

# UNEP-DHI Centre on Water and Environment

Science-based tools for water, environment and climate action across the globe



## Modelling nature-based solutions for resilience in Juba-Shabelle basin

Somalia has been experiencing more frequent and severe floods, with environmental degradation being considered one of the main contributors to this change. To better understand the potential of Nature-based solutions (NbS) to mitigate these risks in the Juba-Shabelle River basin, the Sustainable Flood Management and Risk Reduction Action project analyzed NbS measures such as reforestation, terracing, and sand dams in mitigating flash floods in ephemeral wadis of Somalia. For riverine floods, sediment transport impacts of vegetated gabions, embankment revegetation, and gully rehabilitation were also explored. The assessment results will support the National Flood and Drought Task Force of Somalia in planning future flood and drought interventions in the basin.

[More on NbS research findings](#)

An estimated 70-80 percent of marine plastics originates on land, and rivers are major pathways for their transport to the ocean. Working with the UNEP Freshwater and Wetlands Unit and the Global Partnership on Marine Litter (GPML), the UNEP-DHI team has developed a risk and warning system for macroplastic litter, considering these source-to-sea connections. Drawing on DHI's state-of-the-art hydrological forecasting model, coupled with data on mismanaged waste, the early warning system can help understand where the macroplastic originates, where the current hotspots are, and how these may change in the next 9 months.

[More on the initiative](#)



## Global early warning system for monitoring macroplastic litter in rivers

### Free online courses

A variety of open access online courses, developed with our partners Global Water Partnership (GWP) and UNDP Cap-Net, are available via the UNEP-DHI Centre website. Recently launched courses include Training of Facilitators Course on SDG 6.5.1, SDG 6.5.1 IWRM Action Planning, IWRM for climate resilience, and Water Pollution Management to achieve SDG target 6.3.

[Find the right course for you](#)



Drawing on the wealth of data from the global reporting on Sustainable Development Goal indicator 6.5.1 (implementation of IWRM), a study on “Advancing towards gender mainstreaming in water resources management” was carried out in partnership with GWP. It takes a closer look at how countries have advanced women’s participation in water resources management. Interviews with country focal points supplement data from the official SDG reporting, underlining major gaps between policy and practice in gender mainstreaming. The resulting report showcases how countries have advanced gender parity in water resources management and decision-making, and identifies 7 key enablers for upscaling these experiences.

[Download full report](#)



## Mainstreaming gender in water resources management



## Match with technology solution providers to address your water challenges

Floods, droughts, pollution, sea level rise, increased climate change risks: many of us are aware of the world’s numerous water management challenges, but few of us know of the growing number of technological solutions to address them. The Match! Water Solutions Portal is a free tool that facilitates matchmaking between water managers and water technology solution providers around the globe. Explore solutions or add your company details to become a solution provider.

[Visit Match!](#)



## SDG 6 IWRM Support Programme for action on SDG6

UNEP, UNEP-DHI, GWP and UNDP Cap-Net are continuing to implement the global SDG 6 IWRM Support Programme. The Support Programme assists governments in designing and implementing country-led responses to advance sustainable and integrated water resources management. Since 2017, the Support Programme has been instrumental in assisting countries to undertake their official SDG 6.5.1 reporting and monitoring. Bringing together partners representing governments, civil society, academia, and the private sector, the programme is currently supporting IWRM Action Planning and resource mobilization for IWRM in more than 30 countries.

[Learn more about the SDG 6 IWRM Support Programme](#)

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### Key Resources

[Match!](#)

[www.unepdhi.org](http://www.unepdhi.org)

[IWRM Data Portal](#)