	Water crises
Failure of climate-change mitigation and adaptation	Severe energy price shock	Failure of climate-change mitigation and adaptation	Water crises	Natural disasters

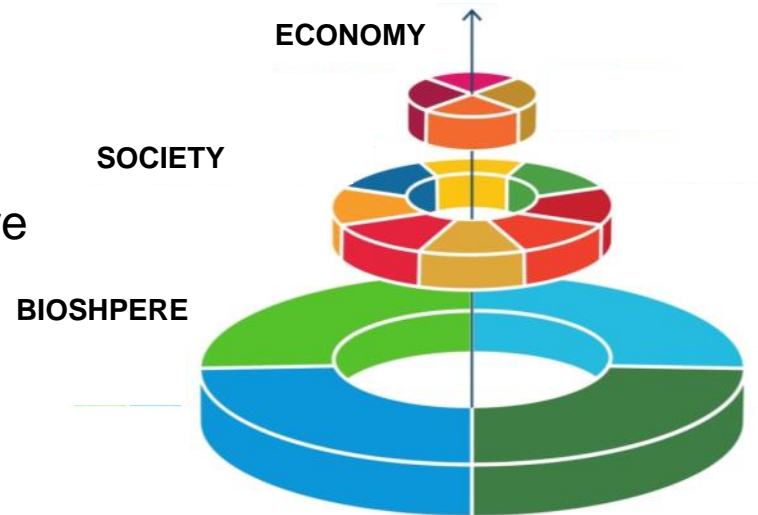
Source: World Economic Forum 2009–2019, Global Risks Reports.

UN-Sustainable Development Goals as driver for action

SDG 6: „Ensure availability and sustainable management of water and sanitation for all“



- 6.1 Safe and affordable drinking water
- 6.2 Access to sanitation and hygiene and end open defecation
- 6.3 Improve water quality, wastewater treatment and safe reuse
- 6.4 Increase water-use efficiency and ensure freshwater supplies
- 6.5 Implement integrated water resources management
- 6.6 Protect and restore water-related ecosystems



**HIGH-LEVEL POLITICAL FORUM
ON SUSTAINABLE DEVELOPMENT**

Funding Measure WavE

Future-oriented Technologies and Concepts to Increase Water Availability by Water Reuse and Desalination

- **SDG 6.3** Safe Reuse
- **SDG 6.4** Water Use Efficiency

WavE

Thematic fields:

- Water Reuse by Utilizing Treated Municipal Wastewater
- Recycling of Industrial Water
- Treatment of Saline Groundwater and Surface Water

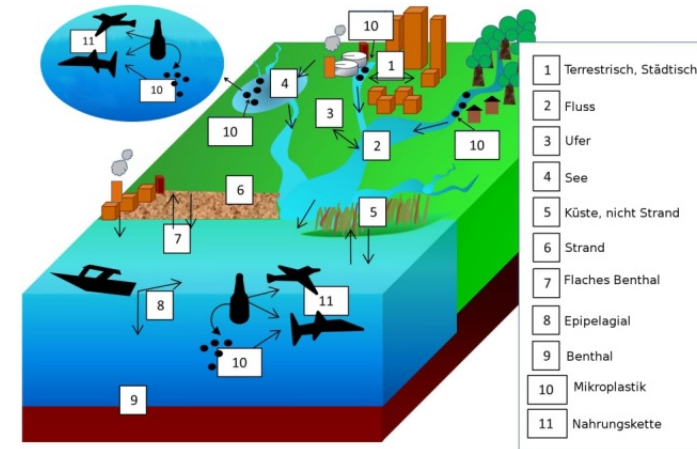


<http://www.bmbf-wave.de>

Plastics in the Environment - Sources, Sinks, Solutions

Background

- G7/G20-Action Plans on marine litter (June 2015, July 2017)
- JPI Oceans Call „Ecological Aspects of Microplastics (4 projects started in January 2016)
- **SDG 6.3** Water quality, **SDG 6.6** Protect water related ecosystems



Picture modified according to T. Hoellein et al., Plos One (2014)

Topics

1. **Green Economy** – material flows, value chains and technologies
2. **Consumption**, consumer behaviour, trade and production, governance
3. **Recycling technologies**
4. Entry routes, transport, degradation and fate in **freshwater systems**
5. **Seas and oceans** as sink and accumulation area

Integrated Water Resources Management

From Research to Implementation



- **SDG 6.5** Implement integrated water resources management
- Consideration of the whole catchment area
- Focus on the interlinkages between water, land, energy and other resources
- Integration of ecological, economical and social goals
- Improved access to safe drinking water and sanitation systems

17 joint projects, 113 German partners, 130 international partners, since 2006



IWRM - Outreach

Team from IWRM SMART / NICE receives highest environmental prize in Germany for work on wastewater management in Jordan in 2018



Source: https://www.flickr.com/photos/d_b_u/44698966915/in/album-72157701382391311

BMBF CLIENT II Program

„International Partnerships for Sustainable Solutions”

The CLIENT II strategy:

- aims to support international partnership in the areas of **climate, environment and energy**
- funds joint research and development (R&D) projects carried out by research institutions, industry and local authorities/stakeholders and practice partners
- supports demand-oriented research and development projects in emerging countries / developing countries
- CLIENT II requires the participation of the funding bodies (e.g. ministries) of our partner countries
- **Next deadline: 31.05.2019**



BMBF CLIENT II Program

Target Regions

- **Resource efficiency and sustainable resource technologies**
South America, Kazakhstan, Mongolia, Vietnam
- **Water management**
China
- **Climate protection / energy efficiency**
Southern + Western Africa, Central Asia, Vietnam, Jordan, Morocco
- **Adaptation to climate change**
Southern + Western Africa, Central Asia, Vietnam, Jordan, Morocco
- **Land management**
Southern + Western Africa, Central Asia, Vietnam, Jordan, Morocco
- **Sustainable energy systems**
South Africa, Egypt, Nigeria, Iran, Algeria, Ghana, Morocco
- **Natural hazards**
South America, Central Asia

Strategic Processes

Round Table of the German Government on „Internationalization of Education, Science and Research“:

- Current theme “Perspectives in Africa”
- Working group on water issues with 7 German ministries (BMBF, AA, BMZ, BMWI, BMEL, BMU, BMVI) and associated partners

„Water Science for Sustainability - WASSER:N“

- New research program of the Federal Government under preparation
- To be established across ministries and sectors
- Agenda process to identify demands for research and innovation
- Concerted actions regarding national, European and international challenges in water research

Let's look forward to
an inspiring
conference!

