

Stakeholder Engagement Guide For Nature-Based Solutions



NOVEMBER 2022

Project Team

Gregg Brill
Deborah Carlin
Shannon McNeeley

United Nations Global Compact CEO Water Mandate | www.ceowatermandate.org

Pacific Institute | www.pacinst.org

Delilah Griswold

Cornell University | www.cornell.edu

Recommended Citation

Brill, Gregg, Deborah Carlin, Shannon McNeeley, Delilah Griswold (2022). Stakeholder Engagement Guide for Nature-Based Solutions. United Nations CEO Water Mandate and Pacific Institute. Oakland, California. www.ceowatermandate.org/nbs/engagementguide

Acknowledgments

Thank you to the following reviewers who provided input on the content and structure of the document: Hannah Baleta, Amanda Bielawski, Mark Cassalia, Heather Cooley, Christine DeMyers, Cora Kammeyer, Morgan Shimabuku (Pacific Institute/CEO Water Mandate); Amanda Loeffen (HumanRight2Water); Michael Matosich, Naabia Ofosu-Amaah, Kari Vigerstol (The Nature Conservancy); Maleea Acker (University of Victoria, Canada). All the views expressed in this publication are those of the project team and do not necessarily reflect those of the project reviewers or sponsors. Grant funding has been generously provided by CEO Water Mandate endorsing companies.

ISBN: 978-1-893790-94-0

Cover Photo: ©EmeraldMedia/Shutterstock

Table of Contents

Abbreviations and Acronyms	3
Executive Summary	4
Section 1: Setting the Scene	6
Why this guide is important	6
Key audiences	6
Section 2: Understanding Equitable Stakeholder Engagement	8
Engaging Indigenous Peoples and Local Communities	9
Critiques of NBS by Indigenous Peoples and Local Communities	10
Section 3: Principles and Best Practices	12
Section 4: Stakeholder Engagement Across Different Project Stages	17
Stage 1: Understand contexts	18
Stage 2: Pre-feasibility/feasibility	24
Stage 3: Design	28
Stage 4: Implementation	30
Stage 5: Monitoring and evaluation	31
Stakeholder Engagement Checklist	33
Section 5: Conclusion	36
References	37
Appendix	41

Figures and Tables

Figure ES1: Overview of the Stages and Steps Discussed in this Guide	5
Figure 1: Overview of the Stages and Steps Discussed in this Guide	17
Table 1: Stakeholder Mapping Using the Four A's Method	20
Table 2: Sample Regulatory Context Mapping	21
Table 3: Range of Engagement Levels of Potential Stakeholders	25



Abbreviations and Acronyms

M&E	MONITORING AND EVALUATION
NGO	NON-GOVERNMENTAL ORGANIZATION
NBS	NATURE-BASED SOLUTIONS
IK	INDIGENOUS KNOWLEDGE(S)*
IPLC	INDIGENOUS PEOPLES AND LOCAL COMMUNITIES
PBP	PRINCIPLES AND BEST PRACTICES

* Knowledges (plural) or knowledge systems are widely used to indicate there is not just one monolithic body of Indigenous Knowledge, but rather a plurality of knowledges.

Executive Summary

Effective stakeholder engagement is paramount to the long-term success of any nature-based solutions (NBS) project. Drawing from a range of expert sources, this guide offers accessible and clear guidelines for broad stakeholder engagement, highlighting the diverse global contexts of NBS and identifying key principles and practical steps for incorporating stakeholders into projects. This guide aims to promote inclusive, equitable and even reciprocal relationships for the benefit of both the organizations investing in NBS and the stakeholders and communities who have a role to play or are impacted by an NBS project. This guide can be used to support greater community buy-in for NBS projects, the integration of local knowledge into all stages of an NBS project and organizational efforts to operate from a human rights-based approach, as well as enable local communities potentially most impacted by an NBS project to be part of the decision-making process. This inclusion and integration can afford NBS projects a greater chance of success and sustainability.

This guide takes a pragmatic approach to stakeholder engagement by presenting general principles and best practices that should be considered throughout all stages of an NBS project, as well as outlining specific steps for incorporating stakeholder engagement throughout NBS project stages. The identified principles and best practices include engaging a diverse range of stakeholders; building long-term relationships and trust; communicating with empathy; prioritizing transparency and accountability; co-creating rather than imposing; recognizing mutual benefits; removing barriers to engagement; formalizing relationships; ensuring adequate financial support; and appointing well-trained, knowledgeable facilitators.

NBS project stages, and subsequent steps for stakeholder engagement, are outlined on the next page. Note that each NBS project is unique, with varying locations, activities, and involved players. Even though the guide is structured around specific NBS project stages and steps, the way that a specific project carries forward stakeholder engagement is likely to vary.

FIGURE ES1: OVERVIEW OF THE STAGES AND STEPS DISCUSSED IN THIS GUIDE

NBS PROJECT STAGES				
STAGE 1 UNDERSTAND CONTEXTS	STAGE 2 PRE-FEASIBILITY / FEASIBILITY	STAGE 3 DESIGN	STAGE 4 IMPLEMENTATION	STAGE 5 MONITORING & EVALUATION
1.1 Stakeholder Mapping	2.1 Define the NBS Project Scope	3.1 Setting Up a Design Committee	4.1 Collaboratively Implementing Co-Created Project Design	5.1 Developing a Monitoring and Evaluation Plan
1.2 Regulatory Context Mapping	2.2 Identify Levels of Stakeholder Engagement	3.2 Collaborating on Design Elements	4.2 Providing Updates and Communications	5.2 Planning Data Collection
1.3 Building Cultural Competence	2.3 Developing an Engagement Plan	3.3 Validating Stakeholder Interests	4.3 Presenting Co-Created Project Outcomes	5.3 Analyzing and Evaluating Data
	2.4 Engaging Stakeholders and Evaluating			5.4 Providing Updates to and Receiving Feedback from Stakeholders

Stage 1 covers the importance of understanding contexts, including local norms, cultures, standards and regulations, and provides practical means for doing so through various mapping and engagement steps.

In Stage 2, the project team identifies levels of stakeholder engagement and proposes the development of a stakeholder engagement plan to guide all participation and communications in further stages of a project.

Stage 3 outlines methods for involving stakeholders throughout all aspects of the design stage of an NBS project, emphasizing co-creation with diverse stakeholders. In this stage, stakeholders will be assigned roles and responsibilities, collaborate on project design and aid in finalizing the design plan.

Stage 4 identifies how to engage with stakeholders throughout the implementation phase, how to maintain transparent, two-way communications and how to ensure equitable participation in project launch.

In Stage 5, the project team proposes the development of a monitoring and evaluation plan, which may involve stakeholders in data gathering and analysis, and suggests means for open communication with stakeholders regarding updates and receiving feedback.

Section 1: Setting the Scene

WHY THIS GUIDE IS IMPORTANT

Stakeholder engagement is often not prioritized in nature-based solutions (NBS) projects. It may only be considered at the beginning of the project, with little input from stakeholders during the design and implementation stages, or at the end of the project, when it is tacked on as an afterthought. Effective stakeholder engagement is, however, paramount to the long-term success of any NBS project. This guide offers practical steps on the “who, when, where and why” of stakeholder engagement to those looking to invest in NBS projects. This will support investors and practitioners in making NBS projects more inclusive, more culturally appropriate and more likely to be sustainable in the long run, given the buy-in and support garnered from diverse stakeholders from the start of a project.

The steps offered in this guidance document are not prescriptive and can be adapted to meet the nuances and context of almost any NBS project anywhere in the world. Users can opt to use the guidance from a single step if needed, or they can follow the staged approach from start to finish. The applicability of the information provided may even extend beyond NBS projects; it is hoped that this guidance can support greater stakeholder engagement across a variety of environmental and socio-economic projects.

KEY AUDIENCES

This guide is intended to be used by those looking to better understand the elements of effective stakeholder engagement during each stage of an NBS project. The primary audience includes corporate investors as well as practitioners or implementers of NBS projects. However, the information provided is applicable at a much broader level and will have practical value to public sector agencies, non-governmental organizations (NGOs), academic institutions, funding agencies and other organizations involved in NBS projects globally.

Users of this guide will better understand the steps required to consider and engage the diverse needs of stakeholders, both within and outside of the project boundary, and will allow users to:

- Effectively consider and engage stakeholders and their needs across all phases of an NBS project;
- Ensure that appropriate levels of stakeholder engagement are developed and maintained throughout the different project stages to optimize the project design;
- Ensure greater understanding of NBS benefits and beneficiaries;
- Develop trust and collaboration among stakeholders, as well as reduce conflict;
- Increase and broaden the sense of stakeholder support and ownership through co-creation and better implementation and maintenance of NBS;
- Improve the adoption of higher quality NBS more appropriate to local contexts;
- Improve efficiency in terms of cost and time commitment in the long term; and
- Support the achievement of the United Nations' Sustainable Development Goals relating to the water, the environment, gender, climate and other key areas.

Section 2: Understanding Equitable Stakeholder Engagement

The success of NBS projects depends on equitable, inclusive and consistent stakeholder engagement. The benefits of such engagement are widely documented and include:

- Improved long-term project maintenance and management;
- Reduced conflict in project design and outcomes;
- Increased trust and agency among participants and beneficiaries; and
- Improved overall environmental and social outcomes (Zhang et al., 2020).

Although the importance of stakeholder engagement may be apparent to investors and practitioners, it is not always prioritized or achieved. This may be due to knowledge gaps regarding appropriate ways to approach stakeholders, lack of clarity on relevant stakeholders able to influence, benefit from, or be disadvantaged by an NBS project, capacity and resource limitations, or difficulties in communicating and reaching consensus across diverse groups (Sterling et al., 2017). These challenges can lead one to perceive stakeholder engagement as a hindrance to efficiency or an obstacle in reaching project goals.

Stakeholder engagement is much more than simply convincing stakeholders about a pre-designed plan. While engagement processes can take many forms, the overall intention is to facilitate co-design, co-development, and/or co-ownership of NBS projects, and thus increase inclusivity and equity in NBS. To achieve this, the project should incorporate the concerns of interested and affected parties throughout all stages of an NBS project—from the initial pre-feasibility phase through long-term monitoring and maintenance. The process should seek to elicit a wide range of values, concepts and knowledge systems about nature and environmental and social wellbeing (Sterling et al., 2017; McNeeley and Lazrus, 2014), especially those of excluded or marginalized groups, such as Indigenous Peoples, women, and poor and minority communities (UNDP-SIWI et al., 2017).

There are many different viewpoints regarding the best form of participation and engagement; this guide emphasizes a balanced approach that considers the capacity and power dynamics of all groups. For example, equitable stakeholder engagement should include a diverse range of participants that represent the varying—and often underrepresented—identities within a community. Doing so brings many perspectives to the table, expanding the knowledge base of the project team and ensuring that blind spots are not missed (Eaton et al., 2021). Through these additional perspectives, knowledge co-production becomes more accessible. The co-production

of knowledge should include integrating scientific and technical knowledge with practical, local, traditional and/or other ways of knowing (Eden et al., 2016) to improve the scientific basis of decision-making (Wyborn et al., 2019). This integration is a critical process for improving the management and governance of complex environmental problems. Other factors of equitable stakeholder engagement include building open dialogue, including a process for constructive conflict and mediation, incorporating skilled facilitators (Eaton et al., 2021), using democratic methods for decision-making, and ensuring stakeholders have access to project information (Zhang et al., 2020) in forms and languages relevant to them.

Even with all these factors in place, the element of stakeholder willingness, ability or motivation to participate should not be assumed as a constant.

Investors and practitioners should always be on the lookout for situations where they can mitigate or eliminate any unnecessary burdens being placed on stakeholder resources, where there may be a lack of access to project knowledge, or where stakeholder voices are not being integrated into decision-making. The benefits of stakeholder involvement should always outweigh any potential costs (Zhang et al., 2020).

ENGAGING INDIGENOUS PEOPLES AND LOCAL COMMUNITIES

NBS projects are more likely to achieve positive and lasting results when they are co-designed with Indigenous Peoples and local communities (IPLC). IPLC are essential partners in NBS as they currently steward many lands critical to biodiversity and carbon sequestration (Sterling et al., 2017). This stewardship depends on extensive local knowledge of the ecosystems as well as the network of stakeholders that are linked to these landscapes. Prioritizing IPLC inclusion is not only key to a project's success, it is essential for assuring equity and reducing the processes of exclusion within traditional efforts for environmental conservation (Zhang et al., 2020).

The term “Indigenous Peoples and local communities” is often used to describe two groups that have been highly marginalized and systemically ignored. “Indigenous Peoples” was first defined as “those [peoples] which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of societies now prevailing in those territories, or parts of them...” (UNDESA, 1983). “Local communities,” however, does not have such a discrete definition. Local community could mean a group that has collective legal rights or, by a looser definition, refer to individuals that have shared interests that are represented by a community-based organization (UNEP, 2011). The two terms are therefore not mutually exclusive—Indigenous Peoples can be local communities, and local communities can have individuals that identify as Indigenous; local communities can also be composed of non-Indigenous members (Aina Momona, n.d.).

This guide presents the acronym “IPLC” to capture both possibilities.

The overall intention is to facilitate co-design, co-development, and/or co-ownership of NBS projects, and thus increase inclusivity and equity in NBS.

There are several IPLC engagement protocols, and all projects should actively seek to follow the processes developed within the context of the project when available. However, standard ethics procedures, while necessary, are often not sufficient to address the cultural, political, ecological and spiritual concerns of IPLC. Beyond meeting administrative requirements, the inclusion of and engagement with IPLC should be driven by principles of respect and the prioritization of self-determination; “Indigenous Peoples are not informants, but knowledge holders and experts on topics in relation to their own identities, histories, environment, and definitions of self-determination.” (Indigenous Peoples Specialty Group and of the Association of American Geographers, 2010, pg. 2).

The Nature Conservancy (2017) has developed an approach to engaging IPLC that centers on four broad, interconnected objectives:

1. Ensure IPLC rights to territories and resources
2. Strengthen community leadership and capacity
3. Provide effective multi-stakeholder platforms for decision-making
4. Develop environmentally sustainable economic development opportunities

These objectives are framed through three key principles: voice, choice and action.

- **Voice:** including traditional knowledge, identity, local priorities and values in developing the NBS portfolio, objectives, strategic and annual operating plans.
- **Choice:** building leadership and engagement in the decision-making process.
- **Action:** creating opportunities for communities to initiate and participate in the implementation of the project and the management of resources that affect their well-being.

CRITIQUES OF NBS BY INDIGENOUS PEOPLES AND LOCAL COMMUNITIES

The recent upswell of attention in NBS has resulted in both enthusiasm and criticism over the promises of these projects. IPLC have pushed back on the panacea framing that often accompanies efforts to promote NBS. Many IPLC concerns are aimed at the limits of engagement itself, and the need to prioritize project leadership and territorial and revenue rights (Townsend et al., 2020). These critiques are important, and have, among other things, pushed the conversation on NBS research, design and implementation, as well as increased efforts for engagement. Some of these critiques include:

NBS are too vague and can work to greenwash corporate actions

Because there is no single definition of NBS, many fear that the label is used to legitimize projects and activities that have no or minimal environmental benefit. This concern is emphasized by the fact that NBS are often celebrated as a significant means to mitigate and adapt to the negative consequences of climate change (e.g., flooding, disease, wildfires, drought), which are often experienced most acutely by Indigenous Peoples, women, and low-income communities (Townsend et al., 2020; Gaspers et al., 2022; Reed et al., 2022). While NBS can support climate change adaptation or mitigation, it can also have unintended or maladaptive consequences for IPLC, especially when communities are displaced or disconnected from their lands and ecological connections as a result.

In response to this concern, researchers and NGOs have made efforts to develop clearer guidelines about what an NBS initiative involves. These include Seddon et al.’s (2021) four principles: (1) NBS are not a substitute for the rapid phase out of fossil fuels; (2) they involve ecosystems wider than just forests, such as those on land and in the sea; (3) they are implemented with the full engagement and consent of Indigenous Peoples; and (4) they are designed to tangibly benefit biodiversity.

NBS can exacerbate displacement and dispossession

In some cases, conservation efforts have led to the physical and economic displacement and dispossession of IPLC from their lands and restrictions on cultural and material livelihoods (Vanclay, 2017; United Nations, 2019). There is a justified concern that NBS projects would repeat this pattern of displacement, either directly through enclosing lands or indirectly through unfair benefits sharing, such as the capture of carbon credit revenues generated by the project (GRAIN, 2021). A key issue is that colonial, settler colonial and neocolonial land losses undermine Indigenous resilience and prevent some communities from fully engaging Indigenous Knowledge (IK) systems that link human-nature systems (Whyte, 2018). IK has been systematically excluded from the creation of dominant (western) water knowledge and policymaking for centuries. Garnett and co-authors (2018) estimated that Indigenous Peoples’ lands account for 37 per cent of all remaining natural lands worldwide, meaning they manage and/or occupy many of the world’s most sparsely populated intact places. Given that Indigenous Peoples represent less than 5 per cent of the global population, their knowledges are clearly integral to sustaining and managing natural landscapes (Garnett et al., 2018).

For this reason, investors and practitioners need to go beyond engagement and consider Indigenous jurisdictions and territorial claims, as well as IK, in the development of NBS projects. This will require IPLC participation in every phase of the project (Reed et al., 2022) and will rely on the collective decision-making and development emphasized throughout this guide.

A focus on NBS distracts from the urgent need to decarbonize and re-value nature

Many NGOs and climate justice advocates are concerned that an over-emphasis on NBS provides a cover for continued pollution, distracting from the need to dramatically reduce emissions to meet the urgent climate change mitigation trajectories established in the Paris Agreement (Seddon et al., 2021). For IPLC, delayed decarbonization threatens to increase the already outsized negative impacts they experience from climate change. Valuing land as primarily a carbon offset also continues a western framing of nature as a static resource instead of a complex and dynamic system of reciprocal relationships (Cameron et al., 2021; McGregor, 2004).

To address these concerns, NBS projects should be implemented as an additional effort where they are used to meet climate change mitigation goals for carbon-intensive industries. Further, in NBS projects on or near Indigenous territories, the design of NBS work should aim to support “Indigenous sustainable self-determination, grounded in an Indigenous understanding of land as a system of reciprocal relations and obligations.” (Reed et al., 2022, pg. 528).

Those involved in NBS should take these concerns seriously and use this guide as a starting point to understand how they might be avoided in their specific NBS project. Many of the concerns can be addressed by using the steps presented in Section 4.

Section 3: Principles and Best Practices

This section presents a collection of principles and best practices (PBP) collected across multiple academic and gray literature sources. These PBP could assist investors and practitioners in enhancing engagements across all NBS project phases. Many of these PBP are intuitive but are often not considered by those leading stakeholder engagement processes. This guide suggests adopting as many of these PBP as possible.



1. Engage A Diverse Range Of Stakeholders

One of the most important aspects of equitable engagement is to cast a wide net while identifying stakeholders. The project team should include stakeholders that represent a diversity in demographics (income, gender, race/ethnicity, age, etc.) as well as a diversity in organizational affiliation, such as NGOs, community-based organizations and interest groups, businesses, government representatives, utilities, etc. Engaging with a lot of one type of group (for example, engaging with seven different local businesses) may involve a substantial amount of engagement, but that engagement would not be diverse or equitable. Diverse and equitable engagement brings many different perspectives to the table, which not only expands the knowledge base of the project team (Eaton et al., 2021), but also increases buy-in for the project, so long as stakeholder needs are met and tradeoffs are negotiated.



2. Build Long-Term Relationships and Trust

Stakeholder engagement should not be seen as a one-off or short-term effort. These engagements and relationships should be prioritized with long-term commitment and appropriate forms of reciprocity (Indigenous Peoples Specialty Group and the Association of American Geographers, 2010). Depending on the timeline for an NBS Project, managers and stakeholders may be working together for several months to several years. It is particularly important when dealing with long-term projects to cultivate long-lasting, intentional relationships and trust. There may be times when a stakeholder's ability to trust has already been compromised—either by the current project or previous, unrelated partnerships. Reestablishing these relationships can be challenging, but certainly necessary. This presents an opportunity to take a new approach at building the relationship, such as through co-creating projects (River Network and WaterNow Alliance, 2021).



3. Communicate With Empathy

To foster deep relationships, the project team can exchange personal stories with stakeholders and vice versa. Getting out into the community to hear concerns directly from stakeholders helps to build trust and better match the goals of the project to the needs of surrounding individuals and communities in a way that is culturally responsive. When stakeholder needs are being prioritized, there is much higher social buy-in and chance of long-term success. Engagements should be centered on cultural contexts (e.g., Indigenous cultural frameworks and protocols, approach elders and leaders first, etc.). Recognizing that stakeholders and communities seek partnerships is critical, and a quick “box checking” style of community engagement will not aid in forming meaningful relationships. The goal is to build a long-term relationship built on trust and the transfer of knowledge (River Network and WaterNow Alliance, 2021).



4. Prioritize Transparency and Accountability

Transparency and accountability are also crucial to maintaining open communication. A culture of transparency facilitates open conversation, where all involved partners can be up-front about needs, goals and concerns. Project information and updates should be readily accessible to stakeholders through verbal communication, websites, newsletters, etc. (River Network and WaterNow Alliance, 2021). Something as simple as consistently recording and posting meeting minutes can greatly add to transparency and accountability. Additionally, there should be an organized system for stakeholders to report feedback, concerns and grievances to ensure these issues are addressed in a timely manner. Ignoring such issues will not only decrease transparency and accountability, but it can decrease trust or buy-in and potentially impact the long-term sustainability of the project. The results of how grievances are handled should be accessible for public review (UNECE, 2021). Third-party facilitators can also be helpful in easing any tensions that may be present and creating spaces for open conversations (River Network and WaterNow Alliance, 2021).



5. Co-Create Rather Than Impose

Try not to approach stakeholders with a set of objectives for an NBS project, or an assumption that the project will benefit these communities. Instead, engage stakeholders through an iterative, co-creation process, where everyone has an equal say in how an NBS project is designed, implemented, monitored and evaluated. Demonstrating how the project is relevant, why it could be a priority for the community, and how the project will help solve existing challenges may help gain buy-in and ease the co-creation process. Community-led workshops and processes can be useful to brainstorm ideas, build credibility, create transparency, incorporate stakeholder needs and increase accountability. To be successful, community roles and responsibilities should be clearly outlined, and project managers should always be aware of and promote opportunities that will allow stakeholders to inform the decision-making process (River Network and WaterNow Alliance, 2021).



6. Recognize Mutual Benefits

Strong partnerships form when project implementers and stakeholders recognize that mutual benefits can be amplified when working collaboratively. All involved parties should consider the goals that can be achieved through working together and discover ways each can contribute to achieving those goals by leveraging respective expertise and experience (River Network and WaterNow Alliance, 2021). Stakeholders will be personally invested in a project and committed to its success, in the short-term and the long-term, if their values and benefits are being considered and prioritized.



7. Remove Barriers To Engagement

To ensure stakeholders are empowered to participate in the stages of an NBS project, investors and practitioners must actively mitigate or remove any barriers that restrict involvement. Here, they will need to consider:

- *Time of the day:* Provide participants with opportunities to engage at different times of day to accommodate schedules and work/home demands.
- *Transportation:* If stakeholders are asked to travel to participate in the project or to attend in-person meetings, provide transportation for those who need it. Or better yet, investors and practitioners can travel to the communities they engage with as they may feel more comfortable in familiar settings.
- *Communications and technology access:* If stakeholders are asked to participate remotely, provide other means of participation if internet and smartphone access are significant barriers.
- *Language:* When working with groups that speak different languages, ensure that communications and project documents are translated into these languages. This will allow stakeholders to better understand the content and messaging.
- *Demands on time:* In many cases, some stakeholders will have other commitments which limit their opportunities to engage, including jobs, medical issues and childcare. Provide multiple methods of participation and offer childcare when possible. Also, demonstrate how stakeholder's time is valued by providing compensation in the form of stipends, gift cards, meals, etc.
- *Information presentation:* Break down complex issues and concepts so those who are new to the topic(s) don't feel the subject matter is either "over their head," "too scientific," or that they are being "talked down to."
- *Freedom of expression:* Certain groups may not be comfortable expressing their needs and opinions due to lack of influence, empowerment or visibility within society. Project managers must identify these groups and provide safe spaces for them to communicate, such as separate meetings or options for anonymous input (UNECE, 2021).



8. Formalize Relationships

Stakeholders will have varying degrees of involvement in an NBS project (see Section 4, Stage 2). As their influence and input increases, formalization of the relationship should increase. Creating grant agreements, memorandums of understanding, or contracts can provide clear roles, responsibilities, expectations and timelines, as well as provide a means for continuous communication.



9. Ensure Adequate Financial Support

Stakeholder engagement comes with costs. Although these costs reflect a very small part of the capital and operational costs of an NBS project, investors should ensure that adequate financial resources are made available. This financial support should cover the time and training (where needed) of those undertaking the engagements (internal or external resources), travel costs, venue hire, stipends and remunerations for stakeholders participating in engagement and other related expenses. Whenever possible, stakeholders, particularly IPLC, should be compensated to recognize the value of their input and to address equity in a community (River Network and WaterNow Alliance, 2021). Where feasible, stakeholder engagement financial resources could be ring-fenced to ensure that this budget is allocated only to engagement and not spent on other project expenses.



10. Appoint Well-Trained, Knowledgeable Facilitators

An important consideration for NBS investors and practitioners is to ensure that those leading stakeholder engagement are well trained and knowledgeable about local contexts, stakeholder networks, customs and practices. If project personnel are not adequately trained in stakeholder engagement methods, appointing highly knowledgeable and skilled external facilitators who meet such requirements will significantly benefit these interactions. These appointments could be a short-term arrangement to ensure a strong foundation for future stakeholder engagement, or they might be longer-term in nature, supporting the project through all major stages. Adequate budgeting (see PBP 9 above) should be allocated to facilitators, if needed.

The inclusion of these principles and best practices will depend on the nature of the NBS project, the stakeholders themselves and the capacity and resources of those undertaking engagement. By ensuring that as many of these PBP as possible are considered, an NBS project may have greater potential for broad, inclusive engagement, ultimately leading to a more sustainable project.



The first step of any NBS project involves identifying challenges that are being faced.

Section 4: Stakeholder Engagement Across Different Project Stages

As discussed throughout this guide, stakeholder engagement needs to be integrated across all project stages and be seen as an essential component of the process. This section identifies relevant and practical steps for stakeholder engagement across each of the five main stages of an NBS project (Figure 1). This section specifically focuses on how to involve stakeholders within each stage, rather than detailing other practical actions that are necessary for project success (e.g., how stakeholders can support data collection and analyses versus how to collect and analyze data).

FIGURE 1: OVERVIEW OF THE STAGES AND STEPS DISCUSSED IN THIS GUIDE

NBS PROJECT STAGES				
STAGE 1 UNDERSTAND CONTEXTS	STAGE 2 PRE-FEASIBILITY / FEASIBILITY	STAGE 3 DESIGN	STAGE 4 IMPLEMENTATION	STAGE 5 MONITORING & EVALUATION
<ul style="list-style-type: none"> 1.1 Stakeholder Mapping 1.2 Regulatory Context Mapping 1.3 Building Cultural Competence 	<ul style="list-style-type: none"> 2.1 Define the NBS Project Scope 2.2 Identify Levels of Stakeholder Engagement 2.3 Developing an Engagement Plan 2.4 Engaging Stakeholders and Evaluating 	<ul style="list-style-type: none"> 3.1 Setting Up a Design Committee 3.2 Collaborating on Design Elements 3.3 Validating Stakeholder Interests 	<ul style="list-style-type: none"> 4.1 Collaboratively Implementing Co-Created Project Design 4.2 Providing Updates and Communications 4.3 Presenting Co-Created Project Outcomes 	<ul style="list-style-type: none"> 5.1 Developing a Monitoring and Evaluation Plan 5.2 Planning Data Collection 5.3 Analyzing and Evaluating Data 5.4 Providing Updates to and Receiving Feedback from Stakeholders

It is important to note that every NBS project is different, as is the time needed to engage stakeholders adequately and equitably at different project stages and steps. It is not possible to state the exact time commitment and resources needed to do stakeholder engagement right. It is critical that those investing in or implementing NBS provide sufficient budget and capacity to incorporate as many stakeholders as possible at all project stages.

STAGE 1: UNDERSTAND CONTEXTS

Understanding the local norms, standards and regulations of different stakeholder groups in particular contexts is essential for good NBS project design, implementation and monitoring and evaluation. Many well-intentioned projects have failed when steps were not taken to make them inclusive, equitable and culturally appropriate. Consideration of inclusiveness, equitability and culture will be specific to the nature and context of an NBS project. By “context,” we are referring not only to the political, legal and regulatory situations, but—perhaps even more importantly—the social and cultural contexts.

Some basic considerations for equitable, inclusive engagement include:

1. Understanding the stakeholder network through stakeholder mapping
2. Understanding the policy landscape by conducting regulatory context mapping
3. Gaining cultural competence through education and training with local cultural experts

Note that these steps do not necessarily need to be conducted in this sequential order; the order will depend on how familiar the NBS team is with the context.

STEP 1: STAKEHOLDER MAPPING

There are many benefits to using stakeholder mapping as a tool to understand context (Zingraff-Hamed et al., 2020; TNC, 2022a). Stakeholder mapping can help by identifying which stakeholders to include and the potential contribution these stakeholders can make (e.g., local knowledge, advisory support, implementation capacity, leveraging complementary efforts, etc.), as well as the potential trade-offs for collaborating (more stakeholders is not always better) (TNC, 2022a). Stakeholder mapping can also be used to determine the degree with which stakeholders will be included throughout each stage of an NBS project (see Stage 2).

Stakeholders' relationship to and involvement in projects can be highly variable. Stakeholders can be passive observers, officials moderately concerned in project outcomes, affected silent stakeholders, active stakeholders or stakeholders in charge (Zingraff-Hamed et al., 2020). Box 1 summarizes possible stakeholders that may directly or indirectly influence, benefit from or be disadvantaged by an NBS project. When and how investors and practitioners engage each type will vary but doing so systematically can be “crucial to enable higher planning efficiency, reduce bottlenecks and time needed for planning, designing, and implementing NBS.” (Zingraff-Hamed et al., 2020).

An important distinction to make is between primary and secondary stakeholders. Primary stakeholders are those who are directly affected by a project, and secondary stakeholders are those that are indirectly affected by a project but may still have a role to play. For example, in an NBS project on private land, the landowners would be primary stakeholders, while surrounding local communities or neighboring landowners would be secondary (Mannetti et al. 2019). Including secondary stakeholders in the engagement process can increase the long-term sustainability and buy-in of a project and reduce conflict across project stages.

BOX 1. POSSIBLE STAKEHOLDERS FOR NATURE-BASED SOLUTION PROJECT ENGAGEMENT

- **Private sector** actors including corporates and industrial users that are usually direct investors and beneficiaries. May involve collective action initiatives to drive NBS projects at scale.
- **Indigenous Peoples and local communities** are essential to NBS success and social acceptance. These parties should be involved in decision-making as they often host and implement the NBS interventions, hold and utilize diverse forms of Indigenous Knowledge(s), provide valuable perspectives to inform thoughtful portfolio development and participate in localized NBS benefits. These groups are also key beneficiaries.
- **Local, regional and national public sector institutions and parastatals** including local government, water regulators, environmental authorities, basin authorities and water utilities may govern or manage watersheds, and/or provide essential goods and services.
- **National government departments and policymakers** usually inform regulations.
- **Non-governmental organizations and community-based organizations** seeking economic, social or environmental development outcomes; these organizations often act as implementers and technical advisors for NBS projects.
- **Other technical experts** that help inform the various activities required for NBS rollout.
- **Private landowners** who may have complementary or conflicting objectives.
- **Development finance institutions and other donors** in the form of public sector international cooperation or private philanthropy seeking to achieve development outcomes.

Adapted from: WRAF, 2021; TNC, 2022a.

Investors and practitioners can apply the Four A's method (Actor, Agenda, Arena and Alliances) to identify potential project stakeholders and set up basic profiles. The Four A's method is further described below and in Table 1:

- 1) **Actor:** Identify who will potentially benefit or be adversely affected by the project or who can positively or negatively impact the project's funding, design, implementation and maintenance. The project team must identify the most vulnerable groups among those potentially impacted and note any special engagement efforts necessary for inclusion. Also, consider who has the responsibility to enact change, who is already working on the issue, and who is facing similar challenges in the project site and watershed. It may be relevant to suggest who is most critical to engage with first, and why (UNECE, 2021). The engagement of both upstream and downstream actors will be integral to the successful implementation of an NBS project.
- 2) **Agenda:** Decipher each stakeholder's motivation and NBS benefit priorities. What is each actor's mandate, mission, strategic objectives, interests, etc.?
- 3) **Arena:** Identify each actor's area of work, knowledge of environmental challenges and outreach capabilities.
- 4) **Alliances:** Determine each actor's connections with other potential stakeholders. Are there existing collaborations, coordination or conflicts between actors that could impact the project's success (TNC, 2022a)? Identify stakeholders who may already conduct existing NBS activities in the selected area, which should be viewed as an opportunity for learning and potential partnership. Investors and practitioners must understand the mandate for these initiatives, future planned activities, and whether a new NBS project is indeed necessary (versus simply expanding or building upon existing initiatives).

TABLE 1: STAKEHOLDER MAPPING USING THE FOUR A'S METHOD

Actor (name, function)	Agenda (mandate/mission, strategic objectives)	Arena (field of action, outreach)	Alliances (relations with other actors)
e.g., John Doe, CEO of Dummy Corp.	Interested in understanding the pros and cons of NBS, needs financial and social ROI, wants to shift to green infrastructure but not sure of business case	C-suite management, very focused on environmental risk and reporting, made promise to keep investors up to date on ESG elements	Works closely with CFO and CSO. Reports to board and investors. Connects to other businesses through collective action and corporate water stewardship initiatives
Actor 2

To give this work specific relevance to NBS, some of the elements considered in landscape planning presented by Potschin and Haines-Young (2013) can be incorporated to broaden the scope of who gets included in the mapping process. Landscape planning offers ways to not only identify institutions and actors but also ways to understand and effectively harness their different interactions and influences (Potschin and Haines-Young 2013).

STEP 2: REGULATORY CONTEXT MAPPING

Once investors and practitioners understand the network of stakeholders through the stakeholder mapping process, the ideal next step would be a regulatory mapping process. This is conducted to understand whether the existing legal and regulatory frameworks and mandates are conducive to an NBS project (TNC, 2022b). A regulatory mapping process starts with an assessment of local, regional, national or international regulations, policies and commitments (UNDP-SIWI et al., 2017). These documents will indicate the legal requirements for engagement and may dictate the nature and scope of who to include in such engagements, how and why engagements should take place, and the decision-making power of different individuals and groups.

Insights from governance research can assist with the regulatory context mapping portion of an NBS project where a clear understanding of the relevant institutions and actors is necessary (Albert et al., 2019). A simple spreadsheet would suffice in capturing the relevant legal and regulatory frameworks (Table 2), while other, more complex tools do exist to make these identifications and develop and implement policies in specific institutional and regulatory contexts (see Beunen and Opdam, 2011).

TABLE 2: SAMPLE REGULATORY CONTEXT MAPPING

Thematic area	Nature of regulation, policy, etc.	Level of applicability	Name of regulation, policy, etc.	Reporting and other requirements of regulation, policy, etc.	Stakeholders to be engaged	Notes
Water	Legislation	Federal	National Water Act	To record all water quality measures (baseline and improvements)	Water service providers, basin managers, downstream communities, local agricultural agencies	
...	

STEP 3: BUILDING CULTURAL COMPETENCE

For inclusive and equitable NBS, investors and practitioners must have some understanding of different worldviews and social-institutional cultures for environmental management (McNeeley and Lazrus, 2014). While true cultural understanding can only be gained by spending time with stakeholders in their communities, it is important that the project team makes attempts to gain cultural competence to the greatest extent possible. For the design and implementation of NBS projects, this especially pertains to how communities think and talk about nature and human relationships with the natural world. If possible, a project would ideally bring in a social scientist with skills and expertise in cultural understanding. In addition, whenever possible, involve members of IPLC or hire a local cultural expert in the community who can help with local cultural understandings and behaviors. If this is not possible, include research and training for staff who will be engaging in those communities. A relatively small investment in building the project team’s understanding of the social and cultural context will return dividends for the success of project implementation.

We are oftentimes unaware of our own culturally informed worldviews and assumptions about how the world operates. It is fundamentally important that project team members understand different frames of nature across cultures (Woroniecki et al., 2020). As such, self-reflective exercises that enable a deeper understanding of one’s own cultural explanations and framings of nature is an important first step to being culturally competent. Being aware of one’s own framing—which might be embedded in Euro-western ideas of individualism, where nature is considered to serve a purpose—could contrast with framing where humans have an interdependent relationship with nature of reciprocity and respect. These differences shape everything, from how a person communicates and engages communities to what types of project implementation plans are put in place. An understanding of institutional cultures and worldviews can be used to diagnose barriers, reframe risks and move from conflict to cooperation (McNeeley and Lazrus 2017).

NBS investors and practitioners can also consider social characterization analyses, which attempt to map influential and conflicting interests and establish proactive engagement around major projects and provide greater context for the project’s sociocultural, economic and environmental implications. The United States Department of Energy (2022) has compiled guidance for creating a community and stakeholder engagement plan, including practical steps on undertaking social characterization analyses.

Intended outcomes: At the end of the understanding contexts stage, the project team should have a holistic understanding of all potential stakeholders with a completed Four A’s table. The project team should also be familiarized with regulatory contexts of the project area and hold a deeper understanding of the varying cultures of stakeholders.

BOX 2: CULTURAL WORLDVIEWS, NATURE, AND MALADAPTIVE SOLUTIONS

Varying cultural worldviews inform how different groups think about the way nature functions. For example, one culture may believe nature to be fragile or another variable and unpredictable while another may see nature as something to control and manage (McNeeley and Lazrus, 2014). The following example outlines how such differences in cultural worldviews inform the framing of nature and can lead to different ideas about solving problems:

In the interior of Alaska, Indigenous communities, federal and state agencies, and hunting groups have attempted to negotiate the extension of the hunting season to account for climate change impacts. Relations between these groups have historically been tense, particularly regarding land ownership and subsistence/ wildlife management regulations (McNeeley and Lazrus, 2014).

Stakeholder	Cultural worldview	Framing of nature	Stance on altering the hunting season length
Rural Alaska Indigenous communities	<ul style="list-style-type: none"> Egalitarian Maintains Indigenous principles of collectivity, and as such have communal access to land and resources 	<ul style="list-style-type: none"> Nature is fragile and humans and nature are in a delicate balance 	<ul style="list-style-type: none"> Requested regulatory changes that will extend the moose hunting season later into autumn, to account for climate-related changes in the breeding season Ultimately relies on Indigenous Knowledge and observations regarding changes to temperature and moose behavior Also requires that regulations have the capacity to be flexible and adaptive to yearly changes
Federal and state regulators	<ul style="list-style-type: none"> Hierarchical and bureaucratic Relies on routines, procedures and formal institutions 	<ul style="list-style-type: none"> Nature is manageable and tolerant of some human impact 	<ul style="list-style-type: none"> Denied the request to extend the hunting season and concluded that additional data collection was necessary to determine the impact and irregularity of the unusually warm autumn temperatures Ultimately defaults to western preferences for quantitative evidence
Board of game and sport hunting groups	<ul style="list-style-type: none"> Market-based and individualistic Focused on economic efficiency and individual success 	<ul style="list-style-type: none"> Nature is benign/neutral, and will reach equilibrium on its own 	<ul style="list-style-type: none"> Prefers regulations that limit the amount that everyone can harvest, and prioritizes the overall economic value of hunting Ultimately does not consider the needs of a communal society, where a small number of hunters provide harvested foods for a whole tribe.

This example displays how differing cultural worldviews and understandings of nature have the potential to cause miscommunication, frustration, and conflict amongst stakeholders leading to maladaptive or harmful policies and impacts to the locals. Taking the time to understand the worldviews of stakeholders before embarking on other project stages is crucial to avoiding future issues and to ensuring successful engagement.

STAGE 2: PRE-FEASIBILITY/FEASIBILITY

Once investors and practitioners have identified the relevant stakeholders through stakeholder mapping and understood the regulatory and cultural contexts, they can consider engaging stakeholders along initial NBS project scoping steps.

STEP 1: DEFINING NBS PROJECT SCOPE

The first step of any NBS project involves identifying challenges that are being faced within a watershed. These may include challenges relating to water, carbon/climate, biodiversity/environment and socioeconomics. NBS project investors and managers may determine these challenges for themselves; however, once potential stakeholders have been mapped and identified, the engagement process should welcome the review, input and re-definition or re-prioritization of these challenges based on local knowledge and observations. Details of where the project will be located also need to be defined so that the framing questions are made very clear. Important questions to ask are:

- What are the major challenges faced by the organization investing in an NBS project?
- What are the major challenges faced by the individuals and communities outside of the project location?
- What are the major challenges existing outside of the project location that may impact the project, the organization investing in an NBS project, and individuals and communities?
- What are the objectives of an NBS project?
- What are the possible stacked or accumulative benefits that could accrue from this NBS project? And who benefits from these stacked benefits?
- Where are the proposed NBS interventions taking place? Are there strategic areas for NBS project implementation?
- Who else is investing in or implementing NBS projects in the watershed?

These questions should act as a key starting point for stakeholder engagement during the pre-feasibility stage and may be adapted depending on the nature or context of the project. Answering these questions will enable investors and practitioners to understand the stakeholder landscape, avoid potentially ending up with too few or too many stakeholders, and ultimately help to engage the right stakeholders for the project (TNC, 2022a).

STEP 2: IDENTIFYING LEVELS OF STAKEHOLDER ENGAGEMENT

Using the completed Four A's table (Table 1), investors and practitioners should also record how they believe each stakeholder can participate or contribute to the project. Using Table 3 as a reference, add another column to the Four A's table to indicate whether each actor will be informed, consulted, involved, collaborated with, or empowered within the project. Each subsequent engagement option requires increasing stakeholder influence within the project, starting with "inform," where stakeholders are merely provided with information, through "empower," where stakeholders are active players with decision-making powers. The level of stakeholder engagement that investors and practitioners determine in this phase may not be agreeable to stakeholders; there must be open communication so that the needs of both sides can be met.

TABLE 3: RANGE OF ENGAGEMENT LEVELS OF POTENTIAL STAKEHOLDERS



	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Stakeholder participation goal	Provide stakeholders with balanced and objective information to assist them in understanding the nature and objectives of an NBS project.	Obtain stakeholder feedback on an NBS project.	Work directly with stakeholders to ensure that stakeholder concerns and aspirations are consistently understood and considered in an NBS project.	Partner with stakeholders for salient aspects of an NBS project.	Stakeholders assist in various elements of an NBS project.
Promises made to stakeholders	We will keep you informed.	We will keep you informed, listen to and acknowledge your concerns and aspirations, and provide feedback on how your input has influenced an NBS project.	We will work with you to ensure your concerns and aspirations are directly reflected in an NBS project, and we will provide feedback on how your input influenced an NBS project.	We will look to you for advice and innovation in designing, implementing and monitoring an NBS project and incorporate your advice and recommendations to the maximum extent possible.	We will provide advice and assistance as requested in line with your decisions for designing, implementing and monitoring NBS projects.

STEP 3: DEVELOPING AN ENGAGEMENT PLAN

In this step, investors and practitioners will create a stakeholder engagement plan that will expand upon the previous stakeholder mapping exercise and identify specific and meaningful engagement activities for each stakeholder. These activities should be culturally responsive and outline how the project team will communicate with stakeholders, manage their expectations, and keep them engaged with the project. The engagement plan should answer the following questions:

- How will stakeholders be engaged? e.g., by email, periodic meetings, conference calls, release of key reports
- When will stakeholders be engaged? e.g., during the design stage, implementation stage, monitoring and evaluation stage
- With what frequency will stakeholders be engaged? e.g., weekly, bi-weekly, monthly, after each key milestone
- Where will they be engaged? e.g., in-person (in an office, community center, etc.) or online
- What type of information will be shared? e.g., design updates versus budget updates; high level information versus detailed information

Ensure that the plan allows for review and flexibility based on stakeholder input.

STEP 4: ENGAGING STAKEHOLDERS AND EVALUATING

At this point, the project team should have a good understanding of the stakeholder landscape and the level of engagement required. They should also have an engagement plan at hand to present to stakeholders (see United States Department of Energy (2022) for guidance on creating such a plan). In this step, it is critical to check that the outcomes from the initial assessment steps are accurate and capture the challenges and interests of the stakeholders in question. This step provides organizations with an opportunity to evaluate and adapt their initial thinking and outcomes. It is advised to recheck this with stakeholders following the revisions in an iterative process.

The final step in the pre-feasibility/feasibility stage is to engage stakeholders around the nature and scope of the proposed NBS project and finalize the engagement plan. Engaging with stakeholders during this stage is essential for ensuring that the needs and values of different groups are considered, building relationships and trust, and in driving future stages of an NBS project. At this stage, initial thoughts can be shared with all stakeholders to ascertain their level of involvement in the project and what they want to get out of it. It is critical to set expectations up front, and to make sure that everyone knows the opportunities and limitations that exist in an NBS project. NBS cannot meet everyone's needs, and at times there may even be certain trade-offs that will be experienced. These should be shared during this engagement step.

The project team should also consider how groups of stakeholders are consulted and convened, either separately or collectively, as there are advantages and disadvantages that emerge given the possibility to pre-empt conflict or enhance or reduce power imbalances. Stakeholders will also have their own preferences for how they interact with the project team (and other stakeholders). Engagements can happen during in-person events such as workshops, project site visits or community site visits. Investors and practitioners can also engage virtually through surveys, emails, telephone calls and other means. They should, however, be conscious of any exclusions that may result from over-dependence on virtual engagement, as not all stakeholders will have easy or affordable access to technology or communication channels. Opportunities to provide anonymous feedback should also be provided where feasible.

The project team should also consider how groups of stakeholders are consulted and convened.

Once stakeholders have agreed upon their roles within the project, the engagement plan should be shared with the full project team so that everyone can verify and edit the collected information and consider required changes or additions. Most importantly, show the plan to other project investors for their review and sign-off after it has been appropriately vetted by the stakeholders themselves.

Depending on the stakeholder and their level of engagement, formal (e.g., legal contracts) or informal agreements or partnerships can be set up. The nature of the project and the stakeholder relationship will determine the formality of agreements and partnerships.

Intended outcomes: At the end of the pre-feasibility/feasibility stage, the project team should have solidified key partners and established a formal or informal partnership to move toward the design stage. A stakeholder engagement plan will be a key output here and will inform how stakeholders are engaged throughout all project stages.

STAGE 3: DESIGN

All identified stakeholders should be incorporated into the design stage of an NBS project. This stage offers ample opportunity for co-creation with local communities and Indigenous groups. Stakeholders may come to the table with complementary and contrasting viewpoints on which benefits the project should deliver. Although co-creation can sometimes be a more time-consuming process, it is critical to take these differing viewpoints into account and try to meet as many stakeholder needs as possible. This will ultimately increase project support and ideally give local stakeholders a sense of ownership of the project.

STEP 1: SETTING UP A DESIGN COMMITTEE

Depending on the nature of the project, the scope of design requirements may be narrow or very broad. As such, the design team, which should include relevant stakeholders, can vary from a handful of individuals to multiple committees and subcommittees. In more complex NBS projects, subcommittees should be set up to address areas such as planning, operations, governance and financial sustainability (TNC, 2022a). During this step, responsibilities should be assigned to each subcommittee member so that everyone is aware of their role. Now would also be the time to establish citizen advisory committees and/or offer leadership roles to members of local organizations (River Network and WaterNow Alliance, 2021).

STEP 2: COLLABORATING ON DESIGN ELEMENTS

Based on the roles and responsibilities of individuals, these committees or subcommittees can help develop the overall design vision of the project, as well as channel expert guidance and knowledge to project implementers. It is important to ensure that the person charged with advancing the NBS design phase is sufficiently capacitated (and ideally fully dedicated) to advancing through the design phase and beginning the implementation phase (TNC, 2022a).

Design elements may include systems and structures based on engineered solutions, IK or simulated natural habitats. A combination of multiple design elements may also work in some contexts. NBS project designers and design committee members should be open to considering all design suggestions.

STEP 3: VALIDATING STAKEHOLDER INTERESTS

Once a draft design has been developed, investors and practitioners should circle back to the outcomes from the pre-feasibility/feasibility phase. Reviewing the results generated during the preceding phase and carefully reflecting on other potential NBS beneficiaries greatly enhances the likelihood that the project design is meeting the needs of stakeholders and addressing some of the challenges present in the watershed. The project team should present the draft design to all actors identified during stakeholder mapping to ensure that the needs and values of all project beneficiaries are being met.

Balancing these needs and values is not easy, and it is important to be transparent about the positives and negatives, or benefits and trade-offs, for all options (TNC, 2022a). Where potential trade-offs could accrue, the design should be amended to mitigate such trade-offs. Some trade-offs may be inevitable, but it is the responsibility of the design committee or subcommittees to ensure that no stakeholder group is unfairly burdened with negative project impacts.

In some cases, it might be possible to mitigate against possible trade-offs. One way to do this is through the specific design or implementation approach of an NBS project. For example, rules for a protected forest may still allow local community members to hunt and gather food, avoiding negative impacts on traditional food sources. Another way to mitigate for potential trade-offs is to compensate a stakeholder group for lost benefits, or to provide other benefits that are equal to or better than the lost benefits. For example, fencing of a streambank to promote riparian vegetative growth may result in loss of access to water for ranging cattle, but the project could provide funding for an alternative water supply for the cattle (TNC, 2022a).

Where potential trade-offs could accrue, the design should be amended to mitigate such trade-offs.

Intended outcomes: At the end of the design stage, stakeholders should have been assigned roles and responsibilities on a committee, collaborated on an NBS project design, and presented preliminary designs to other stakeholders. A final draft of the project design, agreed on by all interested and affected parties, will be the final output.

STAGE 4: IMPLEMENTATION

Generally, NBS projects will be implemented by those investing in the project or practitioners hired to do so. In a few cases, external stakeholders will be involved in the implementation phase. Where external stakeholders are included in project implementation, specific training should be provided, safety protocols developed and followed, and suitable compensation provided (except for volunteers).

STEP 1: COLLABORATIVELY IMPLEMENTING CO-CREATED PROJECT DESIGN

The first step under the implementation stage is to appoint core staff and stakeholders to oversee and undertake on-the-ground activities. These staff may be internal resources or may include external contractors and community members hired to implement the NBS. It is important to ensure that all parties agree on relative roles and responsibilities and have competence in overall project design and direction. Additional capacity may be needed in developing an operating manual to define systems and processes and to ensure proper functioning and maintenance of NBS projects.

STEP 2: PROVIDING UPDATES AND COMMUNICATIONS

Throughout the implementation stage of an NBS project, it is important to maintain regular stakeholder meetings to ensure feedback, inclusivity and transparency, allowing for iterative input as necessary, while continuing to maintain and further build support for the project. A formal timeline or cadence for communications should be developed so that feedback is provided on a regular basis, potentially tied to key milestones.

Project implementers can use varying communications tools to provide updates, ranging from emails to site visits. Emails and written forms of updates should be clear, written in local languages, and provide visual progress. Site visits provide an opportunity to give stakeholders an on-the-ground view of progress to date. Communications channels and site visits should be culturally responsive and tailored to the stakeholders engaged in the project. Keep in mind that updates and communications are a two-way street. Any stakeholder concerns that arise throughout the implementation process should be received openly and addressed in a timely manner. Staff should take time to fully understand these concerns and work collaboratively with stakeholders to find a resolution.

STEP 3: PRESENTING CO-CREATED PROJECT OUTCOMES

To present the final NBS project, stakeholders could be invited to the official unveiling, participate in communications events, or even asked to bless the site if Indigenous systems allow for this. By the time the project outcomes are presented to stakeholders, they should have a strong understanding of the project, have co-created the design, collaborated on implementation, and been kept up to date with project progress. Under no circumstances should the unveiling of an NBS project be the first time a stakeholder group is being exposed to this work.

Intended outcomes: By the end of the implementation stage, stakeholders should begin deriving multiple benefits from an NBS project. These stakeholders should be kept up to date throughout the implementation stage, and well into the monitoring and evaluation stage.

STAGE 5: MONITORING AND EVALUATION

Stakeholders are key participants in any monitoring and evaluation (M&E) stage and can support reporting, risk reduction and project enhancements. Some stakeholders may also be involved in systematically collecting and analyzing data to track project progress towards goals and to measure outcomes and impacts. Providing a broad range of stakeholders with an opportunity to play an ongoing role in the success of an NBS project can lead to continuous buy-in and offer further co-creation opportunities, giving these stakeholder groups agency with project upkeep.

STEP 1: DEVELOPING A MONITORING AND EVALUATION PLAN

An M&E plan should be developed based on the objectives of an NBS project determined in the pre-feasibility/feasibility and design stages. The project team should engage the appropriate stakeholders while designing this plan to ensure that data collection and analysis are consistent and strategic. An M&E plan could have an agreed upon duration, or could be open-ended.

To form the M&E plan, it is critical to understand the types of data that already exist, the sources of the data, key data gaps and opportunities to fill those gaps (TNC, 2022a). Data may be existing (e.g., baseline or historical data) or may need to be collected using a variety of metrics and indicators. Selecting metrics and indicators that are relevant to both the project and to the varying needs of stakeholders can determine the success of an M&E plan. As such, stakeholders and other project partners should be included in the final selection of indicators that are incorporated into the M&E plan. It is important to recognize the existence of and respect diverse ways of knowing. Look beyond just quantitative data collection, as IPLC may have more diverse forms of data to be considered. The final version of the M&E plan should be presented to all interested and affected parties (Indigenous Peoples Specialty Group and the Association of American Geographers, 2010).

To support the selection of indicators and metrics for an M&E plan, see the [Benefit Accounting of Nature-Based Solutions for Watershed Guide](#) and the [NBS Benefits Explorer](#) tool. These resources provide key indicators and calculation methods across water quantity, water quality, biodiversity and the environment, carbon and climate, and socio-economic thematic areas.

It may be worthwhile to create a feedback or grievance mechanism for stakeholders to provide ready inputs throughout the M&E process and ensure that there is a transparent method of redress. Stakeholder needs may change during and after NBS project implementation and this mechanism may allow investors and practitioners to understand changing needs and values, and adjust to meet them where feasible.

It is important to recognize the existence of and respect diverse ways of knowing.

STEP 2: PLANNING DATA COLLECTION

Often, data is collected by project implementers or by staff of an organization investing in NBS. However, there is significant opportunity to improve data collection by collaborating with stakeholders and project partners. Depending on the nature of the data being collected, stakeholders can support biodiversity/species counts, collect water samples, measure growth of vegetation, partake in transect studies and many other data-collection activities.

Once the M&E plan has been finalized, which will include the specific forms of data to be collected, it will be important to standardize data collection procedures to ensure accuracy. Stakeholders and staff may need to be trained in these procedures, as well as in any relevant health and safety protocols, before collecting any data.

STEP 3: ANALYZING AND EVALUATING DATA

After the data is collected, there will likely be limited stakeholder engagement in the analyses of data and production of information. However, sharing these analyses and evaluations with project partners and stakeholders should be prioritized.

STEP 4: PROVIDING UPDATES TO AND RECEIVING FEEDBACK FROM STAKEHOLDERS

Like previous stages, reporting results to stakeholders and receiving their feedback is a critical part of the M&E stage. Discussing project successes, challenges and updates; sharing data; reporting on investments; and expressing partnership needs are all potential points of discussion within these conversations. These updates should be tailored to the needs and interests of the audience to have productive, interactive engagement where stakeholders can provide appropriate feedback.

Maintaining this two-way street of open communication supports accountability, transparency, progress tracking and learning. Accountability and transparency are particularly important to gain legitimacy and credibility for the project among both internal and external stakeholders.

Intended outcomes: By the end of the monitoring and evaluation stage, all stakeholders should be aware of the successes and shortcomings of an NBS project. They should be able to support any upkeep and maintenance of the NBS, support data collection and continue to derive stacked benefits from such investments.

STAKEHOLDER ENGAGEMENT CHECKLIST

The following checklist summarizes the stages and steps outlined in Section 4 and can be used by the project team to ensure that stakeholder engagement is being considered throughout all project stages. This checklist can be seen as an accountability tool for incorporating effective, equitable and transparent engagement.

Stage 1: Understand Contexts

- Step 1: Stakeholder Mapping**
 - Considered the scope of all relevant stakeholders, both primary and secondary, and completed the Four A's table
- Step 2: Regulatory Mapping**
 - Assessed local, regional, national or international regulations, policies and commitments to build a holistic understanding of regulatory contexts
- Step 3: Cultural Contexts**
 - Hired a social scientist with skills and expertise in cultural understanding (where appropriate)
 - Engaged with members of IPLC (where appropriate)
 - Hired a local cultural expert in the community (where appropriate)
 - Dedicated staff hours for researching cultural context and engaging with communities

Stage 2: Pre-feasibility/Feasibility

- Step 1: Defining project scope**
 - Worked with stakeholders to understand challenges, project objectives, suitable sites, etc.
- Step 2: Identifying levels of engagement**
 - Identified potential levels of individual stakeholder involvement, prioritizing collaboration and empowerment with IPLC
- Step 3: Developing an engagement plan**
 - Identified potential engagement activities that would be specific and meaningful to each stakeholder
 - Planned means for communicating with stakeholders, including how/when/where they will be engaged
- Step 4: Engaging stakeholders and evaluating**
 - Shared initial engagement plan with stakeholders and adapted plan based on their preferred level of involvement, preferred activities and preferred communication methods
 - Shared engagement plan with project team for verification
 - Established formal/informal relationships and drew up necessary stakeholder contracts and partnership agreements

Stage 3: Design

- Step 1: Setting up a design committee**
 - Delegated related stakeholders to specific design team subcommittees
 - Agreed upon and assigned stakeholder roles and responsibilities
- Step 2: Collaborating on design elements**
 - Embarked on methods of co-creation and co-design with relevant stakeholders
- Step 3: Validating stakeholder interests**
 - Revisited outcomes from pre-feasibility phase to confirm that the design is meeting the needs of stakeholders and addressing challenges
 - Presented draft design to all stakeholders
 - Mitigated trade-offs in stakeholder interests
 - Finalized design draft with all interested and affected parties

Stage 4: Implementation

- Step 1: Collaboratively implementing the co-created project design**
 - Appointed core staff and stakeholders to oversee and undertake on-the-ground activities
 - Developed an operating manual to define systems and processes and to ensure proper functioning and maintenance of NBS projects
 - Provided necessary training to stakeholders
- Step 2: Providing updates and communications**
 - Developed formal timeline for maintaining communications to ensure feedback, inclusivity and transparency
 - Tailored communication channels, project materials and site visits to stakeholder groups
- Step 3: Presenting the co-created project outcomes**
 - Invited stakeholders to attend the official unveiling, participate in communications events or bless the site (if IPLC systems allow for this)

Stage 5: Monitoring and Evaluation

- Step 1: Developing a monitoring and evaluation plan**
 - Engaged with stakeholders while developing the M&E plan
 - Included stakeholders and other project partners in the final selection of indicators that will be incorporated into the M&E plan
 - Presented final plan to all interested and affected parties
 - Created a feedback or grievance mechanism for stakeholders to provide ready inputs throughout the M&E process and ensure that there is a transparent method of redress.
- Step 2: Planning data collection**
 - Collaborated with stakeholders in data collection and provided necessary training
- Step 3: Analyzing and evaluating data**
 - Engaged with relevant stakeholders on performing data analysis
 - Organized meetings/communications to regularly share analysis and evaluation results with stakeholders, sharing successes and shortcomings
- Step 4: Providing updates to and receiving feedback from stakeholders**
 - Tailored updates regarding project successes and challenges, data analysis, investment reports and more
 - Received feedback from stakeholders

Section 5: Conclusion

This guide is a comprehensive introduction to effective and equitable stakeholder engagement, providing NBS investors and practitioners with steps on who, how, when and why to engage stakeholders across different project stages. The nature of an NBS project, and the relationship that stakeholders have with the project, will ultimately inform the level of stakeholder involvement and collaboration. However, this guide specifically highlights the importance of co-design, co-development and/or co-ownership with IPLC. Stakeholder engagement should be centered on co-creation and should be a mechanism to gain buy-in and create reciprocal and mutually beneficial outcomes.

Readers of this guide should have a clear understanding of what equitable stakeholder engagement is. Readers should also understand what stakeholder engagement might look like within every stage of an NBS project, and should be able to adapt these steps to their own projects based on local context, nature of the NBS project, goals of investors, abilities of practitioners, and needs and expectations of engaged stakeholders. Successful engagement will have continuous checkpoints throughout all stages to ensure that stakeholder values are being prioritized, as well as to allow for dynamic changes as values and ideals shift.

This guide hopes to highlight the importance of considering and including a broad range of stakeholders along every stage of a project to ensure that decision-making and actions taken are equitable, inclusive and based on the values and needs of all involved. While this guidance tries to encompass key concepts and terminology, the authors have attempted to keep the information practical and pragmatic. We encourage readers who are interested in further exploration to do so, and have provided links and references for this purpose.

This guide hopes to highlight the importance of considering and including a broad range of stakeholders along every stage of a project to ensure that decision-making and actions taken are equitable, inclusive and based on the values and needs of all involved.

References

- Aina Momona. Indigenous Peoples and Local Communities. <https://www.kaainamomona.org/iplc>.
- Albert, Christian, Barbara Schröter, Dagmar Haase, Mario Brillinger, Jennifer Henze, Sylvia Herrmann, Sarah Gottwald, Paulina Guerrero, Claire Nicolas and Bettina Matzdorf (2019). Addressing Societal Challenges through Nature-Based Solutions: How Can Landscape Planning and Governance Research Contribute? *Landscape and Urban Planning* 182 (February): 12–21. <https://doi.org/10.1016/j.landurbplan.2018.10.003>.
- Angelstam, Per, Michael Grodzynski, Kjell Andersson, Robert Axelsson, Marine Elbakidze, Alexander Khoroshev, Ivan Kruhlov, and Vladimir Naumov (2013). Measurement, Collaborative Learning and Research for Sustainable Use of Ecosystem Services: Landscape Concepts and Europe as Laboratory. *AMBIO* 42 (2): 129–45. <https://doi.org/10.1007/s13280-012-0368-0>.
- Berkes, Fikret (2018). *Sacred Ecology*. 4th ed. Routledge. PP 394.
- Beunen, Raoul and Paul Opdam (2011). When Landscape Planning Becomes Landscape Governance, What Happens to the Science? *Landscape and Urban Planning* 100 (4): 324–26. <https://doi.org/10.1016/j.landurbplan.2011.01.018>.
- Buchel, Sophie and Niki Frantzeskaki (2015). Citizens' Voice: A Case Study about Perceived Ecosystem Services by Urban Park Users in Rotterdam, the Netherlands. *Ecosystem Services* 12 (April): 169–77. <https://doi.org/10.1016/j.ecoser.2014.11.014>.
- Cameron, Laura, Dave Courchene, Sabina Ijaz and Ian Mauro (2021). 'A Change of Heart': Indigenous Perspectives from the Onjisy Aki Summit on Climate Change. *Climatic Change* 164 (3–4): 43. <https://doi.org/10.1007/s10584-021-03000-8>.
- David-Chavez, Dominique M. and Michael C. Gavin (2018). A Global Assessment of Indigenous Community Engagement in Climate Research. *Environmental Research Letters* 13 (12): 123005. <https://doi.org/10.1088/1748-9326/aaf300>.
- Derkzen, Marthe L., Astrid J. A. van Teeffelen and Peter H. Verburg (2017). Green Infrastructure for Urban Climate Adaptation: How Do Residents' Views on Climate Impacts and Green Infrastructure Shape Adaptation Preferences? *Landscape and Urban Planning* 157 (January): 106–30. <https://doi.org/10.1016/j.landurbplan.2016.05.027>.
- Eaton, Weston M., Kathryn J. Brasier, Mark E. Burbach, Walt Whitmer, Elyzabeth W. Engle, Morey Burnham, Barbara Quimby et al. (2021). A Conceptual Framework for Social, Behavioral, and Environmental Change through Stakeholder Engagement in Water Resource Management. *Society & Natural Resources* 34 (8): 1111–32. <https://doi.org/10.1080/08941920.2021.1936717>.
- Eden, Susanna, Sharon B. Megdal, Eylon Shamir, Karletta Chief and Kelly Mott Lacroix (2016). Opening the Black Box: Using a Hydrological Model to Link Stakeholder Engagement with Groundwater Management. *Water* 8 (5): 216. <https://doi.org/10.3390/w8050216>.

- Feldman, Martha S., Anne M. Khademian, Helen Ingram and Anne S. Schneider (2006). Ways of Knowing and Inclusive Management Practices. *Public Administration Review* 66 (s1): 89–99. <https://doi.org/10.1111/j.1540-6210.2006.00669.x>.
- Frantzeskaki, Niki and Nico Tilie (2014). The Dynamics of Urban Ecosystem Governance in Rotterdam, The Netherlands. *AMBIO* 43 (4): 542–55. <https://doi.org/10.1007/s13280-014-0512-0>.
- Garnett, Stephen T., Neil D. Burgess, Julia E. Fa, Álvaro Fernández-Llamazares, Zsolt Molnár, Cathy J. Robinson, James E. M. Watson et al. (2018). A Spatial Overview of the Global Importance of Indigenous Lands for Conservation. *Nature Sustainability* 1 (7): 369–74. <https://doi.org/10.1038/s41893-018-0100-6>.
- Gaspers, Anne, Thea Lurås Oftebro and Emily Cowan (2022). Including the Oft-Forgotten: The Necessity of Including Women and Indigenous Peoples in Nature-Based Solution Research. *Frontiers in Climate* 4. <https://www.frontiersin.org/articles/10.3389/fclim.2022.831430>.
- Gerstenberg, Tina and Mathias Hofmann (2016). Perception and Preference of Trees: A Psychological Contribution to Tree Species Selection in Urban Areas. *Urban Forestry & Urban Greening* 15 (January): 103–11. <https://doi.org/10.1016/j.ufug.2015.12.004>.
- GRAIN (2021). No to Nature-Based Solutions Disposessions! <https://greencloud.gn.apc.org/index.php/s/XrgKNXE3nkm4dFn>.
- Gray, Steven A., Stefan Gray, Jean Luc De Kok, Ariella E. R. Helfgott, Barry O'Dwyer, Rebecca Jordan and Angela Nyaki (2015). Using Fuzzy Cognitive Mapping as a Participatory Approach to Analyze Change, Preferred States, and Perceived Resilience of Social-Ecological Systems. *Ecology and Society* 20 (2). <https://www.jstor.org/stable/26270184>.
- Hansen, Rieke, Niki Frantzeskaki, Timon McPhearson, Emily Rall, Nadja Kabisch, Anna Kaczorowska, Jaan-Henrik Kain, Martina Artmann and Stephan Pauleit (2015). The Uptake of the Ecosystem Services Concept in Planning Discourses of European and American Cities. *Ecosystem Services* 12 (April): 228–46. <https://doi.org/10.1016/j.ecoser.2014.11.013>.
- Indigenous Peoples Specialty Group (IPSG) of the Association of American Geographers (AAG) (2010). AAG Indigenous Peoples Specialty Group's Declaration of Key Questions about Research Ethics with Indigenous Communities. <http://indigenousgeography.net/ipsg/ipsg.shtm>.
- Mannetti, Lelani M., Thomas Götttert, Ulrich Zeller and Karen J. Esler (2019). Identifying and Categorizing Stakeholders for Protected Area Expansion around a National Park in Namibia. *Ecology and Society* 24 (2): art5. <https://doi.org/10.5751/ES-10790-240205>.
- McGregor, Deborah (2004). Coming Full Circle: Indigenous Knowledge, Environment, and Our Future. 28 (3 & 4): 27.
- McNeeley, Shannon M. and Heather Lazrus (2014). The Cultural Theory of Risk for Climate Change Adaptation. *Weather, Climate, and Society* 6 (4): 506–19. <https://doi.org/10.1175/WCAS-D-13-00027.1>.
- Potschin, Marion and Roy Haines-Young (2013). Landscapes, Sustainability and the Place-Based Analysis of Ecosystem Services. *Landscape Ecology* 28 (6): 1053–65. <https://doi.org/10.1007/s10980-012-9756-x>.
- Raymond, Christopher M., Niki Frantzeskaki, Nadja Kabisch, Pam Berry, Margaretha Breil, Mihai Razvan Nita, Davide Geneletti and Carlo Calfapietra (2017). A Framework for Assessing and Implementing the Co-Benefits of Nature-Based Solutions in Urban Areas. *Environmental Science & Policy* 77 (November): 15–24. <https://doi.org/10.1016/j.envsci.2017.07.008>.
- Raymond, Christopher M., Sarah Gottwald, Jenni Kuoppa and Marketta Kytä (2016). Integrating Multiple Elements of Environmental Justice into Urban Blue Space Planning Using Public Participation Geographic Information Systems. *Landscape and Urban Planning* 153 (September): 198–208. <https://doi.org/10.1016/j.landurbplan.2016.05.005>.
- Reed, Graeme, Nicolas D. Brunet, Deborah McGregor, Curtis Scurr, Tonio Sadik, Jamie Lavigne and Sheri Longboat (2022). Toward Indigenous Visions of Nature-Based Solutions: An Exploration into Canadian Federal Climate Policy. *Climate Policy* 22 (4): 514–33. <https://doi.org/10.1080/14693062.2022.2047585>.
- River Network and WaterNow Alliance (2021). *Building Blocks of Trust: Creating Authentic and Equitable Relationships between Community Organizations and Water Utilities*. <https://www.rivernetwork.org/wp-content/uploads/2021/11/buildingblocksoftrust-r3.pdf>.
- Seddon, Nathalie, Alison Smith, Pete Smith, Isabel Key, Alexandre Chausson, Cécile Girardin, Jo House, Shilpi Srivastava and Beth Turner (2021). Getting the Message Right on Nature-Based Solutions to Climate Change. *Global Change Biology* 27 (8): 1518–46. <https://doi.org/10.1111/gcb.15513>.
- Sterling, Eleanor J., Erin Betley, Amanda Sigouin, Andres Gomez, Anne Toomey, Georgina Cullman, Cynthia Malone et al. (2017). Assessing the Evidence for Stakeholder Engagement in Biodiversity Conservation. *Biological Conservation* 209 (May): 159–71. <https://doi.org/10.1016/j.biocon.2017.02.008>.
- Stockholm International Water Institute (SIWI), WaterLex, REDICA and Cap-Net (2017). *Human Rights-Based Approach to Integrated Water Resources Management: Training Manual and Facilitator's Guide*. Rio de Janeiro. <https://siwi.org/publications/human-rights-based-approach-integrated-water-resources-management-training-manual-facilitators-guide/>.
- Tengö, Maria., Eduardo S. Brondizio, Thomas Elmqvist, Pernilla Malmer, Marja Spierenburg (2014). Connecting Diverse Knowledge Systems for Enhanced Ecosystem Governance: The Multiple Evidence Base Approach. *AMBIO* 43, 579–591 (2014). <https://doi.org/10.1007/s13280-014-0501-3>
- The Nature Conservancy (2017). *Strong Voices, Active Choices: TNC's Practitioner Framework to Strengthen Outcomes for People and Nature*. Arlington, VA. https://www.nature.org/content/dam/tnc/nature/en/documents/Strong_Voices_Active_Choices_FINAL.pdf.
- _____ (2022a). *Financing Nature for Water Security: A How-to Guide to Develop Watershed Investment Programs (Version 1)*. Arlington, VA. <https://waterfundstoolbox.org/financing-nature-for-water-security>.
- _____ (2022b). Stakeholder Mapping Deep Dive.
- Townsend, Justine, Faisal Moola and Mary-Kate Craig (2020). Indigenous Peoples Are Critical to the Success of Nature-Based Solutions to Climate Change. Edited by David Lesbarrères. *FACETS* 5 (1): 551–56. <https://doi.org/10.1139/facets-2019-0058>.
- United Nations Economic Commission for Europe (UNECE) (2021). Guidelines on Stakeholder Engagement in People-First Public Private Partnerships for the Sustainable Development Goals.
- United Nations Environment Program (UNEP) (2011). *Guidance For The Discussions Concerning Local Communities Within The Context Of The Convention On Biological Diversity*. Montreal. <https://www.cbd.int/doc/meetings/tk/ahcg-lcr-01/official/ahcg-lcr-01-02-en.pdf>.
- United Nations Department of Economic and Social Affairs (UNDESA) (1983). Indigenous Peoples at the United Nations. <https://www.un.org/development/desa/indigenouspeoples/about-us.html#:~:text=%E2%80%9CIndigenous%20communities%2C%20peoples%20and%20nations%20are%20those%20which%2C%20having,territories%2C%20or%20parts%20of%20them>.
- United States Department of Energy (2022). *Creating a Community and Stakeholder Engagement Plan*. https://www.energy.gov/sites/default/files/2022-08/Creating%20a%20Community%20and%20Stakeholder%20Engagement%20Plan_8.2.22.pdf.
- Vanclay, Frank (2017). Principles to Gain a Social License to Operate for Green Initiatives and Biodiversity Projects. *Current Opinion in Environmental Sustainability* 29 (December): 48–56. <https://doi.org/10.1016/j.cosust.2017.11.003>.

Ven, Frans H. M. van de, Robbert P. H. Snep, Stijn Koole, Reinder Broelsma, Rutger van der Brugge, Joop Spijker and Toine Vergroesen (2016). Adaptation Planning Support Toolbox: Measurable Performance Information Based Tools for Co-Creation of Resilient, Ecosystem-Based Urban Plans with Urban Designers, Decision-Makers and Stakeholders. *Environmental Science & Policy* 66 (December): 427–36. <https://doi.org/10.1016/j.envsci.2016.06.010>.

Whyte, K. (2018). Settler Colonialism, Ecology, and Environmental Injustice. *Environment and Society*, 9(1), 125–144. <https://www.berghahnjournals.com/view/journals/environment-and-society/9/1/ares090109.xml>

WWAP (UNESCO World Water Assessment Programme) (2019). *The United Nations World Water Development Report 2019: Leaving No One Behind*. Paris: UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000367306.locale=fr>.

Woroniecki, Stephen, Hausner Wendo, Ebba Brink, Mine Islar, Torsten Krause, Ana-Maria Vargas and Yahia Mahmoud (2020). Nature Unsettled: How Knowledge and Power Shape ‘Nature-Based’ Approaches to Societal Challenges. *Global Environmental Change* 65 (November): 102132. <https://doi.org/10.1016/j.gloenvcha.2020.102132>.

Wyborn, Carina, Amber Datta, Jasper Montana, Melanie Ryan, Peat Leith, Brian Chaffin, Clark Miller and Lorrae van Kerkhoff (2019). Co-Producing Sustainability: Reordering the Governance of Science, Policy, and Practice. *Annual Review of Environment and Resources* 44 (1). <https://doi.org/10.1146/annurev-environ-101718-033103>.

Xing, Yangang, Phil Jones and Iain Donnison (2017). Characterisation of Nature-Based Solutions for the Built Environment. *Sustainability* 9 (1): 149. <https://doi.org/10.3390/su9010149>.

Zhang, Wei, Hagar ElDidi, Kimberly Swallow, Ruth Meinzen-Dick, Claudia Ringler, Yuta Masuda and Allison Aldous (2020). Community-Based Management of Freshwater Resources. 26.

Zijp, Michiel C., Leo Posthuma, Arjen Wintersen, Jeroen Devilee and Frank A. Swartjes (2016). Definition and Use of Solution-Focused Sustainability Assessment: A Novel Approach to Generate, Explore and Decide on Sustainable Solutions for Wicked Problems. *Environment International* 91 (May): 319–31. <https://doi.org/10.1016/j.envint.2016.03.006>.

Zingraff-Hamed, Aude, Frank Hüesker, Gerd Lupp, Chloe Begg, Josh Huang, Amy Oen, Zoran Vojinovic, Christian Kuhlicke and Stephan Pauleit (2020). Stakeholder Mapping to Co-Create Nature-Based Solutions: Who Is on Board? *Sustainability* 12 (20): 8625. <https://doi.org/10.3390/su12208625>.

Appendix

This theoretical case study presents a practical example of how the stages and steps outlined in Section 4 can unfold in a real world scenario. NBS investors or practitioners can refer to this example to unpack some of the elements described in Section 4 and to aid in creating their own approach to stakeholder engagement.

Case Study Context

Copper Eagle Mining is based in the small town of Orange in New South Wales, Australia. Their copper mine accounts for approximately 30 per cent of the copper produced in the state. The mining company is looking to invest in forest and river restoration projects northwest of the mine along the Bogan River, which forms part of the Murray–Darling basin. The primary objectives for these NBS investments are to increase water yields and improve water quality for the mines and surrounding communities. The mining company is also eager to explore the additional stacked benefits that can accrue to their mines and surrounding communities with NBS projects.

STAGE 1 IN PRACTICE: UNDERSTAND CONTEXTS

Step 1: Stakeholder Mapping

To begin the process of understanding contexts, the mining company set up an internal workshop with managers, directors and their sustainability team. These employees undertook a stakeholder mapping exercise using the Four A's table to identify possible stakeholders to engage during the various NBS project phases; a sample of these stakeholders are presented in the table below.

Actor (name, function)	Agenda (mandate/mission, strategic objectives)	Arena (field of action, outreach)	Alliances (relations with other actors)
Murray Darling Basin Authority (MDBA)	An independent, expertise-based statutory agency that was established by the Water Act; responsible for coordinating how the basin's water resources are managed through the Basin Plan.	Administer the Basin Plan; measure/monitor/record the quality and quantity of the basin's water resources; support and conduct research about the basin's water resources and ecosystems.	MLDRIN, NBAN, state governments, Australian governments, WaterNSW, NSW Planning, Industry, and Environment Department – Water
WaterNSW	State-owned corporation established under the Water NSW Act 2014; operates the state's rivers and water supply systems in accordance with the rules set out by regulators.	Monitor water supply for NSW and Greater Sydney; manage/monitor dams, surface water and groundwater.	NSW Planning, Industry, and Environment Department – Water, NSW Natural Resources Access Regulator

Actor (name, function)	Agenda (mandate/mission, strategic objectives)	Arena (field of action, outreach)	Alliances (relations with other actors)
New South Wales (NSW) Planning, Industry, and Environment Department – Water	State agency responsible for water security and managing NSW water resources, including surface and groundwater management, and ensuring equitable sharing of water resources.	Administer Water Management Act 2000; assess, manage and review major developments in NSW; develop allocations for licensed water users; track water extractions.	WaterNSW, NSW NRAR, MDBA
NSW Natural Resources Access Regulator (NRAR)	Independent regulator established under the NSW Natural Resources Access Regulator Act responsible for enforcing water management legislation.	Monitoring and auditing; investigation and enforcement of non-compliance.	NSW Planning, Industry, and Environment Department – Water, WaterNSW
NSW Mining	Leading industry association representing the NSW minerals industry.	Advocate group; works closely with governments, industry groups and business/community leaders to ensure member companies can contribute to strong, responsible and sustainable mining.	Mining-related partners and corporate partners
Orange City Council	Elected representatives for Orange; provides a wide range of services and facilities, including childcare, tourism support, recreation, natural spaces, water storages and treatment, waste management, transportation, etc.	Provide community support and strategic planning.	Various community groups
Bogan Shire Council	Elected representatives for Bogan Shire and the Municipality of Nyngan, along the Bogan River; provides a wide range of services and facilities, including recreation, children's services, transportation, water and sewage, waste and recycling, etc.	Provide community support and strategic planning.	Various community groups
Northern Basin Aboriginal Nations (NBAN)	Non-profit that represents, advocates for and empowers First Nations in the northern Murray-Darling Basin in water management.	Form strategic advice on policy development and project execution; advocate for and research cultural flows.	MDBA, NSW Government, MLDRIN

Actor (name, function)	Agenda (mandate/mission, strategic objectives)	Arena (field of action, outreach)	Alliances (relations with other actors)
Murray Lower Darling Rivers Indigenous Nations (MLDRIN)	Confederation of 25 sovereign First Nations of the southern part of the Murray Darling basin; advocates for Indigenous water rights in the basin.	Protect Indigenous water rights; support capacity building of member nations in technical skills and water decision-making processes; advocate for and research cultural flows.	MDBA, NBAN
NSW Farmers	Australia's largest state farming organization; represents the interests of NSW farmer members across all agricultural commodities. Advocates for issues that matter to farmers, such as environment, biosecurity, water, animal welfare, economics, trade, and rural and regional affairs.	Advocate for and represent farmers' interests in NSW.	Various farming and horticultural networks, corporate partners
Murray-Darling Wetlands Working Group	Focused on restoring and managing Murray-Darling wetlands by linking community, science, business and government.	Help implement wetland management plans and activities on private and public property; manage environmental water delivery; train community groups and Aboriginal communities.	NSW Planning, Industry, and Environment Department – Water
LandCare Australia	National non-profit that stands for empowering individuals and communities, supporting sustainable management of natural and productive landscapes and building resilient ecosystems and communities.	Support over 5,000 groups and 100,000+ volunteers (such as farmers, landholders, Traditional Owners, youth groups, etc.) with land care projects that are focused on sustainable land management practices and environmental conservation, through funding, capacity-building, on-ground projects, etc.	Federal, state, and local governments; diverse range of networks
Australian Conservation Foundation	Independent and non-partisan national environmental organization that advocates for the protection of air, water, habitats and wildlife.	Manage various large-scale campaigns around climate change, biodiversity, pollution and more.	Community groups
Nature Conservation Council	NSW's leading environmental advocacy organization with a mission to protect nature and create the conditions it needs to thrive.	Advocate to government, landholders, etc. about forest management and biodiversity loss, rivers and wetlands, climate and energy, bushfire management and more.	Local and regional environmental groups and networks

Step 2: Regulatory Context Mapping

Once the employees had listed a broad range of stakeholders to include in the NBS project, including IPLC, they moved on to understanding the legal and political landscape through a regulatory mapping exercise. Here, they recorded all the relevant pieces of government legislation, internal policies and global standards that would influence or impact the nature and scope of their proposed NBS project. A portion of their regulatory mapping exercise is presented in the table below.

Thematic area	Nature of regulation, policy, etc.	Level of applicability	Name of regulation, policy, etc.	Reporting and other requirements of regulation, policy, etc.	Stakeholders to be engaged	Notes
Water	Legislation	National	Water Act 2007		Australian government	Provides the legislative framework to ensure that the Murray-Darling Basin is managed in the national interest; created MDBA and need for Basin Plan.
Water	Strategic plan	National and State	The Murray-Darling Basin Plan		Australian government, NSW, Queensland, South Australia, Victoria, Australian Capital Territory.	Creates sustainable diversion limits for water resources, identifies risks to water resources, sets requirements for state water resource plans, etc.
Water	Legislation	State – NSW	Water Management Act 2000		Murray-Darling Basin Authority, WaterNSW, NSW Planning, Industry, and Environment Department – Water	Creates objectives for sustainable and integrated management of NSW water resources.
Water	Strategic plan	State – NSW	Water Reform Action Plan		NSW Planning, Industry, and Environment Department – Water	Established new regulatory framework for water management, established NRAR, increased transparency, etc.
Conservation	Legislation	National	Environment Protection and Biodiversity Conservation Act 1999	Complete a self-assessment to determine if project needs to be referred for an environmental assessment; if so, submit a referral and comply with assessment process.	Australian Department of the Environment	Identifies nationally significant animals/ plants/ habitats/water resources and ensures that any potential negative impacts on them are considered; provides a national environmental assessment/ approvals process.
Restoration	Standards	National (NGO)	National Restoration Standards	Incorporate principles and standards into NBS project.	Society for Ecological Restoration Australasia	Identifies principles of ecological restoration and outlines steps to increase the likelihood of success.

Step 3: Build Cultural Competence

Once the project team identified relevant stakeholders and understood the regulatory requirements of the project, they set up a one-day, company-wide workshop to ensure a strong foundational knowledge of the cultural contexts needed for the project. The mining company hired Aboriginal cultural experts and workshop facilitators and asked Aboriginal leaders to attend the workshop to share cultural knowledge and their experiences with and values of the landscape. During the workshop, several methods for cultural learning were adopted, including storytelling, drawing and painting (maps, photographs, paper, pens, charcoal and other art materials were provided by the mining company). To share their messages with those in attendance, the mining company used a PowerPoint slide deck to showcase the nature and scope of the proposed NBS projects. Those that developed the slide deck ensured that the images used were culturally appropriate and translated the text to Indigenous languages where needed.

The mining company committed further staffing hours for training with the Aboriginal cultural experts where needed, as well as staffing hours for researching cultural contexts outside of Aboriginal communities. They understood that the outcomes of Stage 1 would inform the remaining stages of their NBS project.

STAGE 2 IN PRACTICE: PRE-FEASIBILITY/FEASIBILITY

Step 1: Define project scope

To begin the pre-feasibility/feasibility stage, the mining company hosted a project scoping workshop at the company headquarters and invited all the stakeholder groups that were identified in Stage 1. The company hired a trained facilitator to guide attendees through a series of scoping questions. In **Question 1**, the facilitator asked: *What are the major challenges faced by the organization investing in an NBS project?* Mining company attendees listed challenges faced in the landscape in which they mine, as well as the broader Murray-Darling Basin, including:

- Declining water availability
- Poor and/or declining water quality
- Effects of water availability and quality on economic opportunities
- Reduced agricultural outputs
- Significant soil erosion and surface runoff
- Declines in local biodiversity, particularly endemic species

The facilitator followed this with **Question 2**, asking: *What are the major challenges faced by the individuals and communities outside of the project location?* Attendees from multiple stakeholder groups identified several other challenges, namely:

- Lack of access to key landscape elements, including rivers, streams and billabongs
- Reduced ability of Indigenous communities to practice sacred ceremonies and to maintain their connection with nature
- Decreased recreational opportunities along rivers and lack of space for other cultural services (e.g., meditation, spiritual spaces, etc.)
- Increased use of pesticides and their effect on local pollinator populations
- Reduced groundwater levels due to over-extraction by some borehole users

Question 3 asked: *What are the objectives of the proposed NBS project?* The mining company, in collaboration with the invited stakeholders, defined the goals and intentions of the project. Armed with these objectives, the mining company was in a strong position to strategically invest in different NBS options to address multiple challenges and meet the needs of a broad range of stakeholders.

To answer **Question 4**: *What kinds of benefits could accrue from such an investment?*, the mining company used the [NBS Benefits Explorer Tool](#) to identify the potential stacked or accumulative benefits that could accrue from this specific type of NBS project. Mining company employees went a step further to create an additional column in the Four A's table, where they noted which benefits would be accrued to which stakeholders across water quality, water quantity, biodiversity, carbon and socio-economic themes. The mining company yielded many of the benefits identified using the tool, but the surrounding stakeholders were the greatest beneficiaries of the proposed project.

For **Question 5**, the facilitator asked: *Where should the proposed NBS interventions take place?* This allowed the project team to consider making a strategic investment in NBS, rather than investing in an area that would not be as catalytic. Maps of the area were provided with colored pens, stickers and other art materials. Stakeholders proposed some areas where previous landscape management practices had been poorly implemented. This area, which included wooded and riparian areas, needed significant restoration. The mining company settled on forest and river restoration projects in the hopes of addressing all the challenges raised.

Through **Question 6** (*Who else is investing in or implementing NBS projects in the watershed?*), stakeholders helped the mining company identify NGOs, civil society groups and individuals who were working on similar restoration projects in the watershed. These details were added to the Four A's table. The mining company will consider working with these other groups to align their collective action initiatives and ensure that they are not duplicating efforts.

Step 2: Identify levels of stakeholder engagement

During the second half of the workshop, attendees were asked how they would like to be included in the project going forward. The facilitator produced a table detailing stakeholder participation and read through what each level meant and how the mining company would engage. The facilitator explained that not all stakeholders will have the same level of interaction with the project—some will be more hands-on, while others will merely be kept up to date. Attendees were asked to jot down their organization's details under the column that best reflected the level of participation they anticipated during the project.

After the workshop concluded, the mining company adjusted the Four A's table by adding another column to capture the level of engagement requested by the stakeholders at the workshop. Examples of these adjustments can be seen in the table on the next page:

Actor (name, function)	Agenda (mandate/mission, strategic objectives)	Arena (field of action, outreach)	Alliances (relations with other actors)	Engagement
MDBA	An independent, expertise-based statutory agency that was established by the Water Act; responsible for coordinating how the basin's water resources are managed through the Basin Plan.	Administer the Basin Plan; measure/monitor/record the quality and quantity of the basin's water resources; support and conduct research about the basin's water resources and ecosystems.	MLDRIN, NBAN, state governments, Australian governments, WaterNSW, NSW Planning, Industry, and Environment Department – Water	Collaborate
NSW Planning, Industry, and Environment Department – Water	State agency responsible for water security and managing NSW water resources, including surface and groundwater management, and ensuring equitable sharing of water resources.	Administer Water Management Act 2000; assess, manage and review major developments in NSW; develop allocations for licensed water users; track water extractions.	WaterNSW, NSW NRAR, MDBA	Involved
NBAN	Non-profit that represents, advocates for and empowers First Nations in the northern Murray-Darling Basin in water management.	Form strategic advice on policy development and project execution; advocate for and research cultural flows.	MDBA, NSW Government, MLDRIN	Empowered
Murray-Darling Wetlands Working Group	Focused on restoring and managing Murray-Darling wetlands by linking community, science, business and government.	Help implement wetland management plans and activities on private and public property; manage environmental water delivery; train community groups and Aboriginal communities.	NSW Planning, Industry, and Environment Department – Water	Empowered

Step 3: Develop an engagement plan

Following the successful initial stakeholder engagement workshop, the mining company began developing a comprehensive stakeholder engagement plan.

This plan documents the following key sections:

- 1. Stakeholders identified in the stakeholder mapping exercise.** Here, all stakeholder groups, their contact details, and key points from the Four A's table are documented.
- 2. Specific and meaningful engagement activities per stakeholder group.** Based on the level of engagement that workshop attendees requested, the mining company proposed a series of activities to be adopted to ensure inclusive engagement. It was agreed that these activities should be culturally responsive.
- 3. Means of engagement and points when engagement will occur.** The project team documented the methods for communicating and engaging with different stakeholder groups depending on the level and nature of engagement required. Methods for engaging were listed as periodic emails and newsletters, workshops at key points along the project path, and invitations to online and in-person events. Where stakeholders did not have access to technology, the mining company opted for community visits. Anywhere from a few hours to half a day were allocated for these visits. Engagement options were also listed according to the various stages of the project. Some stages (e.g., design and implementation stages) required additional levels of engagement. A Gantt chart detailing the frequency of communications and engagement periods was created to allow for easy management of communications.
- 4. Level of detail and information sharing.** The final element of the stakeholder engagement plan documented the type of information to be shared, the way this would be shared, and the means for eliciting feedback. These elements were based on the preceding points, notably the level of engagement requested by workshop attendees.

Step 4: Engage stakeholders and evaluate

The mining company shared the draft stakeholder engagement plan with all stakeholders and welcomed further input. Once this plan was finalized, the mining company developed a series of legal contracts (e.g., with landowners and practitioners) and informal agreements (e.g., with IPLC and some civil society groups) which were signed by the appropriate stakeholders. The nature of the project and the stakeholder relationship determined the formality of agreements and partnerships. These agreements were added as appendices to the stakeholder engagement plan. The final document was presented to and ratified by the board of directors.

In addition to the stakeholder engagement plan, the mining company drafted a pre-feasibility report for the proposed forest and river restoration project. This report detailed the nature and scope of the project; the key activities, outputs and impacts; and the broad benefits and values that could be accrued by the mining company and broader communities. Proposed costs for project implementation (CAPEX and OPEX) were also included. The draft report was shared with stakeholders to make sure that everyone was aware of the opportunities and limitations that exist in the proposed NBS project. The board of directors unanimously agreed that this project made financial, societal and environmental sense, and approved the proposed budget for commencing the design stage of the project.

STAGE 3 IN PRACTICE: DESIGN

Step 1: Set up a design committee

The mining company appointed a local restoration consulting firm to lead the project design stage, and reached out to those stakeholders who opted to be an active part of this stage and asked them to join the design committee. The chief sustainability officer (CSO) chaired this committee and assigned formal roles to different members of the design team. Responsibilities for each role were decided on and documented during the first session of the design committee. A timeline for when and where the committee would meet was also finalized. Finally, the design committee proposed several options for sharing the design elements with all stakeholders involved in this project, while a report detailing the roles and responsibilities of the design committee was shared with the board of directors.

Step 2: Collaborate on design elements

During the next several months, the design committee met to discuss the vision of the project and how this vision could achieve the multiple needs and values of all stakeholders. The design elements included bank stabilization, erosion protection using soil remediation and revegetation options, successional planting, etc. IK was incorporated into the final design, notably around river restoration and fire abatement.

Step 3: Validate stakeholder interests

The draft design was shared with all stakeholders to ensure that the needs and values of all project beneficiaries were being met. Following a three-week stakeholder engagement period, the design was slightly amended to address a few concerns about possible trade-offs along the lower reaches of the river, due to revegetation in the headwaters. The notes section in the final project design stipulates that any trade-offs that materialize post implementation will be mitigated wherever possible.

The final draft project design was sent to the board of directors for approval. Once approval was received, the design committee developed several communications materials to share with media outlets and all stakeholders to keep them abreast of progress and next steps.

STAGE 4 IN PRACTICE: IMPLEMENTATION

Step 1: Collaboratively implement co-created project design

The appointed restoration consultancy worked very closely with all stakeholders who indicated an interest in this stage of the work. Emphasis was placed on meeting with and incorporating input from Aboriginal communities. Although these communities were not directly responsible for on-the-ground efforts, they informed the practitioners on elements in the landscape to leave untouched or where special connections/values existed. These areas were respected, and precautions were taken to respect any Indigenous worldviews and values.

Step 2: Provide updates and communications

Stakeholders were kept informed of progress throughout the implementation stage. Regular stakeholder meetings were held on site to ensure feedback, inclusivity and transparency of project progress. The consultants were very open to feedback, taking notes and commenting where some suggestions were out of scope or not feasible. Other communication channels were also used to send out photographs and high-level updates. In communities that did not have access to email and other channels, the CSO visited to share photographs of the project's progress and elicit feedback.

Step 3: Present co-created project outcomes

The forest and river components of the restoration work were undertaken in parallel, and the full project took 18 months to complete. All stakeholders identified at the start of the project (Stage 1) were invited to the official unveiling of the restored landscape. Several of the Indigenous communities performed Smoking Ceremonies to ward off evil spirits and bring good fortune to the project.

The mining company unveiled signage at the opening event which documented the restoration process, provided photos and acknowledged all the stakeholders who supported the project. The board of directors, chief operating officer and other managers who were in attendance thanked the stakeholders for walking the NBS journey with them and asked them for their continued support as the project matured.

STAGE 5 IN PRACTICE: MONITORING AND EVALUATION

Step 1: Develop a monitoring and evaluation plan

The mining company received a proposed M&E plan as part of the official handover from the consultants. This plan set out the activities needed to ensure that the landscape functions at optimal levels and that restoration activities are monitored for efficacy.

The mining company set up a final workshop to share the proposed M&E plan. This workshop aimed to engage stakeholders to ensure that M&E data collection and analyses are consistent and strategic. During the workshop, the mining company presented a series of baseline conditions, measured at the start of the implementation phase. Photos of the restoration work showed the current conditions of the forests and riparian areas. Using the proposed M&E plan, the company suggested some metrics and indicators to use to measure the improvement and ultimate success of the project. Stakeholders were key to the final selection of indicators, sharing what was most relevant to them. Stakeholders were also reminded to keep the mining company updated on any future challenges or issues experienced because of the NBS project, so that additional M&E efforts could be implemented to mitigate these impacts.

Step 2: Plan data collection

During the workshop, stakeholders were encouraged to support data collection to improve M&E efforts. A series of data-collection activities were presented, ranging from species counts and habitat surveys to collecting regular water samples. A chart was made on a large sheet of paper to document the stakeholders who would be interested in supporting the different data-collection activities; a portion of the chart remained blank to allow stakeholders to add their own proposed activities. This option respects diverse ways of knowing, and promotes qualitative, knowledge sharing and data collection.

The mining company revised the proposed M&E plan in line with suggestions from the stakeholders who attended the final workshop. The final version of the M&E plan was presented to all interested and affected parties and included a timeline, the indicators and metrics used to measure landscape conditions, the details of stakeholders who indicated support, and their roles and responsibilities during the M&E stage. Stakeholders who signed up to participate in data collection were invited to attend a brief training session, which covered any necessary safety procedures and instructed participants on specific procedures for how to collect data to improve standardization. These stakeholders were also given access to printed and electronic step-by-step instructions.

Step 3: Analyze and evaluate data

Dedicated staff from the mining company, as well as identified stakeholders, collected data as determined by the M&E plan. The mining company analyzed the various forms of data collected. This information was distilled into simple documents and updates which were later shared with all interested stakeholders.

Step 4: Provide updates to and receive feedback from stakeholders

In the first two years post-implementation, the mining company provided quarterly updates to all stakeholders. In the years following, updates were provided to stakeholders every six months. This was the agreed-upon timeline in the M&E plan. Updates included project successes and challenges. The mining company interviewed different stakeholders to learn what benefits they were accruing from the NBS project and to gauge if any issues needed to be mitigated. These interviews were often shared in the updates to showcase how the NBS project is benefitting communities and how communities have a sense of ownership of the project.

This NBS project has been heralded as a prime example of inclusive stakeholder engagement throughout all project stages. The project has received many local and international awards and these successes have been shared with all stakeholders involved in the project. The trophies and certificates take pride of place in the office of the mining company's chief operating officer.



About the CEO Water Mandate

The CEO Water Mandate is a United Nations Global Compact initiative that mobilizes business leaders on water, sanitation, and the Sustainable Development Goals for corporate water stewardship. Endorsers of the Mandate commit to continuous progress against six core elements (direct operations, supply chain and watershed management, collective action, public policy, community engagement and transparency) and in so doing understand and manage their own water risks. Established in 2007 and implemented in partnership with the Pacific Institute, the Mandate was created out of the acknowledgement that global water challenges create risk for a wide range of industry sectors, the public sector, local communities and ecosystems alike. For more information, follow @H2O_stewards on Twitter and visit our website at ceowatermandate.org.



About the Pacific Institute

The Pacific Institute envisions a world in which society, the economy, and the environment have the water they need to thrive now and in the future. In pursuit of this vision, the Institute creates and advances solutions to the world's most pressing water challenges, such as unsustainable water management and use; climate change; environmental degradation; food, fiber, and energy production for a growing population; and lack of access to freshwater and sanitation. Since 1987, the Pacific Institute has cut across traditional areas of study and actively collaborated with a diverse set of stakeholders, including policymakers, scientists, corporate leaders, international organizations such as the United Nations, advocacy groups, and local communities. This interdisciplinary and nonpartisan approach helps bring diverse interests together to forge effective real-world solutions. Since 2007, the Pacific Institute has also acted as co-secretariat for the UN Global Compact CEO Water Mandate, a global commitment platform that mobilizes a critical mass of business leaders to address global water challenges through corporate water stewardship. More information about the Pacific Institute and our staff, directors, and funders can be found at www.pacinst.org.



About the United Nations Global Compact

As a special initiative of the UN Secretary-General, the United Nations Global Compact is a call to companies everywhere to align their operations and strategies with Ten Principles in the areas of human rights, labour, environment and anti-corruption. Our ambition is to accelerate and scale the global collective impact of business by upholding the Ten Principles and delivering the Sustainable Development Goals through accountable companies and ecosystems that enable change. With more than 12,000 companies and 3,000 non-business signatories based in over 160 countries, and 69 Local Networks, the UN Global Compact is the world's largest corporate sustainability initiative – one Global Compact uniting business for a better world. For more information, follow @globalcompact on social media and visit our website at www.unglobalcompact.org.



The CEO Water Mandate's six core elements:

DIRECT OPERATIONS

Mandate endorsers measure and reduce their water use and wastewater discharge and develop strategies for eliminating their impacts on communities and ecosystems.

SUPPLY CHAIN AND WATERSHED MANAGEMENT

Mandate endorsers seek avenues through which to encourage improved water management among their suppliers and public water managers alike.

COLLECTIVE ACTION

Mandate endorsers look to participate in collective efforts with civil society, intergovernmental organizations, affected communities, and other businesses to advance water sustainability.

PUBLIC POLICY

Mandate endorsers seek ways to facilitate the development and implementation of sustainable, equitable, and coherent water policy and regulatory frameworks.

COMMUNITY ENGAGEMENT

Mandate endorsers seek ways to improve community water efficiency, protect watersheds, and increase access to water services as a way of promoting sustainable water management and reducing risks.

TRANSPARENCY

Mandate endorsers are committed to transparency and disclosure in order to hold themselves accountable and meet the expectations of their stakeholders.