How to undertake a water footprint assessment and disclose to CDP

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Agenda

- Why is water a critical business issue
- CDP's water program
- Introduction to WFN and Water Footprint Assessment
- Assessing water related business risk
- Understanding water risk in the value chain
- Water footprint accounting
- Developing a water stewardship strategy
- Q&A

Water is a critical business issue

Water insecurity - the case for action

- **UN** predicts a **40% global shortfall** in water supply by 2030;
- Excessive loads of nitrogen and phosphate, from agriculture, industrial production and mining, are **degrading the quality of the water we have left**; and
- **NASA** reports groundwater is being depleted to the point where **regional water availability is threatened**.
- The **World Bank** reports water availability in cities will reduce by as much as **two thirds by 2050** due to climate change and competition from energy production and agriculture.

Water insecurity - the case for action

Demand for water is expected to increase in all sectors of production with economic consequences if not properly managed:

- **The IEA** projects a **30% increase** in global energy demand by 2040;
- The **UN** projects a **70% increase** in food demand by 2050; and
- The **World Bank** predicts water security, exacerbated by climate change, could cost some of the world's regions **up to 6%** of GDP by 2050.

ICCR uses CDP's water data to understand companies' water-related risk exposure and water stewardship opportunities

- **ICCR ($3.74 trillion)**

Water can make or break the low carbon transition

- Delivering on the Paris agreement creates more demand and pressure to improve water management
- 24% of emissions reduction activities reported to CDP depend on a stable supply of good quality water
- 53% of companies report GHG reductions as a direct result of improvements to water management

> We must connect the dots between climate change, water scarcity and energy shortages. Solutions to one problem must be solutions for all.
>
> *Ban Ki-moon*
>
> *Secretary-General of the UN*

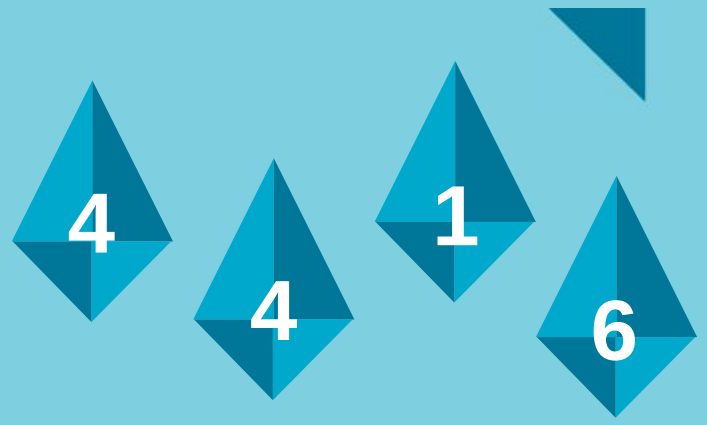
Case study: #ClimateisWater

Water-consuming processes often use considerable amounts of energy, meaning that water efficiency projects can save on both water and energy consumption. In 2015, the savings delivered under Nestlé's Environmental Target Setting Program amounted to 1.1 million GJ of energy, 1.7 million m3 of water and 81,146 tons of CO2 e.

What does CDP's data tell us?

Water risks are rapidly materializing for business

More than 4,000 substantive water risks reported in 2016



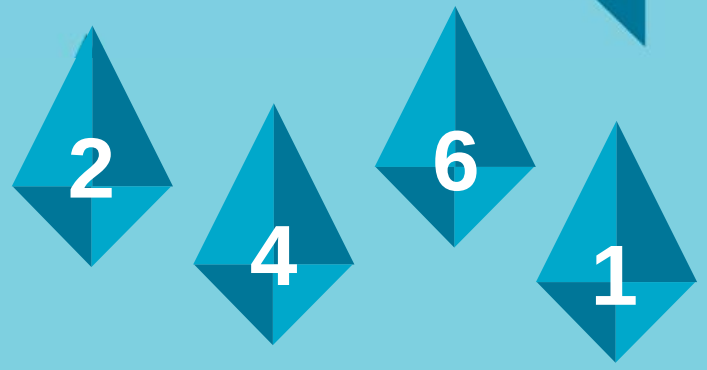
- **53%** exposed to substantive business risks from water
- **54%** expect these risks to materialize over the next 6 years.
- Disclosing companies reported **US$14 billion** in water-related impacts, a five-fold increase from 2015.

Case study: water is halting business

South African mining company **African Rainbow Minerals** experienced production disruption due to water supply challenges driven by increased water stress. This resulted in the loss of 300 productions hours costing the company US$26 million, 34.5% of total reported revenue in 2015.

It’s not all risk

More than 2549 business opportunities identified through our water program in 2016



Strategic water stewardship efforts reduces risk, enhances strategic preparedness, improves investor appeal and makes businesses **more resilient:**

- 66% of responding companies report that water offers operational, strategic, or market opportunities
  - Increased brand value
  - Cost savings
  - Supply chain resilience
- However, only 32% have a plan to capitalize on operational, strategic or market opportunities.

Realizing the true value of water

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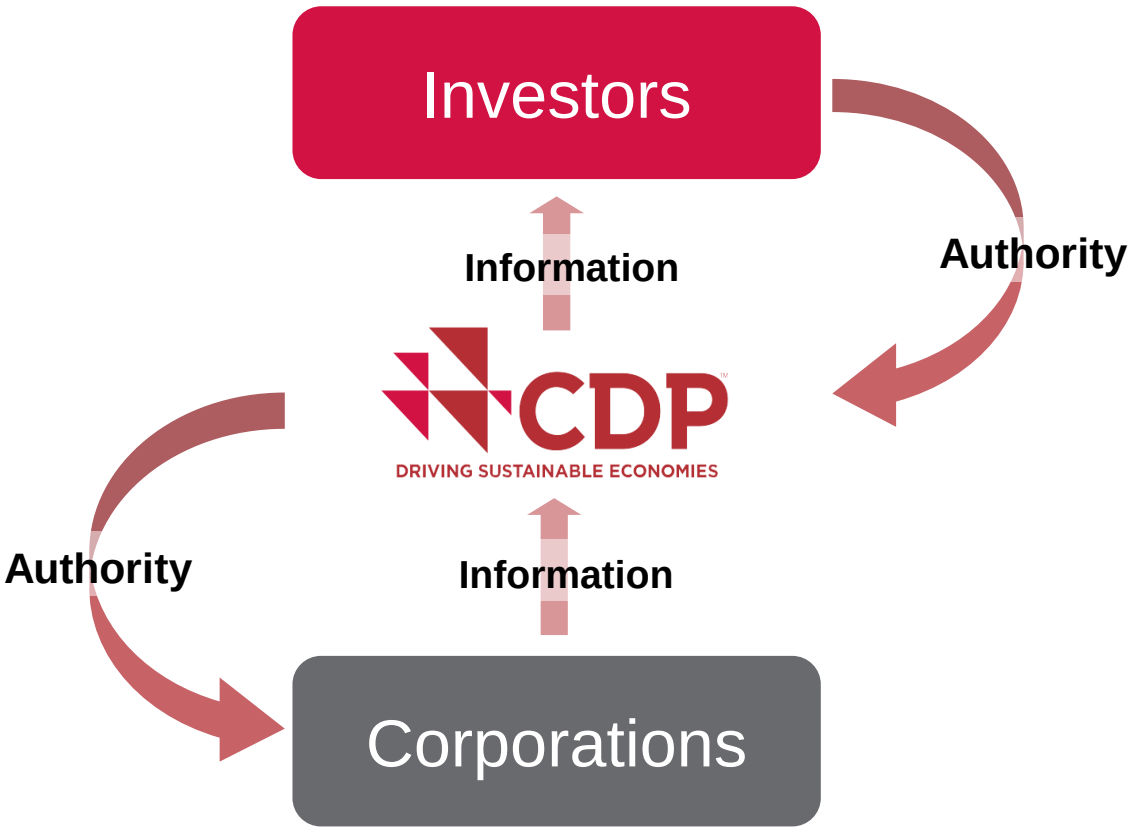
How does CDP catalyse action?

Using investor authority to drive corporate action



Disclosure is a powerful way to drive investment in research and development, and to motivate finance and creative approaches.

Ali Zaidi, Associate Director, Natural Resources, Energy and Science Programs, White House Office of Management and Budget

To catalyse action to improve water security.

- Mission, CDP’s water program

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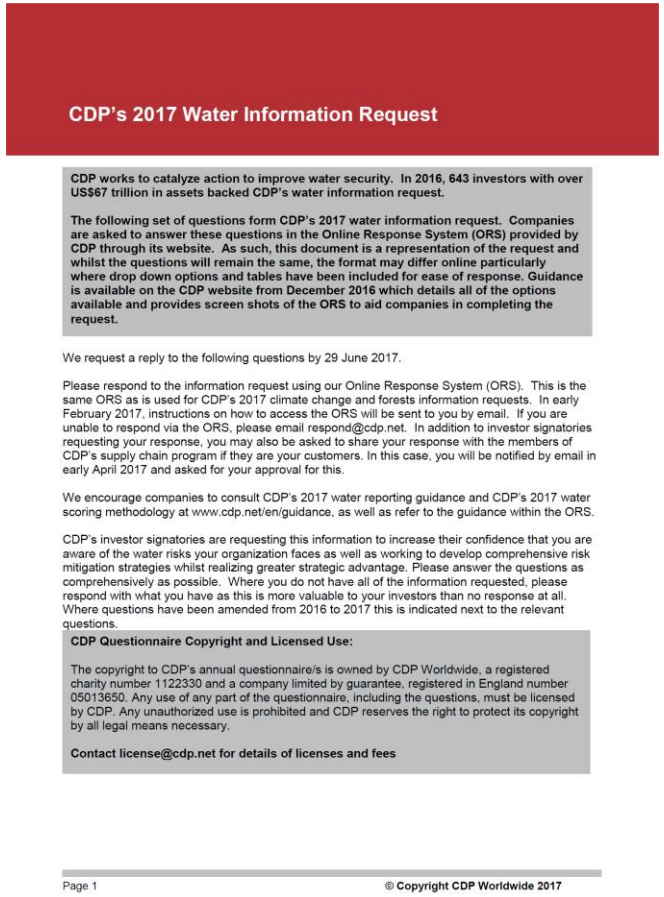
Framework for water stewardship

CDP aims to support, contribute to and reflect advanced corporate reporting practices, our questionnaire:

- Drives greater transparency of water issues;
- Facilitates informed decision making;
- Encourages action to improve water security; and
- Promotes competent and robust governance of water issues.



CDP's 2017 Water Information Request

CDP works to catalyze action to improve water security. In 2016, 643 investors with over US$67 trillion in assets backed CDP's water information request.

The following set of questions form CDP's 2017 water information request. Companies are asked to answer these questions in the Online Response System (ORS) provided by CDP through its website. As such, this document is a representation of the request and whilst the questions will remain the same, the format may differ online particularly where drop down options and tables have been included for ease of response. Guidance is available on the CDP website from December 2016 which details all of the options available and provides screen shots of the ORS to aid companies in completing the request.

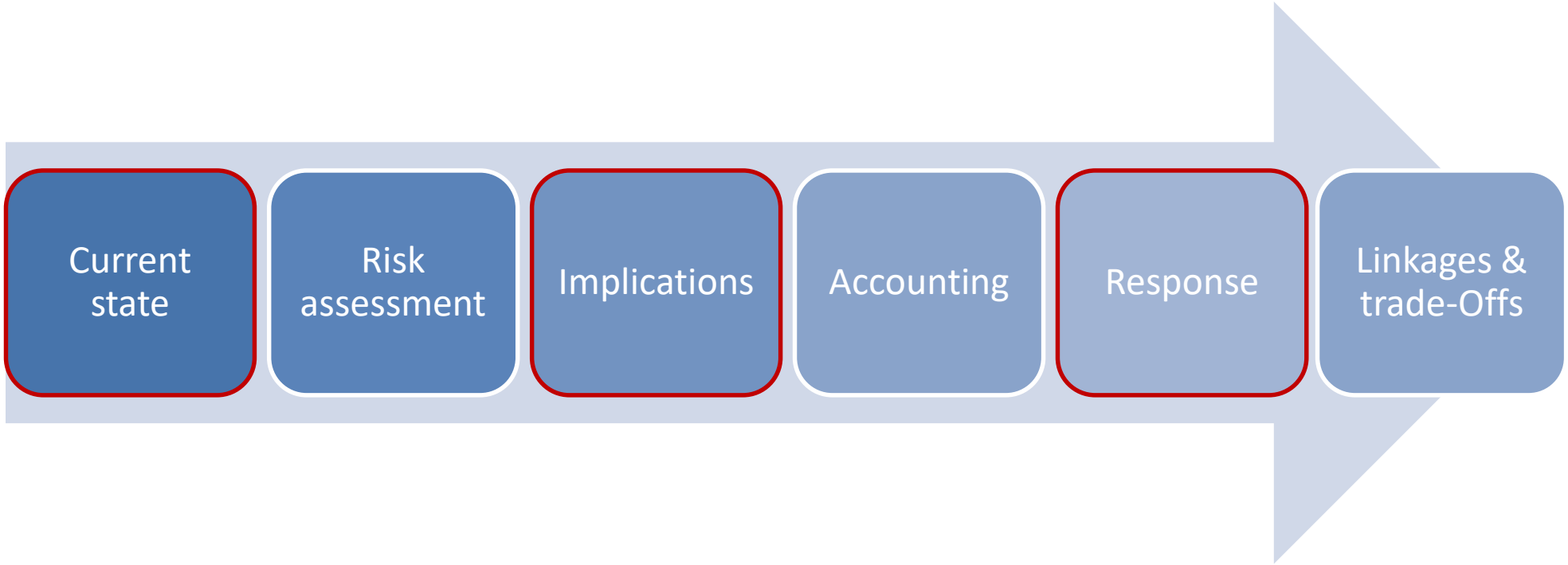
We request a reply to the following questions by 29 June 2017.

Please respond to the information request using our Online Response System (ORS). This is the same ORS as is used for CDP's 2017 climate change and forests information requests. In early February 2017, instructions on how to access the ORS will be sent to you by email. If you are unable to respond via the ORS, please email respond@cdp.net. In addition to investor signatories requesting your response, you may also be asked to share your response with the members of CDP's supply chain program if they are your customers. In this case, you will be notified by email in early April 2017 and asked for your approval for this.

We encourage companies to consult CDP's 2017 water reporting guidance and CDP's 2017 water scoring methodology at www.cdp.net/en/guidance, as well as refer to the guidance within the ORS.

CDP's investor signatories are requesting this information to increase their confidence that you are aware of the water risks your organization faces as well as working to develop comprehensive risk mitigation strategies whilst realizing greater strategic advantage. Please answer the questions as comprehensively as possible. Where you do not have all of the information requested, please respond with what you have as this is more valuable to your investors than no response at all. Where questions have been amended from 2016 to 2017 this is indicated next to the relevant questions.

CDP's water information request – a journey to stewardship



How Water Footprint Network and Water Footprint Assessment can help reporting companies

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Introduction to Water Footprint Network and Water Footprint Assessment

water footprint network

fair & smart use of the world's freshwater

◥ Water Footprint Network (WFN) provides science-based, practical solutions and strategic insights that empower companies and governments to transform the way they use and share fresh water within earth's limits.

◥ Global leader in Water Footprint Assessment.

◥ Water Footprint Assessment provides companies and governments with solutions using a common methodology that interlinks water related issues and leads to strategic action for water stewardship, resource efficiency, fair allocation and good governance.

◥ Open source platform for data, tools, case studies, ;latest research, guidance.

◥ Multi-stakeholder partner organisation.

Water Footprint Assessment

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Assessing Water Related Business Risk

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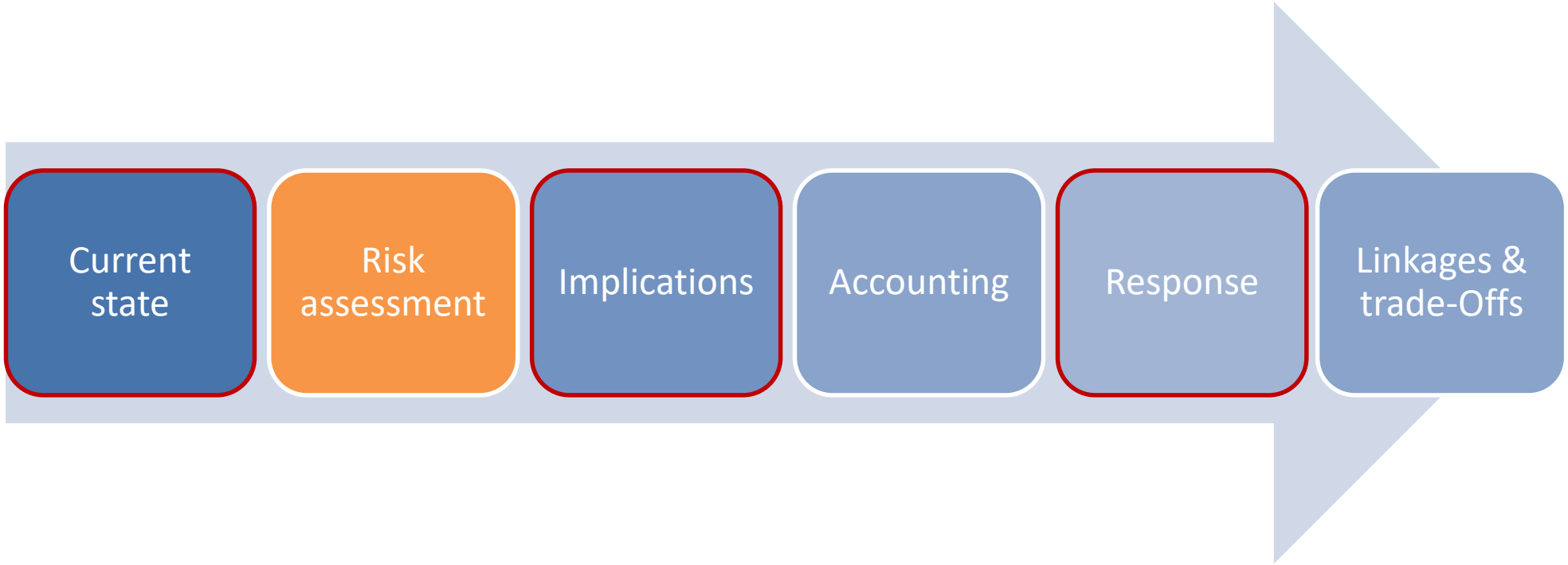
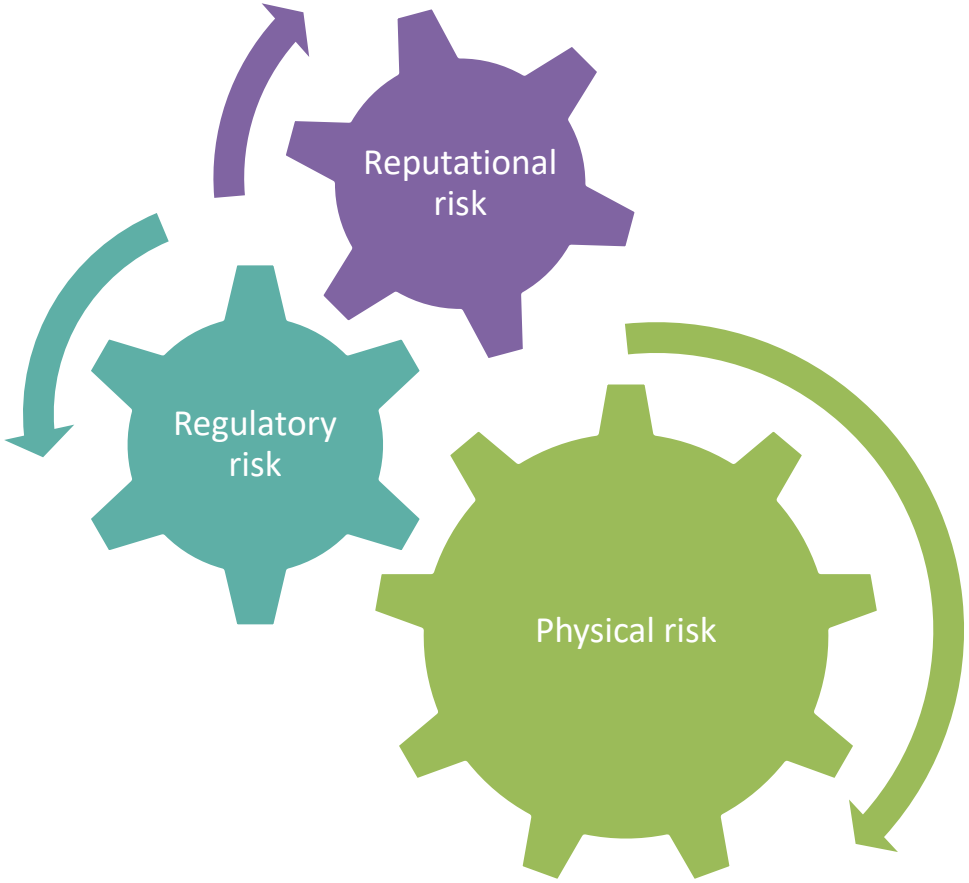
Water Risk Assessment Framework



3 kinds of water risk

Water Risk Assessment Framework

- Physical risk: water scarcity, drought, groundwater depletion, water pollution levels, flood
- Regulatory risk: quality of regulations and enforcement, changes due to water quantity/ quality issues, protected areas
- Reputational risk: water quantity/ quality issues, protected areas, visibility



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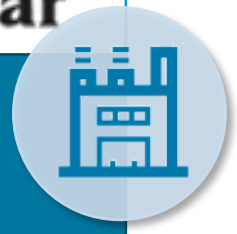
Conducting a water risk assessment

Operations & supply chain

Yaşar

4 locations in Turkey

Agro-food and paper facilities



Water Footprint and Risk Assessment
Water footprint and business water risks assessed in operations and supply chain.

Investor portfolio

FMO Entrepreneurial Development Bank

70 locations globally

Agro-food, energy, infrastructure and manufacturing

Portfolio Explorer
Online graphical tool that allows investor to explore water risk of clients individually and by sector.

Global portfolio

IHG® InterContinental Hotels Group

Over 6000 locations worldwide

Hospitality business

Water stewardship programme
Water Risk Assessment and Water Stewardship Actions defined for each facility.

Understanding water risk in the value chain

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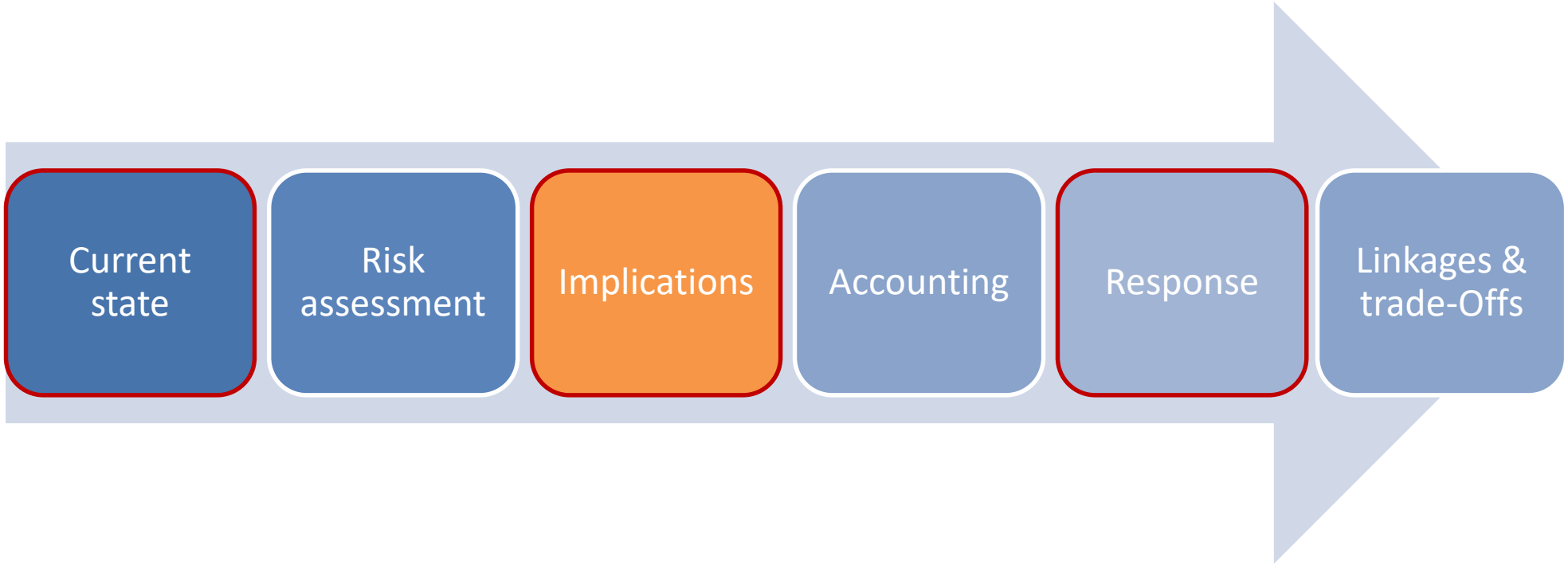
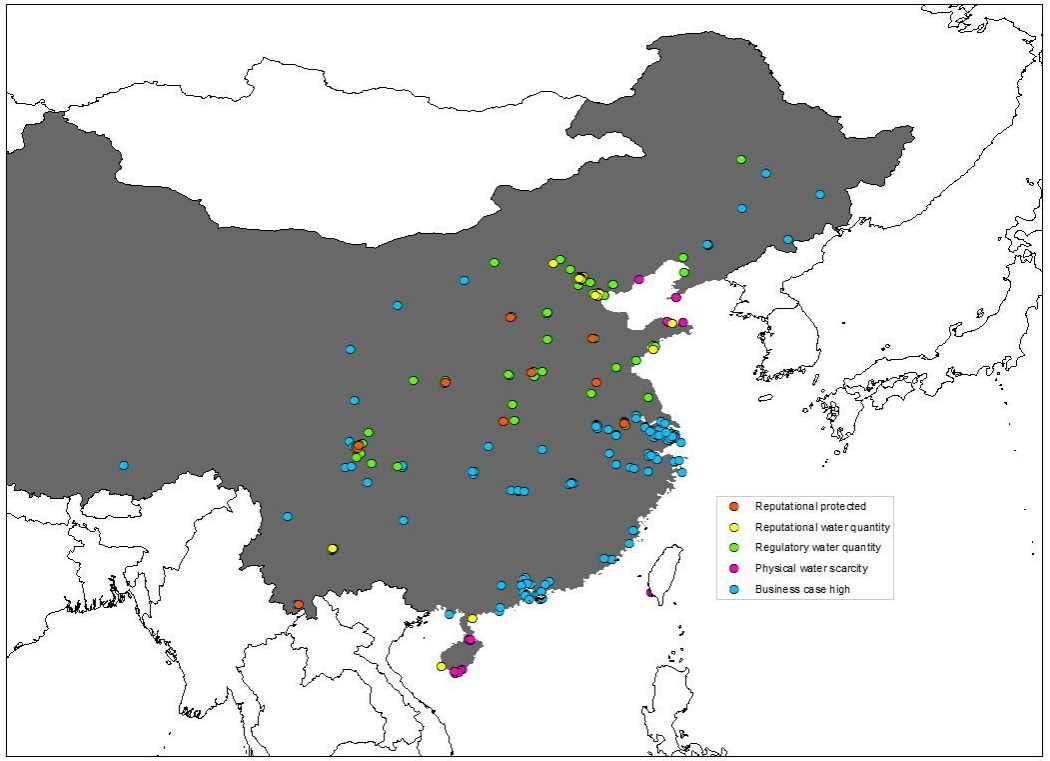
What does water risk mean to your business?



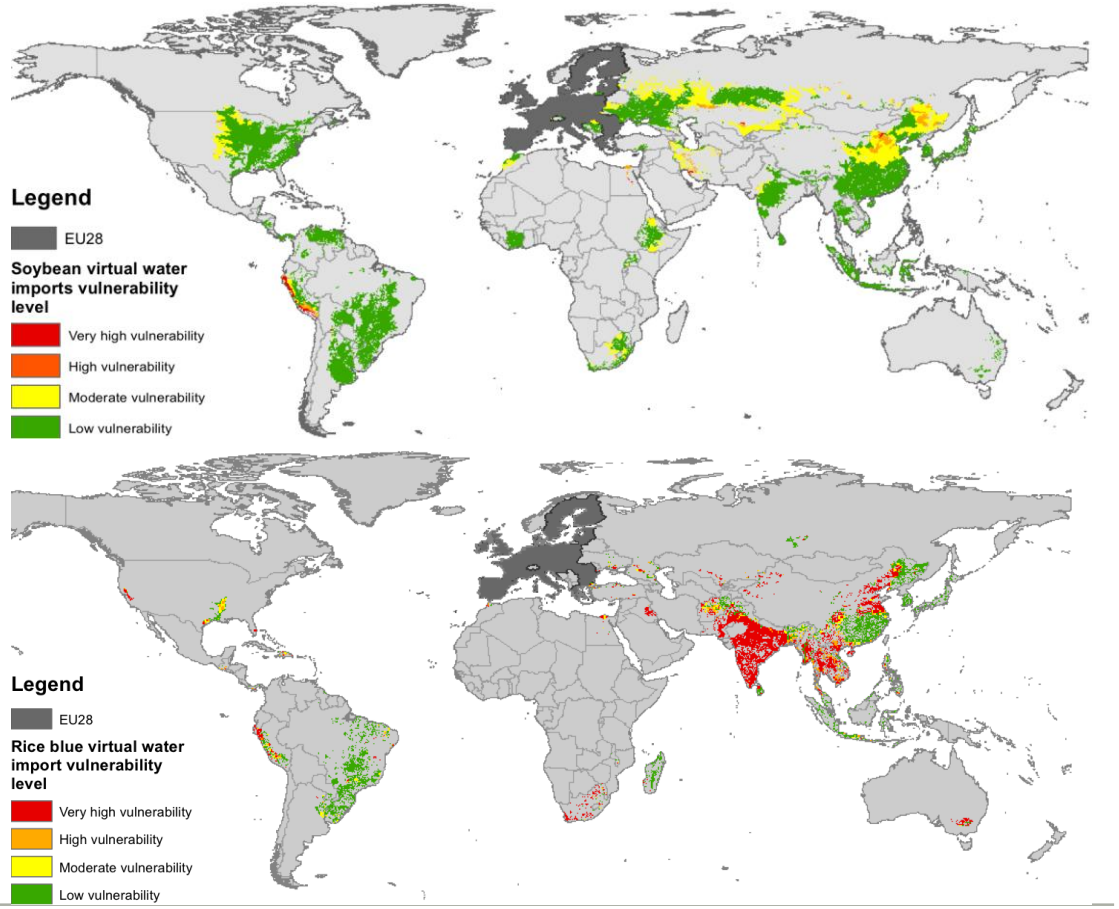
Assessing water risk for direct operations



- Water Risk Assessment Framework identifies water related business risks at locations of direct operations

Assessing water risk in the supply chain

- Water Footprint Assessment and virtual water flows help identify locations where suppliers may be facing water related business risks



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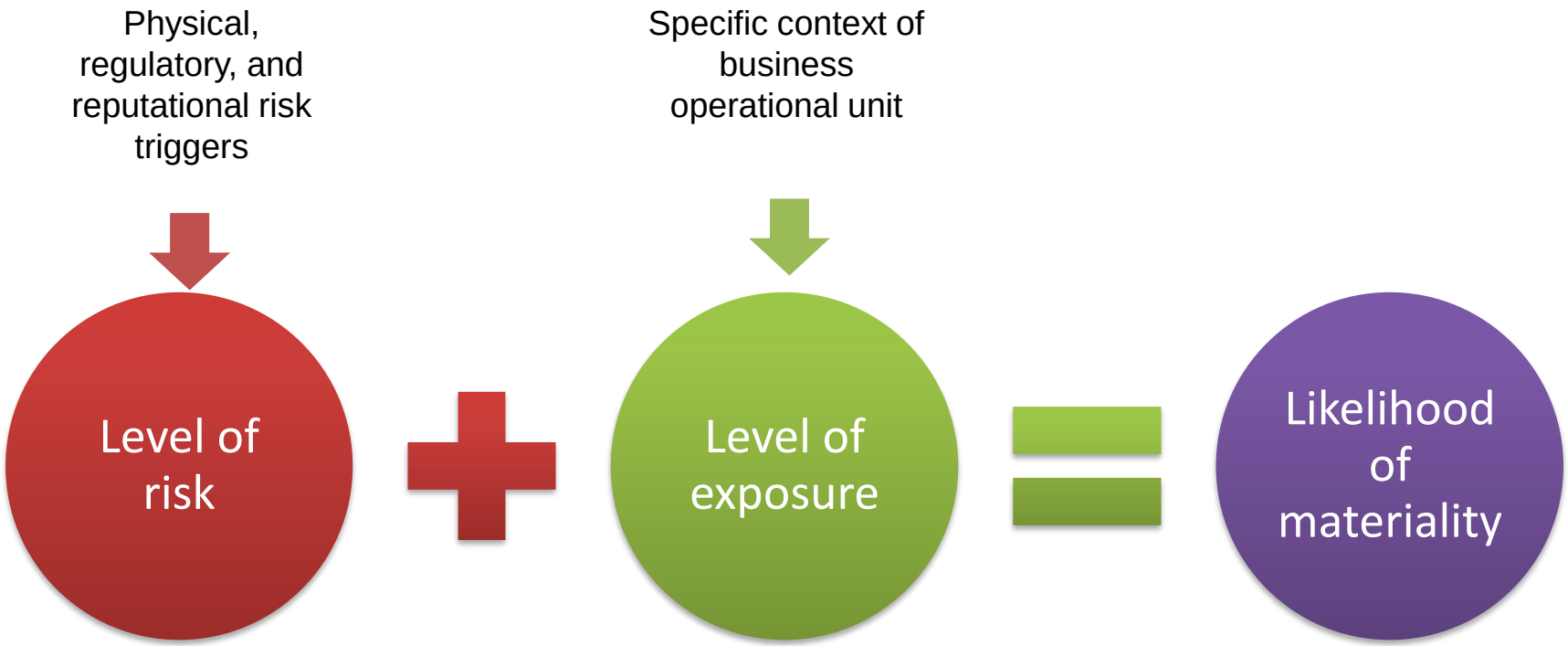
Determining materiality of water risk



Water footprint accounting

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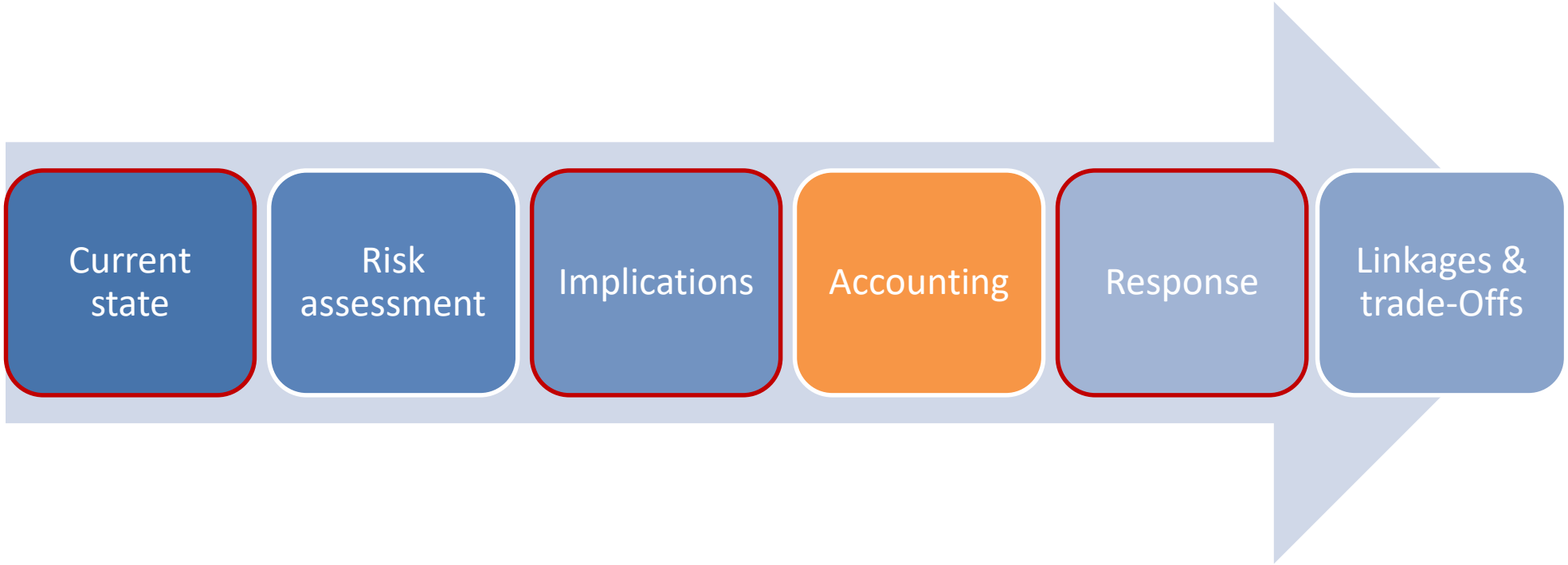
Understanding the pressure your business puts on water resources



Water footprint: an indicator of pressure

- Water footprint is a measurement of *water quantity*: **volume of water consumed** or *water quality*: **assimilation capacity used.**
- The water footprint occurs in a specific location and at a specific time.
- The water footprint can be measured for both **both direct & indirect** water use, linking producers and consumers throughout the value chain.
- A water footprint can be calculated for **productive processes** such as for **agriculture, industry** or **domestic uses,** or a **geographic area** such as a **river basin, nation or the whole world.**

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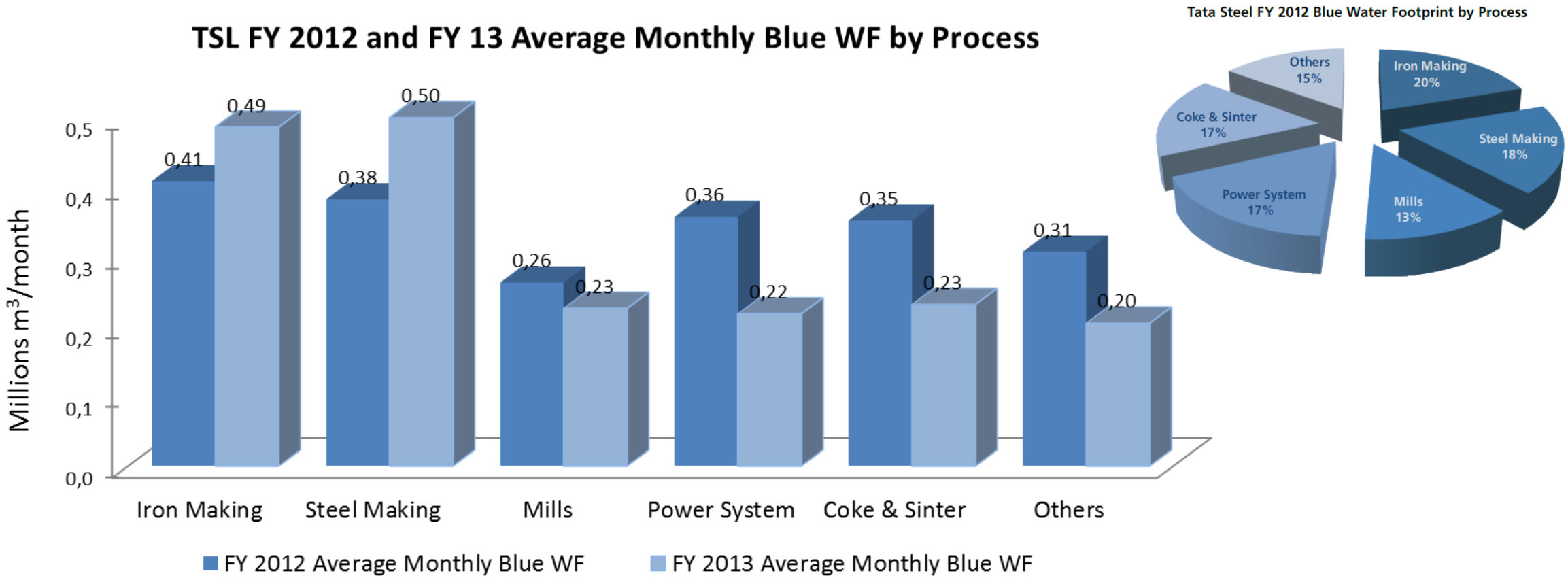
Water footprint in direct operations



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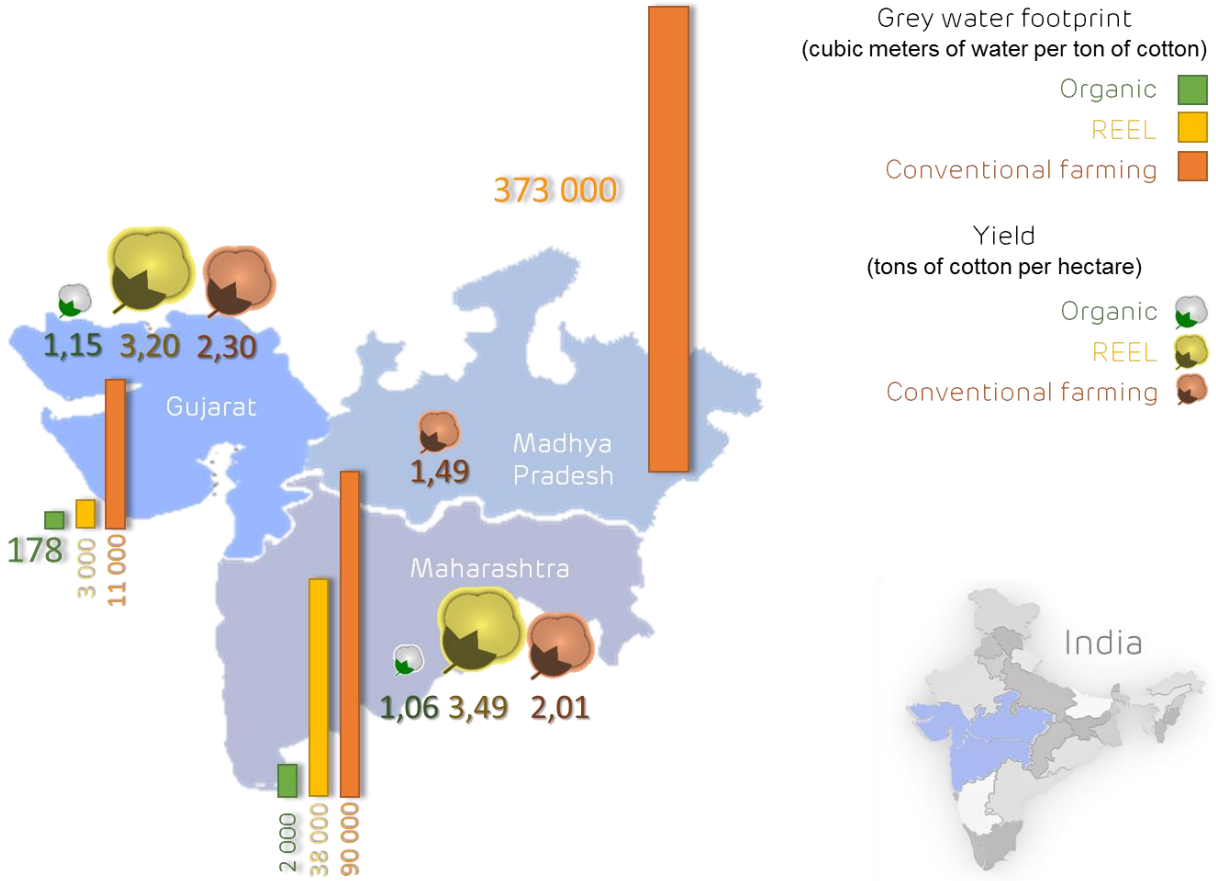
Water footprint in supply chain



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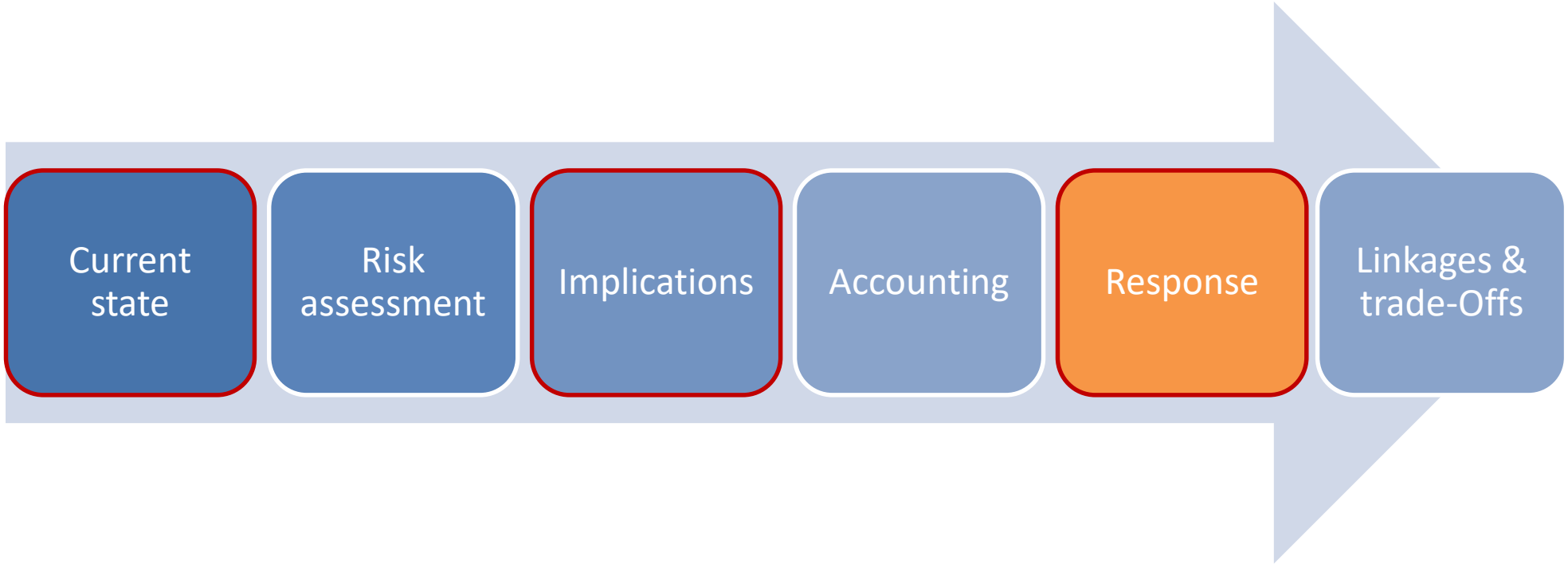
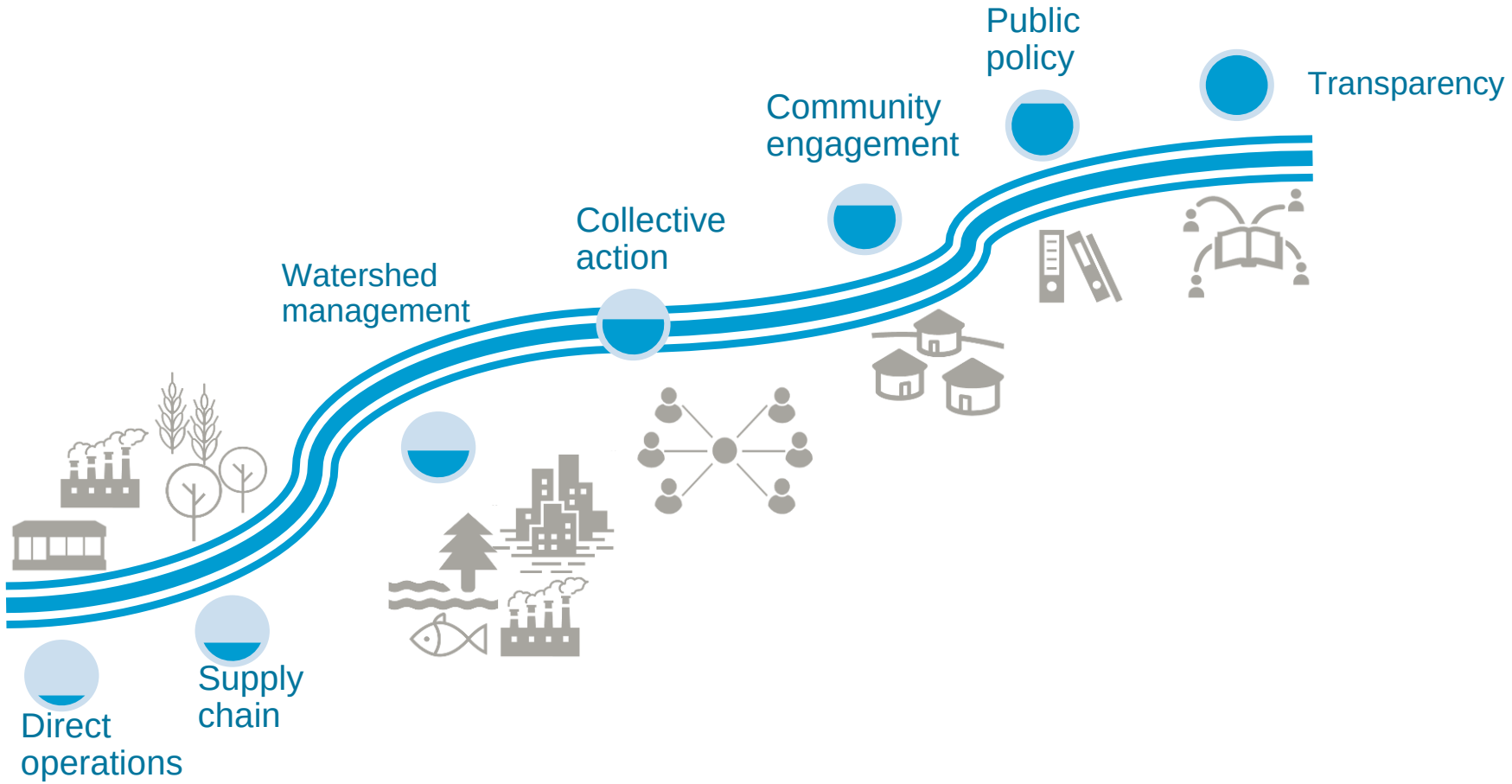
Developing a water stewardship strategy

Identifying strategic response options



Water stewardship journey



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The 5 goals of water stewardship actions

- Measure and monitor water footprint and water risk
- Improve water performance
- Increase water resilience
- Educate value chain about water stewardship
- Engage with external stakeholders and disclose results

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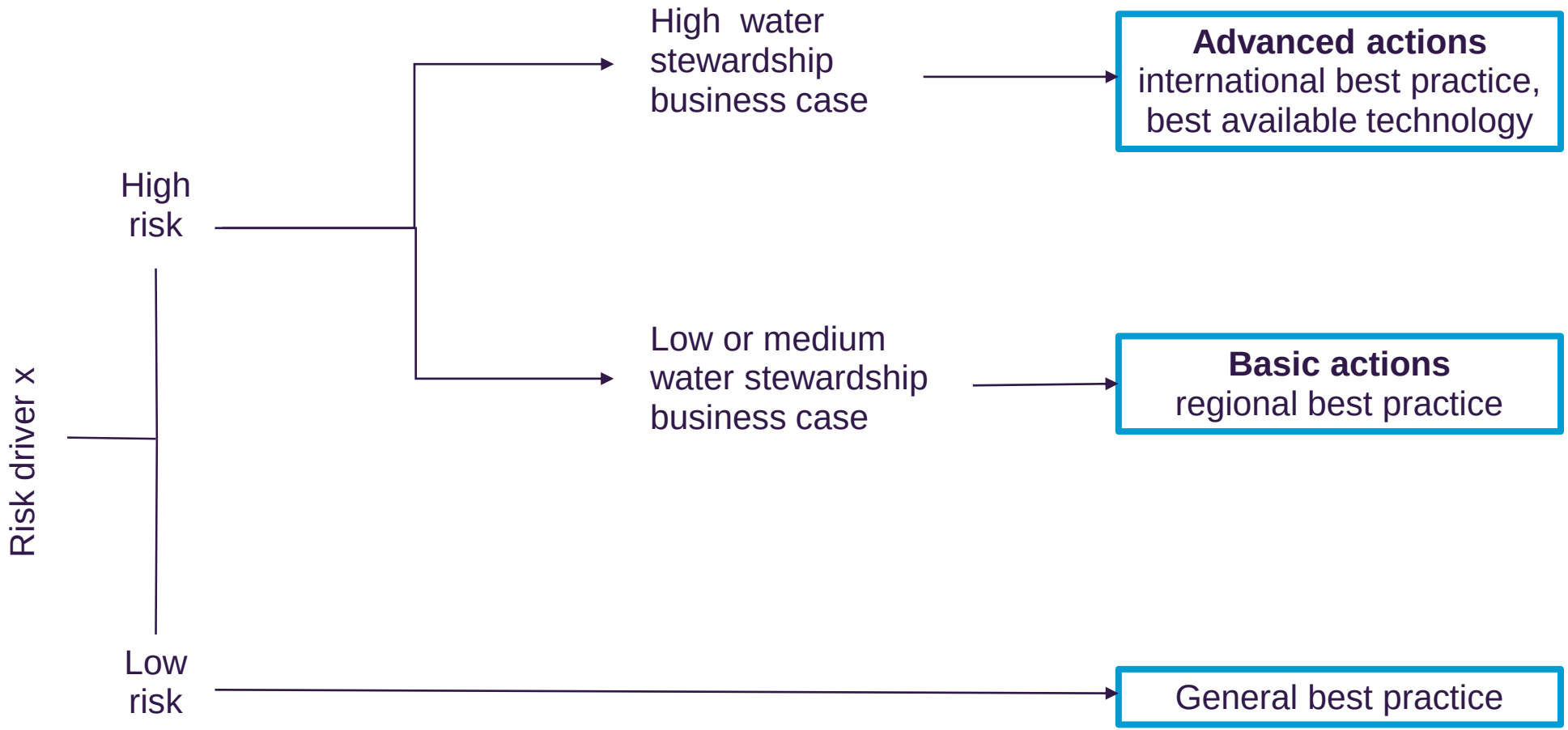
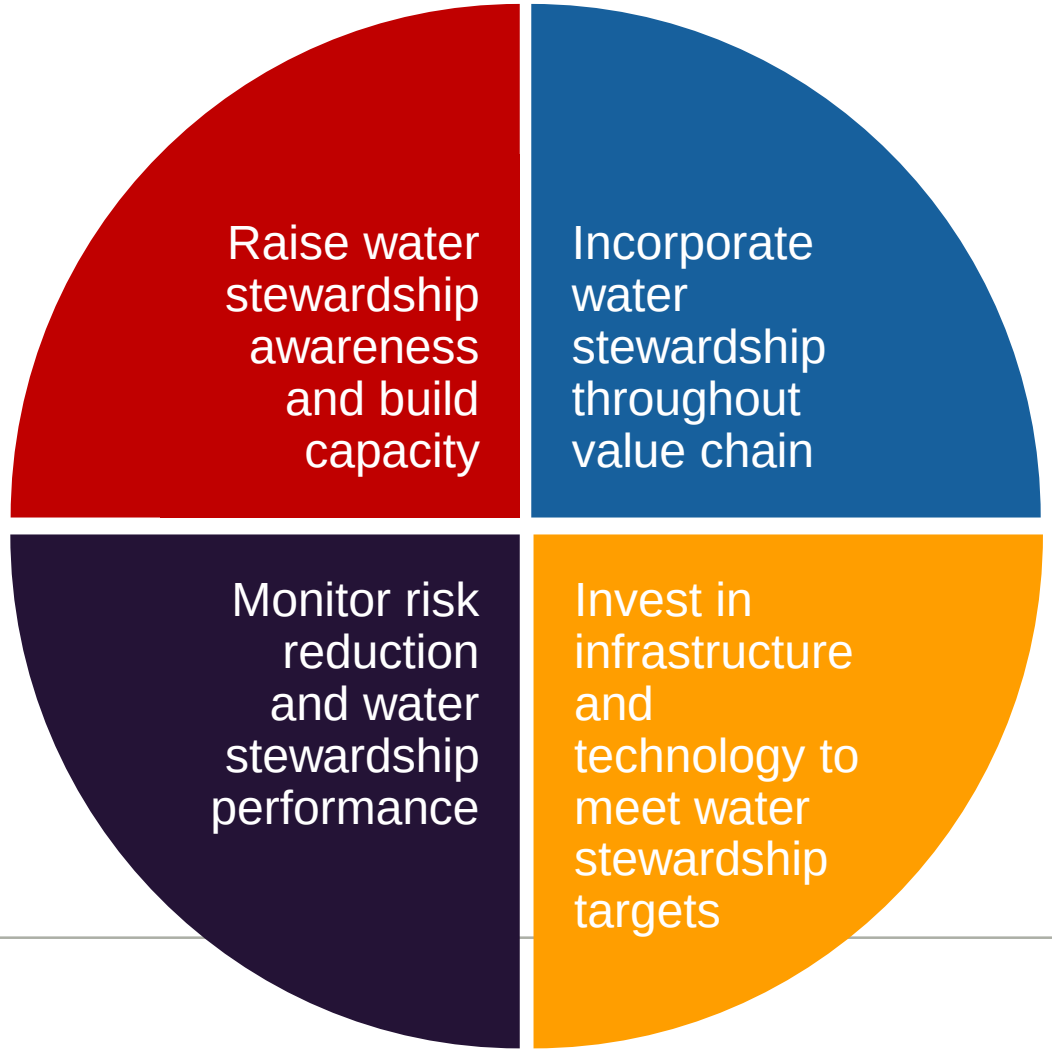
Selecting water stewardship actions



Types of water stewardship actions



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Designing a water stewardship programme

- Water stewardship is a journey and a long-term commitment.
- Water stewardship must fit a company's business model.
- External stakeholder expectations, best practices, evolve.
- Available technology and performance specifications continuously improve.
- Local, regional and national water quantity and quality challenges, regulations and water stewardship opportunities change over time.
- Water risks change as risk drivers change.

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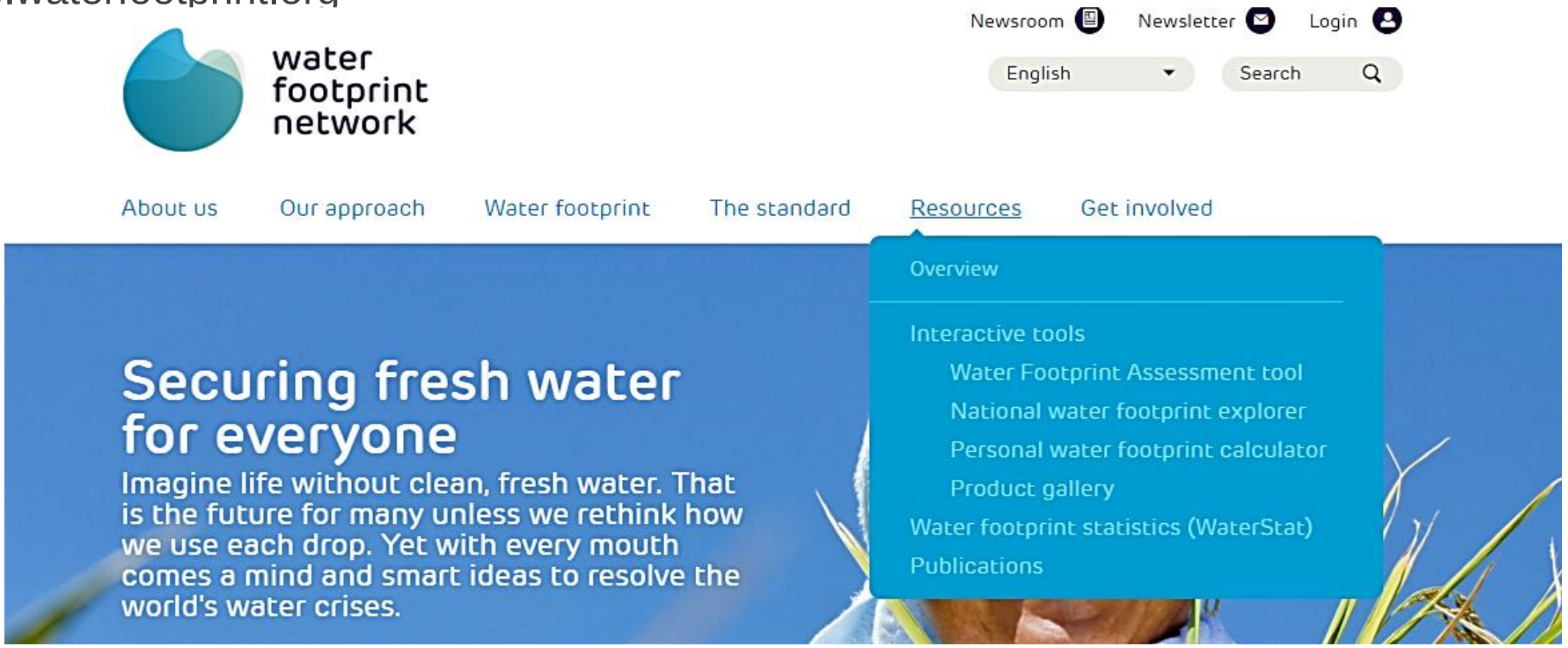
Open source resources @ waterfootprint.org

www.waterfootprint.org



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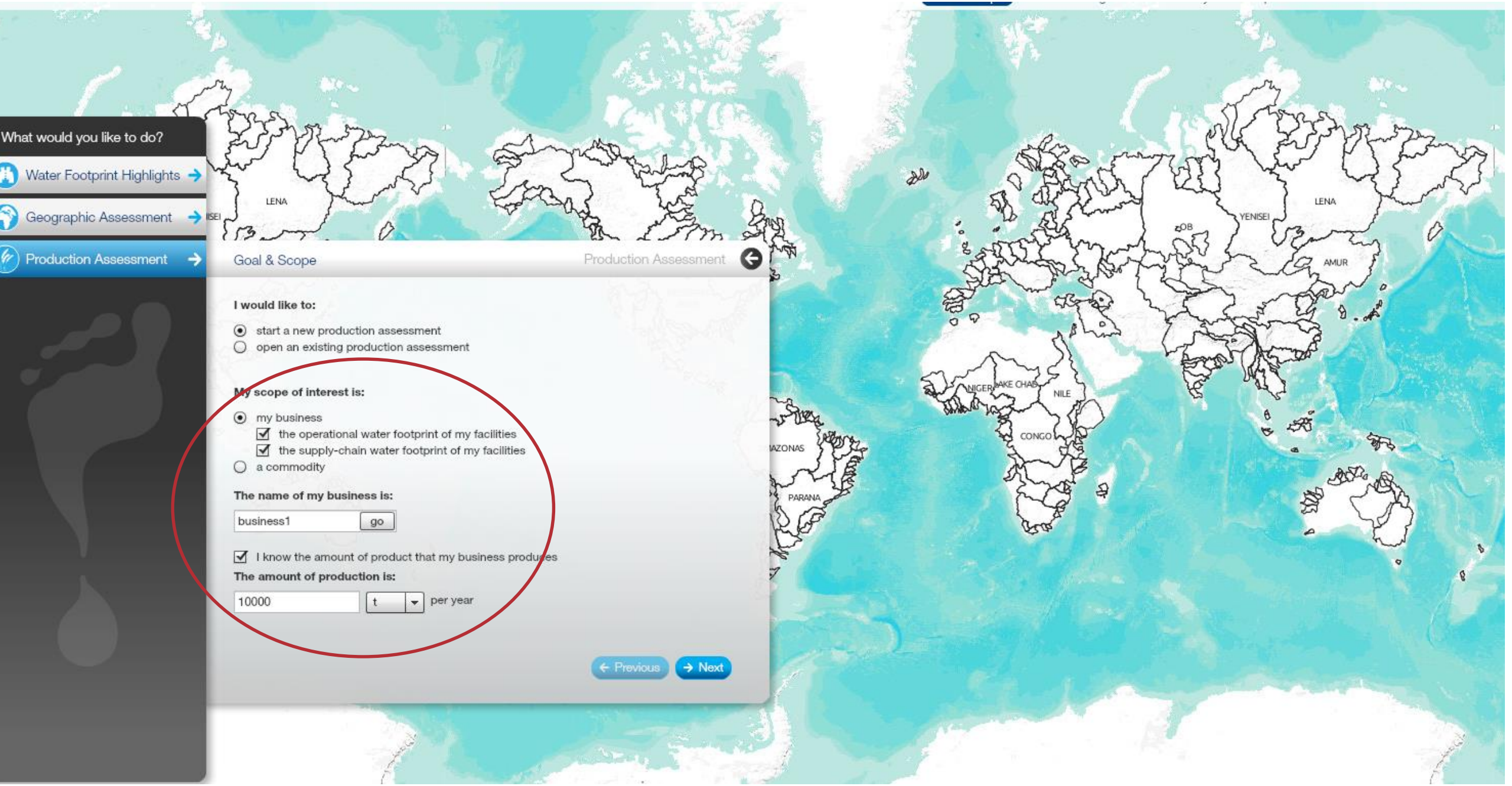
What would you like to do?
Water Footprint Highlights
Geographic Assessment
Production Assessment
Goal & Scope
Production Assessment
I would like to:
start a new production assessment
open an existing production assessment
My scope of interest is:
my business
the operational water footprint of my facilities
the supply-chain water footprint of my facilities
a commodity
The name of my business is:
business1
go
I know the amount of product that my business produces
The amount of production is:
10000
t
per year
Previous
Next
LENA
YENISEI
OB
AMUR
NILE
CONGO
PARANA

Questions?

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Thank you for joining!
Contact us…

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