## **Bodies of water** DBU-Funding information – Funding subject 10





## Funding subject 10: Integrated concepts and measures for protection and management of groundwater and surface waters management

Substance inputs from point sources, as well as diffuse inputs, degrade the quality of surface waters and groundwater bodies. Changes in the hydromorphology of water bodies have led to structural impoverishment and resulting in a loss of typical aquatic habitats, biodiversity and ecosystem services. To protect surface waters and groundwater bodies, integrated considerations of the catchment areas of selected waters are essential as a system-oriented approach. Material flow models, decision support systems, and concrete measures to reduce anthropogenic influences and to optimize water bodies structurally in urban and rural areas can contribute to a solution. Interdisciplinary basic-, advanced- and further training concepts serve to optimize the provision and transmission of information as well as the development of specialized skills.

Project aims are the improvement of water quality and ecological water status.

### In particular, the following measures are eligible:

- Integrated approaches for river basins or sub-basins to improve the water quality and to maintain ecosystem services through decision-making tool systems, further development of material flow models, and the integration of innovative, adapted technologies for waste water treatment and interdisciplinary information and consultation
- Development of exemplary measures that ecologically enhance bodies of water and floodplains
- Development and exemplary implementation of practical, integrated concepts that relieve the burden on water systems through water reuse and reuse of potential energy and materials in residential areas
- Development and exemplary implementation of measures and concepts of dynamic flood protection
- Development and testing of exemplary measures for the education, qualification and involvement of relevant stakeholders

• Projects with a special focus on children and young people that address the main aspects of integrated water conservation in an innovative and exemplary manner in relevant areas of education



#### DBU-funding – competent and service-oriented

The Deutsche Bundesstiftung Umwelt (DBU) can look back on more than 25 years of funding. The foundation has a broad wealth of experience and professional expertise in various fields. In its work, the DBU can rely on a broad network of experts working as honorary consultants.

The DBU is independent and neutral from any political party. When submitting an application, only the technical quality and the innovative content of the application are important. The DBU offers its applicants competent, result-oriented advice and individual support by a highly qualified, interdisciplinary team. The internal assessment of the projects and the external evaluation lead to a further development and qualification of the project proposal.

The DBU accompanies project partners from the project outline to implementation and provides support in finance and expertise.

DBU-partners of particularly successful projects are also supported in the dissemination of their project results by appropriate communication measures (trade fairs, exhibitions, events, publications, press work).

## From outline to funding

online submission of the project outline

assessment by the project group

contents + goals

costs + financing

applicant + cooperation partner

if assessment is positive

## call for application

supplementary information

expert appraisals

information

decision by the DBU-Secretary General or the DBU-Board of Trustees

letter of approval

#### if assessment is positive

#### First steps in a project outline

The DBU is interested in receiving innovative, exemplary project outlines that contribute to the protection and management of waters.

Initially, it should be clarified:

- Does the project idea fit the support subject?
- Does the project involve at least one or more solution approaches?

If this is the case, the following criteria should be considered when preparing a project outline:

- The addressed problem of water protection and water management is of supraregional importance.
- The project produces the expectation of a concrete contribution to the solution for the problem described.

- The solution approach is developed in a practical manner and is examined for strengths and weaknesses.
- The solution approach can be multiplied and the proposed measures and methods are particularly promising for this aspect.
- The special unique selling point of the project in terms of technical significance and/or innovation is named.

If these criteria apply, interdisciplinary and systemic project approaches are of particular importance to the DBU.

You can submit your detailed project outline online www.dbu.de/antragstellung

## **Exemplary DBU-funded projects**

The following projects show an excerpt from the thematic range of funding subject 10 and specify the implementation in the fields of action mentioned on page 1. Further information on the projects can be found at **www.dbu.de** 

#### Material flow model for pharmaceuticals (AZ 32446)

In the course of the discussion about the so-called »fourth treatment stage« on sewage treatment plants, the question arises as to the effectiveness of strategies to avoid substance deposits at the source. Together with three operators of urban drainage systems (Dresden, Chemnitz, Plauen) and with the participation of scientists, the Institute for Urban and Industrial Water Management at the Technical University of Dresden is developing a material flow model to describe the deposit of micropollutants into surface waters. The model depicts the resulting emissions into the water bodies both from the wastewater treatment plant effluent and from mixed water discharges. The aim is to develop an action plan for the reduction of substance discharge into the water and a communications strategy. Information from the material flow model and water data on priority hazardous substances are used for the preparation of the action guideline. https://tu-dresden.de/bu/umwelt/hydro/isi



#### Perspective: the living lower Ems (AZ 28289)

As a result of decades of deepening and grading of the lower Ems river between Papenburg and Emden, the ecological situation of the river which once held the largest number of fish in Germany has deteriorated massively. Typical natural river habitats were lost on a large scale. Due to a lack of oxygen, fish cannot live in the river for many months of the year. As part of the project »Perspective: Living Lower Ems«, BUND (»Bund für Umwelt und Naturschutz«, the German branch of Friends of the Earth) of Lower Saxony, NABU (Naturschutz Bund Deutschland) of Lower Saxony and WWF Germany, in cooperation with the Technical University of Berlin and in dialogue with local actors, have developed various scenarios and renaturation concepts for the lower Ems that are close to implementation. On this basis, the project partners have developed a master plan for the Ems. The plan was the impetus and basis for the »Ems 2050 Master Plan«, which is to reconcile the ecology and economy in and on the Ems. www.wwf.de/ themen-projekte/projektregionen/ems/lebendige-unterems



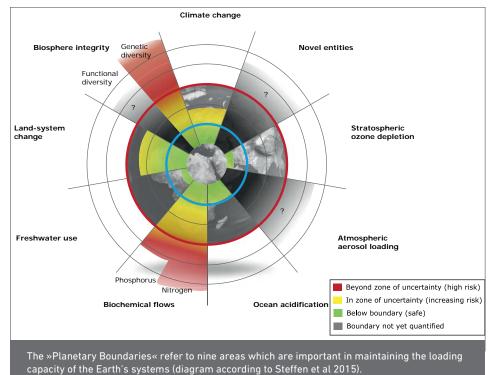
## Flood prevention - a contribution to climate-adapted urban development (AZ 32372)

Urban areas are particularly susceptible to the effects of extreme weather conditions and urban climate change. For the improved management of flooding situations as well as for the institutionalization of water-related and climate-sensitive urban development, meaningful citywide information on the effects of extreme rain events is required. Based on the experiences of the project »KLimaAnpassungsStrategie Extreme Regenereignisse« (KLAS), Dr. Pecher AG (Erkrath) is developing new instruments for a simplified, city-wide information system for the Hanseatic City of Bremen in a cooperative project with the municipality, hanseWasser Bremen and the University of Applied Sciences of Bremen. A methodology for flood testing with 2D modeling and for GIS-based provision of analysis results for urban planning processes is being developed. It should be used for intermunicipal exchange and broad-based public relations work. www.klas-bremen.de



# DBU – We promote innovations

The Deutsche Bundesstiftung Umwelt (DBU) supports innovative, exemplary and solution-oriented projects for the protection of the environment in accordance with the foundation's mission statement, with special consideration for the mid-sized business sphere. Funded projects should achieve sustainable effects in practice, provide impulses, and have a multiplier effect. It is important to the DBU to contribute, in particular, to solving current environmental problems which result from unsustainable economic practices and ways of life in our society. The DBU sees key challenges above all in climate change, biodiversity loss, the unsustainable use of resources, and harmful emissions. The funding subjects thus tie in with both current scientific findings on »planetary boundaries« and with the Sustainable Development Goals adopted by the UN. Especially with



regard to biological diversity (biosphere integrity) and the disruption of the nutrient cycles of nitrogen and phosphorus (biochemical flows), the planetary boundaries have been far exceeded. Humanity has therefore moved a long way from any safe operating space, and is now exposed to a high risk of negative ecological, economic and social consequences. Mankind has also already moved into the danger zone in terms of land-system change and climate change.



Deutsche Bundesstiftung Umwelt

#### Your contact persons for the funding topic

Your project outlines are worked on in an interdisciplinary project group:

Dr. Maximilian Hempel (project group management) phone +49541/9633-301, e-mail: m.hempel@dbu.de

Dr. Alexander Bittner phone +49541/9633-431, e-mail: a.bittner@dbu.de

Dr. Lili Hofmann phone +49541/9633-303, e-mail: l.hofmann@dbu.de

Dr. Hans-Christian Schäfer phone +49541/9633-321, e-mail: hc.schaefer@dbu.de

Dr. Reinhard Stock phone +49541/9633-331, e-mail: r.stock@dbu.de

Dr. Volker Wachendörfer phone +49541/9633-333, e-mail: v.wachendoerfer@dbu.de

Further information is available at www.dbu.de

#### We promote innovations

Deutsche Bundesstiftung Umwelt Postfach 1705, 49007 Osnabrück An der Bornau 2, 49090 Osnabrück phone +49541/9633-0 fax +49541/9633-190 **www.dbu.de** 



Imprint

Publisher: Deutsche Bundesstiftung Umwelt (DBU), An der Bornau 2, 49090 Osnabrück, phone +49541/9633-0, fax +49541/9633-190, www.dbu.de//Editor: Ulf Jacob// Responsible: Prof. Dr. Markus Große Ophoff//Design: Helga Kuhn//Photo credits: p. 3. top: © Vasily Merkushev -Fotolia, p.3 middle: © Thaut Images - Fotolia, p.3 bottom: Marike Boekhoff NABU WWF, alle anderen Fotos: DBU

2020