UNPACKING COLLECTIVE ACTION IN WATER STEWARDSHIP

SHARED SOLTUIONS FOR SHARED WATER CHALLENGES

STOCKHOLM WATER WEEK 2023 DRAFT

GENERAL DISCLAIMER

This draft version of the working paper has been developed ahead of Stockholm Water Week 2023 and is intended to be made available to attendees of the conference who are interested in reading it. The paper has been developed with the input from many different individuals representing organisations across the water community. In addition, a series of sessions have been planned for Stockholm Water Week where parts of this paper will be further discussed which will advance this paper further.

As such, until this paper is formally released (i.e., without being marked as DRAFT), the views expressed within this document remain those of the individual contributors and not necessarily those of the organisations they represented. The process to formalise the release of this paper will include asking contributing organisations to, in some form, endorse or reaffirm a commitment to what is contained within this document. Equally, every effort has been made to review the grammar and spelling of this paper, but errors may still be present.

Ahead of this formal release, we want to acknowledge the organisations that have contributed to this paper so far, these include:

- WWF
- The Nature Conservancy (TNC)
- WaterAid
- Global Water Partnership
- Alliance for Water Stewardship
- CEO Water Mandate
- Good Stuff International
- SHARE Sustainability
- Oxford Earth Observation
- Water Integrity Network
- AstraZeneca
- The Rivers Trust
- WRAP
- IDH (SIFAV)
- IUCN
- Thirst Foundation
- Water Foundry
- Inditex
- Diageo
- Microsoft
- ABInBev
- H&M

Foreword

If you're reading this, then you're likely a professional working to solve the shared water challenges facing our planet. Every one of us has a story (or two) of why we are passionate advocates of helping to ensure sufficient water for people and nature. We all want to see things improve and we've given our lives to making that happen. Over the past decade, many of those in this group have written reports, pushed commitments, and indeed developed incredible programs on ground that HAVE made a difference.

Despite our passion and some wonderful efforts, on aggregate, we are, collectively, losing the fight. Freshwater biodiversity continues to fall - down some 83% since 1970[1]. Access to clean water and sanitation remains dire or non-existent for hundreds of millions of people, especially for vulnerable people. Climate instability only continues to grow, further exacerbating freshwater challenges. When you're already working nights and weekends, working harder isn't the solution. We need new ways of working together to achieve scale and pace. While each of our organizations, and the diversity that comes with it, is useful, powerful (indeed needed), our models of operating are getting in the way of scaling and linking up to something different and more powerful.

That is what this paper is all about: setting the basis for a new way of working together as an ecosystem of freshwater solution providers. The concept of collective action is a powerful one - rooted in the notion that by working together, we can deliver more. Few of us would question the need for greater collaboration - indeed, working on freshwater as a common pool resource, has trained us all to think in systems and work with others. Yet despite this, our own efforts on collective action have remained fractured, and so this paper seeks to initiate a process, starting with us, to bring us together. It is rooted in each of us as individuals, with a view to bringing our organizations along with us, and in turn, bringing along other actors - companies, public sector agencies, other civil society groups.

We have been on a long journey together, but hopefully the dialogues that this paper can initiate will spark the beginning of bending the curve on freshwater biodiversity, a framework for climate change adaptation on water for people and help us all live up to the vision we set out for ourselves when we committed ourselves to water.

So, consider this your invite to join us in this dialogue as we forge an implementation pathway to tackling shared water challenges through collective action.

Collectively,

The Authors

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[1] WWF (2020) Living Planet Report

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Executive Summary

For some time now, collective action has been rightfully seen as a goal to aspire to in order to deliver on Sustainable Development Goal 6 on Freshwater. As a shared resource, collective action is critical to achieve the scale, scope and speed required to address shared water challenges in catchments. While some publications have touched upon this topic going back over a decade, recent experiences have not been captured and a path forward, based on lessons learned, has not been chartered.

This paper outlines, in four sections, a series of frameworks, our shared experiences, opportunity mapping and a proposed pathway forward for collective action on freshwater. Part I offers up the rationale for collective action, as well as a working definition.

Introduction

Water, along with air, are the most shared, common pool resources on our planet. The recognition that freshwater is a shared resource is widely acknowledged between governments, businesses, NGOs and communities. Furthermore, water is a resource that touches upon every aspect of our life, every economic activity, environmental consideration and social implication. As such, it is not a challenge that any one actor or sector can "solve" single-handedly. Solutions at a meaningful scale require collaboration. However, the process of working together to protect, manage and restore such freshwater resources has far less agreement. Efforts by governments to deploy river basin management programs have met with mixed success and in practice, our efforts continue to fail to successfully deliver at scale on ground in catchments - as evidenced by ongoing freshwater biodiversity loss, water scarcity, polluted river systems and inadequate delivery of WASH to communities. In addition to that, there is a persistent gap in the large-scale investments needed to deliver outcomes at scale.

To address the situation, many NGOs have endeavored to step into the fold and act as "convenors" of collective action. Yet we (NGOs) too have not fared much better. In particular, **often we have failed to coordinate amongst ourselves, resulting in competitive collective action and ironically, undermining our shared aim.** NGO-led corporate water commitments continue to proliferate, and we continue to lack a shared implementation pathway to unify actions, as our current mode of operation could best be described as a series of independent, but sometimes geographically clustered, efforts. Furthermore, we are still struggling to mobilize the broader ecosystem of business solution providers as allies - from startups to multinationals, there are many companies out there with an aligned mission. In short: everyone recognizes the "need to work together to solve shared water challenges", but in practice, we're all pursuing working together independently and that needs to change.

This paper seeks to face up to that reality. The objective of the paper is to initiate a dialogue and a pathway to bring together the network of freshwater solution providers into a more coherent ecosystem. While this paper begins with some key building blocks, it is intended to be part of a longer process that aims to bring together not just key collective action facilitators in the NGO community, but the whole of the water stewardship community to improve how we work together to deliver healthier freshwater systems for people and nature. This paper begins that journey by seeking to align on definitions, share learnings, map common priorities, outline roles and expectations, and lay out some thinking on shared revenue models. It offers a set of first steps to do better.

We hope this paper will reach three key audiences: (1) our fellow NGO partners with whom we seek to further align and collaborate on developing collective action models, (2) the private sector (both those seeking solutions, and those offering solutions); and (3) interested public sector actors seeking to enable water stewardship and collective action in their basins.

The discussion paper has been developed by a series of individuals, drawn together from key organizations in the water stewardship sphere, and is intentionally "non-branded" as the concept is intended to represent a broader need - not the push of a singular organization.

The structure of this report

This report is broadly structured into four parts relating to "what & why", "who", "where & when", and "how".

Part I (What/Why) begins with an overview of both why collective action is critical and what we mean when it comes to collective action. It seeks to provide a common definition of the term, along with a diagnostic framework to unpack different forms of collective action, as well as when different forms are appropriate or not.

Part II (Who) moves on to provide an overview of some of the key actors who are working in this sphere and position them within a broader framework relating to roles. Part II unpacks some of our combined learned experiences - what is working (or has worked/failed). It also offers up a proposed commitment for those working on convening in this sphere.

Part III (Where/When) builds on Part II, but offers a view not only of where respective organizations are landing on ground - painting a picture of where we have capacity, overlaps and gaps to support collective action in water stewardship - but also a template for where we are going to target going forward.

Part IV (How) concludes with the future-facing dimension of collective action, including new models of how we can more effectively deploy collective action to tackle our "common water problems". This is broken into collective action at the catchment scale, as well as collective action at the sector scale.

PART I - COLLECTIVE ACTION: WHY & WHAT

1.1 Introduction: why is collective action even necessary?

For some time now there have been calls for "collective action", but do we all share the same belief that collective action is key to successfully delivering on the Sustainable Development Goal (SDG) 6 agenda on freshwater?

Recognizing that water is a shared resource, the authors and collaborators linked to this paper hold the belief that only through joint efforts will we be able to achieve the scale necessary to make meaningful progress towards the SDG6 targets. Not only are the challenges of water too great for any one actor to single-handedly deliver them (even government), but also pooling and coordination of capital is necessary to achieve greater scale, as well as re-thinking how different sectors and actors collaborate towards shared goals. The calls for collective action have emerged heavily out of the water stewardship landscape, which in turn has much of its origins linked to integrated water resources management (IWRM) efforts over the last three decades, which is essentially about collective action for the common good but is often poorly implemented in practice[2]. Broadly speaking, there continue to be calls from all parties for greater collaboration.

Beyond the logistics and scaling of delivery, collective action represents a key step towards both SDG 6.5 on water governance, but also SDG17 on cooperation. In short, it is our belief that collective action, when done well, not only enhances governance and action, and aligns investments, but represents perhaps our only true hope of success.

1.2 Defining and unpacking collective action: what do we mean?

So, if we can agree that collective action is a worthwhile pathway to pursue, it is also important to establish, from the outset, a common understanding of what we mean by the term itself. We begin here by providing a review of some of the definitions, along with a new diagnostic framework to begin to tease apart the concept in the hopes of shedding more light on a concept that has become a catch all for many (and often quite different) ways of working.

1.2.1 Definitions of "collective action"

While the concepts of both collective action and common pool resources span decades, the terms themselves were heavily popularized through the work of Elinor Ostrom. The key to much of Ostrom's research was in the recognition that common pool resources can be (and are) managed most effectively through those who use the resources, rather than governments or private companies. Ostrom was particularly interested in new forms of entrepreneurship, focusing on how people could innovate and form new ways of tackling "common problems". Ostrom's belief that the public sector may not be best suited to tackling common problems, has largely proven prescient. Despite the emergence of IWRM, or the similar notion of integrated river basin management (IRBM), which came into vogue in the 1990s on the back of the Earth Summit, we have continued to witness growing water challenges, and have seen ongoing declines in freshwater biodiversity globally.

The ongoing growing freshwater challenges, combined with challenges with a lack of government funding for environmental management in the early 2000s, led the private sector and NGOs to lay the foundation for "water stewardship", defined by the Alliance for Water Stewardship (AWS) as "*the use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that includes both site- and catchment-based actions*". Indeed, even the latest data from the Edelman Trust Barometer suggests that trust in government continues to wane, while businesses and NGOs are seen with more faith[3]. Through this definition of stewardship, we see the concepts of both "stakeholder-inclusive" and "catchment-based", which when combined, form the basis for notions of collective action. The

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[2] United Nations (2021) Progress on Integrated Water Resources Management – 2021 Update | UN-Water (unwater.org)

[3] Edelman (2023) 2022 Edelman Trust Barometer. Available online: https://www.edelman.com/trust/2022-trust-barometer Last accessed: May 24, 2023.

water stewardship community has continued to develop guidance, tools and fora to consider how to work together. The NGOs reflected in the authorship of this paper have a long history of working not only as individual entities organizing collective action in catchments, but also together, whether through formal memberships under AWS, joint thinking and methodology development under the Science-Based Targets Network (SBTN), or through engagement and joint guidance published under the CEO Water Mandate.

Between 2010 and 2020, a number of NGOs collaborated to develop, and publish, an array of water stewardship guidance documents under the UN Global Compact's CEO Water Mandate. One of these guides was the "Guide to Water-Related Collective Action" published in 2013. The work built on insights by companies, NGOs and others to outline not only a definition of collective action, but also some frameworks and guidance, all of which this report seeks to build on nearly a decade later. This publication defined collective action as "A coordinated engagement among interested parties within an agreed-upon process in support of common objectives." While this definition suffices at a high level, it is sufficiently broad as to create confusion for users of the concept. Moreover, while the original guide (and definition) was very squarely targeted at a corporate audience, it acknowledged that "effective collective action requires establishing non-conventional relationships with non-traditional partners, and involves a commitment to shared goals and the recognition of the potential for trade-offs between company interests and broader public benefits… Collective action requires the development of new skills and knowledge, such as a more in-depth understanding of community needs and values, and enhanced capabilities to connect with government and NGO actors."[4] In short, while a broad definition ensures coverage of all forms of collective action, it also creates a lack of coherency about what the concept truly is.

Building on these concepts and recognising our collective knowledge and experience to date, we propose an adapted definition of collective action within the water stewardship context: "***A coordinated set of engagements among interested parties playing complementary roles, which pools together knowledge, resources and/or expertise to jointly identify and implement solutions at various geographic scales, with the aim to address shared freshwater challenges".[5]*** Perhaps most simply, collective action can be loosely defined as "working together to solve shared water challenges".

Beyond this definition, there are many other elements that provide nuance to the term. Collective action:
- Always requires trust, while notions of reciprocity, joint communication, and a shared vision are all valuable elements that can enhance effectiveness.
- Must be inclusive, and recognise diverse perspectives held by stakeholders working to address shared water challenges.
- Includes formal and informal partnerships between governmental bodies, non-profit organizations, businesses, academia, and local communities to foster inclusive decision-making, share best practices, and mobilize joint projects in catchments with the objective of achieving greater water security and enhanced climate resilience.
- Often includes a range of actions by different stakeholders at different scales, all of which come together to add value through collective action.

Even with such a definition, we need to recognize that "collective action for water" is not a singular approach or "thing". Rather, collective action is a "set of engagements" and may take on many different forms (see 1.2.2 and 1.2.3). To further understand its various forms, we have provided a series of frameworks to help break down these "sets of engagements" which may also help to know when to apply which type of engagement.

1.2.2 A framework to understand different scales of collective action

Collective action is inherently a concept that operates at multiple, nested *scales*. At one extreme, multiple organizations may come together even at the site level to implement a project at a facility or similarly a site may begin its journey into collective action by engaging with stakeholders just outside of the facility. As sites begin to better understand their impacts and dependencies - both upstream and downstream - the need and desire to embrace collective action grows. Experience from those who have supported collective action has shown that as sites mature, they often begin work together at an industrial park level; industrial parks and other actors work together at the catchment scale; brands work together with supply chains at a broader basin or national scale companies and industry associations work together at the sector and global scales. For any given actor, and for any given collective action effort, it could also start at one scale and shift to another. We each begin our journeys

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[4] CEO Water Mandate (2013) http://bit.ly/32nqIO5

[5] Adapted from Mosimane, Breen, & Nkhata, 2012; Ostrom, 1998; Ostrom & Walker, 2003; Smith, 2010

at different places, and the logic needs to be such that we are preparing people, sites, catchments and sector groups with the necessary language, capacity and incentives to go from being "collective action ready" to "participants in collective action" at a scale that is do-able given their level of ambition.

This framework offers a few insights regarding collective action, notably that it:

1. **Requires different scales of organization**: from local (neighbourhood) to catchment (HydroSHED level 7-9 - see Part III) to national/regional/global levels. These forms are unpacked further in Part IV of this document.
2. **Is fractal in nature and builds between scales**: Various forms of collective action are nested within one another and can evolve through time to be larger or smaller as need be. This is important because it also flags the fact that collective action need not be static.
3. **Faces different bottlenecks at various scales**: As shown in Figure 1 below the circles, there are key capabilities that act as bottlenecks or enablers at different scales. Without these building blocks in place, collective action is likely to be unable to be successful and/or scale.
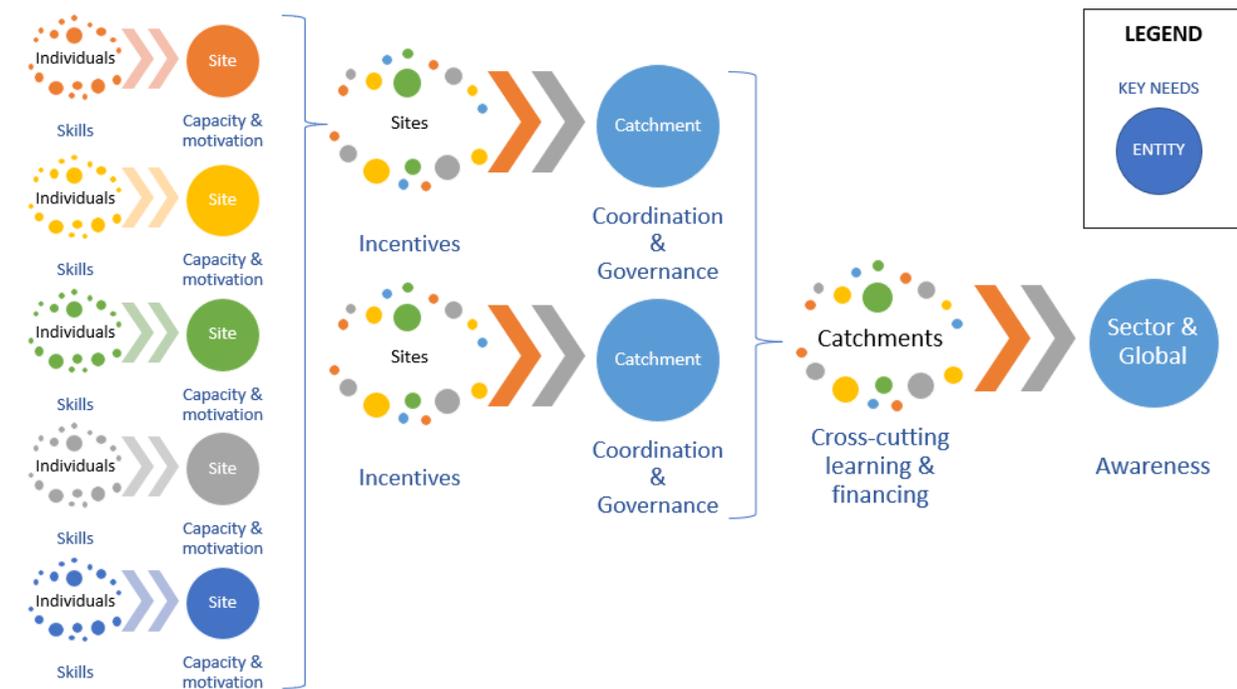
Figure 1: Collective action at different scales with a list of key needs/bottlenecks

Experience from our respective organizations also suggests that while some sites and companies may face hurdles around developing the skills, capacity and motivation to mobilize sites, and that there still remain challenges around mobilizing sector associations or the global community, in general, the biggest hurdles sit in the in between scale - i.e., at the catchment level.

1.2.3 A diagnostic framework for freshwater-related collective action

In addition to different scales of collective action, there are also a massive array of *forms* of collective action. Often collective action is referred to generically and is perhaps most often used as a shorthand to describe joint, non-public-led sector platforms at the catchment level, although it can sometimes include government-led platforms too (often these are described as basin organizations or part of IWRM). Despite this, collective action has a broad array of forms and not all of these forms are suitable for every context.

Critically, it is important to recognize that collective action takes considerable time, energy and resources, so it is essential to understand the wide array of scales and opportunities for collective action before embarking on a new undertaking. Figure 2 (below), which builds upon an adapted version of Stacey's complexity matrix, seeks

to unpack under which circumstances one might want to consider a given form of collective action (with various shades of blue representing different forms of collective action).

The framework operates along two axes: (1) the **degree of conflict over shared water challenges** in the catchment, and (2) the **level of complexity** of the shared water challenges.

With simpler, clear issues where there is agreement, (i.e., the bottom left) collective action is in fact not really required (or if it is, it can be implemented quickly). However, as complexity grows (i.e., to the right), which could be a function of the issue being not just water scarcity, but water quality, flooding, governance, etc., then the speed of collective action tends to slow. Similarly, as conflict increases (i.e., to the top), the nature of engagement tends to go from action to dialogue to listening and ultimately to a breakdown in communications. The core of the concept here is that more complex water challenges require more complex forms of collective action.
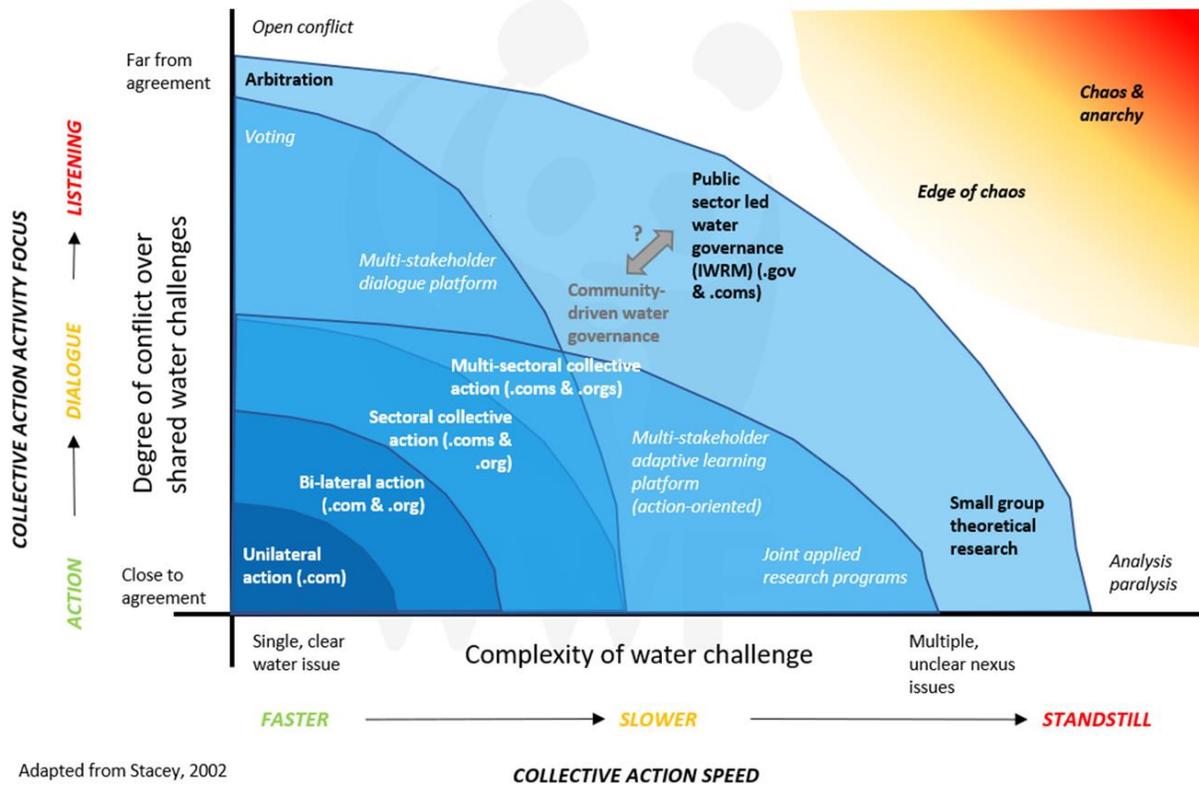
Figure 2: Diagnostic framework for forms of collective action

If conflict is low, and the focus of the issue is clear, then there is no need for collective action. Note that it may still be desirable to engage stakeholders, even where unilateral action is determined. For example, the decision to restore a wetland on a company's property may be clear and agreed upon, but the company may still opt to communicate with local stakeholders about the project. As water challenges grow more complex and conflictual (outward in both directions), the need for more nuanced forms of collective action tends to grow. At first, this may be bilateral action between a company and an NGO, and in time, perhaps even an entire sector or an array of sectors within a given catchment. However, if the issue gets too complex, there is often the need to gather more information about the situation (data to inform context is critical for water), or in other words, build research structures. Conversely, if the issue gets too conflicted, there is the need to enhance governance structures to enable tensions to dissipate. At the extremes, if complexity becomes too great, we tend towards analysis paralysis, while if conflict grows too great, agreements fail and open conflict emerges, sometimes violently. Taken to the extreme in both directions, we arrive at chaos.

Various examples of collective action can be placed into this diagnostic framework. For example, TNC's water funds represent a form of **sectoral (or catchment) collective action**, while a WASH program between Diageo and WaterAid may represent a **bi-lateral action**. The Alliance for Water Stewardship represents a **multi-stakeholder dialogue platform** designed to learn from other members about how to tackle complex, conflicted challenges. Even this report itself represents a form of collective action unto itself: **small group research**.

We believe that this framework can be helpful in guiding those implementing and supporting collective action to determine the degree of collective action required, with the aim to only to go as complex as necessary since the greater the form of complexity, the slower and less-action-oriented the collective action is likely to be.

One key challenge, and open question, sits in the center of the diagram: at which point do voluntary-led collective action efforts (community- or even NGO-led processes) transition over to and/or interface with public sector-led water governance structures ("public entrepreneurship" as Ostrom would call it)? This bottom-up vs. top-down set of approaches to multi-stakeholder water governance remains an ongoing question and approaches vary across jurisdictions and catchments around the world. While there is no easy answer to this question, we would suggest that as informal processes grow more complex, the need to engage and support formal government processes increases and at some point benefit from linkages in order to help ensure both legitimacy and sustainability of the initiative. At the same time, top-down approaches can clearly benefit from more bottom-up approaches filling institutional gaps in a more dynamic way than they may be enabled to by mandate.

In summary, there are a few key takeaways from the diagram above, including that collective action is:

- **Not a single "thing"** (or action), but rather **an array of actions**;
- **Not a panacea**, but rather is suitable in certain circumstances (but perhaps is not the right course of action in others);
- **Resource intensive** (especially as it grows more complex) requiring time, money, relationships and trust which can slow progress. Refer to the Guide to water-related collective action for more information including the array of implementation roles associated with collective action. While that may be necessary at times, it is not necessarily the "goal".
- **In need of clearer pathways to link stakeholder-led collective action with public-sector led water governance structures**. Ultimately tackling shared water challenges needs strong governance processes, and while water stewardship collective action is a form of informal water governance, it is not always synonymous with water governance, nor should it be a replacement for formal water governance structures. Rather, collective action efforts need to interface with water governance - be it formal or informal water governance, in a mutually beneficial manner.

PART II - COLLECTIVE ACTION: WHO

2.1 Introduction: Who is helping to advance collective action?

Collective action is, by definition, not something undertaken in isolation. It is also not something that is exclusive - its nature aims to be inclusive. So, when it comes to the "who" of collective action, it is less important to provide a "directory" of actors involved in collective action. Instead, we believe it is more important to understand the different roles that are required to deliver effective collective action on water. Accordingly, this section begins with a draft framework of the various roles in collective action, and then follows this with some lessons drawn from our experiences.

2.2 A framework for understanding roles in collective action

Core to the thinking proposed here is that any given actor can play one or more functional roles when it comes to collective action and that this may shift through time and space. Our collective experience suggests that certain types of organizations tend to lean towards specific roles (e.g., civil society organizations have often acted as conveners since they generally represent an actor that can be trusted by multiple parties), we have seen different types of actors (e.g., public, private, civil society) sometimes play other roles (e.g., Charco Bendito where beverage companies acted as conveners; civil society organizations being brought in for project implementation, etc.).

Figure 3 outlines nine different roles that we believe are important in the development and delivery of collective action. These roles are broken down into the following categories, recognizing that some these categories can be broken down further into specific functions, and that these categories are not always mutually exclusive:

1. **Convening:** This role not only includes mapping or identifying stakeholders, and the initial outreach to the different groups. But organizing and providing ongoing dialogue amongst all actors, general coordination and continued support between all parties. The role of convening is critical for trust building, relationship development and success of outcomes. This has often been a key role held by civil society organizations (specifically larger NGOs) and IGOs; although convenors can run the range from private sector to public sector too (particularly where it crosses into IWRM).
2. **Training and institutional capacity-building**: To align language, understanding and build knowledge and capabilities, training is often a required key function. Based on our shared experiences, gathering together to share water stewardship/best practices is not only a form of collective action unto itself, but an important prerequisite for more collaborative and comprehensive forms of collective action as well.
3. **Stakeholder awareness raising:** While training covers specific (and often detailed) aspects of water stewardship in the context of collective action, there is also a need for more broad based stakeholder communications and outreach. This helps to expand the base of actors involved, encouraging collaboration, and building upon local knowledge and partnerships, leading to increased demand and participation in collective action. Stakeholder awareness raising efforts can grow through time, while continuing to communicate project successes and failures. These communications may include campaigning and can be undertaken centrally by the group, or independently (with guidelines for coherence)**.
4. **Catchment monitoring & evaluation**: Determining success or failure of collective action (i.e., "impact") requires shared data gathering and results sharing. There are several dimensions to this role from gathering data to analysis to independent (3rd party) evaluation and sometimes each of these are undertaken by different actors. Technically, M&E can (and does) happen at both the site and catchment level, but while the former may be undertaken on a proprietary basis, the latter is of interest to multiple stakeholders and therefore has a key place in collective action.
5. **Basin & project modeling**: Similar to the above, modeling can be undertaken at the site or catchment level. It differs from M&E, in that modeling is not based on solely gathering data, but rather it is about using observations to estimate (and calibrate) values. Modeling is critical for many aspects of water management from scarcity models to flood models to water quality models and also to the broad spheres of water benefit (i.e., "replenish" estimates) as well as Science-based Target basin models.
6. **Engagement**: While Implementation and Engagement can be lumped together, we are opting to split them apart, to provide differentiation between the focus of the types of projects. Although, there is crossover between the actors that deliver on projects inside sites within value chain, and on projects

outside sites within the community or catchment, it should be recognized that the project objectives or focus influence the role that those actors play in the collective action. Implementation and project delivery <u>outside</u> of project sites, termed "engagement" and implementation and project delivery <u>inside</u> of project sites, termed "implementation". Accordingly, engagement covers a mix of activities, such as Nature-based Solutions, many Replenish projects, community WASH projects, or the like. Note that projects to enhance governance could fall under #1 above, (Convening) as well, because such projects are often undertaken by NGOs or the public sector.

7. **Implementation**: Building on the above, supporting or implementing projects inside sites across the value chain (upstream, operations, downstream) are often quite technical in nature, such as installing water purification systems in manufacturing facilities, improving irrigation practices on farms, or projects of the like. Most often such projects are undertaken or initiated by the private sector, though again, sometimes civil society organizations or the public sector can play such roles as well.

8. **Financing**: The provision of capital is a critical dimension of scaling projects and is true for collective action as well. When financing is considered for water-related projects, they can in turn be broken into bankable and non-bankable (or grant-based) financing, where the latter is often more commonly referred to as "funding". Note that while financing can come from financial institutions, again both the public sector and even NGOs can play this role. Both equity and debt, as well as grants, are all usable when it comes to collective action projects.

9. **Policy & regulatory engagement**: Lastly there are also more formal forms of interacting with policy makers and regulators. While again this could sometimes fall under #1 (convene) and even under #3 (awareness raising), engagement in formal (water) governance is a key aspect of collective action. Politically influential actors have a key role to play in this regard, and these interactions can be undertaken from a more political sphere (with senior bureaucrats and politicians), and all the way down through government departments (e.g., ministries of water, agriculture, etc.).
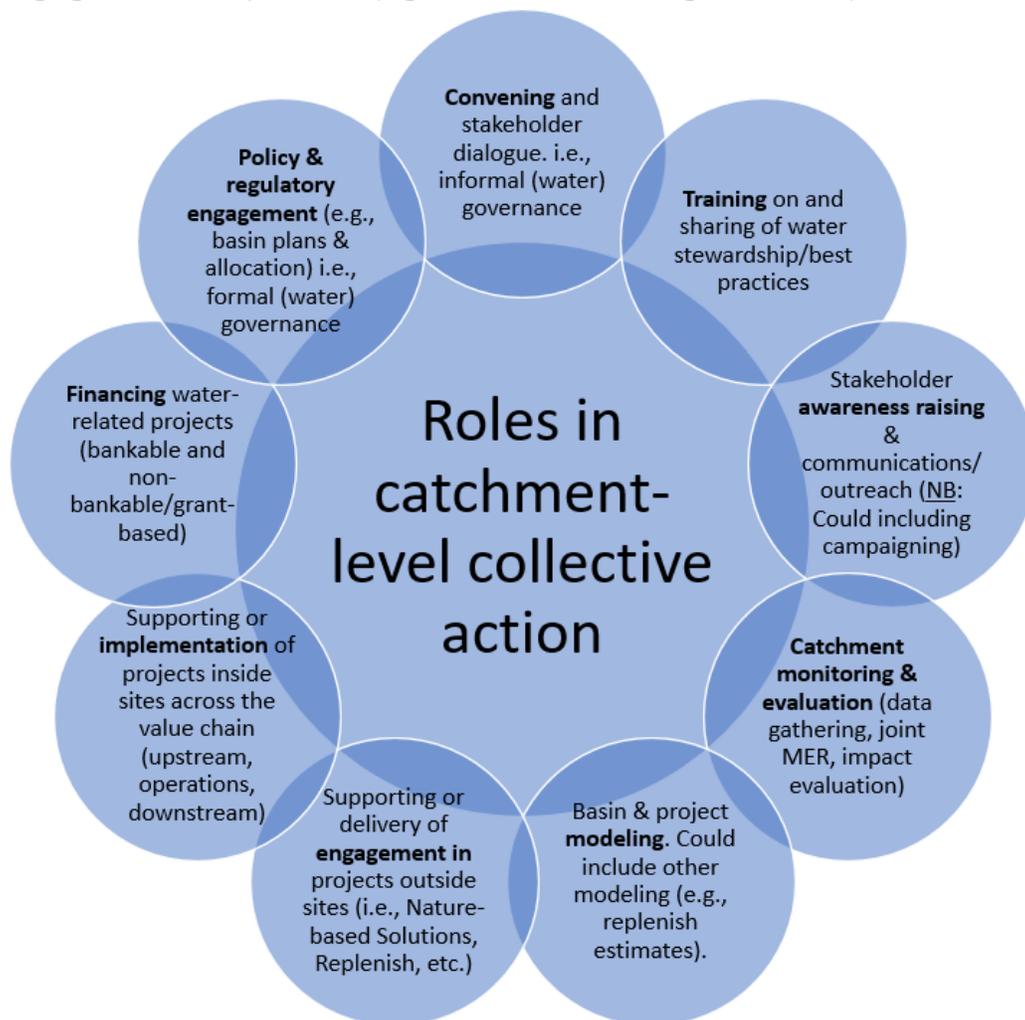
Figure 3: Roles in catchment-level collective action

Ultimately which roles are undertaken, and by whom, is a function of the context in question. Some places will need some of these roles more than others, and not all roles are always required. Sometimes these roles overlap and sometimes they are distinct. There is no "right" or "wrong" way to assemble such roles, but when considering collective action, it is useful to consider who will be playing which roles and the expectations and responsibilities of each.

2.3 Collective action: reflections from select conveners

Of all the different roles involved in collective action, if there is one that is "at the centre", one could argue it is the role of the convener. Those charged with, or given the responsibility, of bringing together stakeholders to address shared water challenges must fulfill a key task that is central to the notion of collective action.

The development of this paper was initiated by a group who often play such a role and as such, it is important to briefly touch upon not only who those actors are, but also why we've come together, and how we see ourselves going forward.

At the heart of the convening function is trust. To convene, one must be seen by various stakeholders as trustworthy. While Edelman research suggests that companies are in fact the most trusted actors, corporations do not see convening as a core function of their business. Also, while international brands might be trusted on a global level, they may lack the trust of local stakeholders due to e.g. (alleged) power imbalances, vested interests, and lack of local knowledge and networks. Accordingly, the convening role has often fallen to the second most trusted actors, NGOs. Since many companies operate globally across many locations, they have been drawn to working with NGOs who also span a broad range of geographies, and who corporations see as having a core function of convening. NGOs are seen not only as trusted organizations, but also holding the influence and stature that is needed to bring the necessary stakeholders to the table. Thus, leading us to where we find ourselves now: many large, global NGOs being requested to, and volunteering, to take on the role of conveners.

Yet while our missions largely align (delivery of SDG6+), our financial models are often in competition, which has led to an uncomfortable reality which has been the elephant in the room for some time now: competing for collective action.

WWF, The Nature Conservancy, the CEO Water Mandate, the Alliance for Water Stewardship, the World Business Council for Sustainable Development, World Resources Institute, Water Resources Group 2030, GIZ and several others are amongst those who not only regularly perform this convening role, but who have also both collaborated and competed simultaneously on this issue.

When we consider the breadth of the challenge facing freshwater on our planet, we need to be realistic, in that we need (more than) all hands-on deck. Even collectively, we represent a drop in the bucket of the capacity required to tackle the shared challenges facing catchments. We must embrace new ways of working that leverage our aligned missions, but also drive aligned models of revenue generation in a way that harnesses our diversity and grows our collective capacity.

2.3.1 Conveners for Shared Water Challenges

While this is far from a global list of conveners, we felt it may be useful to compile a list of some of the key actors involved in convening, and the countries in which we operate. The full breakdown may be found HERE, but a summary table may be found below.

Actor	Convening locations (regions)
WWF	Africa, Asia, Europe, North America, South America
TNC	Africa, Asia, Europe, North America, South America
WRAP	Africa, Europe, South America
GIZ	Africa, South America

CEO Water Mandate	North America
Alliance for Water Stewardship	Asia, Europe, North America, South America
2030 Water Resources Group	Africa, Asia, South America
Global Water Partnership	Africa, Asia, Central and Eastern Europe, Mediterranean, South America, Central America, Caribbean, Global/
WaterAid	Africa, Asia and Pacific, Colombia
Water.org / WaterEquity	Africa
Good Stuff International	Colombia, Spain

Table 1: Select global conveners and geographies

2.3.2 Open Declaration of Conveners for Shared Water Challenges

With this in mind, we have proposed a declaration here - an open call amongst conveners, both those listed above and any others who wish to join us - to do better:

As convenors of global organisations, investment, and expertise, that regularly implements collective action, we commit to:

- *Work together to accelerate collective action for sustainable water management in at-risk river basins and catchments.*
- *Operate through accessible, transparent, multi-stakeholder models of governance at the catchment level*
- *Coordinate collective action projects globally and locally by working as a community, where possible via existing platforms*
- *Identify a common set of collective action opportunity catchments as priorities for joint efforts along with a shared implementation pathway for mobilization*
- *Clearly communicate to each other which roles we plan to undertake*
- *Develop projects that are complementary, and join forces on project delivery where appropriate*
- *Seek to collectively build capacity and engage new actors across the various required roles in collective action*
- *Work to jointly fund shared projects and grow the total funding*
- *Develop tools and resources that are complementary and work together, or that can be used in conjunction with existing tools or resources*
- *Collaborate on monitoring and sharing data on project outcomes*
- *In all the places we deploy collective action, work in an open and accessible manner, engage local community members and indigenous peoples with respect for their local knowledge, culture, and traditions.*

This declaration represents a starting point for how we seek to operate together, but will likely evolve through time, and may manifest differently in various catchments as we implement efforts. It is meant to signal a direction, rather than reflect an absolute way of operating. Beyond this, PART IV of this document outlines more details on the proposed pathway forward as we seek to work together in the spirit of this declaration.

PART III - COLLECTIVE ACTION: WHERE

3.1 Introduction: where ought we implement collective action?

While in theory one could apply collective action anywhere, the reality is that the opportunities to engage in collective action depend on a critical mass of conditions to be present. Collective action takes place at various scales (cf. Figure 1), and while all of these are valuable, collective action at the functional scale of water (i.e., at the catchment level) is perhaps the most critical. The success or failure of SDG6 targets will be determined largely at that scale; not by singular activities at the site level, nor by policies at the national to global scale, but by coherent and cumulative activities at the nested catchment level. Accordingly, in Part III, we turn our attention to where we need to self-organize to undertake collective action at the catchment level.

3.1.1 Mapping the opportunity of collective action for water stewardship

Collective action is often needed due to the scale of pressures in some catchments, but to make collective action work in practice, it requires businesses and other stakeholders playing the various roles (cf. Figure 3) to be present and motivated to act. From the outset, it is important to recognize that efforts over the past decade, such as the Water Action Hub (WAH), have sought to map out such activities in catchments around the world, which we will return to in 3.2 below. However, while the WAH builds bottom up from existing efforts, opportunities to map out where could (and arguably should) we undertake collective action had not yet been realized. In short: where are the opportunities for catchment-based collective action evaluated across the planet?

This joint mapping effort reflects a first attempt to identify those catchments with a stronger need for and potential of collective action for water stewardship (i.e., "opportunity"). The simple version of the approach (outlined in greater depth in 3.1.2 below) was as follows: on the "need" or "demand from catchments" side we considered a selection of water and biodiversity risk layers from the WWF Risk Filter Suite. On the "potential" or "supply of actors" side, we considered economic factors such as value of crop production, density of business facilities (assets), and potential for cross-industry collaboration or multiple industry overlap. The result is a global map of collective action opportunities, highlighting 350 catchments, across 100 river basins and 7 regions of the world, where multiple NGOs and the private sector have the opportunity to work together to accelerate collective action for water stewardship. This data can be downloaded here or visualized in an interactive map here.

This exercise was an iterative group process amongst the authors, in which we explored multiple data inputs, scale of analysis, approaches, and assumptions, until a point that we, as a group, felt comfortable with the output as an initial version. We collectively acknowledge that limitations exist and still remain and this is intended as a first effort, which may be improved upon through time (see subsection Assumptions & Limitations). We expect conditions on the ground to evolve, as well as more data to become available. Accordingly, this mapping is intended to be updated in time and become more of a living document. For transparency, reproducibility, as well as for future enhancements, the code is publicly available at https://zenodo.org/record/7782485#.ZEahknZByUk

3.1.2 Data & Methods

The structure of this data started basically with the shapefile of HydroSHEDS HydroBASINS (Lehner & Grill 2013), at the spatial resolution level 6, which represents 16,397 catchments of ~8,200 km^2 average size. This global dataset of catchments delineation was then enriched with environmental and economic information, and finally with a collective action opportunity index, i.e., the main output. This index was produced following the same approach for all catchments globally, however, created region by region[6], to account for the contrasts in environmental and economic conditions among regions, and to ensure in the end an even global distribution of the index.

The index was based on two equally weighted layers – 1) economic factors and 2) water & biodiversity risk factors – but each layer based on multiple criteria, which were previously harmonized to same spatial resolution, i.e., HydroBASINS level 6, and same range of values, i.e., from 1 (low opportunity) to 5 (high opportunity).

[6] Using the World regions according to the World Bank.
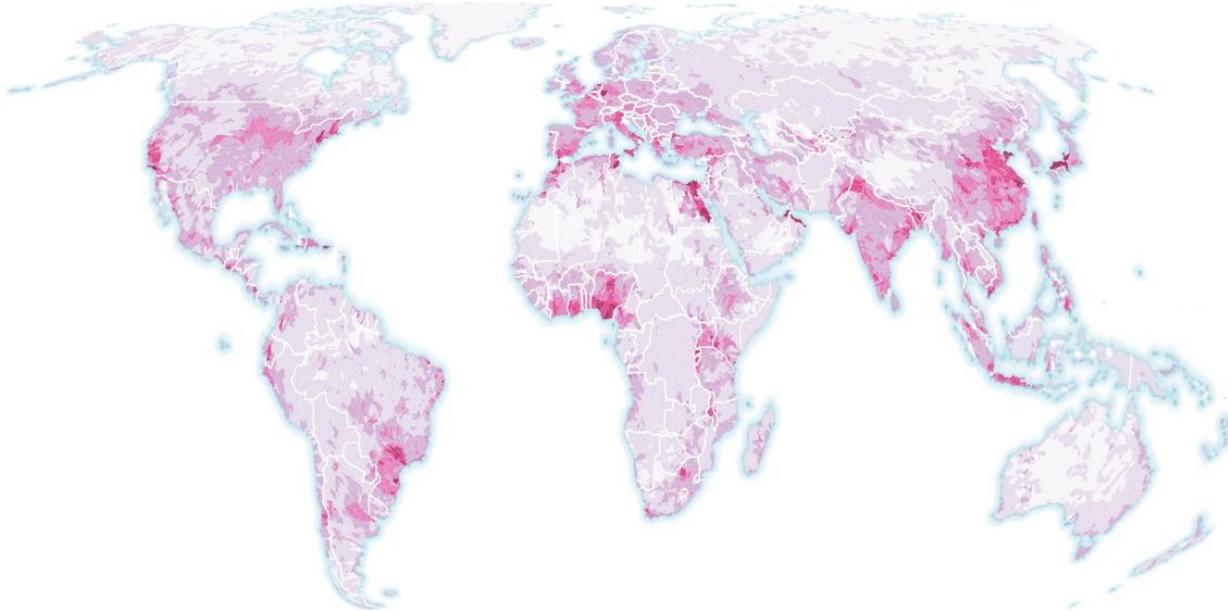
Figure 4: Economic Factors layer

The economic factors layer was created as the result of the maximum value between the criteria: A) Value of crop production, B) Assets density, and C) Number of industries with high assets density.

A)   Value of crop production

This criterion was used to depict the agriculture industry presence. Based on the Global Spatially-Disaggregated Crop Production Statistics Data for 2010 Version 2.0 (IFPRI 2019) we used the average value of production of all crops within catchments, and further classified it to values 1 (low value of crop production) to 5 (high value of crop production) based on natural breaks (Jenks)[7], excluding zeros to adjust for skewness, due to the fact that large regions of the world have basically no agricultural production.

B)   Assets density

This criterion was used to depict all other industries' presence. Based on the compilation of open asset-level data (Camargo, Salazar & Morgan 2023)[8] we used the density of business facilities within catchments, and further classified it to values 1 (low assets density) to 5 (high assets density) based on natural breaks (Jenks), excluding the lower 50th percentile to adjust for skewness, due to the fact that large regions of the world have no or very little economic activity, e.g., deserts, forests, ice caps.

C)   Number of industries with high assets density

This criterion was used to depict the potential for cross-industry collaboration. Again based on the compilation of open asset-level data (Camargo, Salazar & Morgan 2023), this time we counted the number of industries which have high assets density within catchments, and at the end, catchments with more than 5 industries with

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[7] Natural breaks (Jenks) are "widely used within GIS packages, these are forms of variance-minimization classification. Breaks are typically uneven, and are selected to separate values where large changes in value occur. May be significantly affected by the number of classes selected and tends to have unusual class boundaries." Smith, Goodchild & Longley (2021). Geospatial Analysis, 6th Edition. Building Blocks of Spatial Analysis / Geometric and Related Operations / Classification and Clustering

[8] This compilation represents the location of sites (e.g., operation, manufacturing, processing facilities of global supply chains), as of December 2022. It includes data from 9 publicly available sources, that after data cleaning and harmonization, resulted in 189,075 data points, covering 15 industries. Note that this compilation is based on an extensive search, however, we acknowledge that there is a significant discrepancy in data coverage/comprehensiveness among the different industries. The industry "Textiles, Apparel & Luxury Good Production" is by far the most complete, while other are clearly far from complete, for example, "Construction Materials", "Agriculture (animal products)", "Agriculture (plant products)", "Oil, Gas & Consumable Fuels", "Water utilities / Water Service Providers", "Hospitality Services", "Fishing and aquaculture".

high assets density were capped to 5, so that values range from 1 (low potential for cross-industry collaboration) to 5 (high potential).
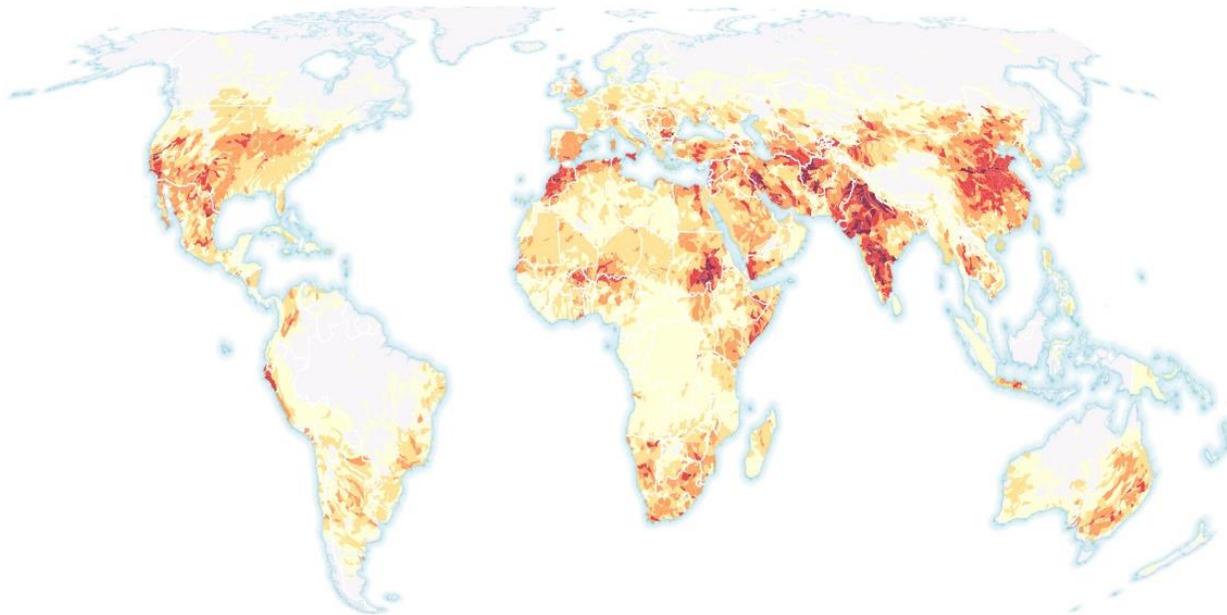

Figure 5: Water & Biodiversity Risk Factors layer

D)   Number of risk layers above medium risk

This criterion was used to depict where there are multiple water & biodiversity risks (challenges) to nature, people, and businesses. Based on the selection of risk layers from the WWF Risk Filter Suite (see below), we counted the number of risk layers above medium risk, and at the end, catchments with more than 5 risk layers above medium risk were capped to 5, so that values range from 1 (few challenges) to 5 (more challenges).

   D1) Water Scarcity[9]

   D2) Flooding[10]

   D3) Water Quality[11]

   D4) Ecosystem Condition[12]

   D5) Infrastructure & Finance (WASH)[13]

   D6) Projected Change in Physical Water Risks[14]

As mentioned above, the structure of this data is the HydroSHEDS HydroBASINS (Lehner & Grill 2013) level 6, which have unique ids for the 16,397 catchments, but unfortunately (at the time of publication) no names for the catchments. Therefore, to improve understanding and applicability of this data, we use the WMO Basins and Sub-Basins (GRDC 2020) to add to the final output the name of the river basin in which the catchments are located, e.g., to help users locate themselves. For consistency, across this document we use the term "catchments" to refer to the HydroSHEDS HydroBASINS (Lehner & Grill 2013) level 6, and the term "basins" or "river basins" to refer to the WMO Basins and Sub-Basins (GRDC 2020).

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[9] This risk layer can be visualized here. More details in the Water Risk Filter Methodology, pages 9-12.
[10] This risk layer can be visualized here. More details in the Water Risk Filter Methodology, pages 13-14.
[11] This risk layer can be visualized here. More details in the Water Risk Filter Methodology, pages 14-15.
[12] This risk layer can be visualized here. More details in the Biodiversity Risk Filter Methodology, page 59.
[13] This risk layer can be visualized here. More details in the Water Risk Filter Methodology, pages 22-23
[14] This risk layer can be visualized here. More details in the Water Risk Filter Methodology, pages 29-36.

There was an array of assumptions that went into this exercise. These included the assumptions that:

- **Data quality of all input datasets is uniform for all geographies in the world.**

  However, this is most likely untrue. Systematic validation whether global input datasets are representative of reality on the ground was not performed, so data quality is most likely skewed to further developed regions, which may create bias in the output. To mitigate this, we used our expert eyes and experience in the field to assess whether the outputs "generally do make sense" and when so, we assumed that it is representative. However, local or regional datasets may provide some nuances. Continuous improvements and validation of input datasets are critical to the improvement of this mapping exercise.

- **The three criteria in the economic factors are equally important.**

  This may be generally true when considering the economic factors layer to depict opportunity for engagement of stakeholders. However, when considering the economic factors layer to understand the impact of industries on water, then agriculture generally has a much larger impact than other industries, therefore, criterion A should probably have higher weight than criteria B and C. A sensitivity analysis would help understanding potential differences and would provide a route for correction.

- **The six risk layers are equally important.**

  However, this is also most likely untrue. Water Scarcity often drives other water and biodiversity risks. A sensitivity analysis would help understanding potential differences and would provide a route for correction.

- **Putting together economic and risk factors (each with their underlying criteria) results in the best understanding of the opportunity for NGOs and the private sector to address shared water challenges through collective action.**

  While this sounds logical, we shall acknowledge what the resulting map really is. It is neither the catchments with highest economic factors nor the catchments that are most at risk. It is a map of catchments where the sum of economic and risk factors is highest. The notion that the resulting map depicts collective action opportunities is a clear assumption, however, it may not hold true. Other non-economic and non-risk factors may exert strong influence on the opportunities for collective action, e.g., freedom in society or level of capacity, including the NGOs capacity on the ground. Therefore, non-economic and non-risk enabling factors shall be discussed and considered. Furthermore, the mapping of NGOs capacity shall be continued and/or further detailed in terms of spatial resolution, as some datasets already exist, but at coarse resolution that it hinders its applications, e.g., at the resolution of countries or large river basins.

- **Selecting the top 50 catchments from each of the 7 regions of the world fairly represents where multiple NGOs and the private sector shall work together to accelerate collective action for water stewardship.**

  However, these 350 catchments, which fall within 100 river basins, are an orientation. When it comes to projects on the ground, organizations are encouraged to also consider the local boundaries, e.g. municipal, district, or political that may impact the ability to deliver a project, as well as local risks and conditions, e.g., focusing more (or less) in certain parts of the basins, and/or including adjacent catchments that may have not been selected within the 350 selected catchments but may also have need or potential for collective action.

3.1.3 Results

The resulting analysis across Level 6 HydroBASIN catchments generated the map seen below (Figure 6). As noted previously, these top 350 catchments represent where the data suggests the combination of water risk and water users come together in dictating both a need and an opportunity for collective action. While on raw numbers Asia (especially Pakistan, India and China) dominate the absolute values, once regionally redistributed

the authors felt comfortable that the identified catchments did indeed pass a "gut check" of our on-ground experience.

Figure 6: Top 350 catchments with levels of opportunity for collective action

Building on these smaller catchments, we also generated a list of 100 basins (larger - shown in light blue in Figure 7 below and publicly available here), something that had been requested by the CEO Water Mandate's Water Resilience Coalition to measure impact at a broader basin level. The Water Resilience Coalition added three supplemental basins (Zambezi, Mekong, Murray-Darling) into their exercise to ensure representation of all inhabited continents and basins of key interest, which are reflected in Figure 7 in teal).
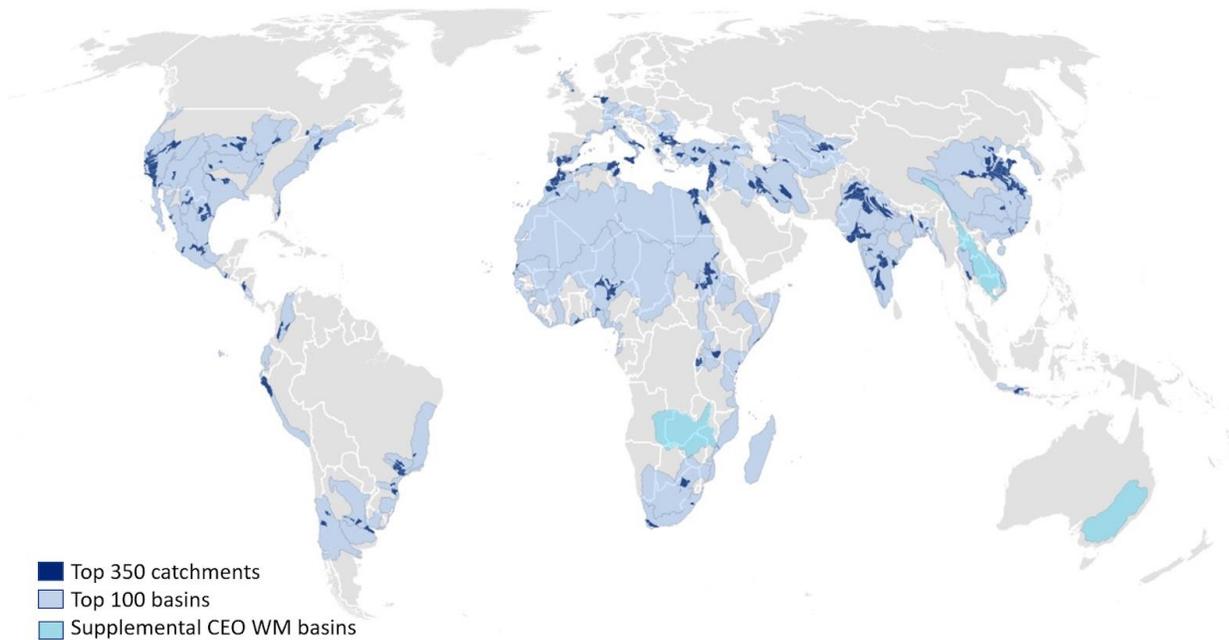

Figure 7: Top 100 catchments with levels of opportunity for collective action

This picture offers up a suggested pathway for areas where we may want to coalesce effort. Indeed, many of these places already have collective action efforts underway (e.g., California, Rio Grande, Sao Paulo, Cape Town, parts of the Zambezi, southern Spain, the Ravi, the Noyyal-Bhavani, Taihu, etc.), offering up an array of places where we can begin to re-think our forms of collaboration that are already underway, as well as new areas we may want to jointly develop.

3.2 Identifying where are we already working and implementing collective action

The logical sequitur from where there is opportunity for collective action (i.e.," demand"), is to better understand what the picture of collective action platforms/efforts (ie., "supply") looks like.

Since its launch in 2012, the Water Action Hub (WAH) has offered a platform for actors to place water stewardship projects (both requests and offers). It has provided, to date, the best resource that the water stewardship community possesses to understand the picture of activity at the catchment level. However, the historical picture that is painted by the WAH remains incomplete. It is missing many projects, reflecting only those who have actively participated in the platform, and data submitted has not historically been adequately maintained.

Originally developed by Pacific Institute and the CEO Water Mandate, the Water Action Hub has not been regarded as a community platform by many in the water stewardship space. To promote the WAH and realize its potential to drive collective action and collaboration in basins around the world, the Mandate will establish a WAH Strategic Advisory Panel to meet on a bi-monthly basis. The primary purposes of the panel will be to 1) ensure the platform is meeting the needs of the Water Stewardship Community, 2) advise the Mandate on features and functionality, 3) facilitate development of complementary and interoperable digital tools, 4) find and implement methods of data sharing between organizations, and 5) work collaboratively to ensure the WAH is maintained and used by all participants of the Water Stewardship Community such that it can provide accurate data on actors and collective actions in a given basin.

Since the adoption of the 100 Priority Basins, the CEO Water Mandate has undertaken a major overhaul of the Water Action Hub to address issues about usability, search, and collective action engagement on the WAH. The WAH now takes a basin-centered approach to collective action in the 100 Priority Basins allowing companies to enter a streamlined data set for a project and requiring a collective action status. Searching for activity is also now a basin-centered approach where a user can select a basin of interest and see all activity in the basin that is part of the WAH.

However, cooperation and input from the Water Stewardship Community still remains the biggest impediment to success. If companies, NGOs, and other actors in basins do not engage in the activity of recording projects, locations of interest, and general organizational presence in a basin, the dataset will remain incomplete and a reasonable picture of a basin will not be attained.

To accelerate action in the 100 Priority Basins, the CWM has begun engaging with its membership to map activity and potential for collective actions using the new WAH tools and will make continual updates to allow access by NGOs and other approved entities later in 2023.

3.2.1 Overview of efforts by key convenors in the Water Stewardship sphere

Over the years, there have been efforts to understand the distribution and presence of various actors. Ideally a comprehensive database of actors broken down by role and catchment presence would be optimal. Since that does not yet exist, we have endeavored to begin to compile at least convener presence by country as an initial starting point, along with listing out the roles our respective organizations play in the water stewardship community. This again represents a first effort, and like the opportunity map, is likely to be a living database.

The authors are actively discussing how such data can better be integrated into the Water Action Hub, along with the newly established collective action maps. Where collective action platforms exist and are known about, the authors will seek to further map this out in time given sufficient resources to do so.

ORGANIZATIONAL DATABASE (TO BE ADDED AS AN APPENDIX)

FIGURE STILL TO BE DEVELOPED: Map illustrating coverage of organizations by country, highlighting the deep coverage in select countries (e.g., India), while very thin coverage in others (e.g., much of MENA).

Draft text for an example of organising collective action projects:

The Courtauld 2030 Roadmap towards Water Security for Food & Drink Supply (Courtauld 2030 Water Roadmap | WRAP) sets out an ambition and pathway for food businesses and other stakeholders in the UK to collectively protect critical water resources. The target is for 50% of the UK's fresh food to be sourced from areas with sustainable water management by 2030 (compared to 14% baseline). This is estimated to require collective action in the top at-risk 20 catchments (both in the UK and internationally) to deliver practical interventions.

In line with the Water Stewardship ladder, more than 50 businesses have committed to going beyond just site-based water management. As leaders, they engage with others in the priority catchments they operate in or source from, to support collective action / stewardship projects. They also commit to use their influence to advocate for better water governance. These businesses include the 10 major food retailers as well as leading brands, food manufacturers and food service businesses.

At end-2022, collective action projects were underway in seven catchments (four in the UK, three in other countries). The ambition for 2025 is to extend this to up to 12 catchments, including 5-6 countries outside the UK, and to bring in additional international partners.

Key features of the approach include:

Success factor	What difference does this make?
Collective action is organised under the umbrella of a national voluntary agreement, Courtauld 2030, with stretching targets for GHG and food waste reduction as well as water stewardship.	Secures participation from the leading food businesses as well as Government and other stakeholders. Businesses are held to account through annual reporting to the voluntary agreement.
The Water Roadmap sets out what's involved.	Businesses are clear on their actions and the required scale and pace of activity.
A governing body of businesses, water experts, government bodies and NGOs agree the 'Top 20' sourcing areas to focus effort on, monitor overall progress, aid cross-project learning and advise on challenges that arise. Collective action projects are reviewed annually by an independent auditor.	Participants have confidence in the design and delivery of interventions in each catchment.
WRAP as Water Roadmap convener works with other expert bodies including Rivers Trust, WWF, IDH and Alliance for Water Stewardship to establish a network of collective action projects in key sourcing areas that businesses can actively tap into.	Participants have confidence in the design and delivery of interventions in each catchment. Partners bring different stakeholders and funders into the collective activities.
Each project is designed and scoped according to a good practice model and 'Project Scorecard' set out in the Water Roadmap.	Each project implements interventions which are targeted to help achieve sustainable water management and known issues at catchment level, with input from local delivery bodies and governmental organisations.

PART IV - COLLECTIVE ACTION: HOW

4.1 Introduction: collective action at the catchment scale

As noted earlier, this paper recognizes that collective action happens at multiple scales, but is focusing specifically on collective action at the catchment scale. Many of our organizations have been working on collective action for decades now, but unlike global scale collective action where we've had significant alignment, collective action at the catchment scale has often been much more fragmented. There remains a core need to scale up efforts at this level, but the history of bilateral implementation is at odds with the need to work together. Put simply: our revenue models are at odds with our missions when it comes to catchment scale collective action.

A new way of working is needed, which is what we explore in Part IV.

4.2. Our shared experiences

Lessons from collective action at the catchment scale & Conclusions on successes, failures & key lessons from the field.

4.2.1 Organizational insights

Overall, these examples highlight the successes and challenges faced by several NGOs seeking to implement water stewardship through collective action. Reflecting on our shared experiences, several observations emerge:

1. To date, many (if not most) collective action efforts have been a one-to-many structure in which one NGO has organized many other stakeholder groups to align on a project. These tend to be branded as a result with the risk of "resource capture" by a single NGO.
2. Many-to-many collective action platforms do exist but are more rare. Some of these include the California Water Action Collaborative (CWAC and the aligned Texas version TxWAC),
3. Maintaining funding for collective action in the long term is often a challenge, especially if resources are continually required for governance functions ("convening" role). Grants and financing are more readily available for "impact" projects (related to the "engagement" - where granting is key - and "implementation" - where financing is key - roles noted in Figure 3)
4. There remains sub-optimal joint monitoring efforts at the catchment level. Similarly, there has been little shared modeling to date. Significant opportunities for improvement sit in this area.
5. Joint training is a useful starting point for collective action. It has a low barrier to entry, enables relationship building and joint understanding of issues. On the back of training it is easier to outline the business case for investments into water at the site or catchment level.
6. Mapping of collective action efforts has been challenging. While the Water Action Hub has sought to help in this regard, the ability to convert that into an effective and up-to-date map-and-match system has been somewhat limited to date. Even mapping organizational activities is challenging for many organizations. At the 2023 AWS Forum, stakeholders suggested that: (A) the water stewardship community rally on the Water Action Hub rather than reinvent the wheel; (B) regularly update the data on the site; (C) develop a joint governance model for the Water Action Hub; (D) Encourage proactive, human-led facilitation of opportunities.
7. Collective action efforts to date have room for improvement in terms of impact monitoring and evidence gathering. Common impact metrics, combined with open, accessible, data are helpful for collective action platforms.
8. Building on existing initiatives is an imperative.
9. In any given location, companies operating there will be at different levels of maturity in their water stewardship journey. This creates a challenge for convenors and implementers alike, where there is a tension between needing a critical mass to begin (and finance) activities, but also an impatience to get started given the scale of the challenges we face on water. As a result, collective action efforts need to be designed in a way that enables work to begin, and for others to join as they feel ready.

10. Recognition and perceptions of ownership can create barriers to wider engagement, particularly when established partners initiate activities with a particular focus in mind (e.g. a specific freshwater challenge, a focus on a particular industry collective action at a particular scale). As we seek to open up our models and improve our own ways of working, openness to reset our models will be crucial.

Each of the organizations involved in the development of this paper has an array of examples and lessons which are valuable. Recognizing this, we have asked all authors to develop 2-4 page summaries of their experiences. Below, we have sought to capture a snapshot of some of these, as well as summarize some of the key lessons out of these experiences.

Example 1: Water.org's Community Water Credit Program

Water.org's Community Water Credit Program operates by providing microloans to individuals and communities to construct water and sanitation facilities. These loans enable communities to take ownership of their water resources and create sustainable solutions. The program has achieved significant success by reaching an estimated 55 million people with safe water and sanitation facilities, and ultimately empowering communities to break the cycle of poverty. The work draws in solution providers, communities, entrepreneurs and financial institutions to implement a collective action. However, it has also faced challenges, such as the need for continuous monitoring and maintenance of the infrastructure to ensure its long-term sustainability.

Example 2: WWF's Water Stewardship Collective Action Basins

The World Wide Fund for Nature (WWF) has implemented various water stewardship initiatives globally. In a variety of basins - notably the Buyuk Menderes in Turkey, the Noyyal-Bhavani in India, the Mekong delta in Viet Nam, the Indus basin in Pakistan and the Taihu basin in China, WWF has been working with businesses, governments, other NGOs and local communities to promote responsible water use and protect freshwater ecosystems - especially with the apparel & textiles sector. While the work has trained thousands, implemented numerous water quality improvements and restored significant freshwater habitat, challenges remain around the ongoing maintenance of funding for governance, and scaling up the pipeline of bankable projects.

Example 3: WaterAid's multi-partner collaboration in Nepal

WaterAid's Beacon Project started in 2017 to bring WASH to every person living in Lahan, south-eastern Nepal. It is a multi-partner collaboration between a utility in the UK (Anglian Water), a utility in Nepal (Nepal Water Supply Corporation - NWSC), a facilitator (WaterAid), and government at local (Lahan Municipality) and national level (Ministry of Water Supply, Nepal). The extended collaboration has a long-term commitment until 2030, and is built upon trusted relationships with equitable governance structures and a common vision. Lahan Municipality have established a WASH unit within their institution to coordinate activity by all actors through the Lahan WASH plan, which is seen as an example of good practice for collective action. The Beacon Project has an objective to build a legacy that grows beyond Lahan, and is inspiring ambition in the other 23 NWSC branches where its innovative pilot approaches are being replicated. Lessons learned include building trust and a common purpose between multiple partners takes time and therefore requires long-term investment. Fostering spaces where partners can be honest with each other is crucial and being clear about roles and responsibilities is important. Honoring and respecting diversity and managing expectations around pace of progress are essential. Employing dedicated project staff within the facilitating organisation to coordinate activities, manage progress, invest in relationships and share learning cements the collaboration. The complex policy landscape, lack of regulation and resourcing deficiencies in the Nepal WASH sector present challenges for embedding and expanding the work.

Example 4: The Rivers Trust's Catchment-Based Approach

The Rivers Trust is an NGO based in the UK that focuses on the conservation and restoration of rivers and their catchments. Their Catchment-Based Approach, which is supported by UK Government, brings together stakeholders from various sectors to collectively address water-related issues at a catchment scale. This approach has successfully fostered collaboration between NGOs, local communities, businesses, land owners and government agencies and water companies leading to improved water quality, habitat restoration, and flood management which, in theory at least, are integrated as part of local catchment plan. It is the issues and actions in these local plans that the WRAP Courtauld 2030 collective action projects in the UK are seeking to address. To date, challenges have included coordinating diverse stakeholders, ensuring equitable participation, and aligning different objectives, interests and plans.

Example 5: The Nature Conservancy's Water Funds (https://resilientwatersheds.nature.org/)

TNC's Water Funds model has been a very successful example employed throughout the world. Water Funds typically operate in partnership with urban utilities to create a mechanism to recycle revenue within the basin between downstream beneficiaries and upstream catchment management/conservation activities. The approach has brought together different stakeholders from local communities, utilities, government agencies, and the private sector to offer a means of sustainably financing freshwater conservation efforts at the catchment scale. Key elements of success include science-based planning, development of a return on investment business case and clear governance and funding structures, with an intention of sustainability over the medium to long-term. Challenges to date include extending such models outside of non-urban catchments, as well as a lengthy setup process for the funds. The Nature for Water Facility offers supported and pay for service assistance in setting up watershed investment programs such as Water Funds.

Example 6: California Water Action Collective Collaborative (CWAC) (https://cawateraction.org/)

CWAC is a network of approximately 30 diverse non-profits, corporations, and food producers who have come together since 2014 to address growing water-related challenges. CWAC collectively develops projects, and advances innovative solutions to improve water security and resilience across California. The CEO Water Mandate has facilitated local action on water stewardship through strong partnerships and collaboration to leverage an enabling or neutral environment to facilitate company engagement with suppliers, the public sector, local communities, and other stakeholders to address challenges collectively. Recommendations to scale desired water stewardship practices at the local level, include 1) Target engagement on water-intensive industries in the Basin. 2) Target value chain engagement on industries with important supply chains in the Basin 3) Support platforms to facilitate relationship building and knowledge-sharing between companies, NGOs, water utilities, and other key water stakeholders."[15]

Example 7: The Alliance for Water Stewardship (AWS) Impact Accelerator

Under the Impact Accelerator, AWS is working with members to identify common locations of interest (aligned with the 100 basins) to collectively engage sites supported by the AWS Standard System. This approach is cross-sectoral, and aims to create a hub of sites that are "collective action ready", using training, capacity building and shared data collection to help prepare participating sites for AWS implementation and action on shared water challenges. AWS acts as the convenor and provides training. Companies provide financing and undertake implementation activities. With a focus on enabling groups of water using sites within global value chains to begin their individual water stewardship journeys, this programme has the potential to help prepare a larger scale of participants for engaging in collective action. As the programme develops, AWS is working with members from the NGO community to align and identify opportunities for additional roles such as engagement and advocacy to be connected into the programme.

Example 8: Good Stuff International (GSI) collective action projects and lessons

Since 2015, Good Stuff International has been working to generate collective action on the ground in various catchments in Latin America and Spain. In our work we have broadly implemented three types of catchment level collection action:

- Local multi stakeholder water stewardship platforms, an example is the Plataforma de Custodia del Agua (PCA) in Colombia supported by WWF.
- Water funds and payment for watershed services programmes, example: the Allianza BioCuenca in Colombia supported by GIZ and SDC.
- Value chain driven catchment collective action, examples: the WWF-EDAKA Zitrus Water Stewardship Project in Southern Spain, the WRAP collective action projects in Spain and the IDH water stewardship project in Peru.

Some key lessons from our catchment collective action work are:

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[15] Lessons from: Scaling Corporate Water Stewardship to Address Water Challenges in the Colorado River Basin (https://pacinst.org/publication/colorado-river-water-stewardship/)

- High quality, openly accessible, broadly shared and locally validated information on the catchment water situation levels the information playing field between stakeholders and serves as a common starting point to design and implement collective action.
- Clearly identified shared risks and shared opportunities provide the business case for engagement and action of a wide variety of stakeholders. At the start of collective action, the number and variety of stakeholders can be small. Generally, stakeholder engagement expands as the collection action work evolves.
- Generating catchment collective action takes time and follows its own route. This requires substantial flexibility from project managers and financiers.
- The required local leadership and governance for catchment collective action is generally not in place from the start. Often, this role is assumed by an external, not entirely local, independent and trusted third party. This should only be temporary. It is key to stimulate the development of true local leadership and inclusive and balanced local governance right at the start of the catchment collection action process.
- There is a clear business case for value chains to engage in collective action in sourcing catchments. This is not only to (financially and non-financially) support collective action by stakeholders connected to the business but also as direct beneficiaries of the outcomes of collective action to manage value chain risks, report on sustainability targets, inform business and sourcing strategies and drive overall communications.

Example 9: GWP's Multi-Stakeholder Processes

GWP's approach to collective action is encapsulated in its Multi-Stakeholder Processes (MSPs). Its Country Water Partnerships (CWPs) and Regional Water Partnerships (RWPs) are themselves Multi-Stakeholder Platforms, bringing together private sector, civil society, local government, academic institutions and a range of other organisations. In its recently published MSP sourcebook[16], it lists key ingredients for success in water management, and in particular summarises the principles and methods we can use to bring about change through collective action, from the conceptual level to practical project development.

4.2.2 Summarizing what is working & failing

As the introduction signals, there are an array of things that are working and not working when it comes to collective action. These are summarized below in Table *** *(Content still to be added)*

What is working	What not working

Table X: TITLE

4.2.3 Spatial dimensions of collective action: what works at what catchment scale?

Since the establishment of the first version of the Alliance for Water Stewardship Standard in 2014, there has been an open question about what the "best" or "most appropriate" scale is for catchment-level collective action. The guidance that was established in version 1.0 of the standard suggested that roughly the scale of HydroBASIN Level 7-9 would be the most suitable scale for identifying the "catchment" (and in turn, to consider for collective action). Over the intervening decade, this estimate has largely proven to be roughly correct albeit at perhaps slightly a larger size. If we go larger than Level 6 or 7 (i.e., Levels 1-5), the basins begin to get too large to be manageable and shift to become more political (vs. implementation scale). The Mekong River Commission or the Nile Basin Initiative are examples that are at this very large scale (roughly HydroBASIN Level 3-4). It should be noted that joint basin monitoring ("monitoring" role) as well as policy/regulatory engagement may be exceptions here of roles that continue to work effectively at large scale. In the other direction, beyond

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[16] https://www.gwp.org/globalassets/global/about-gwp/publications/msps/the-msp-sourcebook.pdf

level 8 (Levels 9-12), catchments begin to get too small to effectively address the issues and/or fail to gather enough stakeholders.

> **HydroSHEDS**
> HydroSHEDS, which stands for Hydrological data and maps based on Shuttle Elevation Derivatives at multiple Scales, is a dataset that provides high-resolution information on the world's surface water and drainage features. As part of the suite of data it provides, HydroSHEDS offers 12 levels of HydroBASINS with 1 being continental divides, and 12 being very small sub-sub-catchments. In the middle, HydroBASINS offers a useful framework to organize consistent basins with Level 3 being large basins (e.g., Amazon) of an average size of 463,917 km2, Level 6 being roughly 8,233 km2, Level 7 being 2,341 km2 and Level 12 being 130km2.
>
> Resource Watch offers a useful means of viewing various scales of HydroBASINs from Level 3 to Level 8.

That is not to say that collective action cannot or should not occur at scales larger or smaller than HydroBASIN levels 6-8, indeed - several of WWF's efforts fall into a scale closer to Level 5, but rather that this represents an optimal size range as a starting point for collective action.

Collective Action Initiative (contact org)	Catchment scale/size	HydroBASIN Level
Noyyal-Bhavani (WWF)	9,710	Level 6
Buyuk Menderes (WWF)	24,873 km2	Level 5-6
Taihu basin (WWF)	36,900 km2	Level 5
Upper Tana Water Fund (TNC)	95,000 km2	Level 4
Monterrey Water Fund (TNC)	?	Level 6?
Dhaka Impact Accelerator (AWS)	?	Level 6
California Water Action Collaborative (CEO WM)	423,970 km2 (California)	N/A (~ Level 3)
Lusaka Water Security Initiative (LuWSI)	900 km2 (region around Lusaka)	N/A (~ Level 9)

4.3 Charting a pathway forward towards implementation of collective action at the catchment scale

"*You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.*" – Buckminster Fuller

4.3.1 Core elements for catchment scale collective action

While collective action at the catchment scale will never have a "one size fits all" approach, there are some general ideas that we believe are likely to be transferable, and moreover, a general pathway that collectively we can begin to undertake to help all actors move towards the achievement of SDG6. Building on various Parts in this paper, we would suggest that implementation of collective action at the catchment scale invariably requires the following elements:

A. **Selection and delineation of one or more catchment areas** at roughly HydroBASIN Level 5-9. This may be an iterative exercise, beginning at a global-regional scale and then being refined at the catchment scale.
B. **Stakeholder identification/engagement and convening by a mutually trusted actor** who is seen as having legitimacy. Transparent motivations and explicit mapping of where stakeholders have sites/interests are useful. At the outset, a temporary governance structure can prove useful with the group of actors who are seeking to initiate the collective action effort.
C. **Actor identification & engagement**: mapping, initiation and roles.

D. **A common understanding of the roles that various actors will undertake** in the context of collective action.
E. **Project implementation & coordination**. This can occur at the site-level and the beyond-site (or catchment) level. Note that one or more projects may be combined in the context of a collective action platform, and joint understanding of various projects is useful for coordination purposes.
F. **A common vision, goals/objectives and a shared terms of reference** for how the collective action will operate. Ideally this should be mapped to common efforts such as SDG6 targets, Science-based Targets (including links to government/basin goals), etc. and be science-based.
G. **A governance structure** that enables multi-stakeholder participation and accounts for power imbalances. Governance and participation in general must be non-exclusionary as it is important not to "shut anyone out".
H. **Shared water data and information including models and monitoring.** local and global data and information collection, condensation of information, extraction of main challenges and opportunities and validation of information with stakeholders. This should also explicitly account for joint monitoring & evaluation (including baseline data and status data).
I. **Mechanisms to account for complex issues**, including cross-cutting issues, nexus trade-offs, conflicts and cumulative impacts. This may be included within the governance structure. Issues to include (revisiting the nexus?): linking collective action in water stewardship to climate and biodiversity
J. **A mechanism for engagement with policy & formal water governance**. This could take many forms, but speaking to regulators with a common voice is a powerful means of shaping a long-term sustainable pathway for a catchment.
K. **A sustainable funding mechanism** - for all of the above, as well as project implementation. This will be explored below.

Stakeholder identification/engagement:
The following stakeholder groups should be considered: civil society, government, businesses and economic sector bodies, research and knowledge institutes, water and other natural managing bodies.

The AWS Standard (ref) gives guidance related to stakeholders in terms of inclusivity and balance (sectoral, gender, minority and indigenous people), interest and influence. The experience is that for catchment level collection action, geographic inclusivity and balance between stakeholders in the catchment is also important. This means that stakeholders from the upper, middle and lower reaches in a catchment should be mapped and engaged.

The process of stakeholder identification and engagement is iterative and is highly likely to continue while collective action materializes. Generally, the process starts by mapping broadly the stakeholders groups and identifying specific representatives of stakeholder groups in the catchment. Next is to reach out to specific people in the stakeholder groups and speak about their interest in the topic of water and collective action. While talking to them, specific stakeholders will provide new stakeholders and contacts to representatives. In such a way the stakeholder and contact list expands. To guard against stakeholder bias, it is important to actively stress the notion of inclusivity in and balance between stakeholder groups and geographic location of stakeholders in the catchment (see above).

At some point in the process, a decision is made to convene a stakeholder meeting to discuss water, water stewardship and collective action. The meeting is part of the mapping and engaging of stakeholders, new stakeholders will appear during the meeting and can be invited to join in the process. It is important that we keep the stakeholder engagement process open so that new people can join in at any time.

An important engaging activity for stakeholder engagement is deepening the joint understanding of the catchment context. Often stakeholders do not share similar levels of knowledge and capacity, focusing the engagement process to increase and leveling the understanding that stakeholders have of the catchment context helps build stakeholder relations.

4.3.2 Challenge 1: considering financial models of collective action

Perhaps no issue has held back collaboration more than collaborative funding for collective action for both scalability and sustainability. There is a pressing need to re-consider how we fund collective action and to explore the establishment of collective funding mechanisms that can grow with increases in ongoing revenue. As noted in the Joint Statement from the International Water Stewardship Community at the 2023 UN Water Conference, we need to "establish collective funding mechanisms that act as a channel towards scalability and sustainability.

These funds can help channel investments in numerous areas from natural conservation or restoration to water access, sanitation, and hygiene while strengthening water governance by bringing together relevant stakeholders - and provide sound scientific knowledge to facilitate the decision-making process."

Recent years have seen a push to ensure we are "delivering (positive) impact" at the catchment scale. However, to deliver there are an array of precedents that must be in place, namely those outlined in the section above. Without these, project impacts tend to be limited.

Historically, many catchment-scale collective action platforms have been established by a single NGO who has then encouraged other stakeholder to join "their" platform. While efforts have, in many cases, been undertaken to ensure such platforms are neutral (e.g., California Water Action Collaborative), lingering perceptions remain (e.g., Water Funds, which are a neutral platform, are often still perceived as a "TNC program" since they have been a champion of that model).

Funding can be broken down into two broad categories: (1) that which requires a payback (bankable), which includes debt and equity investments, and (2) that which does not (non-bankable), which includes grants. One could argue that there is also a third category that is somewhat of a hybrid, which are grants with a bankable dimension. Such structures often see grants involve the use of revenue recycling with notable examples being various credit schemes (e.g., carbon credits) as well as programs such as Water Funds being another good example.

Table X below outlines how these funding structures link back to the various elements noted in 4.3.1 above. The table also speaks to the general suitability of each of these funding structures to supporting the need of collective action to be both sustainable and scalable.

Nature of work	Description	Includes	GRANTS (non-bankable)	DEBT/EQUITY (bankable)	HYBRID
Core operations	Foundational to collective action and is a precondition for scaling impact	Stakeholder convening, role mapping, vision/goals, governance (dispute mechanisms), shared data/monitoring, fundraising	Critical (but less sustainable)	Less suitable (but sustainable)	Suitable (sustainable)
Projects	Impact-oriented, time bounded (may be broken into on-site and beyond-site/catchment)	Project implementation, (select) monitoring, (select) fundraising	Suitable (but less scalable)	Critical (scalable & sustainable)	Suitable (but variably scalable)

Table X: Linking collective action elements and funding structures

Further unpacking this table, it brings us to one of the key challenges facing collective action at the catchment scale: **how to ensure sustainable funding of the foundational core operations** when grants tend to be time-bounded, and bankable approaches are interested in impact and largely unwilling to finance core operations? Even many of the hybrid structures (e.g., Replenish) have tended to focus on project-funding, and are unwilling to cover expenses for core operations.

Two possible solutions are proposed to tackle this challenge:

(1) **Catchment-based collective action management fees:** As projects are deployed in the catchment, consider the use of a core operations "management fee" for all projects deployed within the boundaries of the catchment. Such fees are well established in the financial world, as well as within the donor community and offer a financially sustainable and scalable form of financing core operations as it would work for grants, debt/equity and hybrid structures alike.

(2) **User-based revenue recycling**: While perhaps less scalable as it is not linked bankable projects, mechanisms that draw on local users (via taxes/tariffs - often via water bills) offer another proven mechanism to fund core operations. The various city-based water funds that have been implemented around the world offer a set of proven examples of how this can work.

4.3.3 Challenge 2: addressing proprietary collective action capture

Collective action at the catchment scale can operate through a one-to-many relationship (often one NGO and many private sector partners), or a many-to-many relationship (many NGO/public/private sector partners working with each other), as well as a hybrid (a one-to-many relationship nested within a many-to-many relationship).

The second of the key challenges facing collective action at the catchment scale is that of "capture" in the case of one-to-many relationships. **How do we avoid a collective action platform being branded, associated and therefore revenue being sent to, a single actor?** When one NGO financially benefits from a collective action platform, but others do not, it creates a disincentive to work together. Too often we have found ourselves in such situations.

To respond to this capture risk, we offer up a series of potential pathways:

1. **Shared catchment-based basket funds**: Combining funding under a common banner is perhaps the most common-sense approach to removing the branding issue. A single initiative, with a common "basket" of funds removes the single-convener capture aspect of collective action. It should be noted that often, logistically (and legally), it is simpler to select a single actor (often public or NGO) to hold the shared pool of funding that comes into the platform. Such a basket-funding approach works particularly well for a mixture of the core operational elements, as well as the beyond-site projects (e.g., catchment restoration work or community WASH work). WWF has successfully applied such models in places like Pakistan.
2. **Multi-organizational branding of platforms**: Regardless of whether funds are centralized (as in #1 above), another suggestion is to ensure that the brands of all participating entities are reflected in the communications materials regarding the collective action. By co-branding from the outset, collective action initiatives avoid capture.
3. **Encouraging incentives**: Most people and organizations respond better to carrots than complaints. Offering incentives to entities that join and collaborate with the collective action initiative is another pathway to driving towards a common platform and avoiding fracturing. Incentives may differ by stakeholder ranging from funding, to recognition, to improved efficiency, impact and scale. Ensure that the collective action initiative has a clear value proposition to those considering joining at the periphery.
4. **Apply peer pressure**: Social, or peer, pressure can be an effective means of driving alignment with initiatives. Perhaps a somewhat "soft stick", this is the corollary to the incentive pathway, but can be enabled through conversations asking peers why they're not aligning with everyone else. The more we encourage peers to align, the better the coherence of the collective action. Never underestimate your own influence!

4.3.4 Challenge 3: considering re-distribution and governance

Ultimately perhaps the largest success factor in determining the long-term viability of a collective action initiative (so long as funding is sorted) is people getting along. As with any relationship in life, clear communication and a joint understanding of expectations is essential. In addition, like a marriage, understanding how money will be used by both (or in this case all) parties is key for harmony.

For collective action, this means well established governance practices at the heart of the collective action.It is hard to overstate that clear pathways for decision making and group decisions about the use of shared funds will be fundamental to the success of the collective action. Balancing power and influence is key as invariably there will be groups that feel somewhat hard done by as funds are redistributed. Constantly reminding all parties that the collective goal should be to grow the pie, and not focus or argue on how to split the pie, needs to be an ongoing mantra.

Collective action participants must agree on how decisions will be made and how measures will be implemented[17]. The roles for each level (i.e., steering board, technical committees) need to be assigned and defined clearly and include a system of checks and balances for accountability. Poor definition of roles and responsibilities is a recipe for loopholes and accountability gaps. Participants must also clarify the principles and standards that will guide decision making. This can be in the form of a code of conduct or code of ethics. A code of conduct is a statement of principles and values that establishes a set of expectations and standards, including

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[17] https://www.waterintegritynetwork.net/?ddownload=19477

minimal levels of compliance and disciplinary actions. Where relevant, the WSI should draw on relevant legislation and international best practice in the development of the code of conduct.

Furthermore, having a plan that clarifies how the WSI will end or transform (e.g., once goals have been achieved, or at the end of the project or funding cycle, or when participants do not abide by their responsibilities or the code of conduct), or that provides for the withdrawal of participants is key.

4.3.4 A river system model

Lastly, we offer up a proposed structural model to manage the complexity of a multi-stakeholder collective action for high-risk catchments. We envision this structural model like a river system, with a series of headwater tributaries, a main stem river and an extensive delta:

- **The headwater tributaries (channeling existing resources)**: For collective action in a priority high-risk catchment, several NGO facilitators of water stewardship would work in partnership, pooling funding and resources from the businesses, public sector agencies and other stakeholders involved in the catchment that share a common vision and goals. This would draw together smaller blocks of grant funding, existing projects and stakeholders and channel them together.
- **The main stem river (alignment and cohesion through a branded single initiative)**: For each priority catchment, the NGO partners would then align support around one collective action banner. Note that this would be one initiative, but from one to many projects within that initiative - the analogy of many drops of water making up one river illustrates the idea. One organization would likely be selected to host funds and potentially also a central coordinator, but all communications should be issued under the platform (rather than the organization), and co-branded. This alignment of multiple actors into a single, unified "collective action platform" with an agreed upon, robust governance structure would help to ensure coordination amongst projects and facilitate new, joint projects as well as coordinate independent projects. For any projects in the catchment, any given project lead would coordinate with other project leads in the catchment (or via an catchment initiative coordinator) to explore opportunities to combine and link up efforts, while the group as a whole could explore different options for longer term sustainable and scalable funding, as well as fund redistribution mechanisms. In short, the aim is coordination and cross-linking, not pushing a single giant project.
- **The extensive delta (scaling and diversification through multiple projects)**: As the initiative builds, participants would also aim to work with a network of stakeholders in the catchment to secure buy-in, tackle issues with water governance and tap into both local and global sources of funding and financing to diversify. These stakeholders include the farmers and growers, local businesses, civil society organisations and communities, and public bodies and authorities. Critically, a diverse array of service providers, innovators and entrepreneurs should be linked into the effort, with much greater emphasis on financing over grant funding as time goes on to ensure scalability. It is during this phase that financial models (discussed in 4.3.2) should be explored. It is also in this phase that the initiative needs to embrace a diversity of project implementers - especially innovative, entrepreneurial actors who can help to further scale.

Such a "river system model" outlines how a single, jointly branded initiative with a strong governance model at the centre, can tackle the challenges currently facing collective action efforts.

Out the outset, such platforms often rely upon a few select focal point individuals to help ensure coordination at the center. Starting with a small secretariat (which may consist of multiple organizational representatives) can distribute the load, but in all cases, ultimately a central "go to place" helps to ensure coordination and facilitate linkages with other stakeholders. The initiative's governance structure, along with the secretariat, needs to be accountable for ensuring coherence of the various on-the-ground interventions, and should help to also ensure robust impact monitoring and evaluation are in place.

Where new projects are being established, shared language, data and common scoping will help to ensure the work is designed and targeted to reflect the catchment context, including the policy and regulatory frameworks in operation. This scoping phase helps to identify integrated and appropriate interventions including Nature-based Solutions, as well as align to efforts such as Science-based Targets for Nature.

Conclusions

Water is a shared resource, requiring collective action in high-risk catchments and river basins to mitigate and adapt to flooding, drought, and pollution. It is our shared belief that collective action remains foundational if we are to achieve SDG6. As a shared, common pool resource, freshwater can *only* be sustainably managed through shared approaches.

This paper reflects the learning and experience to date from many organizations deeply involved in organizing collective action at the catchment scale. We have sought to offer up not only our reflections on key factors that have proven effective in the field, but also a refined definition, a proposed set of catchments, a suggested scale, key roles, and frameworks to distinguish forms of collective action. The paper offers up a set of principles for those who seek to be conveners of collective action, and also provides recommendations on how to ensure successful longevity of collective action initiatives.

Through the elements of good practice noted throughout, this report aims to:

- Develop and share a common understanding of what constitutes collective action so that NGOs and other stakeholders can position and differentiate their roles in delivering linked activities
- Ensure consistent logic behind the collective action initiatives undertaken by NGOs, public and private sector actors that are active in water stewardship; thereby avoiding (real or perceived) competition between initiatives and approaches that would create a barrier to working at scale in a joined-up way and deter businesses from investing
- Understand the various scales of collective action, and begin to paint a picture of which basins represent strong opportunities for the water stewardship community to come together in.
- Explain to corporates and the public sector how NGO stewardship and other conveners will follow a good practice model to help corporates and other stakeholders work together in collective action. To that extent, we have offered up a draft declaration which we believe reflects these sentiments.
- Outline the various challenges faced by collective action initiatives - from issues of "capture" to the ongoing struggles to ensure financial sustainability, there are an array of issues that make collective action challenging.
- To overcome such challenges, we have offered a "river system model" that we hope to deploy in the high opportunity catchments identified within this paper.

We face a world struggling to come to grips with the threats of both climate change and biodiversity loss along with ongoing and numerous social challenges and inequities. Water is the medium through which many of these issues manifest, and to that extent, we must come together if we are to stand a chance at bending the curves and shifting the trajectory of our planet's future. Collective action is that call to action - to begin to think beyond organizational boundaries and work, pre-competitively, towards the delivery of SDG6.

Appendix – Unresolved comments

Part	Section	Comment
N/A	Foreword	Excellent Foreword - nailed it! But agree penultimate para could be strengthened to paint a vision about the ultimate outcome we're all seeking
N/A	Executive Summary	Overall, there is loads of great content in this doc (amazing job Alexis and others!) but it does take a while to read and I worry about who of the people we want to read it will see the length and be put off. I wonder if we either try to pull chunks of it into an appendix to reduce the main content, or alternatively expand the exec summary to be a 1-2 page piece which summarises the key takeaways, and can be stand alone for those who just need that level, knowing that if they see enough in there which matters for them they'll dive into the whole doc. No preference on which route, just keen that we land key messages with as many relevant readers as possible.
N/A	Executive Summary	I agree with this. My thoughts are that the writing of this is as much a part of the process and the performance of reaching an agreement on things as it is a report in and of itself. Expectation would be that there are more direct, much smaller pieces of communications that come out of this - exec summary obviously, but also other things like a film, blog posts, shareable assets. The other question is once we reach a final agreement on what this is, and what we all want to see it then becomes question of how it is used, targeted at who and to what end? In a lot of ways this is us talking to us to reach an agreement. Which is needed, but then what. I feel that at least summarizing the report in a concise and edible exec summary with key messages for the various audiences mentioned will seriously help reaching people. My sense is that this report will be the foundation for many other forms of comms that better speak to various groups, but for that to happen properly first this report needs to be finalised.
N/A	Executive Summary	Thanks for the opportunity to add my two cents here. I personally think the length is okay, particularly as it has been set up as a framework report and could be used as a reference doc. My question is more around the ambition/ intention: who you want to do what, based on what's in here? My understanding of the collective action challenge is practical, i.e. i) what to do ii) ii) where to do it iii) iii) who to do it with iv) iv) how to share cost of doing it v) v) how to measure benefit of doing it. It feels that this paper is focussed more on the principle, i.e. rationale for collective action and normative statements of intent. The 100 basin bit is a really helpful advance though of itself doesn't address the challenge of practicality. Anyway, to be constructive - I think the question of ambition/ intention could easily and usefully be answered in the exec summary.
N/A	Introduction	Would that be the same version of this document for all three audiences? The foreword for example was written very much for the first audience, but I don't think that the other two audiences would relate to it in the same way. If we are trying to appeal to those audiences, I feel we would need different messages, and not just the foreword (we would probably need a completely different document for those two audiences, much shorter to start with)
N/A	Introduction	Agree on this point. The intro reads pretty much as an internal reflection for like-minded NGOs. I would put more stress on the public sector not only as enablers, but active participants in collective actions
N/A	Introduction	Agree - we should focus not only on the failure of NGO to be successful via collective action, but the public sector in its siloing of ministries and in some cases not including NGOs and biz

N/A	Introduction	Agree on this point. The intro reads pretty much as an internal reflection for like-minded NGOs. I would put more stress on the public sector not only as enablers, but active participants in collective actions.
N/A	Introduction	Agree - we should focus not only on the failure of NGO to be successful via collective action, but the public sector in its siloing of ministries and in some cases not including NGOs and biz
I	1.1 (Paragraph 2)	Not sure this is 100% correct: Actually IWRM is intended as a more participatory alternative to top-down approaches (see https://iwrmactionhub.org/about/iwrm-explained).
I	1.2.1	Where should the new definition be introduced that we should refer to "water collective action" for the sake of clarity.
I	1.2.1	Pull the definition out into a box when designing the paper.
I	1.2.1	In the paragraph where the definition is introduced, on the final line ("working together to solve shared water challenges") suggestion to add "mitigating water risks" as it feels like shared water challenges doesn't sufficiently drive home the criticality of addressing them outside of the water community.
I	1.2.1	Below the definition, in relation to the four bullet points - "This list and the paper in general could benefit from looking closer at the collective action theory by Ostrom and most recently Olstrom. Collective action initiatives are only powerful if they work – and this is not an easy feat when success requires balancing complex power relations and water allocation needs. Trust between stakeholders and trust from the wider community is essential for effective, sustainable WSI programming. Such trust emerges from transparent and accountable behaviour, not scandal. Integrity is a crucial ingredient, and the policy paper does not cover it sufficiently. Unless the number of individuals in a collective action is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interests. One of the challenges to avoid in collective action is freeriding, whereby individuals/stakeholders aim to maximize their personal benefits, leading to sub-optimal outcomes for the collective action and creating problems in fulfilling collective needs. An emphasis on integrity can address critical, yet overlooked, risks (such as lack of transparency, undefined accountability mechanisms, limited multi-stakeholder participation or corruption) that can otherwise undermine collective action work and erode credibility."
I	1.2.1 (Bullet points)	Another question on this for the broader team - does collective action need to be measurable in some way (i.e. is their credibility involved here or is there room for subjectivity of if the engagements delivered a positive impact)?"
I	1.2.2	Scales seems to have caused a lot of discussion, which two points of view forming in the comments. One which says collective action should focus on large/basin scale, and the other which says we should recognise that many scales of collective action exist.

The point of scale is very important - in my view effective collective action has to be at large scale (basin-wide) to have the impact and mitigate the water/climate (shared) risk. Small scale project focussed CA is of some value - and often a starting point - but the ultimate goal is scaled action/impact to improve health of the whole basin. |
| I | 1.2.3 (Paragraph 2) | We could look to simplify some of this as it really gets into the weeds a bit beyond what the focus/aim of this paper is.

Happy to pick this up. I do think it's important to unpack different forms of collective action and don't think it is "beyond the focus" personally...but happy to discuss. If there is consensus that people want to focus the paper in other areas, then I'm happy to remove and have it published separately.

I actually like this, and find it relevant to the focus, although I would add that the focus on water problems only is not realistic - water issues are always intertwined with other related challenges (ag, energy, urban growth, etc.) which require that |

I		collective action be not just water-centric, lest it not actually get to the heart of the matter. I think it's helpful to consider different kinds of collective action. It's such a broad term.
N/A	Introduction	I found the doc to be confusing if I'm honest, and not really that clear who it was trying to speak to. It seemed to be promoting orgs, then trying to promote collective action but then getting into the weeds of how 'we' as a group of orgs should sort out our plans for collective, so not for a client so to speak at all. I wound up thinking why is there no info on this in the doc, but loads of info on things that I don't need to know – if I was interested in collective action. So I am not sure who it is for – and what you want it to do. And I was thinking more about where collective action could and should be going, but I didn't get that strongly in the doc, but more about how should we organise ourselves better. I know some of the corproates like the point that there is some self-reflection – we are not organised and competing and not making things clear, but then I didn't find the doc made things clear.
I	1.2.3 (Figure 2)	Would suggest that .gov can generally be part of e.g. multisectoral CA. It doesn't necessarily have to be the local basin authority but could also be other public actors that engage in collective action. For example, further below AWS is given as an example for multisectoral CA. Here at a least a few .gov organizations are engaged. The figure suggests that multi-sectoral collective action is slow and not able to implement action which I find problematic. In the end what we are ultimately seeking for is to find ways on how to create effective/impactful collective action initiatives in places that are complex and conflict-ridden. i.e. to make them fast and actionable enough to address the shared challenges.
I	1.2.3 (Paragraph 7)	Guidance to companies is not the focus of this paper - appendix? Yes and no - my feeling is that this paper is ultimately guidance to all of us, so I might suggest we just broaden this language. As to whether to drop these frameworks into appendices or just break this document up into pieces - not sure...worth a chat. I'm tempted to say we need to take a call on whether we break into multiple pieces once we've got all the content down - it's a pretty lengthy paper already with more to come still, so I think we might want to either consider a shorter summary, or multiple pieces. I'm open. Happy to chunk - need others to weigh in however. I tend to agree - is there a way to take out any of the specific examples that are listed across the paper and break them out into case studies? Otherwise maybe just another figure to show these relationships in a more visual way?
I	1.2.3 (Summary)	There are a few topics being explored in this paragraph. We could look to tease these out if needed. Two important points are missing: Alignment with public policy needs to be established at an early stage. The collective action initiative will be able to adequately address policy and regulatory challenges, depending on how well it has considered these elements from an early stage. The assessment of the enabling environment (policy, regulation and civic interests) should inform the collective action's strategy and plans towards the achievement of water security for all. Transparency influences trust and therefore engagement of necessary stakeholders. The disclosure of interests of the private sector helps to bring necessary stakeholders within WSIs. Conducting a holistic assessment of risks, needs, and vulnerabilities and making this process transparent, reinforces trust and

		strengthens balance of interests. This includes establishing governance principles and guidelines for the initiative. We could look to take this "in summary" section and add it to the "what's working" bit at the end of this chapter. In relation to point C: Actually, I don't see that the diagram refers to resources, so while this bullet is correct, I don't think that referring to it here as a summary of the diagram is correct. In relation to point D: Is this something collective action is or is not? My take is that this is something that forms part of the sphere of collective action, yes. Whether IWRM, etc. = collective action, I'm not sure. I suspect you'd hear people suggest yes and no. Not sure it's worth the debate per se but I do think the transition from informal to formal is something to consider.

II	2.2
	(Figure 3)
		A few other potential roles to consider:
		    (1) Influencer: those who shape the debates and thinking at a broader level (within or between catchments)
		    (2) Thought leaders: those who develop content that is consumed by others (could be integrated with one of the other groups)
		    (3) Standard setting or certification (possibly including verification). Think this is probably too specific and not always a role that's necessary, so am inclined to not include, but I've done some mapping on this.
		    (4) Watchdog/campaign - not sure if it's too similar to either (A) Advocacy/policy engagement or (B) awareness raising. Inclined to lump into awareness raising.
		    (5) Also not sure if we want to split out granting vs. financing in the funder chunk.

II	2.2	I think you could condense these roles for clarity - in most cases the same entity takes on gathering data and modeling, for example and convening and awareness raising. Also, as raised above there should be consideration of roles along all phases of collective action, from stakeholder mapping and science analysis to continued maintenance, scaling, and monitoring of projects over the long term.
II	2.2 (End)	Our paywalled resources in the AWS Tools Hub is our equivalent here. So the question being, how do we make what should be community-wide assets accessible to the community and wider stakeholders in a way that is equitable (not advantaging one over another) and economically viable (not undermining the core business model of X or Y)?
II	2.3	Zero-rated licensing; shared ownership; something long those lines.
II	2.3	Citation needed for "Edelman" research suggests.
III	3.1.2	Under "The six risk layers are equally important": It might also be helpful to highlight how the WASH considerations were addressed here - or to the extent they were addressed.
III	3.2.1	Include a list and set of summaries of collective action initiatives? - AND- We should discuss how we will use case study examples to bring this report to life and illustrate learning.
III	3.2.1	Some Open Text that refers to a figure that I don't think exists - Figure *** below offers a map illustrating coverage of organizations by country, highlighting the deep coverage in select countries (e.g., India), while very thin coverage in others (e.g., much of MENA).
IV	4.2	Maybe it is good to include a separate heading on generic lessons regarding collective action? Or do we want to include this in the where we need to go section?

		Would love to incorporate here practical lessons on generating collective action at the catchment scale. For example the need to focus on building trust among stakeholders, to really focus on capacity generation with stakeholders (not only locally but also internationally in the value chain), the importance and role independent brokers/facilitators, the importance of engagement and participation of local as well as global value chain stakeholders from the very outset, the importance of creating a shared understanding on the catchment (water) and drive vision development as foundation for collective action, the need to get active from the beginning, doing small 'baby step' actions as engager and driver of stakeholder collabs. We can see what to include, would be good to illustrate, we do have some lesson learning papers that we can draw from from Southern Spain and from Colombia (Plataforma and BioCuenca Water Fund). Would also like to bring in the practical lessons of applying the catchment passport methodology that helps the engagement, trust building, shared understanding of local water challenges and and co-design of collective action.
IV	4.2.1 (Point 6)	Not sure if we want to put in the map we've compiled here or if we want to show what's in the WASH or something else. Open to suggestions. I would propose that rather the map that we have created
IV	4.2.1 (Point 6)	There may also be a need to develop a joint funding model.
IV	4.2.1 (Point 8)	in order improve efficiency and speed to outcomes - something like this: It's difficult to often discover existing initiatives that can be leveraged, i.e. the WAH points.
IV	4.2.1 (Point 9)	Important point here. Often the theory of change is to start with something simpler to build trust, then move on to more difficult water challenges, scaling, etc. It's often hard to start with bigger issues.
IV	4.2.1 (Point Other)	Collective action can be difficult to monitor, as partners contribute in different and sometimes informal ways, but it is essential for adaptive management and integrity. The monitoring and evaluation framework should be defined with care early on and should focus on both the efficiency of the initiative itself (including how participants cooperate) and the progress toward achieving specific results. Without a robust monitoring framework and the systematic assessment of delivery against the set objectives, collective actions are not able to prove their added value to the public and its participants or provide internal and external accountability for the resources used. Weak monitoring may lead to illegitimate claims by collective action participants (increasing risks of greenwashing) and can be the cause for misunderstanding and contradictory expectations on impact, outcomes, and contributions. Similarly, independent evaluations provide an opportunity to learn about what works and what does not so that a collective action can improve its effectiveness. Unfortunately, many of the existing collective actions do not include this element. Integrity measures should be established at an early stage, but this is not often the case., It is vital to discuss and agree at an early stage how a collective action will run, how roles and responsibilities will be assigned, and how progress and governance will be monitored for accountability. This starts with ensuring that all key stakeholders are on board from the onset, and that key water risks are identified with attention to the knowledge and needs of all stakeholders. Additionally, the establishment of partnership governance principles (e.g. code of conduct) along with social and environmental standards that direct projects and activities within a CA is crucial.
IV	4.2.1 (Examples)	Curious to know how people feel about this suggestion. I think that might be the best pathway to help to bring out more (and digestible) content without overwhelming this paper. If people think that's worthwhile, then we can propose a template. I think these will be essential and have the potential for wider use. A simple template to ensure a consistent approach would be helpful.

		My suggestion might be to map it back to the framework elements at a minimum, but broadly: (1) Who (& which roles various orgs took) (2) What the work was (& how it matches the CA def'n) (3) Where (relative to CA opportunity basins) (4) Successes (5) Challenges
IV	4.2.3	If we're talking about just the Thika/Chania sub-catchment (Nairobi water supply watershed), then it is more like Level 9. Agree with that assessments if we are just talking about the project boundary. We can discuss which one to choose.
IV	4.3	Taking from the Guide to Water-Related Collective Action - there were five principles for *responsible* business engagement in water policy proposed. What are our thoughts of revising those principles to better represent the broader stewardship community? Another option could be to take from the principles used in the Integrity Guidelines: e.g., Principle 1: Seek to align with, support, and strengthen public policy that advances sustainable water management; be careful not to undermine public institutions or water governance.
IV	4.3.1	Do we want to unpack these in depth. I've retained the Stakeholder piece below to illustrate. Eventually, yes, this is something the group should detail out a bit more, but this is not intended to be a guide so I'd leave out so as not to overwhelm readers with information.
IV	4.3.1	• the list contains a mixture of different phases of a collective action. If I try to regroup them: Incubation: A, B, G (here I would put more stress on inclusive and participatory scoping and analysis / transparency on intentions and on available evidence / data for decision making) • Formation: C, E, F, H, I, J (missing monitoring frameworks and disclosure standards to enable accountability mechanisms) • Implementation: D • Completion, Renewal or Upscaling: missing from the list. I would add *transparency on governance, performance and expenditure/Independence and objectivity in evaluation for accountability*
IV	4.3.1 (Point F)	This seems a bit mixed with D. I'd put 'roles' and 'shared vision for how it will operate' into one bullet and a common vision and goals into another (this is more about what impacts they want to see).
IV	4.3.1 (Point H)	Maybe a heading needs to be included. Our experience is that this is a key aspect to start collective action, generate a shared understanding among stakeholders of the water situation in a catchment and identify/co-design opportunities for collective action. We use the aforementioned catchment passport methodology for this. May be worth a chat on this issue. There are a few approaches here that we've considered from Basin Report Cards to Freshwater Health Index, etc. I'm also working on a separate doc on shared monitoring so we could dive deeper into this in that doc.
IV	4.3.1 (Point I)	Not sure if this should be a separate section or not? I think is important to keep. From experience, I saw that sometimes topics like biodiversity or (in the case of agriculture) good practices on Nitrates use, biological pest control, soil management... tend to be addressed in a separate way and not included in collective action processes as they are not perceived as connected to water. However, there are clear connections between these topics and water.

		My main point is that Water Stewardship integrates topics that are sometimes not perceived as water-related, and there's an opportunity to identify these links and use them to strengthen water stewardship collective action processes.
IV	4.3.1	Stakeholders – Civil society Are you assuming communities are represented by civil society, or should we call them out as a group in this list?
IV	4.3.2 (Point 1)	Some sort of endowment, where the interest from the funds pays for the program.
IV	4.3.2 (Point 2)	Agree fees/taxes for collective action is a potential lever to pull but is not 100% sure if this is the best message for this paper. If the whole purpose is to rethink and "drive demand for" collective action in a way that builds engagement, then do we want to suggest something that every actor in the catchment is forced to pay here and doesn't involve any additional involvement in driving the solutions? I'm certainly no expert here, but wondering if some of the potential pathways listed in challenge 2 (i.e. the "common banner" being set up to include structured/defined funding expectations, with the peer pressure/incentives/broader involvement essentially lessening those barriers to get more involvement locally) also a potential solution to challenge 1? I disagree with the point that this is not a good avenue. I see this kind of long-term funding as sustainable and appropriate - water users are investing, at a very low rate per user - in the future of their water supply.
IV	4.3.2	"When one NGO financially benefits" since the paper is also targeting the private sector, don't you also see a risk of a private-sector-led collective action being captured for the company's interests? I do. the pathways presented below might solve unaligned strategies and frameworks among NGOs, but will not respond to the question whether increased corporate engagement in water risk management meaningfully contribute to the wider efforts to eradicate poverty, promote sustainable economic development, increase resilience to climate change and improve environmental protection. This remains a top priority to look at (collectively)
IV	4.3.2 (Point 3 & 4)	These feel like ways to get to #1 and 2 above, rather than separate structure options. perhaps another option is for a shared program to have co-branding or 'no' branding, but then payers can fund individual projects under than banner directly to specific orgs. This is somewhat like is happening in CWAC. Then all participants of the platform pay a small 'tax' to help the central platform run.
IV	4.3.4	"Several NGO facilitators" - Is this always NGOs???
IV	4.3.4 (Second bullet)	To me - this is one of the biggest opportunities in the paper to move to action. I can see lots more corporates getting engaged if something like this is set up in a way that simplifies how to get involved. Know it's a big challenge, but it's worth the ask to the broader team: Is there a strategic location where we could use the opportunity to drive some real action and excitement - that the paper isn't only a model but that it's an opportunity to show that this is really happening? Maybe we should say the "branches" agree to support projects on the ground that are supportive of each other and not duplicative (there was that language earlier) - I am not sure I can see a reality where everyone agrees to only support 1 organisation on the ground... I agree - that's a more realistic approach I think it depends how broad or focused that one project is going to be. I could see it becoming difficult if we find that means there's a narrow focus on just one identified freshwater challenge, or just one scale of engagement. To me it's more

		important that we commit to ensuring if there are multiple activities, they connect to and reinforce each other.
N/A	Conclusions	I think we could make one of the key takeaways the idea of creating a shared statement/agreement from the stewardship conveners
N/A	Conclusions	I'd like to see some next steps here - this paper presents a vision of where we want to go, but what are our first steps to get there?