



WWF

BRIEF

2018

WATER STEWARDSHIP REVISITED

Shifting the narrative from risk to value creation

Author: Alexis Morgan, Global Water Stewardship Lead (WWF-Germany)
Design: Sarah Schmitt
Maps: Felipe Costa (WWF-Germany)
Front cover: Staffan Widstrand / WWF
Contact: Alexis Morgan (WWF-Germany), alexis.morgan@wwf.de
Production: Maro Ballach (WWF-Germany)

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Many thanks to the following contributors: Sohaib Waseem Anwar (WWF-Pakistan), Hannah Baleta (WWF-Myanmar), Lindsay Bass (WWF-US), Rylan Dobson (WWF consultant), Marc Goichot (WWF-Greater Mekong), Lucy Lee (WWF-UK), Richard Lee (WWF International), Sohail Ali Naqvi (WWF-Pakistan), Stuart Orr (WWF International), Johannes Schmeister (WWF-Germany), Judy Takats (WWF-US), Nicole Tanner (WWF-US), Monika Tobler (WWF-Switzerland), Philipp Wagnitz (WWF-Germany).

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WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global Network active in more than 100 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by: conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

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Foreword



Alexis Morgan
*WWF Stewardship
Lead*

With an alarming 81% decline in freshwater species abundance since 1970, millions of people at risk from water scarcity and pollution, and billions of dollars being lost by investors and companies from water risks, the need for action on water has never been greater. We are now collectively in a critical period in which the world needs companies, who both impact and are dependent upon freshwater, to step up and help solve the challenges facing both people and the planet through water stewardship. While the briefing is aimed primarily at companies who have already begun their water stewardship journey, companies new to the space, fellow NGOs, funders, public sector agencies and others may also find it useful.

In 2013, WWF released its inaugural Water Stewardship Brief – a document that outlined not only our vision of water stewardship, but a roadmap for the future. Our intention then was to articulate why WWF had chosen to engage in water stewardship, to be transparent about what we intended to do and to be clear about what we expected of others. The 2013 brief was well received by governments, companies and investors, but the landscape has evolved.

WWF has been a pioneer in the water stewardship space. We helped to establish flagship water stewardship initiatives, such as the Alliance for Water Stewardship, the CEO Water Mandate and CDP Water. We publish an extensive amount of guidance, engage in many corporate partnerships, and implement water stewardship work in dozens of countries around the world. We have a history of innovation (e.g., Water Risk Filter) and continue to push into emerging concepts such as context-based water targets and bankable water solutions. Some of these efforts have delivered wonderful results, while others have fallen aside as we've learned what doesn't work. Indeed, our failures, along with our successes, have shaped the contents of this briefing and the new narrative we are helping to craft.

This updated briefing outlines the evolution of water stewardship as we look to the future. It is targeted primarily at those who have been with us to date - many of the leading Global 500 companies. In the coming months we will supplement this brief with a second, complementary primer to help those who are just starting their water stewardship journey. By sharing this new narrative, we invite all of you to join us and hope to inspire further action. The world needs current water stewardship leaders to double down and for those who have yet to embrace water stewardship to join in. We, WWF and our corporate partners, must bend the curve of freshwater biodiversity loss – for our society and economy as much as for our planet – and we must do it soon. And to do that, we need more allies such as you, to push harder and faster and move from risk mitigation to value creation.

We welcome your thoughts, since water stewardship is not a destination, but a shared journey for us all.

A handwritten signature in dark ink, appearing to read 'A. Morgan' with a stylized flourish at the end.





Executive Summary

Water stewardship remains a critical concept for companies and investors to embrace and implement, but one that is at a crossroads. To improve effectiveness, we must now journey down the road at greater speed and scale than ever before with the early adopters helping to mobilize the majority. To make that happen, we believe that forging a new narrative - from risk to value creation - will be key.

While much has changed since 2013, much remains the same. Water stewardship, as a concept, remains as critical as ever. The drivers have grown from corporate water risk and been mainstreamed into economic water risk, value and purpose.

We must build upon the successes that have been seen around starting the journey for small and medium sized enterprises, embedding the concept in sustainability standards, building the idea into sectoral initiatives, growing levels of water disclosure and improving collaboration. Notably, we must collectively work to go beyond internal action and scale up collective action - especially through engagement with the financial sector (around both risk and opportunity).

To forge a new pathway, we need those companies already engaged in water stewardship to help drive a new narrative in the water stewardship space - one that is focused around notions of value, opportunity, collaboration, context, innovation and resilience. As leading companies reposition around the notion of purpose, especially to attract and retain millennial talent, there should be little doubt that water can form the basis of purpose.

There are still areas that we need to strengthen. There are opportunities for leading companies to:

- » Ensure operations, peers and suppliers match risk to basin need
- » Harness opportunities to mobilize climate resilience funds
- » Build from basin context to meaningful response
- » Unlock the Fourth Industrial Revolution (4IR)
- » Broaden the narrative to engage the next wave with purpose
- » Bridge the collective action chasm

In embracing a new narrative, we need leaders to:

1. Build capacity in the next wave (notably lagging peers and suppliers)
2. Mobilize new forms of finance (including deploying new approaches to recognize the value of water)
3. Align collective action efforts
4. Improve contextual performance (that leverages new technologies & data sources)
5. Link formal and informal water governance

WWF is committed to realizing this future vision - a vision rooted in the belief that human ingenuity, passion and drive can have a meaningful impact. We will walk the talk. However, if we are to realize this vision, we will need our corporate partners - the leading water stewardship companies - to raise their level of ambition. Water is everyone's business - and it is a shared opportunity for us all to benefit.



Introduction

Since the publication of our 2013 Water Stewardship Brief, the world's water challenges have continued to grow. We continue to hear about cities running dry, the growing risks that water challenges pose to our global economy, and the decline in freshwater species (WEF, 2018; WWF, 2016). We continue to demand more food, fiber and energy. The result is a world with rapidly diminishing freshwater biodiversity, and degraded rivers, wetlands and forests causing a loss of valuable services to society.

Furthermore, as we move into increasingly variable global climatic conditions, we have seen a rise in the occurrences and strength of natural disasters. The growing conflicts around water have even led to water being at the heart of a growing concern by national security agencies (Reed et al., 2017). We face a world more in need of water stewardship actors than ever before, and while we've seen progress in water stewardship in the past five years, we continue to degrade our freshwater systems around the world.

To shift the pathway, we need to recruit new allies, and importantly, we need to enable those early adopters to redouble their efforts and bring on board the majority. We need scale, we need it quickly and we need those already involved to mobilize the next wave.

This publication, five years on from our 2013 Water Stewardship Brief, is targeted at those who have been with us on this journey together. It reviews where we've come from, what we, as WWF, have learned and where we collectively need to head next.



HAS THE PATHWAY TOWARDS WATER STEWARDSHIP CHANGED?

In short, no. There has been useful scrutiny of the water stewardship space (*see Box A*), and much of the work has reinforced many of our beliefs. To mitigate water risks and to harness water-related opportunities, a contextual, inclusive, catchment-oriented approach remains foundational. Understanding dependencies and impacts continue to be the first two steps of the WWF water stewardship ladder (*Figure 1*) towards influencing governance, minimizing risk exposure and maximizing value creation. Indeed, the ladder remains a useful framework for companies to look to when seeking to understand the steps in their water stewardship journey. **Developing an awareness of water**, and an **understanding of risks & impacts**, is critical before taking **internal action** to get one's house in order.

However, we have also observed too many companies being content stopping at Step 3 of the ladder. What has changed is the need to mobilize at much greater level around **collective action** and to **engage in water governance**. This part of the journey has been a sticking point to achieving scale and is a major focus of this paper.

Companies that have truly embraced water stewardship appreciate that it involves a paradigm shift in which companies go from being internally focused on water management to seeing water as a shared resource that cannot be “managed”, but that rather must be collectively “stewarded”. Stewardship involves an acceptance that a site has both impacts (downstream) and dependencies (upstream). Water stewardship requires an understanding that to fundamentally mitigate water risks, one must address the shared water challenges that affect the common pool resource. And thus create opportunities and value for both the company and the basin. This means that **collective action and positive engagement in water governance are not public relations exercises, but rather core to strategy, finance, marketing and operations**.

To mitigate basin risk, and protect shareholder equity, companies **must** begin to engage at a much greater scale in Steps 4 and 5. With this briefing, we hope to offer some reflections on how we can build on our learnings to chart a new course to achieve scale.



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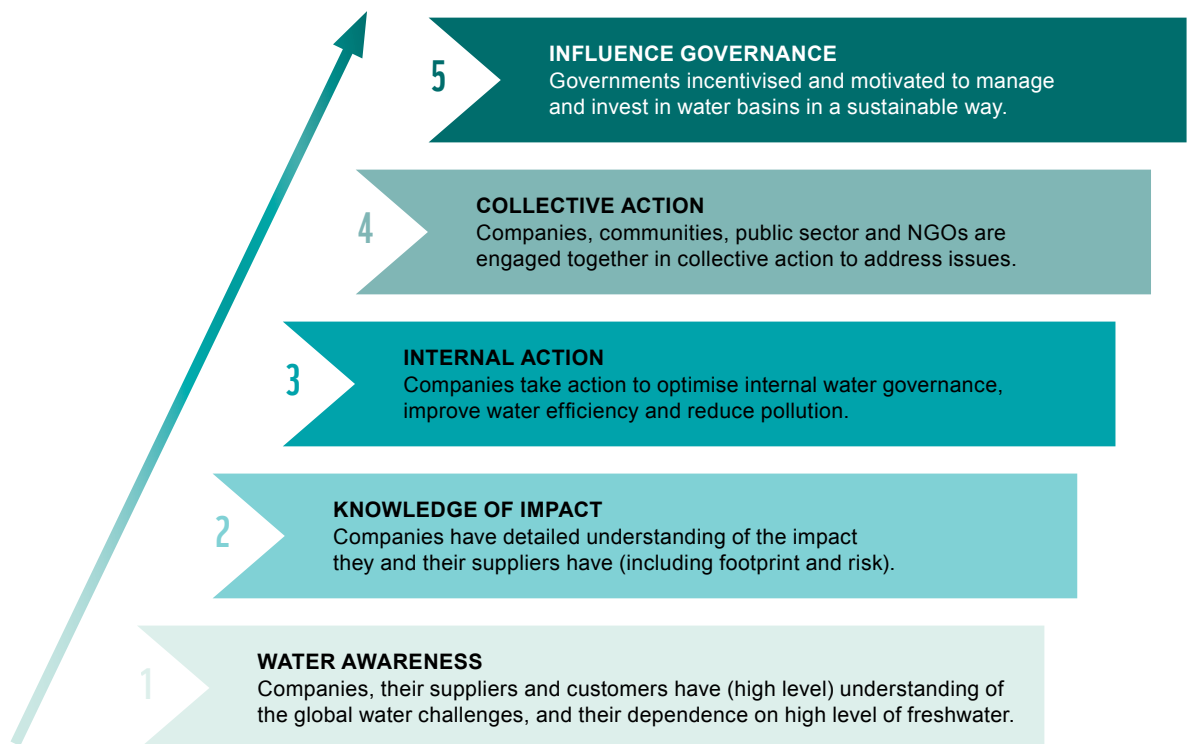


Figure 1: The WWF Water Stewardship Ladder (2013)

BOX A: 2016 ODI/IUCN Review of Water Stewardship

In 2016, Newborne and Dalton published a comprehensive and useful review of water stewardship that came to a number of conclusions, including:

- » Disruption of operations was a driver, along with emerging regulatory reforms in many emerging markets, but intrinsic and brand issues remained key motivators for most companies engaging in water stewardship
- » As of 2016, there had been little evolution from business as usual [i.e., companies were stuck on Step 3 of the ladder], with most efforts continuing as internal, technology-oriented incremental improvements with minimal basin efforts (and those that there were, were driven by “Corporate Social Responsibility” projects intended to protect brand and social license to water allocations).
- » There was little evidence of fundamentally re-evaluating trade-offs around what is being grown where, rather the focus remained on how crops were being grown.
- » There remains a lack of M&E data on performance and voluntary disclosure remains the norm
- » The work also found that there was a need for stronger leadership from government on integrated water resource management and that there was a disconnect with stewardship

We concur with these conclusions and believe that our key recommendations in this report (*Section 2*) speak to how we might make progress with some of these challenges.



REFLECTING ON THE PROGRESS IN WATER STEWARDSHIP

Drivers, Successes & Opportunities



1.1 THE DRIVERS OF WATER STEWARDSHIP

The primary drivers of water stewardship remain largely the same as they were in 2013, though arguably the drivers have grown stronger. In particular, we have seen a rise in investor awareness and pressure, as well as continued growth in corporate water risk response. CDP Water (2017) data illustrate how companies continue to report more bottom line impacts. It appears that investors drawing on CDP data are increasingly not allowing companies to ignore basin risks as it continues to increasingly affect shareholder value. Moreover, they're understanding that marketing and internal water management responses are insufficient. Water risk remains a driver and we expect the calls for more meaningful action to protect and increase shareholder value to grow louder.

In the past five years some additional drivers have emerged: (1) a growing recognition around economic water risk, (2) the growth in recognition of the value of water, and (3) the development of internal “purpose” drivers tied to broader water outcomes.

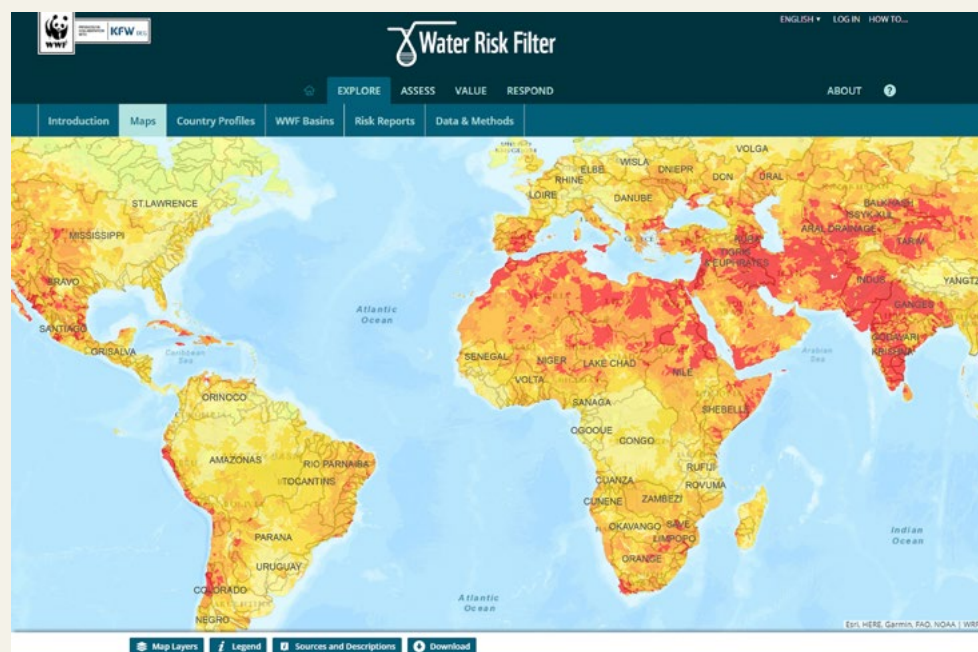
1.1.1 - Water as an economic risk

World Economic Forum (WEF) data from 2013-2018 attest to the growing consensus of water as an economic risk – that local and regional jobs and productivity are often dependent upon not just water, but the river systems that act as the veins of the economy's health. When decision makers recognize that water is not just a cost but can also be a liability and an asset, it can spur action.

Our latest efforts seek to speak to the Value of Rivers, which frames rivers as economic arteries that deliver multiple benefits beyond simple water provision. Furthermore, the evolution of the Water Risk Filter (*Box B*) now includes a new “Value” section, helping users navigate this emerging aspect of water stewardship. This evolution is the beginning of an effort to engage economic audiences who can help to explore the economic trade-offs of agricultural imports/exports and nexus issues flagged by Newborne and Dalton (2016 - *see Box A*).



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BOX B: The Evolution of the Water Risk Filter: From assessment to response (and value)

Since 2013, the water risk assessment landscape has shifted considerably. Not only have we seen hundreds more Global 2000 companies begin to assess water risk, we have seen new data come online and new demands emerge (e.g., valuing water and seeking actionable responses to water risk).

In response, WWF has undertaken a major re-working of its flagship tool: the Water Risk Filter. Launched in 2012 in partnership with KfW-DEG, the tool has always offered the ability to explore, assess and prioritize water risks. However, the newly re-built version also now allows users to Value and Respond to water risk. The Value section will enable users to identify suitable approaches to valuing water risk, and offer a new calculator to quantify the financial value potentially affected. The Respond section offers a tool to provide customized, contextually-appropriate responses that respond to unique water risk profiles.

Furthermore, in an effort to walk-the-talk on collective action, the new tool has also embraced a greater level of inter-organizational collaboration. Not only have we now included WRI's Baseline Water Stress as an integrated data layer, but we have also created links to other water stewardship frameworks, including Ceres' Aqua Gauge, the CEO Water Mandate's Water Stewardship Toolbox and numerous other efforts. For more, visit: <http://waterriskfilter.org>

1.1.2 - Water as value

Building on observations from investors and reviews (e.g., see Box A), we have been suggesting over the past few years that companies increasingly need to frame water stewardship as an approach that can protect, manage and grow value, rather than simply why stewardship is needed to minimize risk. Water issues can impact multiple aspects of an income statement - be it costs or revenues (Figure 2). We continue to stress the fact that the price of water differs from the costs of water, which differs from the value of water.

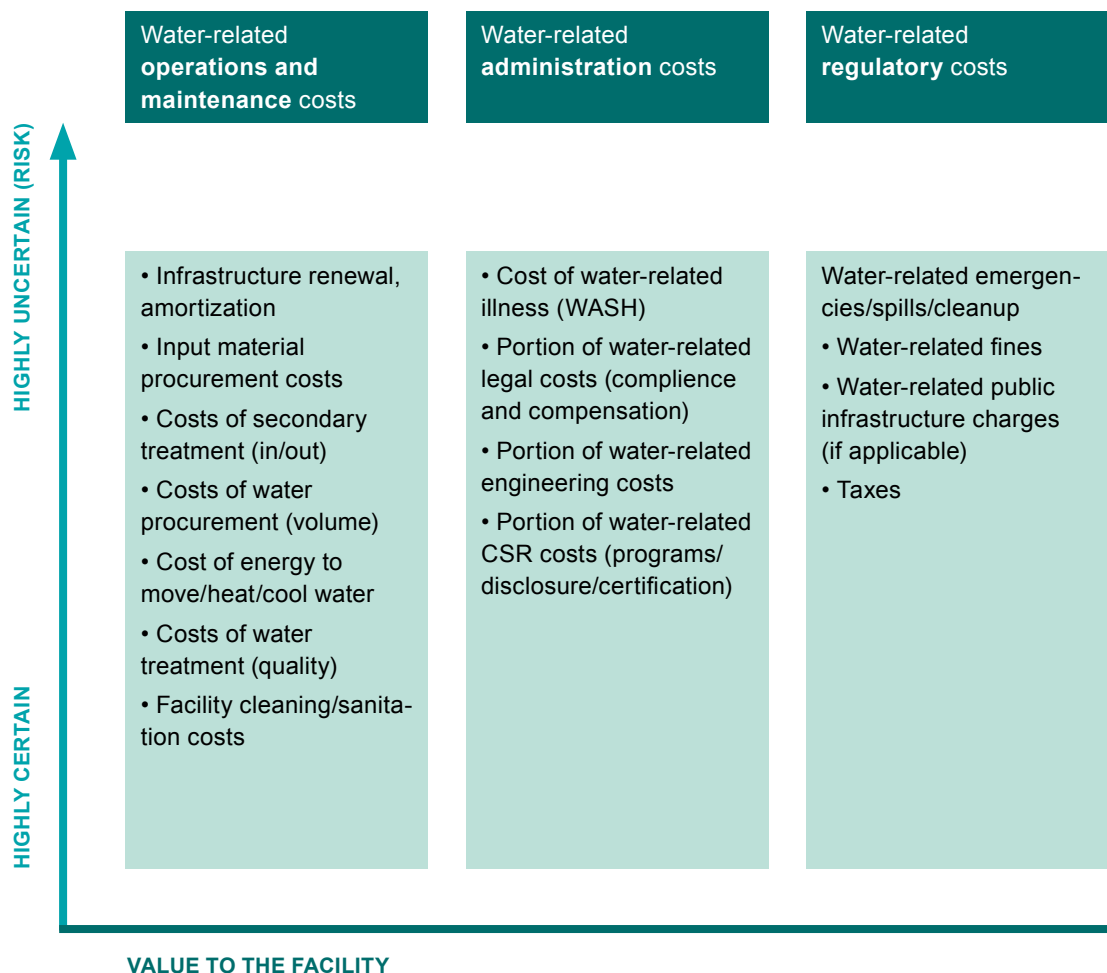
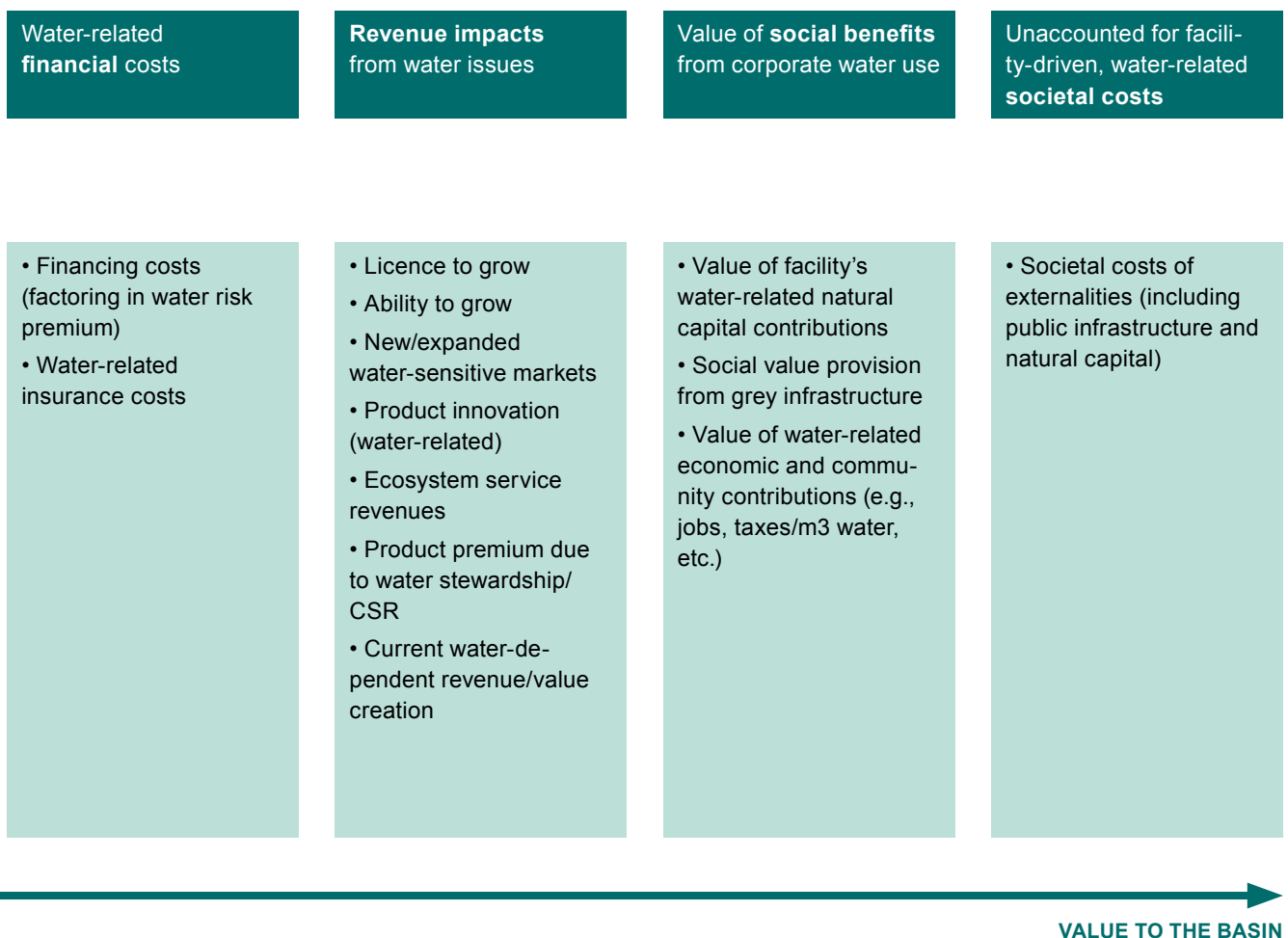


Figure 2: Financial aspects impacted by water; Source: Morgan & Orr (2015)
Risk factors affect the value of the costs and revenues listed above.

As we argued in 2015, water stewardship maximizes value creation – and not only financial value, but economic, social and ecosystem value as well. Moreover, we argued that whereas water management tends to focus on more immediate, narrower and internal water pricing and cost issues, water stewardship employs a more holistic, longer-term, future-risk mitigation approach that captures value at multiple scales (both spatial and temporal). We continue to find that motivations and human behaviour in companies veer towards the short-term. Once the drought/flood/spill/etc. crisis passes, the “amnesia” sets in. Risk seems to manifest as a short-term driver for many companies, when in fact it is a long-term issue. By shifting to opportunity and value (and using frameworks that we have devised), it is our hope that the motivations and the time horizon can be extended further to encourage corporate leaders to take the long view.





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BOX C: Does Water Stewardship even matter anymore?

Yes - more than ever before. Over the past few years we have heard some parties note that interest in water stewardship has waned somewhat, leading some to suggest that we are entering a post-stewardship world. We beg to differ.

Our belief is that many companies, while perhaps changing language, are in fact still struggling to fundamentally shift from water management to water stewardship. Companies continue to look to internal projects and internal mechanisms such as shadow pricing to create a “business case” for water stewardship. As we have observed a growing interest by companies in the value of water, we have seen a growth in the quantified evidence base on why stewardship makes financial sense. There are many ways to think about how water affects financial returns, some of which we outlined in 2015 in our report on the Value of Water.

There is also an increasing case to be made around **future value protection**. Externalities represent an unaccounted for liability. In the same way that oil and gas companies are facing lawsuits for the liabilities accrued from fossil fuel use (van Renssen, 2016), so too may the future generations of water users deem that companies were negligent in addressing externalities.

So to those who question the relevance of water stewardship, we offer the following response: **current trends only increase the relevance of water stewardship to corporate audiences.**

1.1.3 - Water as purpose

In 2015, we also framed how water stewardship helps to create social value in the basin. Increasingly, the ability to demonstrate broader corporate purpose is becoming critical for companies. Recent data from GlobeScan and SustainAbility data (via Corporate Leaders Survey) highlight this trend and point to the growing challenge of attracting and retaining purpose-driven millennials (Grayson et al., 2018). As human resource motivations become an increasingly important driver for all sustainability issues, water, as a fundamental human right and the basis for all life, can be positioned as purpose. Further evidence to this trend comes in the form of BlackRock's Larry Fink's letter to CEOs in 2017, which also called out the importance of purpose. As we look to the future, we believe water may indeed go beyond risk, beyond value and for some companies, form the basis for purpose.

BOX D: Reflections on the Alliance for Water Stewardship

When the 2013 Brief was published, the Alliance for Water Stewardship (AWS) was a nascent initiative, still two years away from launch. Today, it has over 100 members, dozens of certified sites, and hundreds of sites in the process of being certified.

However, beyond certification, the real value of AWS has come via its ability to create alignment in the water stewardship community. It has helped to provide consistent definitions in the space, created a forum for applied practitioners to come together and exchange learnings. The standard has been broadly adopted and implemented by numerous Global 500 companies in their operations and is now being linked to sourcing requirements and tied to agricultural sustainability standards. As AWS continues to build capacity in the water stewardship world we believe it can not only play a key role in helping corporate staff develop professional credentials, but also drive coordination of collective action and help to improve performance monitoring. Furthermore, it offers a credible product that investors and Environmental/Social/Governance (ESG) ratings agencies can look to, demand alignment around, and provide a proxy as a considered response to water risk. WWF remains a supporter of this important initiative and is proud to have played a role in creating an ally in the stewardship space.

AWES Global Network Search Contact

ALLIANCE FOR WATER STEWARDSHIP

ABOUT OUR WORK GET INVOLVED CERTIFICATION WATER STEWARDS WHAT'S NEW

WATER STEWARDS

WATER STEWARDS ARE RECOGNIZED FOR THEIR COMMITMENT TO, IMPLEMENTATION OF, AND ACHIEVEMENT WITHIN THE STANDARD

Independent assessment and certification confirms you are addressing the AWS Standard and through annual surveillance lets you keep on top of those challenges over time.

Implementing the AWS Standard alone will help you as a water user, but independent certification will keep you on course with your water stewardship. This can benefit your business.

REGISTER YOUR SITE CERTIFY YOUR SITE

Certification against the AWS Standard is a mark of having met the global benchmark for good water stewardship. AWS certification has three levels: Core, Gold and Platinum. Higher levels of certification are designed to drive continual improvement and stronger collaboration on shared water challenges.

The following sites have registered or attained certification against the AWS Standard:

REGISTERED SITES CERTIFIED SITES

OUR WATER STEWARDS



1.2 REVIEWING THE SUCCESSES IN WATER STEWARDSHIP: WHAT HAS WORKED WELL?

The progress in water stewardship has been steady since 2013. Below, we highlight a few of the aspects that we feel have worked particularly well:

1. Strengthening of water stewardship in standards and certification: Since 2013, there has been ongoing progress in integrating stronger water stewardship thinking into various standards and certification systems through stronger water criteria and greater focus on basin context.

e.g., The Better Cotton Initiative new standard, improvements in the HIGG Index, etc.

2. Proof that the water stewardship ladder can work for Small & Medium Enterprises (SMEs): While the focus may begin with awareness and internal action, the concept of water stewardship appears to be equally relevant to SMEs in developing countries and is not only driving greater profitability and environmental benefits, but also collective action at the city-wide level. Mobilizing SME suppliers is critical to engaging the early majority.

e.g., beginning in Lahore, Pakistan, WWF has engaged hundreds of SMEs on a water stewardship journey. This work has now been replicated in four other cities.

3. Sectoral recognition & guidance: In the past few years there have been progressively better sectoral efforts when it comes to water stewardship - critical to mobilizing the early majority. While the beverage sector was amongst the leaders in 2013, they have now been joined by much more aligned thinking and guidance on water stewardship by other sectors.

e.g., clothing & apparel (SAC/HIGG), hospitality (ITP), and mining (ICMM), all have guidance materials/frameworks on water stewardship

4. Improved disclosure: In addition to a growth of companies disclosing on water risk, there have also been improvements in the stewardship aspects of water reporting. Improved water disclosure data have enabled new abilities to explore the link between water risk and financial materiality and in turn to popularize water as an issue for mainstream investor audiences.

e.g., CDP, GRI and SASB have all adjusted, and largely aligned, their respective metrics to better reflect basin context, while the Task force for Climate related Financial Disclosure (TCFD) has increasingly engaged investors and flagged water as a concern.

5. Continued water stewardship community collaboration: There has always been a solid level of collaboration amongst both companies within sector associations (pre-competitive) and also amongst the NGO support community that are helping to enable water stewardship. This “water stewardship ecosystem” has both diversified and integrated simultaneously, helping to grow and focus at the same time, which has been a positive development.

e.g., water & green bond principles (e.g., Climate Bonds Initiative), to campaigns (e.g., WWF & Ceres on the AgWater Challenge), to tool integration (e.g., WWF Water Risk Filter's linkages with AWS, CEO Water Mandate Toolkit, WRI Aqueduct, etc.) and concept development (e.g., Context-Based Water Targets).

1.3 OPPORTUNITIES FOR IMPROVEMENT (AND HOW WWF HAS RESPONDED)

Despite these successes, we know from empirical evidence that freshwater challenges continue to worsen. We, as a water stewardship community, need a re-think if we are to get to the scale necessary to tackle the challenge. Below, we outline six key themes that need to be overcome to change course:

1.3.1 Mobilize to ensure response matches risk

Water risk exposure, in general, continues to grow as more users harness more water and as weather patterns grow more erratic. Despite these rising risk levels, we continue to witness weak and misaligned responses to water risk. For example, we see efficiency solutions deployed to solve shared over-withdrawals. We need to see the right actions in the right places. Furthermore, we have witnessed insufficient investment in many cases, with claims outstripping impacts. While not “greenwashing”, it has become apparent that the brand and reputational risk motivator is often more material than the physical water risk motivator - until such time as a disaster/risk manifests and the physical reality motivates a knee-jerk response, but often in a cost ineffective manner. Companies need to ensure response matches risk, not only for their own operations and suppliers, but their basin peers as well.

WWF's Response:

- » Building out new functions in the Water Risk Filter to help to ensure response is aligned to risk and provide a pragmatic tool to implement contextual water targets.
- » Promoting our Bankable Basin Solutions with the private sector to help ensure the scale of response matches the scale of risk at the basin level.
- » Proactively engaging companies to improve awareness and uptake with partners like CDP and Ceres, as well as positioning water as a material risk within initiatives like TCFD.

1.3.2 Harness the climate resilience opportunity to scale basin finance

The saying goes that, “If climate change is the shark, water will be its teeth”. It is true that the manifestation of climate change is very much a series of scenarios in which water is either too scarce, too abundant or too polluted. Both changing precipitation patterns and heat drive changes in water use for agriculture – the dominant water user on the planet. Yet water has ALWAYS been a naturally variable asset – hour by hour, day by day, month by month and year by year, water is variable in time and space. What this means is that everything - from animals and trees to companies and cities - has needed to be resilient when it comes to water. Yet the “adaptation” and “resilience” sphere has largely sat in the “climate domain” rather than the “water domain”. There are billions of dollars available to support climate adaptation and neither companies nor NGOs working on water have truly tapped into these funds to help scale up our work. Water stewards can and ought to be on the front line of climate change resilience. By accessing these funds we can scale up adaptation efforts through water resilience and stewardship.

WWF's Response:

- » Launching Bankable Water Solutions, a new initiative aimed at leveraging tens to hundreds of millions of dollars to scale up basin investments that address shared water challenges. These projects, which can provide a sub-three year return on investment, when bundled for scale, begin to bring ammunition to the water stewardship and conservation efforts in a way that fundamentally changes river water quality
- » WWF has been helping to shape the growing green bond market, and in 2016 published a report on ensuring green bonds remain “green”.

- » Improving financial institution awareness of water challenges and opportunities through tools, initiatives and events be it the Water Risk Filter, the TCFD Hub, or Financial Times Water Summit.

1.3.3 Build from basin context to meaningful response

“Water is local” is a common refrain in the water community. Indeed, local context is something that has always been somewhat inherent in water resources management and water stewardship thinking. While there has been a rise in the explicit nature of recognizing how we account for context (see 1.2), where we have lacked progress is positioning company performance in the context of a basin’s needs. Performance (e.g., water savings from efficiency improvements) cannot be evaluated in isolation of the basin’s context (e.g., monthly water scarcity/cumulative needs). Moreover, we need to ensure improvements benefit not just the company, but the basin as well and that the sum of individual efforts, matches the basin’s needs. To do so will require revisiting allocation of responsibility; be it formal or informal, we cannot avoid issues of governance. Put simply, we need to shift from individual companies pursuing efficiency to collectively allocating responsibility to achieve basin outcomes.

WWF’s Response:

- » In 2016 we helped to establish a working group on Context Based Water Targets, and subsequently launched a report in 2017. We are now working with companies to implement field-testing of methods and playing a leading role within the water hub of the new Global Commons initiative which seeks to establish a Science Based Targets Network, as well as integrate the concept into the Water Risk Filter.
- » During 2017 and 2018 we helped to re-work reporting and disclosure metrics within the Global Reporting Initiative (GRI, 303), the CDP Water questionnaire and the Sustainability Accounting Standards Board (SASB) to ensure consistent, “contextual” metrics were embedded in these platforms.
- » WWF has also helped to advance Basin Report Cards (BRCs) which represent another form of engagement to understand stakeholder context. Used to help establish common understanding and aims, WWF has successfully deployed BRCs in Colombia to help improve water governance by creating a common picture of basin context, and through this, aligned basin water goals.

1.3.4 Unlock the Fourth Industrial Revolution

The so-called “Fourth Industrial Revolution” – the new way of operating enabled via the internet and globally networked data – is radically shifting modes of thinking when it comes to water data. For many years the water community has been calling for more (and better access) to water data; indeed, most water bodies around the planet still lack basic monitoring. However, there is a fairly radical shift that has occurred over the past five years and we now stand at the edge of a new era of water data in which the challenge will cease to be a quantity of data challenge, and become more of a coordination, interpretation and quality of data challenge. Few have considered, let alone begun to respond to, this shift. The terabytes of remotely sensed data coming from a growing number of satellites and drones, the emergence of cloud-based computing to process data, the development in Artificial Intelligence, the growth in wi-fi linked devices (the “internet of things” or IoT), the adaptation of smartphones to act as sensors, and many other technological developments have created a new reality of data abundance and massive opportunities. The coming era of transparency around corporate water stewardship performance and blockchain-based verification offers a pathway to help address performance, monitoring and evaluation, and scaling all in one go (see challenges noted in Box A). We now need companies to help enable this revolution - especially as we consider measurement of common basin data.

WWF's Response:

- » WWF has begun working on how to integrate blockchain into field monitoring of water in Canada
- » We have also joined into conversations with the World Economic Forum's Global Water Initiative, Microsoft's AI for Earth and others in an effort to keep pace with the rapid changes that are coming.

1.3.5 Broaden the narrative to engage the next wave with purpose

To achieve the speed and scale of change, we must engage the next tranche of water stewards that are sitting in the wings - the early majority so to speak. Our work in Pakistan, China, India and beyond has shown us that small and medium enterprises can successfully embrace water stewardship. Our work with leaders has taught us that they can be powerful mobilizers of their supply chains. However, to really engage a broader array of companies, we now need to broaden the narrative from risk to opportunity. We need to catalyze a positive vision (as Will Sarni and David Grant refers to it, "a vision of abundance") to excite a new batch of recruits who can further catalyze scaling. Looking forward, water stewardship must be about innovation, opportunity and a positive future as much as water stewardship has historically been about risk mitigation.

WWF's Response:

- » WWF will publish an updated Water Stewardship Primer for companies beginning their water stewardship journey in an effort to mobilize the next wave (i.e., the early majority).
- » WWF is planning to set up a Water Stewardship Mutual Fund and the aforementioned Bankable Water Solutions, with a first deployment in the Buyuk Menderes basin in Turkey.
- » We have developed a new response and opportunities section in the Water Risk Filter which will go live in the fall of 2018.
- » Launching our new (August 2018) Valuing Rivers report with the intention of building out impactful coalitions around WWF's Freshwater Initiatives.

1.3.6 Bridge the collective action chasm

Lastly, and perhaps most critically, we continue to struggle to work together to drive change at scale. Given the importance of working together to address "shared water challenges", why have we seen such little action at scale? Why is it not happening, what have we missed, and how can we better bridge the gap between internal action and activity beyond the fenceline? In simple terms most companies today could be classified into one of three groups: (A) Those who haven't even thought about water issues, (B) Those who are aware, understand their impacts and are taking limited internal actions, and (C) those who are doing all of the above, and are struggling with collective action. The leap between Step 3 (Internal Action) and Step 4 (Collective Action) is a chasm that few companies have managed to cross successfully. Fewer still have engaged effectively in strengthening water governance through policy advocacy. While we recognize that getting ones house in order is an important step towards legitimacy in Steps 4 and 5, there are also other aspects in need of attention:

(i) Staff skills: many site staff are engineers and feel much more at ease addressing internal, technical solutions than external, stakeholder solutions. This points to the potential value of training programmes in water stewardship. WWF's response: WWF is supporting AWS's efforts to build a credentialing programme for professional water stewards, which we believe can equip professionals with the tools and ease of mind to get into the basin.

(ii) Collective action confusion: there remains a very broad array of actions that fall under "collective action" with little guidance on how to effectively implement these programmes. This has once again left NGOs to develop various models of collective actions, many of which are complicated, highly involved and take time to implement. Furthermore, these programmes have often lacked quantitative data on their effectiveness. This points to the need for simplifying options, documenting performance of each of these pathways, and sharing lessons learned. WWF's response: In addition to helping to tailor suitable responses in version 5.0 of the Water Risk Filter, WWF will be seeking to build out additional guidance on collective action in the coming year to help bridge Steps 3 and 4 of the Ladder and navigate the landscape.

(iii) Funding: Collective action is not fast, nor cheap and companies, especially sustainability teams, do not have unlimited budgets. The ability to mobilize funds to enact collective action is a critical challenge that needs to be addressed. WWF's response: We are exploring how to mobilize new forms of finance, from government pay-for-performance bonds to other commercial lenders to mobilize the hundreds of millions of dollars that are needed.

(iv) Perverse incentives: incentives to pursue collective action are perverse. Companies are rewarded (financially) more for internal action than collective action. Even for NGOs there are few incentives for NGOs to collaborate in a given basin. This points to the need to revisit incentive systems, especially when it comes to funding to motivate basin-oriented cooperation. WWF's response: We are advocating to key water stewardship funders to incentivize cooperation (over multiple small grants). We have also been working to establish a statement of intent between players like AWS, CEO Water Mandate, GIZ and others to seek to better coordinate around water stewardship.

(v) Re-engaging Integrated Water Resource Management: there remains the need to close the gap between those enabling Integrated Water Resources Management (IWRM) and those driving the bottom-up paradigm of water stewardship. As outlined by Newborne & Dalton (2016), this will mean bringing together basin organizations (e.g., International Network of Basin Organizations), relevant public sector agencies (including economic planning departments), together with NGOs in both the IWRM space (e.g., Global Water Partnership) and those in water stewardship to innovate and address the gap. Framing the value of water in the economy may help bridge this gap. WWF's Response: Testing collective action models at the city level (e.g., in Cape Town where we've been working with 100 Resilient Cities around Day Zero, and Lahore where we've been working with SMEs to implement best management practices). We also continue to develop our work on Water in the Economy in places like Zambia, in an effort to bring economic planners into the fold and support IWRM. We are also seeking to bring new incentives, including finance, to the basin level with a view to motivating shared responses.

As we look to the future, we must scale our ambition with a narrative of hope and opportunity. This is where we now turn our attention.



LOOKING FORWARD

Scaling up through a new narrative

As we look forward, WWF and our partners are increasingly beginning to think about value and opportunities rather than risk to mobilize corporate efforts. Moreover, water stewardship must aim to grow all forms of value - financial/economic/social/ecological - and encourage companies to frame solving water challenges as a core purpose. This positive narrative will help to further engage the next wave of companies and investors to further grow uptake of water stewardship.

At the heart of Figure 3 is a new narrative. There is a need for a more optimistic, growth oriented, positive future vision of our relationship with water and river basins. A narrative that inspires belief that we can indeed address some of the daunting challenges we face. A narrative, that, like water, is adaptive, context rich, determined and, most of all, life-giving.

To translate this narrative into action, we are offering five areas of action for companies - and increasingly other actors such as cities and economic planning departments - to embrace. These areas contain specific recommendations to help move forward - in particular with Steps 4 and 5 of the water stewardship ladder.

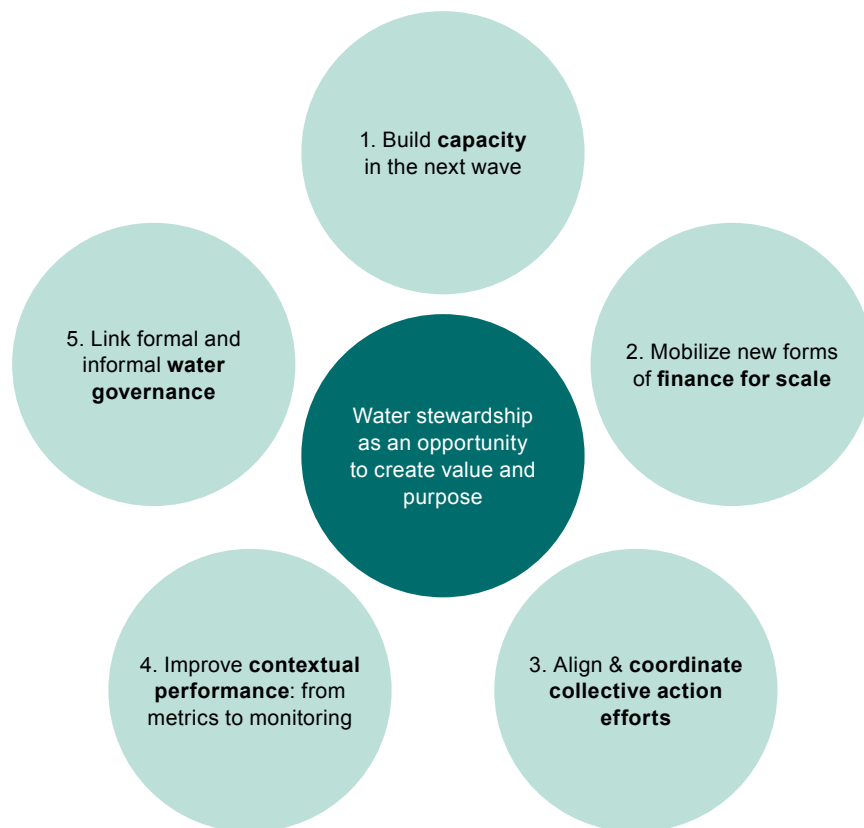


Figure 3: The elements of a new water stewardship narrative

2.1 BUILD CAPACITY IN THE NEXT WAVE

As outlined in section 1, there are still some capacity gaps in water stewardship. To scale up the majority, and to ensure there is an abundance of skill to bridge between Steps 3 and 4 of the water stewardship ladder, we will need leading companies to play a key role in building capacity - both within operations and also with the next wave. This includes:

- » **Improving water stewardship skill sets for both site managers and site engineers** to get them to not only understand the importance of working beyond the fenceline, but improve their comfort levels engaging other companies, community members, NGOs, and those involved in basin planning to improve both formal and informal water governance.
- » **Provide a deeper level of engagement with tier 1 and tier 2 suppliers** - especially those that are material and located in basins facing high levels of water risk. This could include not only skills training, but also providing seed financing to mobilize capital improvements in the supply chain. Leveraging credit and lending can help to scale the financing necessary to achieve broader basin impacts.
- » **Engage industry associations to further integrate water stewardship into industry guidance and tools.** Leading companies have an important role to play in normalizing the language, shifting the dialogue, and moreover, adjusting the water stewardship narrative to go beyond water risk and into opportunity.

2.2 MOBILIZE NEW FORMS OF FINANCE FOR SCALE

If we are to achieve scale, we will need to mobilize many more dollars, euros, renminbi and rupees. As the primary users of finance, companies can play an important role in driving this financial access including through:

- » For financial institutions and public sector agencies, there is the option to directly provide capital for water-related projects. For such financiers, it is important to consider not only grey infrastructure solutions, but also green infrastructure. Considering energy savings, water savings, and the savings accrued from other input savings should all be factored into net present value calculations. Identifying basins where many clients are located, and considering basin investments to mitigate collective water risk, may also be a prudent solution to help mitigate risk to existing assets and liabilities.
- » For other water stewardship entities, there is the need to explore new ways to value water for internal and basin investments. Ensuring the appropriate use of different water valuation tools/calculators is important, and a comprehensive approach to how value can potentially be affected by water is key to assessing water. A price/cost-only approach will invariably lead to an underinvestment in water, and put value at risk. The value of water must be considered more broadly.
- » It is increasingly important for leading companies to mobilize finance for their value chain. Think of this as enabling Step 4 (collective action) by helping many suppliers at Step 2 (understanding impact) move to Step 3 (internal action). Corporate seed funds or access to credit, especially when focused within a key basin, can mobilize much greater levels of finance, and help to improve the efficiency, resilience and loyalty of suppliers.

2.3 ALIGN AND COORDINATE COLLECTIVE ACTION EFFORTS

Basin efforts cannot afford to continue to be a random collection of bilateral efforts - we must work together. Improved collaboration can be assisted by the following:

- » Check to see who else is engaged in a basin before initiating any form of collective action. Too often there is a push to set up new initiatives rather than adding on to existing ones. In this regard, we would encourage all parties involved in water stewardship to commit to working together through our newly published statement of intent on collective action and link into water stewardship networks where they are in place.
- » Increasingly, there are strong, pre-competitive, sector associations with strong water work (e.g., Sustainable Apparel Coalition, Beverage Industry Environmental Roundtable, International Council on Mining & Metals, etc.). It is important that companies join sectoral water efforts, actively encourage peers to join, and push the initiatives to continue to grow their water stewardship ambitions.
- » To work together, we need to know where each of us is working. To this extent, the use of certain tools can help NGOs to play collective action matchmaker. The Water Risk Filter, CDP Water and the CEO Water Mandate's Water Action Hub, are all platforms that, through their use, can help NGOs more efficiently broker collective action - especially in key sectors such as food & beverage, apparel & textiles, and retail.

2.4 IMPROVE CONTEXTUAL PERFORMANCE: FROM METRICS TO MONITORING

Efficiency and pollution prevention, in isolation, will not get us to sustainable, healthy basins. Accounting for context is not only better business (efficient use of limited sustainability dollars), but it's better for basins. Moreover, we need to raise our collective performance and ensure we can prove it through the following:

- » There is a critical need for all companies to immediately shift from business as usual (i.e., efficiency everywhere) to contextual targets (i.e., efficiency in places that need it) and, as soon as possible, to Context-Based Water Targets (CBWTs) (i.e., a specific amount of water use/savings given basin thresholds). Considering cumulative performance in a basin context is essential if we are to lower basin water risks.
- » As leading companies increasingly improve their understanding of local basins, there are opportunities to share data and establish a transparent understanding on the status of water. Source vulnerability assessments, AWS data gathering, Basin Report Cards, and the new high resolution data sets in the Water Risk Filter are all examples of data that can be shared, harnessed and employed to create a common understanding.
- » With the coming 4th Industrial Revolution, companies have the opportunity to implement new technologies to monitor water use performance in (near) real-time and share the lessons learned. As we grow use of next-generation technologies, best management practices will rapidly evolve, so adaptively harnessing lessons will help us all improve and help to give companies the opportunity to lead the way.

2.5 LINK FORMAL AND INFORMAL WATER GOVERNANCE

Lastly, water governance, as we have always maintained, is at the heart of sustainable basins. It remains at the center of where leading corporate water stewards need to focus. Looking forward, companies have pathways to help, including:

- » Supporting and encouraging actors like ministries/departments of finance/commerce to promote the economic importance of water. These powerful ministries, when motivated, have the ability to mobilize resources and politically “unstick” tricky water governance debates. Reconceiving the value of rivers and water may help to engage a new, powerful ally to water governance.
- » Companies have always sought to build strong community ties. Considering such relationships as a basis for water-related disaster response is a way to begin to build climate change adaptation and resilience plans into practice. In short, companies that build trust and relationships with basin stakeholders to strengthen informal water governance as well as water resilience will be at an advantage.
- » Finally, there is an ongoing need for companies to engage in - and help to innovate - IWRM. Industry associations and water stewardship networks offer a good starting place to engage in dialogue and come up with new approaches (which can then be embedded in corporate policies/guidance) as individual sites can struggle with how to engage or innovate. There is much work to be done in this space, and we are keen to see leading companies roll up their sleeves!

Considerable progress and development in water stewardship has been made in the last 5 years, but the reality remains that many of our basins and water resources continue to decline in quantity and quality. Water stewardship, and the journey we've long advocated, remains as critical as ever. There has been success in growing the concept, shifting it into small and medium enterprises, embedding it in some standards, and corporate engagement - from sectoral collaboration to disclosure. We have, as a collective community of NGOs and companies, developed an ecosystem which has fundamentally re-shaped water management into the notion of stewardship. This significant body of knowledge and experience is not only a sign of progress - it is a huge asset for those who will join us. Nevertheless, there also remain many challenges, the most notable of which remains the ongoing failure to go beyond internal action and scale up collective action.

To forge a new pathway, we need leading companies to help drive a new narrative in the water stewardship space - one that is focused around notions of value, opportunity, collaboration, context, innovation and resilience. As leading companies reposition around the notion of purpose, especially to attract and retain millennial talent, water can form the basis of purpose.

To do so, companies will need to harness new approaches in recognizing the value of water. They will need to mobilize new forms of finance, to mobilize peers and support suppliers, and to drive coordination to a much greater extent. With radical shifts in data availability arising out of new technologies, there are new opportunities coming to ensure that solutions are fit for context and that the sum of our actions is indeed delivering the impacts that sustainable basins - and sustainable economies - require.

WWF is committed to realizing this future vision - a vision rooted in the belief that human ingenuity, passion and drive can have meaningful impact. WWF will seek to walk the talk, but if we are to realize this vision, we will need our corporate partners - the leading water stewardship companies - to raise their level of ambition. Water is the basis of life, and something that binds us all. Water is everyone's business.

ANNEX A - REVISITING WWF'S COMMITMENTS: WALKING THE TALK

While it is helpful to offer advice to others, the real proof comes in the form of one's own actions. To that extent, the table below outlines what we said we would do back in 2013, what we did, and what we will be doing going forward.

WHAT WE SAID WE WOULD DO	WHAT WE DID
1. Identifying / mapping companies in basins & tracing supply chains / investments	Scaled up mapping for mining, textiles, hydropower, & crops, and have tracked ESG data provider efforts, but did not manage to map all actors and basins. We also engaged in financial flow mapping in several basins, including the Mekong.
2. Implementation / working with companies to work at scale	Lots! As a set of examples: - in Pakistan we scaled up engagement with SMEs to implement stewardship with over 250 companies - in China we expanded industrial park work to engage dozens of companies - in India we have ramped up work through the Ganges Leather Buyers platform to drive change across supply chains using the leverage of corporate supply chains - from supporting initial AWS pilots with Nestle, we have helped to secure Nestle Waters' commitment to 100% AWS certification.
3. Risk analysis & development of the Water Risk Filter	Starting in 2016, we undertook a complete overhaul and upgrade of the Water Risk Filter, which was relaunched in August 2018. Over 70 companies reporting to CDP Water now use the Water Risk Filter, and the tool has assessed over 200,000 sites.
4. Valuation – including new work and integration into the Water Risk Filter	Developed a valuation framework & publication; developed a valuation tool finder; developed a new value potentially affected calculator (in beta) that is powered by CDP Water data. We've also released a series of reports focusing on the value of water & rivers in the economy – from the Zambezi to the Mekong.
5. Validation of impacts – including securing policy shifts	Translating corporate water stewardship into policy has not progressed as far as we might have hoped. While there have been examples of policy improvements (including integration of stewardship into policy in South Africa, for example), and examples of corporate advocacy (such as H&M in the Ganges Leather Buyers Platform), if we are honest with ourselves, stewardship has not emerged as a major force when it comes to policy change.
6. Speaking up – Be vocal on initiatives and claims, and challenge others	We have continued to challenge and guide “water neutrality” claims and efforts, helping to provide them with guidance, nuance and fitting them into a bigger picture. We also made the decision to step away from the Governing and Steering Board of the 2030 Water Resources Group after we felt it could be doing better and also helping to ensure best use of limited staff resources. Through two publications on water stewardship in agricultural sustainability standard systems (2015 & 2017), as well as through bilateral engagement, we also advocated for stronger water stewardship elements to be included in multiple standard systems, including the Better Cotton Initiative.
7. Working with investors, pension funds and financial institutions	Over the past few years, we've helped to reshape the CDP Water questionnaire, the GRI 303 Water standard, and raised awareness in the financial sector as a whole (via engagement with Environmental Finance, Green Bond principles, etc.). We have also partnered with UNPRI to publish guidance on how investors can engage their supply chains, as well as with Ceres to run a joint AgWater Challenge campaign seeking to mobilize investors to ramp up corporate engagement of water stewardship in their suppliers.
8. Communicating – Our objective is to highlight what works and what has not	WWF has remained a key voice in the space. We have published dozens of reports, and hundreds of articles, including numerous peer reviewed publications. For example in 2018 we published a journal paper outlining our experiences in how water use efficiency is failing to ensure environmental flows (Linstead, 2018).
9. Key partnerships – Work with selected leading companies who have either demonstrated leadership in water stewardship or who share our vision	We have ramped up our partnership work, especially in key sectors and now have an array of partners exhibiting leadership in water stewardship. For example, H&M, Target, Edeka, Coca-Cola, Mondi and many others.
10. Collaboration – Work with other groups, companies and NGOs on water stewardship on new initiatives, tools, & data.	Nearly every piece of work we have done over the past 5 years in water stewardship has been in collaboration with others. Whether it is developing a water valuation framework with IFC, guidance on collective action with the UN Global Compact (CEO Water Mandate), CBWTs with a group of six other peers, or now linking the Water Risk Filter's functions to other frameworks, we pride ourselves on having been highly collaborative over the past five years. In particular, we agree with many peers that the Sustainable Development Goals (SDG6 on water in particular) can act as a useful coordination framework. This work will also extend to other pre-competitive efforts, such as the Courtauld 2025 effort in the UK.

WHAT WE WILL BE DOING FROM HERE

Additional mapping and analysis; ongoing tracking of ESG data provider efforts to map corporate operations & supply chains.

Scaling up sector engagements in Apparel & Clothing, Food & Beverage, and Retail, as well as other select sectors. We will continue to develop platforms that grow impact. In particular, we will be seeking to scale up basin efforts via Bankable Water Solutions by driving investment into bundled projects to help achieve a bigger impact.

Building out risk analysis, valuation sections, enhancing responses. Going forward, we're also considering including sector-specific responses, technologies, and linking to Bankable Projects (follow [@WWFWaterRisk](#) on Twitter for the latest)

Refining the value potentially affected calculator and linking valuation data with risk data and scenario data to support the Task Force for Climate Related Financial Disclosure (TCFD). In addition, we plan to continue to explore the value of rivers in the economy – in particular seeking to highlight their importance for macroeconomic growth beyond purely the value of water.

We're not giving up! We intend to engage corporate water stewards in particular to help uphold the EU Water Framework Directive, which is under threat, through our Living European Rivers work. We are also focusing on 4th Industrial Revolution technology (i.e., Internet of Things, blockchain, big data, AI, etc.) coupled with CBWTs to re-evaluate how we can strengthen impact validation.

We intend to continue to hold the line on neutrality claims and challenge dubious claims when it comes to water stewardship. We also intend to continue to help shape other emergent and existing standards, with a particular emphasis on ensuring integration between AWS and other agricultural commodity sustainability standards.

As we look to the future, we are ramping up our efforts around Bankable Water Solutions – what we believe to be a key mechanism to scale investments in basins. We will continue to mobilize investors to assess risks in portfolios through tools like the Water Risk Filter, linking efforts to the emerging work on scenario assessment under the Task Force for Climate Related Financial Disclosure (TCFD). We also intend to continue to focus on mobilizing pressure on companies to act on the most critical aspect of their water use – their agricultural supply chains.

We remain committed to putting out our latest thinking – as evidenced by this briefing, along with blogs, reports and peer reviewed articles. Success, after all, typically only arises out of failure and communicating both is important.

While we will continue to engage leading companies who share our vision, we're seeking to scale up to support sectoral level, pre-competitive commitments. This means greater effort with sectoral platforms such as the Sustainable Apparel Coalition and the Beverage Industry Environmental Roundtable.

Not only do we see ongoing collaboration as central to our efforts, but we are helping to lead the way with a new commitment effort – a global statement that will enable peers to join us in a common vision for collaboration in water stewardship.





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Water Stewardship Revisited

100%
RECYCLED



19%

Of global GDP comes from catchments facing high or very high water risk.

US\$23.4 billion

Were committed by companies across more than 1,000 projects to tackle water risks across 91 countries worldwide in 2017 (CDP, 2017).



#1

WWF's rank of NGO partners in GlobeScan/SustainAbility Leaders Survey

200,000+ sites

Have been assessed in the Water Risk Filter to date, and in fall 2018, the updated version will allow all to review custom response recommendations.



Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

www.panda.org/freshwater

WWF Deutschland

Reinhardtstr. 18
D-10117 Berlin | Germany

Tel.: +49 (0)30 311 777 700
Fax: +49 (0)30 311 777 888