Water risks in agricultural supply chains

WWF and PRI





OUR MISSION:

CREATE A SUSTAINABLE GLOBAL FINANCIAL SYSTEM



AT A GLANCE

Launched in April 2006 at the NYSE, the Principles for Responsible Investment has:

2

UN PARTNERS:

UNEP FINANCE INITIATIVE UN GLOBAL COMPACT



1260

SIGNATORIES:

ASSET OWNERS, INVESTMENT MANAGERS AND SERVICE PROVIDERS



45

US\$ TRILLION:

ASSETS UNDER MANAGEMENT



6

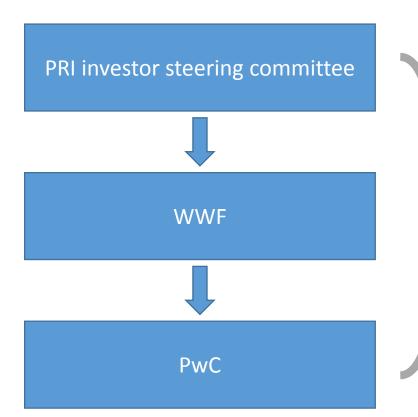
PRINCIPLES:

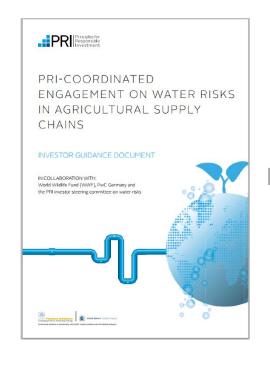
RECOGNISING THE
MATERIALITY OF
ENVIRONMENTAL,
SOCIAL AND
CORPORATE
GOVERNANCE ISSUES





COLLABORATION





Guided engagement with companies



KEY FINDINGS

- Data and disclosure on supply chain risks is inadequate to allow investors to understand where they face potential risks
- Supply chains are complex and require additional focus by companies and investors alike

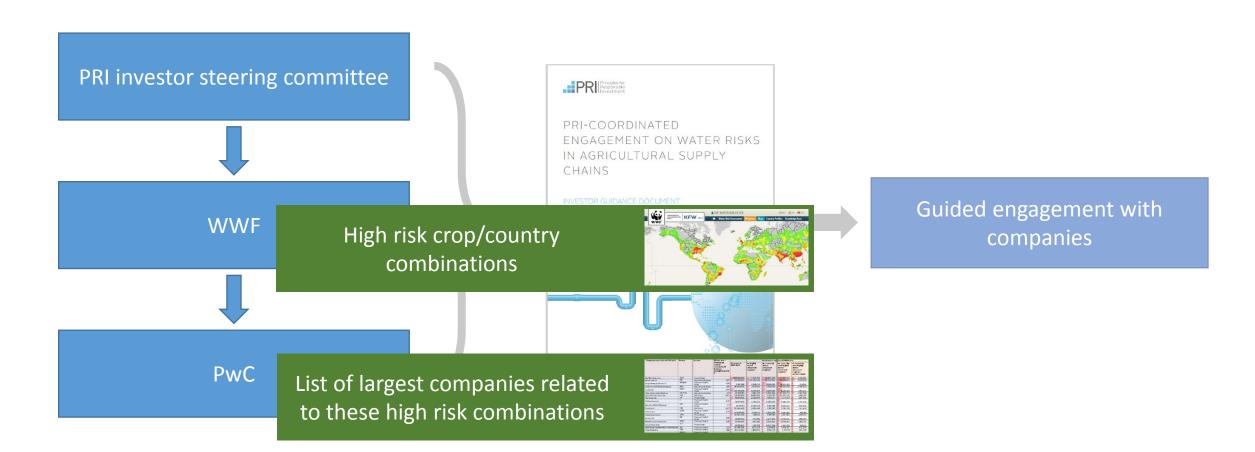


PROJECT EXPOSURE





Key analyses







The Water Risk Filter aims to cover all water risk aspects that can impact bottom line

Physical risk

Scarcity (quantity)

Pollution (quality)

Impact on Ecosystem

Regulatory risk

Reputational risk

Basin related risk

- (Monthly) scarcity
- Groundwater
- Climate change impacts
- Floods
- Droughts
- 9 pollution indicators

- Threat to freshwater biodiversity
- Vulnerability of water ecosystems
- Access to safe drinking water
- Access to improved sanitation
- Local / national water strategy
- Sophistication of water regulation
- Enforcement of regulation
- Local and global media coverage
- Cultural/religious value of water

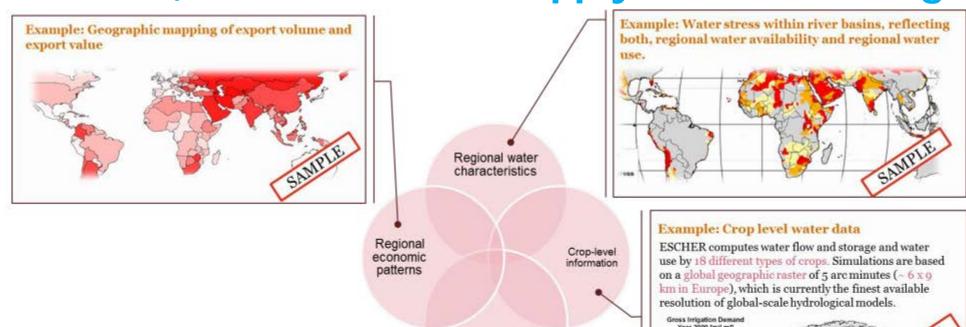
Crop related risk

- Blue/green water footprint
- Blue/green water dependency
- Sensitivity to water shortages
- Water access issues
- Use of soil moisture and other techniques
- Use and type of agri-chemicals
- Treatment requirements
- Quality measurements
- Use of techniques to maintain soil quality
- Use of riparian buffers or other measures
- Legal compliance
- Incidents / penalties
- Local and global media coverage
- Stakeholder engagement
- Internal governance and monitoring



Pwc ESCHER combines industry data, crop-level information, water data and supply chain modeling



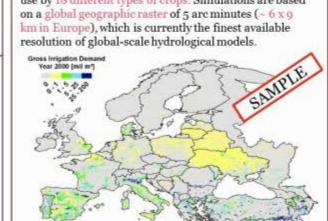


Industry Data

Example: Industry data

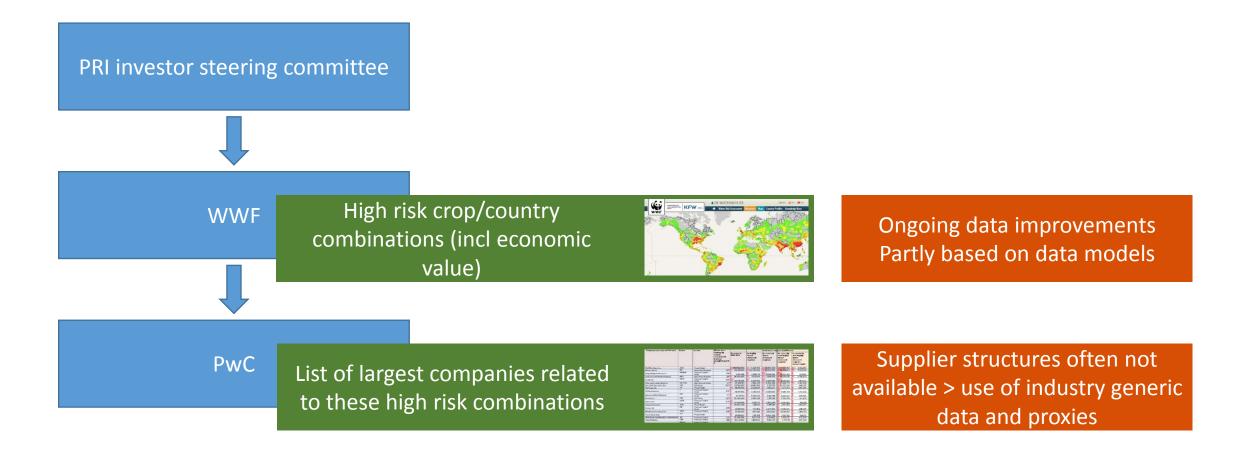
ESCHER computes **water consumption** of the following sectors:

- · Bovine meat products,
- · Meat products nec,
- · Vegetable oils and fats,
- · Dairy products,
- · Beverages and tobacco products,
- · Textiles,
- · Wearing apparel,
- Leather products
- · etc.



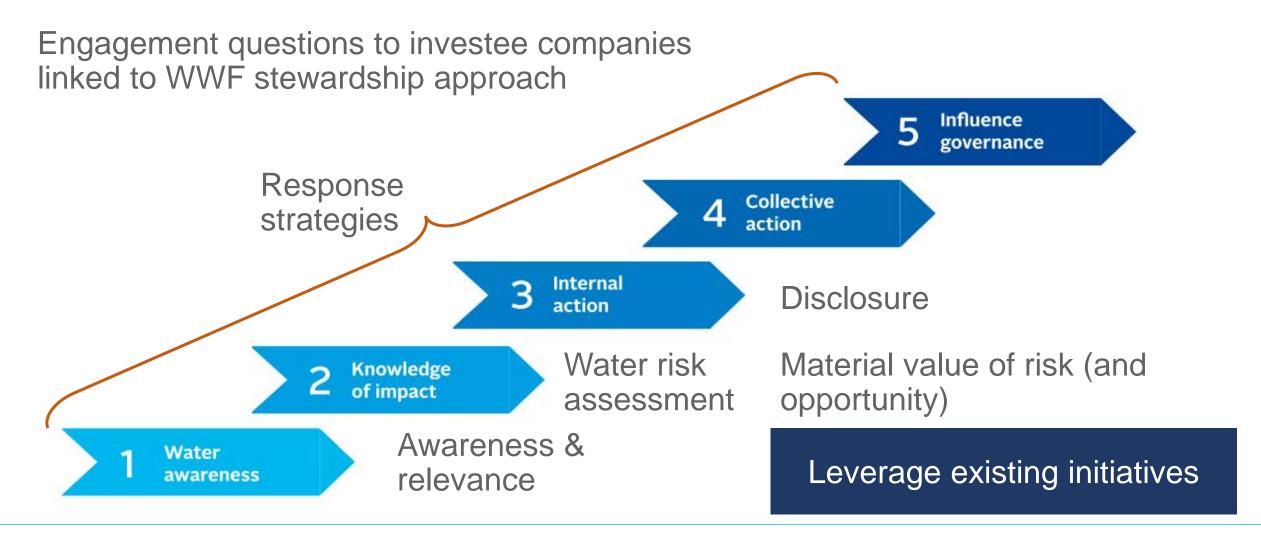


Data challenges





Guided engagement with listed companies





Next steps

- WWF and PRI continue to provide guidance to investors
- Incorporating results in the Water Risk Filter







Thank you

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PRI-COORDINATED
ENGAGEMENT ON WATER RISKS
IN AGRICULTURAL SUPPLY
CHAINS

INVESTOR GUIDANCE DOCUMENT

IN COLLABORATION WITH:
World Wildlife Fund (WWF), PwC Germany and the PRI investor steering committee on water risks

