The importance of water risk assessments to improve business performance and sustainability.

Isabel Meza
WWF Water Risk Filter Officer

Water risk as a starting point

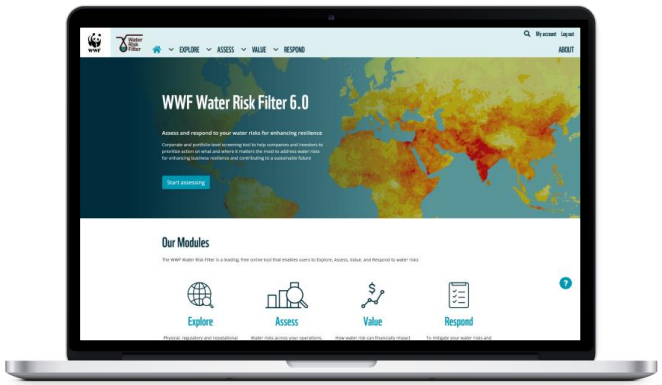
*"**Water Stewardship** is the use of water that is:*

1. ***socially and culturally equitable,***
2. ***environmentally sustainable** and*
3. ***economically beneficial***

achieved through a stakeholder-inclusive process that involves site-and catchment-based actions."

Alliance for Water Stewardship (2019)

Water stewardship is a progressive journey: from risk to opportunities



5 POSITIVELY INFLUENCE GOVERNANCE
Companies support governments and governance arrangements to ensure sustainable use of water resources at the basin level.

4 COLLECTIVE ACTION
Companies work with peers, NGOs, communities and the public sector in localized collective action to address issues and create value.

3 INTERNAL ACTION
Companies take action to optimize internal water governance, improve water efficiency and reduce pollution to mitigate water risks.

2 KNOWLEDGE OF IMPACTS & DEPENDENCIES
Companies understand where water is material in their value chain and have a detailed understanding of their impacts, dependencies and risks.

1 WATER AWARENESS
Companies, their suppliers and customers have a high level understanding of the global water challenges.

Purpose strategy

Value strategy

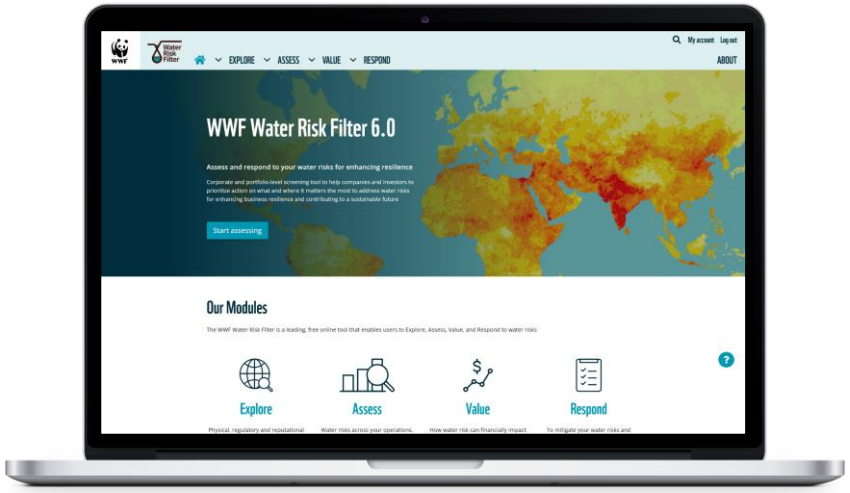
Risk strategy

Efficiency strategy

No strategy

WWF Water Risk Filter: Corporate-level screening & prioritisation tool

The WWF Water Risk Filter is a **corporate and portfolio-level screening tool** to enable companies and investors to identify water risks facing their operations, value chain and investments both **now and in the future**.



The outputs from the tool can help inform companies' water stewardship strategies and contextual water targets.

IMPORTANT: The tool is not designed for detailed local level risk assessment or to be used at singular site-level

https://waterriskfilter.org/

Users of the WWF Water Risk Filter: WWF Corporate Partners

Water Risk Filter: Risk Assessment Framework

i.e., the nature of your basin – contextual water status & other users

Input
site geolocation

Basin

WATER RISK

Operational

i.e., the nature of your business & your operational practices

Input
site operational data

e.g. scarcity, flood, quality ecosystem service status	**Physical Risk**	*e.g. importance of water, withdrawals, discharge, energy, treatment requirements*
e.g. water policies, corruption, management instruments, infrastructure	**Regulatory Risk**	*e.g. regulatory changes, compliance, penalties*
e.g. biodiversity importance, media scrutiny, conflict	**Reputational Risk**	*e.g. media exposure, relative water use, brand recognition*

See the Water Risk Filter Methodology

Water Risk Filter Scenarios

In line with the Task Force on Climate-related Financial Disclosure (TCFD) recommendations, the scenarios dataset is based on a combination of the most relevant climate scenarios (IPCC CMIP5 Representative Concentration Pathways – RCP)-and socio-economic scenarios (IIASA Shared Socioeconomic Pathways – SSP)

Overview of the ensemble projections used in the WRF scenarios

Risk type	Risk category	Ensemble Projection	Source
Physical Risk	1 - Water Scarcity	Water Scarcity Water Scarcity	IIASA Water Program Water Scarcity Atlas
	2 - Flooding	Return period of 100-year flood discharge	The University of Tokyo
	3 - Water Quality	N, P and BOD loading	IFPRI (CGIAR)
	4 - Ecosystem Services Status	Environmental Flow Future Hydropower Reservoirs and Dams	NIES Japan Global Dam Watch
Regulatory Risk	5 - Enabling Environment	Extended narratives towards water availability	IIASA Water Program
	6 - Institutions & Governance		
	7 - Management Instruments	Hydro-Economic classification (Water Scarcity & GDP)	IIASA Water Program & IIASA World Population Program
	8 - Infrastructure & Finance		
Reputational Risk	9 - Cultural Importance	Not available	-
	10 - Biodiversity Importance	Amphibians species richness	SBiK-F
	11 - Media Scrutiny	Not available	-
	12 - Conflict	Hydro-political issues	EC JRC

Overview of the narratives in the WRF scenarios pathways

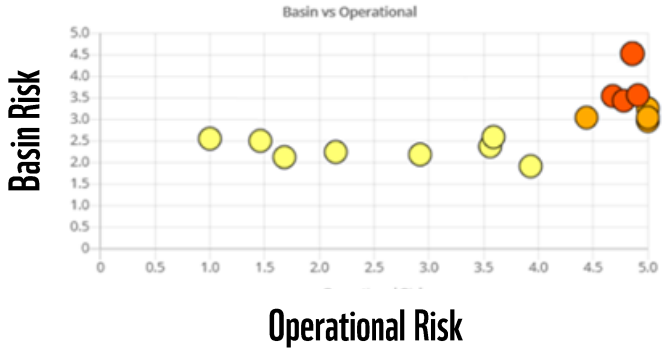
Optimistic scenarios	Current trend scenarios	Pessimistic scenarios
The optimistic scenarios represent a world with sustainable socio-economic development (SSP1) and ambitious reduction of GHG emissions (RCP2.6 /RCP4.5), leading to an increase of global mean surface temperature of approximately 1.5°C by the end of the 21st century.*	The current trend scenarios represent a world similar to current socio-economic development trends (SSP2) and intermediate GHG emission levels (RCP4.5 /RCP6.0), leading to an increase of global mean surface temperature of approximately 2°C by the end of the 21st century.*	The pessimistic scenarios represent a world with unequal and unstable socio-economic development (SSP3) and high GHG emission levels (RCP6.0 /RCP8.5), leading to an increase of global mean surface temperature of approximately 3.5°C by the end of the 21st century.*

See the Water Risk Filter Methodology

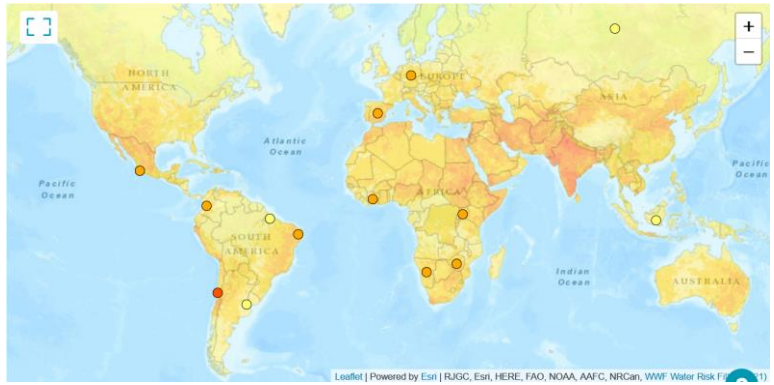
Water Risk Filter: Assess – Analyse Risk

Risk Chart

Portfolio Matrix



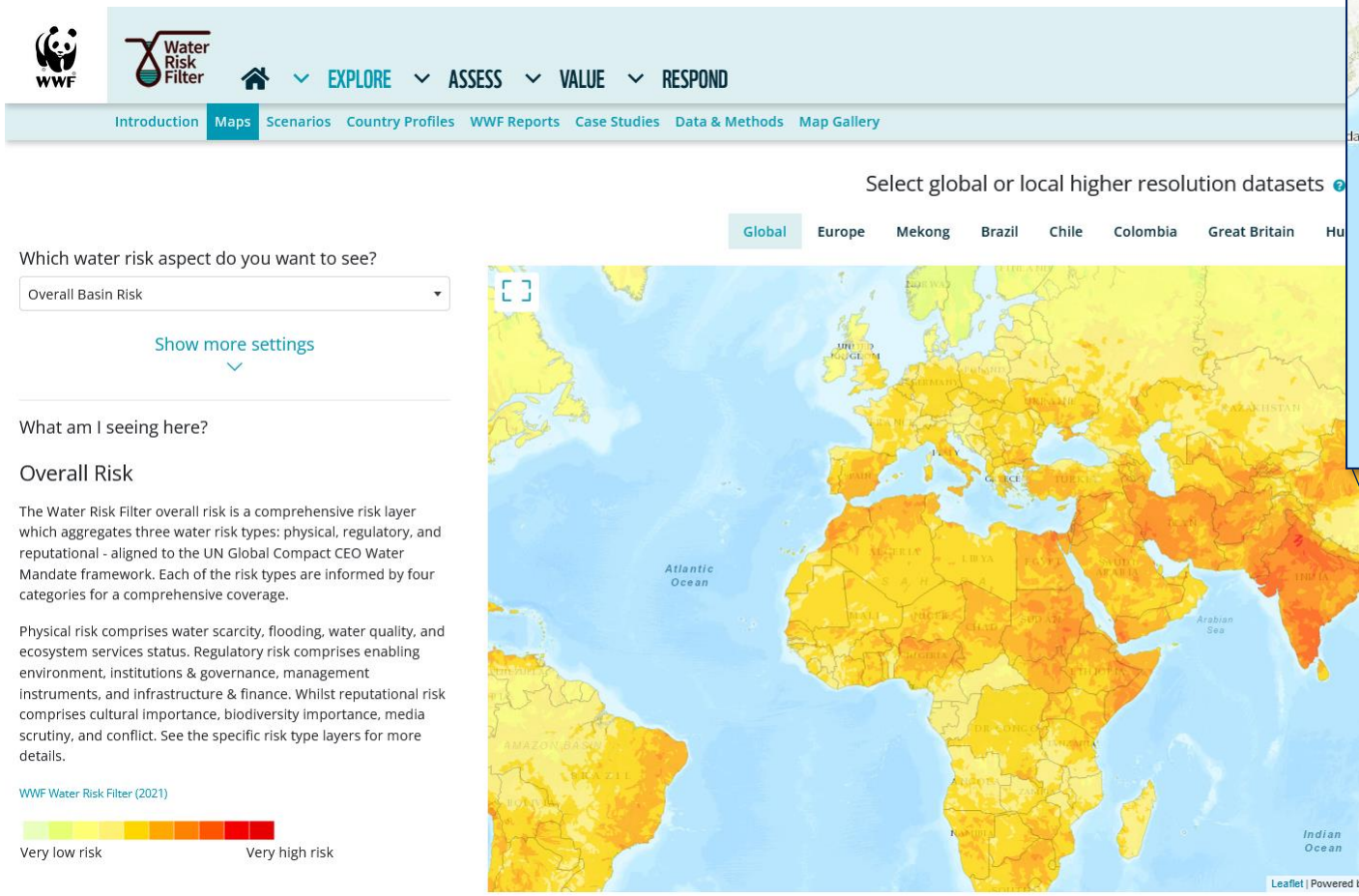
Maps

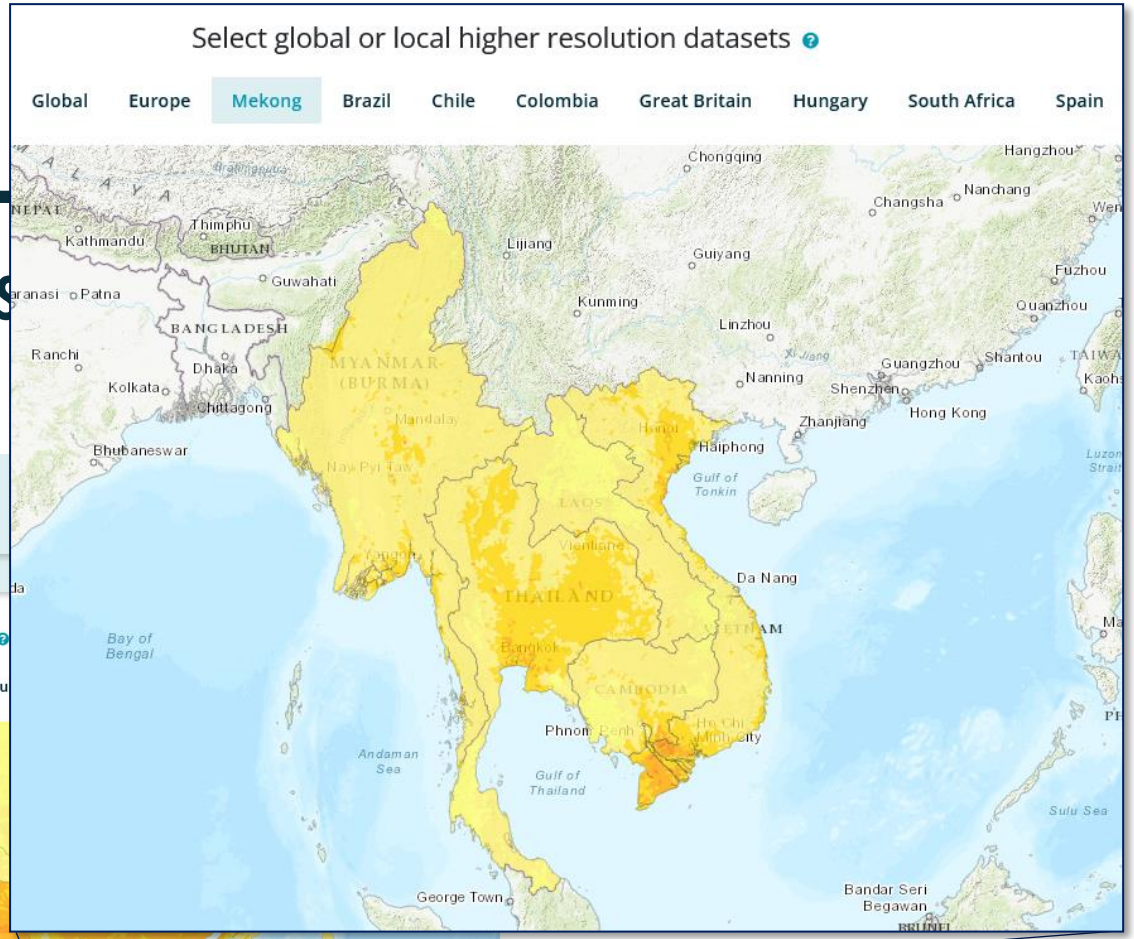


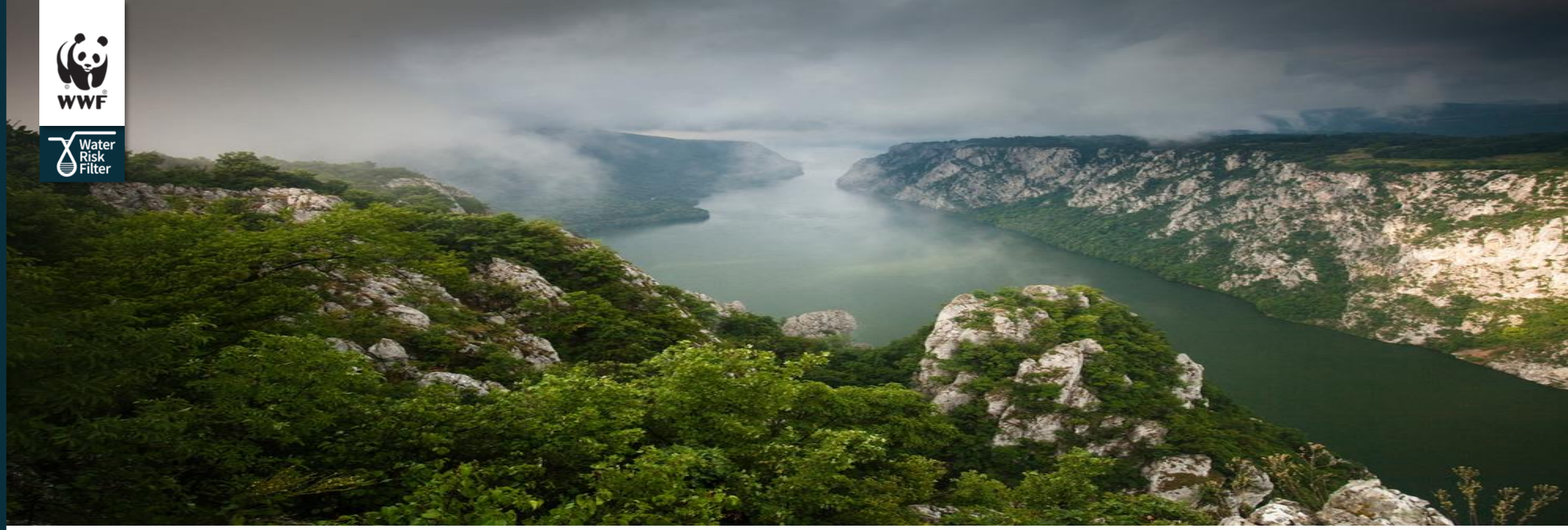
Identify water risk hotspots across operations and supply chains using free online tool

Assess Basin Water Risk

From global data sets to local high res

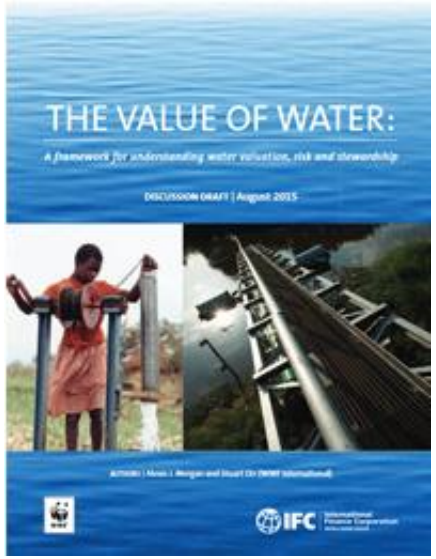






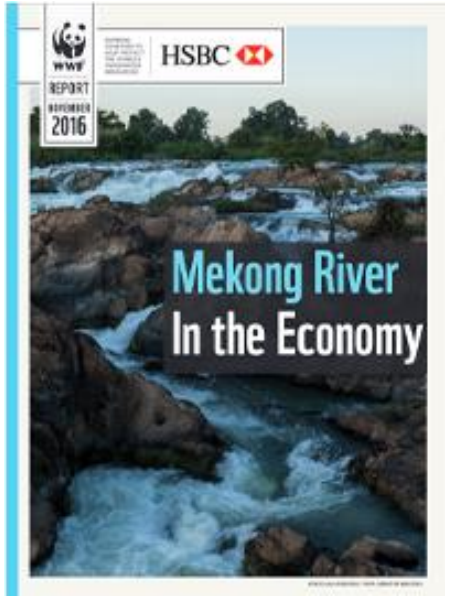
WWF WRF resources

WWF Reports on the value of water



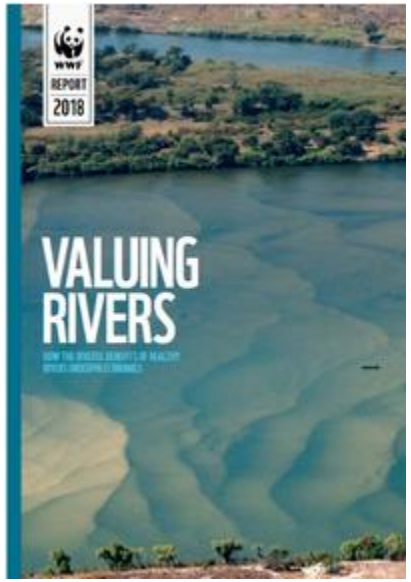
2015

A framework for understanding water valuation, risk and stewardship



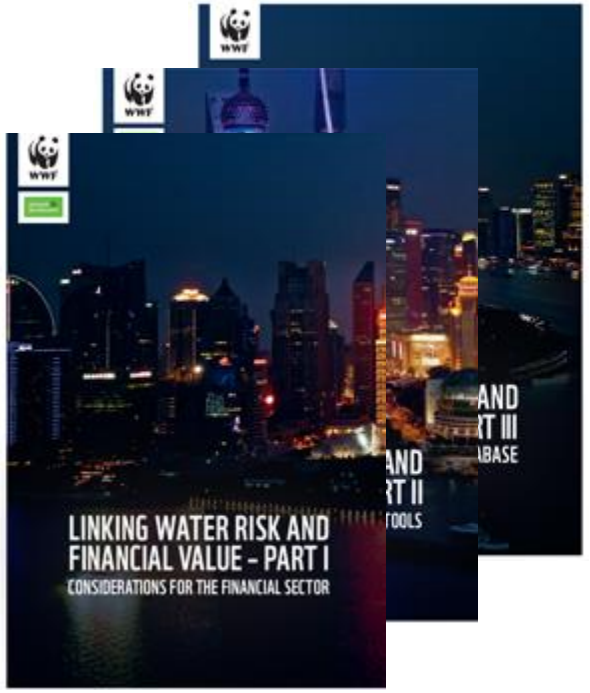
2016

River in the economy reports



2018

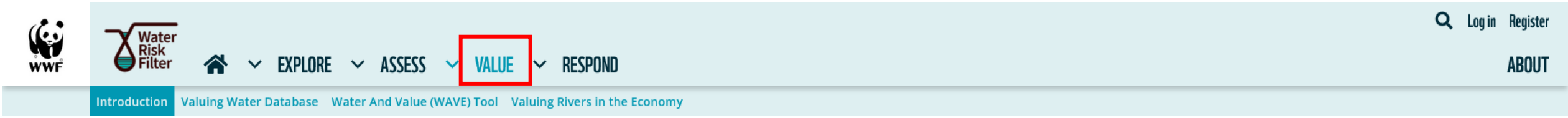
How the diverse benefits of healthy rivers underpin economies



2020

How the diverse benefits of healthy rivers underpin economies

WWF WRF Value Section



Valuing Water Database

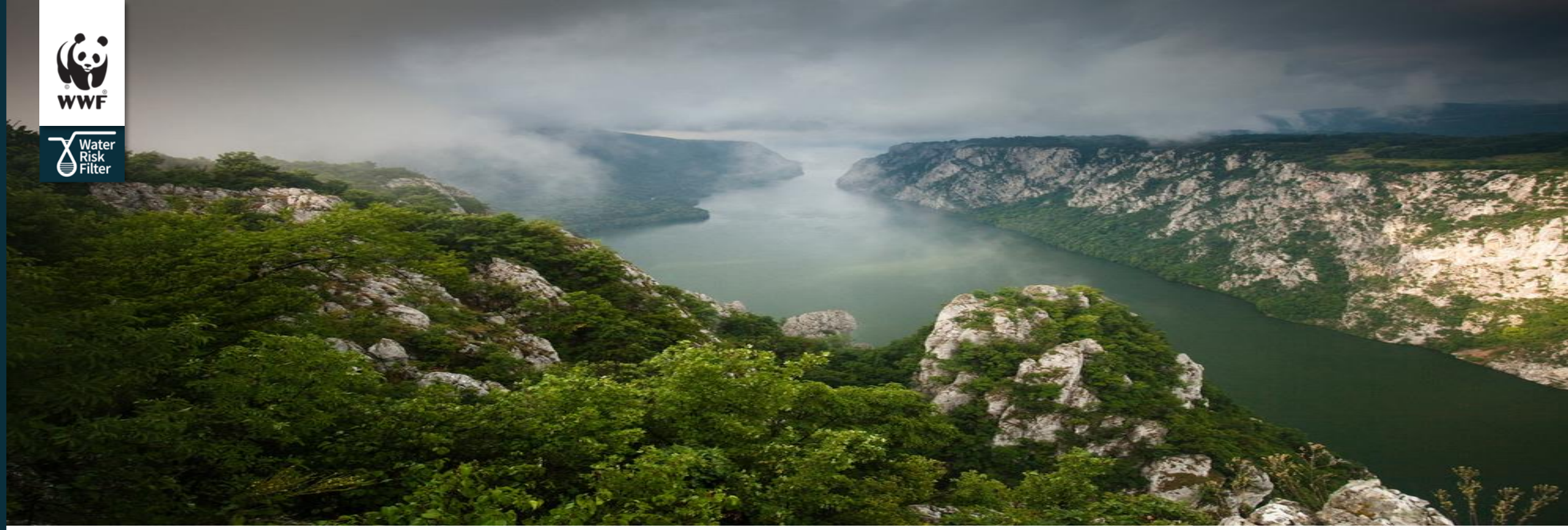
Covering over 100+ tools and approaches, the Valuing Water Database will help you navigate through to identify the best one for your needs

Water And ValuE (WAVE)

WWF is in the process of developing a new valuation tool to help analyse how water risk can affect financial statements – stay tuned!

Valuing Rivers in the Economy

Learn about how river ecosystems are central to global economies – from risk mitigation to value creation



Case studies

Water Risk Filter – EDEKA Case Study

- As a first step in EDEKA's water stewardship work with WWF, the Water Risk Filter was used to assess **water risks at a global scale** across their supply chain

- EDEKA conducted a **finer scale assessment** using the Water Risk Filter **high resolution data sets for Spain** which helped them better identify risks and shared challenges to support their project with Spanish Citrus farmers and implementation of AWS Standard

- Results of the risk assessment helped them identify their water risk hotspots and develop systematic approaches to monitor and address these risks

https://waterriskfilter.org/explore/casestudies

WWF WATER RISK FILTER & EDEKA GROUP

WHY WATER MATTERS TO FOOD RETAIL COMPANIES?

Around 70% of the world's freshwater is used for agricultural production. Furthermore, the vast majority of the disruptions to global biogeochemical (i.e. nutrient) cycles stem from fertilizer use to increase crop production.

The world's water challenges are, to a large extent the world's sustainable food production challenges.

Recognizing this, many of the world's largest food, beverage and retail companies have started to engage their supply chains in an effort to mitigate their biggest water risks.

ASSESSING WATER RISK AT GLOBAL SCALE

Businesses around the world face diverse physical, regulatory and reputational water risks. The WWF Water Risk Filter contains a total of 32 global basin risk indicators to enable a comprehensive assessment of all three risk types.

EDEKA and WWF have co-developed a unique customized version of the Water Risk Filter tool: the EDEKA Water Risk Tool. Since its launch in 2018, 20 of EDEKA's suppliers, accounting for almost 300 farms, have analyzed their water risks based on location and product specific information. Based on their identified water risk, they are encouraged to provided evidence of appropriate mitigation measures. The tool will be rolled out gradually to fruit and vegetable suppliers, followed by suppliers from other product areas.

WWF & EDEKA GROUP PARTNERSHIP: HOW IT ALL STARTED

The starting point for any company with a significant agricultural commodity supply chain such as EDEKA's is to engage in a water risk assessment.

Therefore when EDEKA's water stewardship work with WWF started in 2012, the WWF Water Risk Filter tool was used to assess water risks at a global scale across their supply chain. More specifically, the physical, regulatory and reputational water risks for over 2.300 own brand products were analyzed.

"The EDEKA Water Risk Tool helps us to identify suppliers in regions with particularly high water risks, which are supported by the Water Partners Program, in the implementation of measures to reduce these risks, including training and certification."

– Rolf Lange, Head of Corporate Communications EDEKA AG

Case Study: From Risk Assessment to Targets with H&M Group

H&M Group

Leveraging outputs of Water Risk Filter (WRF) to inform contextual water targets for 1,100 H&M Group suppliers

1. **Evaluate:** WRF indicated used as proxy values to evaluate the Current State, Dependencies and Impact/Influence
2. **Structure:** WWF & H&M Group developed a matrix structure for targets and goals
3. **Validate:** Results shared with regional H&M Group managers for validation
4. **Agree:** Refinement on targets
5. **Roll up:** Each level of targets has an assigned delivery data to monitor and report against progress

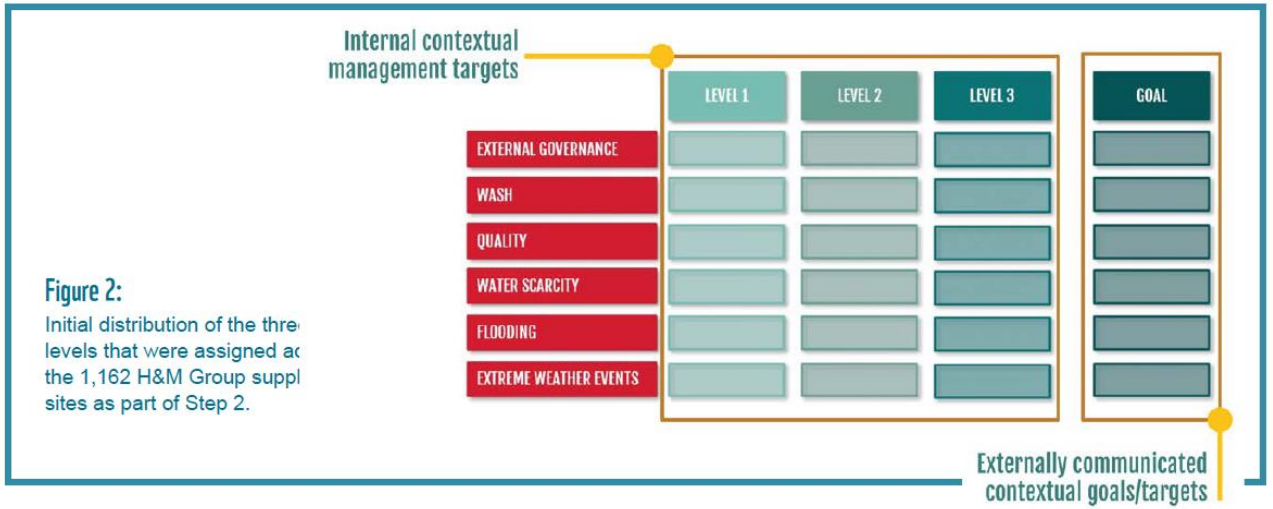
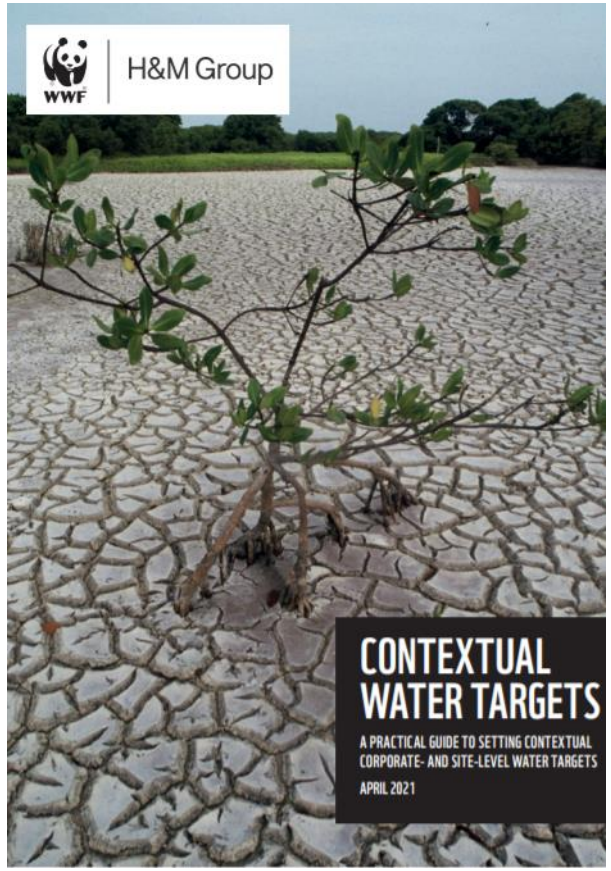


Figure 2:
Initial distribution of the thre levels that were assigned ac the 1,162 H&M Group suppl sites as part of Step 2.

https://waterriskfilter.org/explore/casestudies



Services & resources to get started!

Need expert support?

WWF Water Risk Filter Team can provide a range of different services for bespoke water risk assessment & recommendations.

- To learn more, contact: waterriskfilter@wwf.de

Resources

- Tutorial available from homepage: https://tutorials.waterriskfilter.org/#/
- WWF Risk Reports: https://waterriskfilter.org/explore/waterriskreports
  - The value of water: A framework for understanding water valuation, risk and stewardship
  - Fresh Water Risks & Opportunity series of reports
  - Valuing Rivers: https://awsassets.panda.org/downloads/wwf_valuing_rivers__final_.pdf
  - Water in the Economy reports – Mekong River in the Economy
- User Case Studies: https://waterriskfilter.org/explore/casestudies
- Data & Methods: https://waterriskfilter.org/explore/dataandmethods

- Email your questions to: waterriskfilter@wwf.de


WWF
Water
Risk
Filter
We want your feedback!
Go to survey
(https://forms.office.com/r/rxSHz0Rwds)

Thank you

http://waterriskfilter.org

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