

A photograph of a forest scene. Sunlight filters through tall, thin trees, creating vertical rays of light. In the foreground, there is a carpet of small, purple flowers, likely bluebells. The overall atmosphere is peaceful and natural.

WHO REAPS THE BENEFITS?

INTEGRITY PRINCIPLES FOR BENEFIT SHARING IN FOREST NBS FOR CLIMATE MITIGATION



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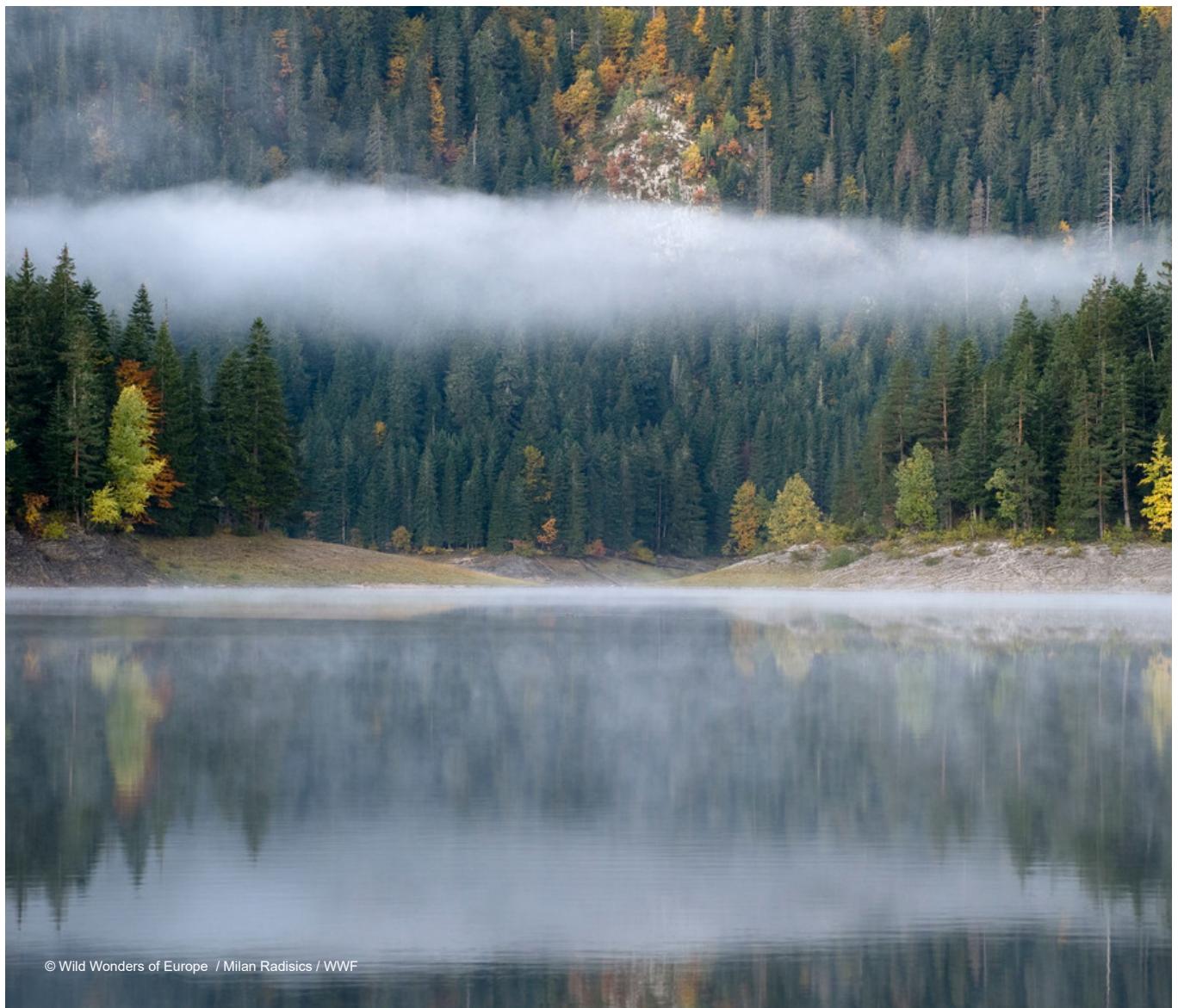
This discussion paper proposes a set of 12 closely interrelated principles, organized by four values, that constitute the highest integrity for benefit sharing in forest nature-based solutions. This paper aims to centralize a shared statement of ambitious ethical guidelines. After discussion and refinement of these principles, WWF will seek to develop concrete, practical guidance for applying these principles.

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INTRODUCTION

"If interventions are poorly designed or governed...or fail to deliver meaningful benefits and incentives to people, they risk not only negative outcomes on the ground, but missed opportunities that we can no longer afford. Projects or programmes that underdeliver and/or overclaim results also undermine broader support for nature-based solutions as a means to address climate change and nature loss."

- Manuel Pulgar-Vidal, Fran Price, and Nik Sekhri, WWF
Foreword to [Beyond Carbon Credits](#)



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Nature-based solutions (NbS) seek to “address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits” ([UNEP 2022](#)). They represent integrated approaches to addressing the “triple challenge” that threatens humanity: NbS can help us satisfy the needs of a growing human population, while avoiding dangerous warming to the climate and reversing decades of devastation to global biodiversity ([Baldwin-Cantello et al. 2020](#)).

To accomplish these ambitious goals, **NbS must provide benefits to people**. This requirement is included in the very definition of NbS, but more importantly, **NbS interventions cannot effectively and sustainably deliver against broader societal challenges without providing net socioeconomic benefits for stakeholders affected** by those interventions. Those benefits may be direct results of the intervention, like employment generation, or they may be channeled through a benefit sharing mechanism (BSM). Benefits can be both monetary payments as well as nonmonetary improvements, like more stable local water and food supplies or improved resilience in the face of climate change. Regardless, the local stakeholders participating in and affected by an NbS intervention must be better off as a result, which means that the benefits must sufficiently outweigh any costs ([Pérez-Cirera, Cornelius, and Zapata 2021](#)).

Unfortunately, in too many cases sufficient localized benefits have failed to reach key local stakeholders (e.g., [DiGiano, Stickler, and David 2020](#)), because costs outweighed intervention benefits or because the interventions’ BSMs were missing, poorly designed, or corrupted (e.g., [Whitt 2022](#)). When this happens, NbS interventions risk failure, backlash, and even environmental and social harm ([Hacking et al. 2021](#), [Pérez-Cirera, Cornelius, and Zapata 2021](#)).

Guided by its [internal efforts](#) to set and meet high standards of integrity, WWF has labored to improve integrity in NbS and their BSMs and achieve the transformational changes upon which we all depend.

- WWF’s [Powering Nature: Creating the Conditions to Enable Nature-based Solutions](#) charts the structural barriers, policy levers, and systemic enablers for NbS.
- The tools in [Beyond Science-Based Targets: A Blueprint for Corporate Action on Climate and Nature](#), show how NbS could fit into corporate climate mitigation strategies.

- [WWF’s Beyond Carbon Credits: A Blueprint for High-Quality Interventions that Work for People, Nature and Climate](#), provides guidelines for selecting high-quality NbS interventions for climate mitigation.
- In addition, WWF led the creation of the [Gold Standard](#) for interventions seeking to reduce carbon emissions; co-authored the [Tropical Forest Credit Integrity Guide](#); and helps steer the [Voluntary Carbon Markets Integrity Initiative](#).

• **Benefit sharing mechanisms (BSMs):** arrangements for the “intentional transfer of monetary and nonmonetary incentives (goods, services or other benefits) to stakeholders for the generation of environmental results (such as greenhouse gas emission reductions) funded by revenues derived from those results” ([Durbin et al. 2019](#)).

• **Corruption:** [abuse of entrusted power for private gain](#). In the context of NbS BSMs, the main corruption risk is [elite capture](#): corrupt decision making by powerful interests to drive benefits disproportionately to their own interests.

• **Integrity:** Consistent, firm, and active commitment to ethical principles. In this case, commitment to the principles outlined in this document.

• **Nature-based Solutions (NbS):** “actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits” ([UNEP 2022](#)).

For additional detail and definitions, see the Glossary at the end of this document.

Building on these foundations, this discussion paper proposes a set of 12 closely interrelated principles, organized into four values, that constitute the highest integrity for NbS benefit sharing. As a testament to years of leadership and advocacy by conservation organizations, critics, Indigenous Peoples and local communities, businesses, and other stakeholders, few of these values or principles are new or surprising. But stating, discussing, and committing to them is still worthwhile.

WWF believes that nature-based solutions' benefit sharing mechanisms should be:

FAIR, including:

1. Deep, significant participation
2. Broad, inclusive representation
3. Distributive equity
4. Value pluralism

ACCOUNTABLE, enabling:

5. Transparency and understanding
6. Real grievance redress

RIGHTS-BASED, guaranteeing:

7. Respect for Indigenous Peoples (IPs) and local communities (LCs)
8. Free, prior, informed consent (FPIC)

EFFECTIVE, pursuing:

9. Net positive benefits
10. Appropriate compensation
11. Positive feedback loops and additionality
12. Adaptive management

All of these values and principles work together and build on each other. They have equal priority, regardless of the order in which they are listed here. Some of these principles should apply to the NbS intervention as a whole but are included due to the important need to make sure they explicitly extend to the BSM. Furthermore, while this paper primarily discusses NbS for climate mitigation, WWF believes these principles apply to NbS regardless of which societal challenge they are addressing.

Why now?

Around US\$ 133 billion currently flows to NbS, with calls to triple that amount by 2030 and quadruple it by 2050 in order to meet the magnitude of the threats ([UNEP 2021](#)). Encouragingly, interest and investment in NbS are growing, especially from the private sector ([Hacking et al. 2021](#), [Forest Trends 2022](#)). This growth represents a significant opportunity.

But accelerating into NbS implementation without concrete, principled guidance also represents a major risk. Without parameters and guidelines, much of this investment may be wasted or flow into and through, and therefore reinforce, institutions and power structures that do not respect human rights, protect Indigenous Peoples and local communities, or provide accountable financial management.

That is why WWF has synthesized these principles for discussion with the global community. This paper aims to centralize a shared statement of ambitious ethical guidelines. After discussion and refinement of these principles, WWF will seek to develop concrete, practical guidance for applying these principles to NbS interventions in several pilot landscapes.

Dedicated efforts and integrity safeguards are required to ensure that NbS deliver benefits for people and nature ([WWF 2020](#)) and to avoid the mistakes and criticisms of the past. This discussion paper, and the subsequent concrete guidance, seek to support those efforts.

How this discussion paper is organized:

Each of the following sections defines the principle, explains its importance, and highlights any pitfalls implementers should bear in mind. It then links to some examples of how different organizations or standards have tried to “plant” the principle in their guidelines. However, these examples are illustrations, not implicit endorsements of any particular standard, organization, or method.

**VALUE ONE: NATURE-BASED SOLUTIONS'
BENEFIT SHARING MECHANISMS SHOULD BE**

FAIR

In which we include the principles of:

- 1. Deep, significant participation**
- 2. Broad, inclusive representation**
- 3. Distributive equity**
- 4. Value pluralism**

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Principle 1: BSMs should be designed and implemented with deep, significant participation of stakeholders.

What does this mean?

Participation should be “deep,” that is, real, meaningful, and significant. Deep participation guarantees that stakeholders have significant power over the design and implementation of the BSM.¹ Enabling deep participation inevitably requires a clear understanding and acknowledgment of important social factors like history, existing institutions, and community dynamics and power relations.

Why does this matter?

While interventions will face some constraints, intentional partnership with stakeholders, as opposed to more “tokenistic” or “box-checking” forms of involvement, will lead to better NbS outcomes. The “mere attendance of stakeholders at participatory forums does not necessarily influence decision-making processes” ([Bertzky et al. 2021](#)). Participation must be significant, even when that means that certain elements of the planned process or outcome must change.

Intervention implementers should at a minimum co-decide how to use intervention proceeds with local stakeholders, even if they are not able to completely defer to local stakeholder priorities. BSMs can include

certain parameters. For example, a forest NbS BSM might include a rule that funds should be spent on “supplies for non-timber forest product harvesting.” Although that rule would place some limits on fund use, it would still allow deeper participation than just collaborating to select the site for a pre-decided non-timber enterprise of “honey” or, in the shallowest form of stakeholder involvement, just informing residents that a certain pre-selected field would be converted for honey production ([Kiss et al. 2022](#)).

Bear in mind:

As elaborated below in Principle 2, deep participation of only a few interests can concentrate power and risks elite capture ([Labonte 2012](#)): corrupt decision making that then concentrates the benefits in the hands of the powerful instead of benefiting the majority of the population. Depth must be balanced with breadth (while maintaining coherence with national regulations and domestic safeguards).

As well, depth and breadth are important considerations for who benefits, how, and how much. Principles 3 and 9 address those tradeoffs. These first principles (1 and 2) emphasize that “individuals and communities are holders of rights, responsibilities, knowledge, capacities, interests and concerns... never mere recipients or beneficiaries of initiatives conceived and carried out by others...” ([ICCA 2018](#)).

¹ Useful models for “depth” include Arnstein’s “ladder” ([1969](#)) and the [IAP2 Spectrum](#), both of which have been widely adapted to environmental purposes (e.g., [EPA 2015](#), [Foti et al. 2008](#), [Kiss et al. 2022](#), [Luyet et al. 2012](#)).

See the box below for two examples of how this principle has been applied in existing guidelines.



Planting the Principles: Deep participation

“Stakeholders must function as partners...and not merely beneficiaries—both through active participation in market design and governance as well as in project design and implementation.”

- VCMI “[Provisional Claims Code of Practice](#)”

“Organizations purchasing NBS credits should ensure...that Indigenous Peoples and local communities receive a fair and equitable share of the benefits... This principle encompasses the need for those implementing NBS activities to: actively engage stakeholders and respect their rights to meaningful and effective participation in decision-making about matters that may affect them...”

-WRI “[Guidance on Voluntary Use of NbS Carbon Credits through 2040](#)”



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Principle 2: BSM stakeholders should be broadly represented, with concrete social inclusion efforts.

What does this mean?

“Broad” representation involves as many stakeholders, and types of stakeholders, as possible. Existing, legitimate governance bodies and political or cultural leaders should of course be understood, engaged, and included as representatives of their constituents. However, consulting with those entities alone may omit important stakeholders. BSM consultations should extend to all “those likely to be affected by the proposed activities because of the actual impacts or potential risks to their physical environment, health, security, wellbeing or livelihoods and who, because of their circumstances, may be disadvantaged or vulnerable” ([WWF 2021a](#)).²

Why does this matter?

This principle maximizes the perspectives included in any decisions and reduces the risks of elite capture of benefits. It leverages both existing decision making processes and the people who may be left out of those processes. This is important because “greater participation of stakeholders in the design and management of BSMs leads to a greater sense of ownership and a resulting mechanism that is based on trust and considered legitimate” ([Bertzky et al. 2021](#)).

For example, letting the community’s pre-existing leader decide on their own which mangroves to protect (with the corresponding right to compensation for the owners) would be very narrow representation. Doing so might reinforce problematic social hierarchies and power dynamics or lead to low trust, buy-in, and participation in the NbS. However, asking every resident in the intervention area to vote on which mangroves to protect would be very broadly participatory, but would be very time and resource intensive. A middle ground, involving a manageable number of context-appropriate representatives who would then take those decisions, would be somewhat narrower but perhaps more feasible ([Cornwall 2008](#)).

Social inclusion is key to broad representation. BSMs should “ensure that traditionally excluded groups are actively brought into the process in a manner that upholds their dignity and encourages their participation...” ([IUCN 2020a](#)). There are many “axes of exclusion” in conservation, and many of the axes intersect. Two of the most widely relevant are gender and membership as Indigenous Peoples (IPs). Both of these groups are “critical partners” and “crucial stakeholders” ([UN-REDD 2022](#)) for NbS. Their real,

meaningful participation leads to more accurate diagnosis of challenges, a wider pool of potential solutions, and a better chance to improve the often-unjust environmental status quo ([UN-REDD 2021](#), [UN-REDD 2022](#), [Pacheco et al. 2021](#)).

Bear in mind:

Interventions will have to consider time and resource trade-offs when deciding on the balance of deep and broad participation. It is equally important, however, to think of the time and resource burden participation creates for stakeholders. As described further in Principle 9, the benefits to participating in the BSM should outweigh the costs. Stakeholders cannot be expected to sacrifice their valuable time without compensation, because “You can’t eat participation, can you?” ([Cornwall 2008](#)).

Uncompensated participation can itself exacerbate gender and other social inequalities, since in many contexts informal labor outside the “official” economy often falls to women ([Conservation International 2019](#), [Whitt 2022](#)).

See the box below for two examples of how this principle has been applied in existing guidance.



Planting the Principles: Broad, inclusive representation

“Local communities, and especially women and youth, must fairly share in the benefits of NbS for climate mitigation interventions. Any revenues generated should in large part be directed and/or reinvested in local communities, with a focus on alternative livelihoods. Revenue may also be used to provide technical support to project activities.”

—[WWF “Blueprint for High-Quality Interventions that Work for People, Nature and Climate”](#)

“IPs, LCs, women and other underserved communities, where relevant, should function as partners and rightsholders or stakeholders—and not just beneficiaries—in a genuinely collaborative and intercultural approach that values diverse cultural practices and ensures full and effective participation on equal terms throughout the process, from the initial proposal to the implementation, and with special emphasis on the equitable distribution of benefits.”

—[Tropical Forest Credit Integrity Guide](#)

² Identifying who is and is not an affected stakeholder will often be a political process, as there may be significant interests, preferences, or biases involved in the decisions. Interventions should therefore purposefully seek to be as objective as possible.

Principle 3: Benefits should be shared equitably, as stakeholders define the term.

What does this mean?

Equity in this context means “ensuring that benefits are distributed among all legitimate actors that have contributed to results in a manner that is widely perceived as fair” ([Davis, Nogueron, and Javelle 2012](#)). The emphasis here is on the process, not necessarily on the outcome. The decision might be that everyone benefits equally; that those who bear more of the costs or do more of the work benefit more; or that those with the most need receive the most benefits ([Wong et al. 2017](#)). All of those could be considered “equitable” sharing of benefits, if selected by stakeholders through a deeply, broadly participatory process ([FFI 2014a](#)).

Specifically, the process of sharing benefits can be considered “equitable if

- i. relevant...stakeholders are represented, recognized and able to participate in decisions on criteria for how beneficiaries are identified, as well as the size, timing and type of benefits to be delivered,
- ii. the share of incentives distributed among stakeholders adheres to an agreed fairness criterion and
- iii. all potential stakeholders have the capacity to engage in the BSM” ([Wong et al. 2017](#)).

Why does this matter?

“Equity-blind” NbS benefit sharing can lead to distrust, disengagement, and conflict. This can delay an intervention, undermine its effectiveness, or, in the worst cases, leave communities worse off—especially if the benefits feed corrupt private interests instead of the whole community. On the other hand, equitable decisions about where to locate or focus non-monetary benefits, or how to distribute monetary benefits, reduce corruption risks and are essential to intervention success ([Pascual et al. 2014](#); [Whitt 2022](#)).

Bear in mind:

As the third bullet above notes, “capacity” is important for equity. As a result, “capacity building, technical support and logistical resources” may need to “be provided to IPs, LCs, women and other underserved communities (or to organizations that represent and serve them) to enable their full and effective participation on equal terms” ([TFCI 2022](#)).

In addition, this principle relies on Principles 1 and 2, in that equitable benefit sharing relies on significant, meaningful engagement with all stakeholders, especially IPs and LCs. Indeed, “one way to explore... what is considered fair or unjust is by engaging IPLCs up front in the development of the...BSM, presenting different options of benefit sharing and listening to their line of argument for why a specific option may be preferred over another” ([Bertzky et al. 2021](#)). Of course, a universal consensus may not be reachable (especially considering the tradeoffs addressed in Principle 9). That is one reason why the process of determining how benefits will be shared is so important.

See the box below for an example of how this principle has been applied in existing standards.



Planting the Principles: Distributional Equity

“The project delivers equitable well-being benefits to smallholders/community members... Appropriate institutional and governance arrangements have been used to enable full and effective participation of smallholders/ community members in decision making, implementation and management of the project... Well-being benefits are shared equitably not only with the smallholders/ community members but also among the smallholders/community members, ensuring that equitable benefits also flow to more marginalized and/or vulnerable households and individuals within them.”

—Climate, Community and Biodiversity Standards [v3.1](#), Optional Criterion GL2

Principle 4: The definition and calculation of benefits should include diverse definitions of value.

What does this mean?

BSMs must recognize, respect, and consider diverse definitions of values, including as relevant socio-cultural, economic, biophysical, holistic, and health values. This will require “addressing power relations... through participatory negotiations among stakeholders holding incommensurable values over human-nature relations” ([IPBES](#)).

Why does this matter?

Recognizing the value of nature is a key component of NbS. However, some values are more easily measured and quantified than others. A certain forest or pasture, for example, may hold different values for different local stakeholders, from spiritual, symbolic, or traditional value to economic value as a source of livelihoods. It likely also provides environmental service value, both to local stakeholders and to the broader international community. Changes to that forest or pasture would affect its value across all these dimensions, and others.

As a result, NbS interventions will often involve disagreements over what to value, how much to value it, and how to reconcile different, sometimes mutually exclusive, values. Because of its direct effect on the intervention’s return on investment, any disagreements on the values of nature will inevitably extend into the BSM, from calculating opportunity costs and benefit amounts, to deciding how to share benefits equitably, to even just defining the benefits (direct, indirect, financial, non-financial) to be shared ([FFI 2014a](#)).

Bear in mind:

Manipulation or undue influence in value conflicts are significant corruption risks for NbS. Actors may try to inappropriately increase their own personal future benefits through misrepresenting value or unduly influencing what types of value get prioritized. The key anti-corruption responses include understanding local power differentials and best practice participatory mechanisms that prioritize equity and accountability ([Whitt 2022](#)).

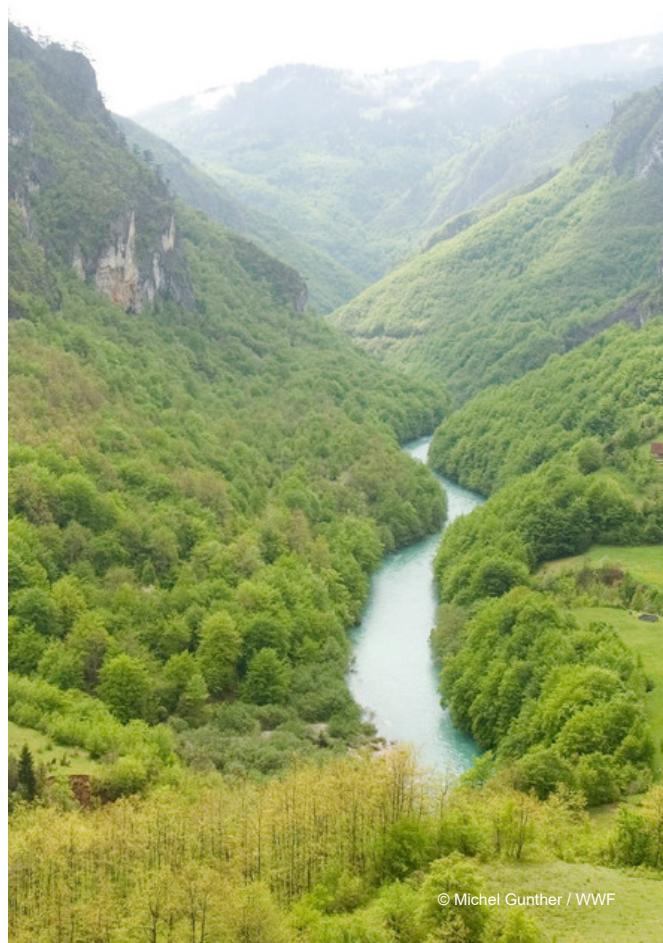
See the box below for how the IUCN emphasizes this principle.



Planting the Principles: Value pluralism

“Ecosystems provide a wealth of different benefits and not everyone values each of them in the same way. While tradeoffs cannot be avoided, they can be effectively and equitably managed. This Criterion requires that NbS proponents acknowledge these tradeoffs and follow a fair, transparent and inclusive process to balance and manage them over both time and geographic space.”

—IUCN “[Global Standard for Nature-based Solutions](#),” Criterion 6



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VALUE TWO: NATURE-BASED SOLUTIONS'
BENEFIT SHARING MECHANISMS SHOULD BE

ACCOUNTABLE

In which we include principles of:

5. Transparency and understanding
6. Real grievance redress

Principle 5: All elements of the BSM should be transparent and understandable to all stakeholders.

What does this mean?

NbS proponents should ensure the transparency and understandability of all of the following BSM elements:

- Processes, decisions, timelines, tradeoffs, rules, and restrictions.
- Methodologies and results for benefit, value, and cost calculations, including any transaction costs or fees to run the program, acquire certification, etc.
- Financial accounting, including flows, distributions, and transfers to or from public or communal funds ([FFI 2014a](#); [Forest Carbon Partnership](#); [Pérez-Cirera, Cornelius, and Zapata 2021](#)).

Why does this matter?

Transparency to local stakeholders is key to meaningful participation, necessary to establish equity, and a prerequisite to consent ([IUCN 2020a](#)). Interventions can only be effective if stakeholders know what is expected of them, and what they can expect from the intervention. A lack of transparency can lead to conflict and distrust ([FFI 2014a](#)). It also enables fraud, elite capture, and corruption.

Stakeholders must also understand the information that is made transparent, which may require additional time, methods of information delivery, and capacity building ([FFI 2014a](#), [Springer and Campese 2011](#)).

Bear in mind:

Independent verification and vetting of information, to the degree possible, is a key element of ensuring full transparency. Information shared that misrepresents the facts, leaves out important considerations, or only shows “one side of the story” is not transparency. People may have good reason, based on previous experience, to distrust certain interested sources information.

Understanding may be a significant challenge when complex calculations, international financial flows, and legal jargon are involved. For example, “individuals with no capacity to understand highly technical indicators regarding forest cover, biodiversity values, and other indicators may not understand why two individuals with similar areas receive completely different payments...” which demonstrates that “a scheme that cannot be understood by all involved cannot be agreed to, or rejected, and stakeholders may feel suspicious that the plan has potential pitfalls they don’t understand” ([Bertzky et al. 2021](#)).

This principle focuses on transparency to local stakeholders, but higher-level transparency is just as important. “Any claims made about investments

in these interventions must be credible, supported by transparent data and analysis, and agreed to by nature stewards on the ground... NbS for climate mitigation interventions must be transparent about project income and how funds are allocated via annual reporting to donors, corporate partners and/or government agencies..." ([Hacking et al. 2021](#)).

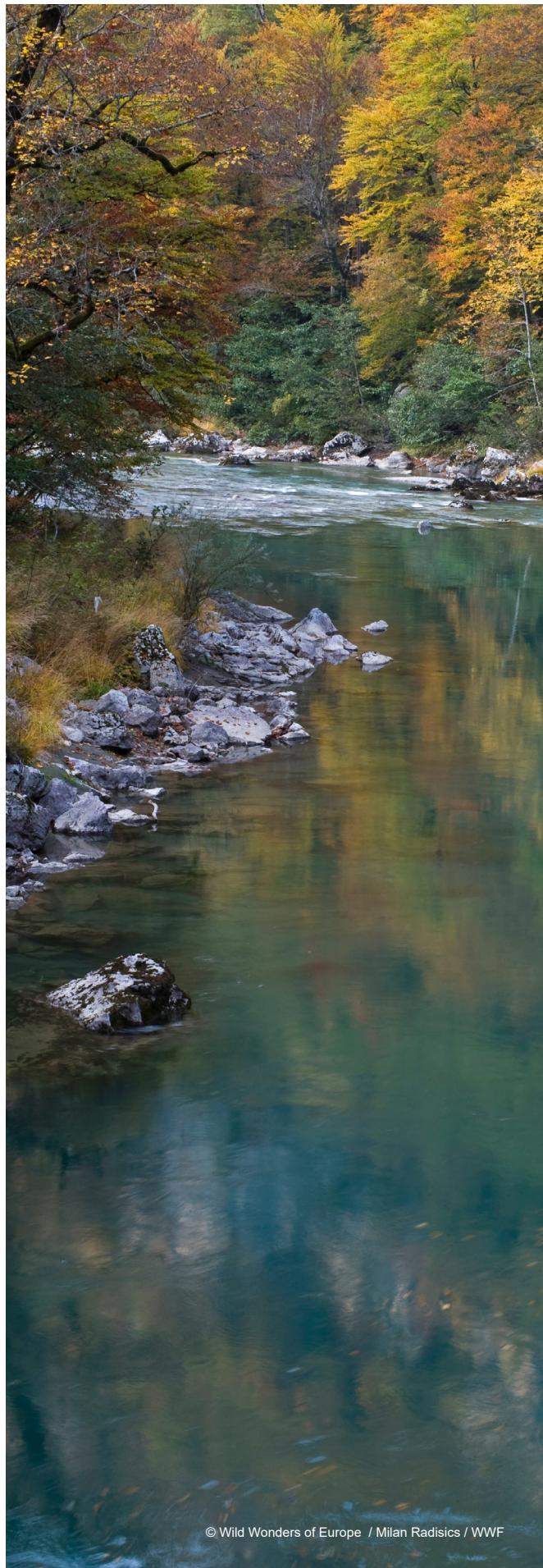
See the box below for an example of how this principle has been applied in existing guidance.



Planting the Principles: Transparency and understanding

"Beneficiaries and potential beneficiaries need to understand the purpose of benefit sharing, the opportunities to participate, the eligibility criteria, the conditionalities for receiving benefits, the results achieved, and how to provide feedback or submit a complaint. This requires active dissemination of information tailored to each stakeholder group in a format that they understand—for example, using local languages, providing information through public meetings and stakeholder representatives, and paying special attention to provide information to women and vulnerable and/or marginalized people."

—Forest Carbon Partnership resource "[Designing Benefit Sharing Arrangements](#)"



Principle 6: Every NbS should include a resourced, effective, and appropriate grievance redress mechanism that extends to its BSM.

What does this mean?

All NbS should include an accessible, high-quality grievance redress mechanism (GRM) that also applies to decisions or issues related to benefits. The GRM should be able to “receive, assess and resolve complaints... [and] disputes through options such as fact-finding, dialogue, facilitation or mediation” ([WWF 2013](#)).

Why does this matter?

Many NbS may be located in contexts with the potential for conflict. Even when this is not the case, BSMs have to manage significant resource flows and balance many competing interests over potentially long periods of time. Even the best BSM likely involves

a great deal of uncertainty, so that decisions about and flows of intended benefits may have unintended consequences or be used unexpectedly in a way that leads to harms to stakeholders.

Some of those stakeholders may not necessarily be identifiable in early stages of the NbS design. Many larger scale NbS extend across multiple geographic or administrative boundaries; restoration efforts in one area may affect water flows or animal behavior patterns in a neighboring area. The GRM should be accessible to those stakeholders, as well ([IUCN 2020b](#)).

Bear in mind:

The Conservation Initiative on Human Rights ([FFI 2014b](#)), the International Finance Group ([IFC 2009](#)), and the [Forest Carbon Partnership Facility](#) have all enumerated factors important for a high-quality GRM. A good practice example of the important factors is in the “Planting the Principles” box below.



Planting the Principles: Real grievance redress

- "a) The carbon-crediting program shall have procedures for receiving, investigating and resolving grievances from stakeholders directly and adversely affected by a mitigation activity under the carbon-crediting program.
- b) The grievant shall have the option for its identity to be protected in the mechanism.
- c) The carbon-crediting program shall enable receipt of grievances relating to specific mitigation activities registered or seeking registration under the program and groups of mitigation activities or a mitigation activity type.
- d) The carbon-crediting program shall enable the submission of grievances, and evaluating and addressing them, free of charge.
- e) An independent committee shall receive and address information on the status of complaints, which shall be publicly available. When necessary, the committee may request a third-party opinion.
- f) The carbon-crediting program shall have procedures to ensure that stakeholders are informed about the grievance resolution mechanism and the means for accessing the mechanism, including by mitigation activity proponents.
- g) Procedures for handling stakeholder grievances shall have time-bound requirements, including responding.
- h) The carbon-crediting program shall publicly disclose information on grievances received and processed.
- i) The carbon-crediting program shall have established procedures to ensure the grievance resolution mechanism's independence and effectiveness, including:
 - 1) a mandate to recommend and monitor changes to solve problems at the program level;
 - 2) a mandate to redress harms to affected stakeholders;
 - 3) independent verification that the recommendations resulting from the grievance investigation has been attained;
 - 4) effective dissemination of the availability, role of and access to the grievance mechanism;
 - 5) sufficient resources (i.e., independent budget and competent staff); and
 - 6) simple requirements for submitting claims."

–ICVCM [Core Carbon Principles](#), “Requirements for Criterion 1.7: Access to an independent GRM”

**VALUE THREE: NATURE-BASED SOLUTIONS'
BENEFIT SHARING MECHANISMS SHOULD BE**

RIGHTS-BASED

In which we include principles of:

- 7. Respect for IPs and LCs**
- 8. Free, prior, and informed consent**

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Principle 7: NbS benefits should take an active “human rights-based approach” to Indigenous Peoples and local communities.

What does this mean?

Organizations developing and promoting NbS have a responsibility to respect, protect, and fulfil the rights of the people who live in the areas where the NbS take place. More than just respecting and seeking to do no harm, however, organizations should take “a human rights-based approach” to benefit sharing.³ That means that at least some of the benefits of the NbS should actively “support and promote human rights... This must include supporting duty-bearers to meet their obligations, and rights-holders to claim and exercise their rights. This latter element is particularly important, requiring proactive, concrete measures to ensure full and effective participation of rights holders, including in virtual spaces, and with particular focus on Indigenous Peoples and local communities” ([Human Rights in Biodiversity Working Group 2022](#)).

Why does this matter?

A “strong sense of place and putting people and communities” first is both ethical and sensible, since Indigenous Peoples (IPs) and local communities (LCs) usually “know the natural environment and are

best positioned to ensure their resources are secured into the future” ([Hacking et al. 2021](#)). “Respect for the knowledge and rights of indigenous peoples and members of local communities...” is also a key [foundational “Cancun Safeguard”](#) agreed at the 16th Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC), in 2010.

The most pressing and impactful way to implement this principle involves actions to protect, recognize, and enhance tenure rights of IPs and LCs, especially when the official tenure system lacks capacity, clarity, enforcement, integrity, or fairness ([Pérez-Cirera, Cornelius, and Zapata 2021; Rothe and Munro-Faure 2014; Whitt 2022](#)). Examples might include activities to support the legal recognition of collective land and resource rights, enable access to technologies to map and monitor IP and LC territories, and facilitate partnerships and financing ([Pacheco et al. 2021, Tugendhat 2021](#)). Interventions should also consider ways to support IPs, LCs, and other rights holders to “represent themselves in policy influencing and decision-making spaces,” which may include efforts to protect environmental and human rights defenders (if the rights holders request such support) ([WWF 2021b](#)).

Bear in mind:

While [Cancun Safeguard C](#) focuses on “relevant international obligations” and “national circumstances and laws,” most standards and requirements for NbS

³ Of course, *every* “human being has the right to enjoy a safe, clean, healthy, and sustainable environment...” ([WWF 2021b](#)). This principle focuses on IPs and LCs because they are most relevant to specific NbS interventions.

also rightly emphasize the importance of securing communal or customary tenure arrangements that may not be formally recognized by the relevant government ([Hurlbert et al. 2019](#)). For example, the IUCN [Global Standard for Nature-based Solutions](#) Indicator 6.2 applies to “legal and customary rights to access, use and control management...” Theme 3.3 of the REDD+ Environmental Excellence Standard ([TREES](#)) is “Respect, protect, and fulfill rights of indigenous peoples and/or local communities...” and includes “customary law, institutions, and practices as applicable” (although it also includes the caveat that “these are anchored in relevant ratified international conventions/agreements and/or domestic and if applicable, subnational, legal framework...”).

Including customary tenure is important since many IP and LC lands have conflicting tenure claims, sometimes as an intentional result of corruption and land grabbing (e.g., [Gianella and Cárdenas 2022](#)).

However, requirements such as “The Project Developer must hold uncontested land title for the entire Project Boundary...” ([Gold Standard Safeguarding Principle 4.3](#)) must be approached with care. There is a risk that communities who could most benefit from NbS BSMs

are communities with more complex tenure regimes or conflicting claims, leading intervention developers to exclude them ([Gianella and Cárdenas 2022](#)).

See the Planting the Principles box below for one of the clearest and most inclusive ways of addressing this issue, from the Climate, Community & Biodiversity Standards.



Planting the Principles: Human rights-based approach to IPs and LCs

“The project is based on an internationally accepted legal framework, complies with relevant statutory and customary requirements and has necessary approvals from the appropriate state, local and indigenous authorities.

The project recognizes respects and supports rights to lands, territories and resources, including the statutory and customary rights of Indigenous Peoples and others within communities and other stakeholders...

Describe and map statutory and customary* tenure/use/access/management rights to lands, territories and resources in the project zone including individual and collective rights and including overlapping or conflicting rights. If applicable, describe measures needed and taken by the project to help to secure statutory rights. Demonstrate that all property rights are recognized, respected and supported...

Identify any illegal activities that could affect the project’s climate, community or biodiversity impacts (e.g., illegal logging) taking place in the project zone and describe measures needed and taken to reduce these activities so that project benefits are not derived from illegal activities...

Identify any ongoing or unresolved conflicts or disputes over rights to lands, territories and resources and also any disputes that were resolved during the last twenty years where such records exist, or at least during the last ten years. If applicable, describe measures needed and taken to resolve conflicts or disputes...

* ‘Customary rights’ to lands, territories and resources refer to patterns of long-standing community lands, territories and resource usage in accordance with Indigenous Peoples’ and local communities’ customary laws, values, customs and traditions, including seasonal or cyclical use, rather than formal legal title to lands, territories and resources issued by the State. (See: World Bank Operational Manual, OP 4.10 – Indigenous Peoples, 200, available at: <https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f89d5.pdf>)

–Climate, Community & Biodiversity Standards [v3.1](#), “G5. Legal Status and Property Rights”

Principle 8: In addition to openly and transparently consulting all stakeholders affected by an intervention, Indigenous Peoples have the right to free, prior, informed consent, as recognized by the United Nations.

What does this mean?

Free, prior, informed consent (FPIC) is integral to conservation interventions involving Indigenous Peoples, including NbS interventions. FPIC is a good, desirable practice for any NbS benefit sharing consultation processes; but it is a fundamental right in particular of IPs, as recognized by the United Nations.⁴ Any benefit (or cost) decisions that affect IPs therefore must be taken in a process:

- without coercion (free),
- before major activities begin, meaning during the design stage (prior),
- based on full, understood information (informed), and
- with a true ability to say no (consent) ([Springer and Retana 2014](#)).

Why does this matter?

FPIC is key to ensuring fairness and accountability. It is also a strict legal requirement in specific instances. Further, from a functional standpoint, it is the only way for any intervention to secure a “social license to operate” ([Bertzky et al. 2021](#), [IUCN 2020a](#)). Properly secured FPIC helps “to avoid conflicts and ground activities in equitable agreements with indigenous communities, including fair benefits from activities on their lands...” and “enables communities to assess the potential benefits and risks of [NbS] initiatives, influence their design to reduce risks and promote benefits, and decide whether or not to approve or participate in them” ([Springer and Retana 2014](#)).

Effective FPIC for any NbS intervention therefore must include full, understandable, well-informed discussion of the benefits from, and costs of, a proposed NbS intervention. In REDD+, in fact, “decisions regarding benefit-sharing arrangements, when benefits are derived from the lands/territories/resources of indigenous peoples / forest-dependent” communities are part of the checklist indicating that FPIC is officially

required. As well, dissatisfaction with the benefits once the intervention starts, or if the promised benefits fail to materialize, is one given reason why stakeholders may later revoke previous consent ([UN-REDD 2013](#)).

Bear in mind:

While effective and meaningful FPIC can profoundly reduce risks of corruption in BSMs, a poorly implemented FPIC process itself can be captured or wielded by powerful interests to accomplish their own goals. In such “false FPIC” processes, local elites or intervention proponents may manipulate or intimidate stakeholders, take decisions before the process to create inevitability, or inflate benefits or downplay costs. To avoid such risks, FPIC processes should be properly resourced (with funding and time), sensitive to local context, iterative, ongoing, inclusive, and verified ([Colchester 2010](#); [Springer and Retana 2014](#); [Whitt 2022](#)). “Autonomous” approaches to FPIC protocols, where local stakeholders develop their own “rights-based consultation and consent protocols” that external actors then diligently respect, are an increasingly recognized option as well ([Doyle, Whitmore, and Tugendhat 2019](#)).

See the box below for three resources on FPIC, as cited in major NbS standards.



Planting the Principles: FPIC

Most NbS BSM standards and guidance include a requirement for FPIC, usually by defining the four elements and linking to external, established guidance for operational detail. Three such cited resources are:

- *Free, Prior, and Informed Consent in REDD+: Principles and Approaches for Policy and Project Development* ([RECOFTC 2011](#)). Cited in, e.g., Standard G5.2, [Climate, Community & Biodiversity Standards v3.1](#)
- *Free, Prior and Informed Consent* ([FAO](#)). Cited in, e.g., [Gold Standard Safeguarding Principle 4](#)
- *Guidelines on Free, Prior and Informed Consent* ([UN-REDD 2013](#)). Cited in, e.g., ART TREES [Environmental, Social, and Governance Safeguards Document, Version 2](#)

⁴ According to [WWF's Standard on Stakeholder Engagement](#), “Where potentially affected peoples are not officially recognised as Indigenous, but are peoples who are historically, socially and culturally distinct and have customary practices that are inextricably linked to nature, the principles of FPIC will be extended to them. Said peoples may include tribal, ethnic minority, nomadic, hunter-gatherer and pastoralist (nomadic, semi-nomadic, transhumance) communities...”



**VALUE THREE: NATURE-BASED SOLUTIONS'
BENEFIT SHARING MECHANISMS SHOULD BE**

EFFECTIVE

In which we include principles of:

- 9. Net positive benefits**
- 10. Appropriate compensation**
- 11. Positive feedback loops and additionality**
- 12. Adaptive management**

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Principle 9: The net value of benefits of the NbS to affected stakeholders should be positive, taking into account all costs and trade-offs.

What does this mean?

NbS interventions involve trade-offs. The interventions have overall program or organizational goals and operating costs. Local stakeholders have desires (often a wide variety of differing needs and wants) and opportunity costs from participating in the NbS or agreeing to the usage restrictions or changes the intervention entails. And the ecosystem itself has finite equilibria; efforts to maximize one benefit (like total biodiversity) may imply reductions or costs to other benefit types (like hunting or harvesting for subsistence or recreation) ([IUCN 2020b](#)).

While all of these trade-offs are important, “the result of any nature-based solution must deliver...a net socioeconomic benefit at the local level...” ([Pérez-Cirera, Cornelius, and Zapata 2021](#)).

Why does this matter?

The NbS will not be effective if its BSM does not sufficiently compensate stakeholders for their time and effort to participate in the initiative and the opportunity cost from any restrictions or changes the NbS entails. Failing to acknowledge and address these trade-offs, by making sure local stakeholder benefits outweigh costs,

“risks greenwashing, protests, displacement and other negative outcomes” ([McElwee 2021](#)).

Bear in mind:

A variety of trade-offs may affect local stakeholders during implementation. Some frequent trade-off types include:

1. Biophysical trade-offs (e.g., reducing agricultural output to protect water supply)
2. Stakeholder priority trade-offs (e.g., decisions like those covered in Principles 1-4)
3. Temporal trade-offs (e.g., balancing the needs of people today against the needs of future generations)
4. Scale trade-offs (e.g., displacement of environmental costs like carbon sequestration) ([McElwee 2021](#), [Portugal Del Pino and Zapata 2021](#)).

All of these trade-offs should be considered with stakeholders in a transparent, equitable, adaptive, fair process. In other words, a process that meets the other Principles in this paper. The result of that process will be a fair and equitable distribution of benefits and costs, and the result of that will be local stakeholders who are adequately compensated,⁵ a legitimate BSM, and an effective NbS ([IUCN 2020b](#), [Portugal Del Pino and Zapata 2021](#), and [Myers Madeira et al. 2013](#)). In any case, a trade-off cannot constitute an infringement on local stakeholders’ human rights, and has to be fully understood and agreed by them.

⁵ There are many methods to estimate what “adequate” is (e.g., [White and Minang 2011](#)).

See the box below for an example of how this principle has been applied in existing requirements.



Planting the Principles: Net positive benefits

Requirements

3.9.7 If Local Stakeholders are negatively affected by Project Interventions and negative impacts cannot be fully mitigated, for example by introducing alternative livelihood activities, adequate compensation measures, developed with involvement of those negatively affected, must be provided to replace lost assets or lost access to assets. All losses must be considered as legitimate for compensation, including those based on customary and non-legal tenure and resource-use regimes.

3.9.8 Potential negative impacts on the livelihoods of Local Stakeholders considered in the risk assessment must include direct costs e.g. from reduced access to wood or other forest products relative to the Baseline Scenario, and Opportunity Costs of foregone income from land management, labour, and use of natural resources in the Baseline Scenario.

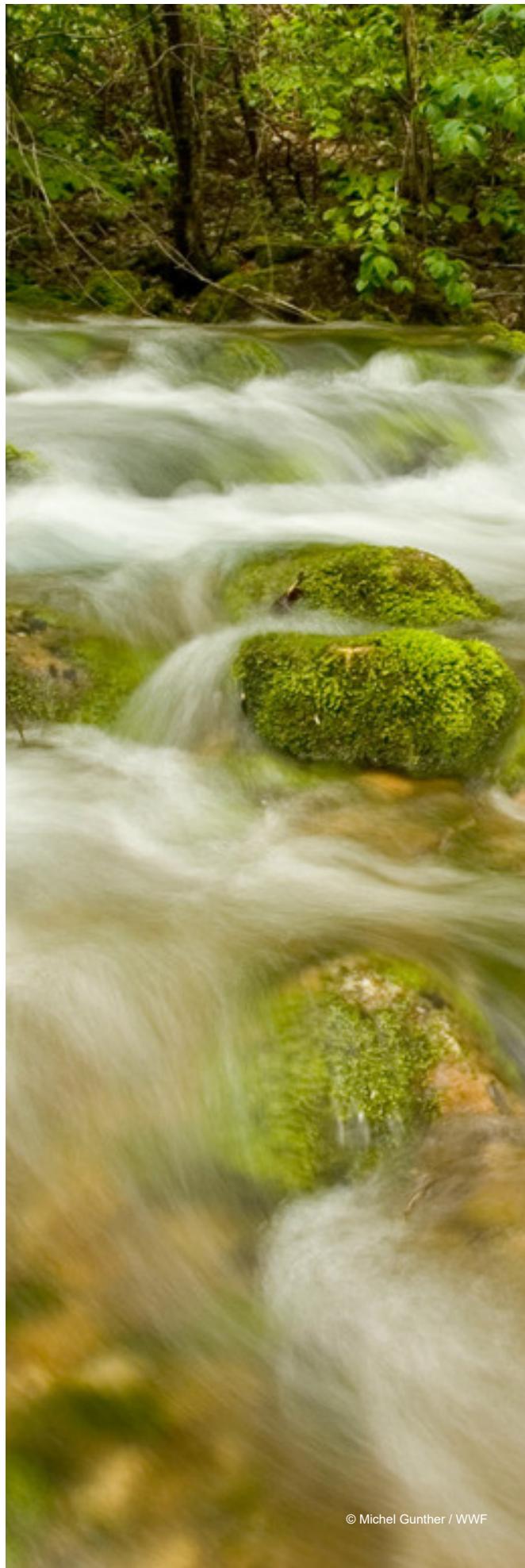
3.16.1 All income from the sale of Plan Vivo Certificates must be distributed according to an agreed Benefit Sharing Mechanism, developed in partnership with Project Participants.

3.16.2 At least 60% of income from the sale of Plan Vivo Certificates, after payment of any charges, taxes or similar fees levied by the host country, must directly benefit the Project Participant(s) and other Local Stakeholders.

Guidance

- Project Coordinators are strongly encouraged to identify, jointly with Project Participants, mechanisms for suitable benefit sharing, including alternatives to cash transfers that result in more equitable benefit distribution.
- If the project coordination and management, and monitoring, reporting and verification costs exceed 40% of the income received from the sale of Plan Vivo Certificates, the project coordinator will need to identify and access alternative sources of funding.

–Plan Vivo Standard Project Requirements,
[Version 5.0](#)



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Principle 10: The BSM should appropriately compensate stakeholders.

What does this mean?

For the NbS to be effective, the benefits not only must be adequate; they must be appropriate. That requires a number of design decisions that must be agreed with stakeholders. Any community will have context-specific considerations, so “participatory identification of benefits—enabling the beneficiaries themselves to decide on the benefits they receive—is often the most effective approach” ([FCPF](#)).

Several factors should be participatorily considered when establishing a BSM to ensure benefits are appropriate, including:

- How much of the benefits should be non-monetary? Can they be valued? How much of the benefits should be monetary?
- Who should decide on factors like selecting the location or timing of benefits?
- Should the money flow to individuals or intermediary groups or agencies?
- How should existing institutions, like government agencies, be involved in managing the benefits?

Why does this matter?

NbS interventions, by definition, generate societal benefits at the local level. Non-monetary benefits can be public goods, like strengthening tenure or forest management capabilities, that may benefit the whole community and provide longer-term incentives for sustainability ([Bertzky et al. 2021](#)). However, non-monetary benefits are often also more difficult, costly, and slower to deliver. They may be part of the project activities themselves, as an incentive to engage in the NbS. Especially when major benefits are provided upfront, the actual “compensatory” value may also be less visible, which could disappoint stakeholders ([FCPF](#)).

Monetary benefit payments can be simple and concrete and respect recipients’ autonomy. However, individuals may choose to use their compensation in ways contrary to the goal of the NbS, unless restrictions are included. Such restrictions may be inappropriate or infeasible. As well, if individuals do not have easy access to bank accounts, centralized funds, intermediaries, and/or cash may need to be used, raising risks of corruption ([Bertzky et al. 2021](#)). It may also be difficult to balance the size of a payment necessary to affect behavior with

a total amount divided among many beneficiaries ([FCPF](#)).

In terms of timing, there is more accountability in paying for performance, but “some activities may require up-front investment (such as tree planting)” ([FCPF](#)). Especially with monetary benefits, stakeholders may have seasonal needs, or there may be other “reinforcing” opportunities (see Principle 11), that do not correspond to the intervention’s project cycle ([Bertzky et al. 2021](#)).

Finally, existing agencies may be efficient options for managing resources, but they may have challenges with capacity or accountable public financial management. At the same time, creating a new institution may be expensive and confusing to stakeholders, and may not necessarily avoid a “pervasive culture of public finance mismanagement” ([Bertzky et al. 2021](#)).

Decisions like these need to be taken via processes that meet all of the other principles in this document. That is the only way to ensure that the resulting benefit sharing designs are appropriate.

Bear in mind:

As noted in Principle 2, participatory processes like defining appropriate benefits must be inclusive to avoid elite capture. They must aim, as much as possible, to “leave no one behind,” by keeping in mind the specific situation of the most vulnerable or marginalized groups. Such inclusion has methodological considerations, because people “may provide different answers to the same question depending on where they stand in the social hierarchy. The socially dominant group...seems to prefer nonmonetary benefits distributed to the community as a whole, while marginalized groups tend to choose monetary benefits distributed individually...because [they] perceive a risk of being restricted from receiving or using [community] nonmonetary benefits... However, this concern might not be visible through a simple survey. Instead, often only the survey choice of the socially dominant group is observed, as it represents the majority. Interventions attempting to respect the majority preference while still balancing minority interests have a delicate balance to maintain. One possible solution would be to deliver benefits in more than one way, to take into account social risks and preferences” ([Bertzky et al. 2021](#)).

See the box below for an example of how this principle has been applied in existing guidance.



Planting the Principles: Appropriate compensation

"There are a variety of ways in which benefits can be tailored under REDD+ to incentivize different stakeholders to change land-use practices over the long term..."

Monetary benefits

Cash payments are relatively simple to disburse and can therefore enhance the efficiency of REDD+ programmes. Direct monetary incentives, however, have been shown to carry adverse risks, such as elite capture, corruption and "crowding out" the intrinsic motivation to do the right thing for society... Under certain conditions, however, cash payments can be effective... such as when:

- Resource dependency is low;
- There is access to cash-based markets;
- There is sufficient capacity/skills for numeracy, saving, investment and entrepreneurship;
- Ownership over land/trees/carbon is clear;
- Long-term funding is guaranteed.

Non-monetary benefits

REDD+ programmes can use non-monetary benefits to motivate or enable changes in behaviour and to provide concrete benefits to stakeholders on the ground. These benefits include livelihood and income opportunities, improved infrastructure and health and educational conditions, tenure and food security, reduced vulnerability to climate change, and empowering individuals and communities to participate in decisions affecting local land use and development. Non-monetary benefits can be transformational to local economies by providing alternatives to business-as-usual land uses, thus contributing to long-term development. They can also be important in establishing the necessary institutional environment for direct monetary payments... Non-monetary benefits are likely most appropriate where...

- Strong and long-term demand exists for sustainable products/services;
- Capacities for saving and investing cash are lacking;
- There is a strong link between the livelihood activity and conservation;
- Markets for products/services are accessible;
- Strong and long-term demand exists for sustainable products/services;
- New sustainable land uses can compete economically with existing uses...

Upfront payments

Upfront payments, or payments based on anticipated results, can help facilitate early buy-in from stakeholders and establish enabling conditions needed for a behavioural change. Providing benefits at the beginning of a REDD+ programme can also help address some of the risks and costs faced by poorer and more marginalized stakeholders by providing upfront cash in the face of uncertain future return and security against land claims or land disputes that jeopardize stakeholders' ability to successfully change their behaviour. Because upfront benefits are delivered before performance is guaranteed, the overall pool of incentives tied to performance might become diluted. This presents a risk for financial supporters (e.g. donors, the central government, private investors)...

Demonstrated performance payments

While upfront payments are often necessary to cover start-up costs and mitigate risks, especially for vulnerable stakeholder groups, linking payments to [individual] performance has been shown to be important to assure behavioural change... Linking benefits to performance at this level, however, also imposes higher transaction costs (related to monitoring, enrolling and disbursing for individual grants and contracts), which may limit the scope of these programmes... To maximize the advantages of both payment approaches, benefit distribution is often two-stage, with some benefits delivered upfront and some delivered based on demonstrated performance."

-WWF "[Guide to Building REDD+ Strategies](#)," building from Myers Madeira et al. ([2013](#))

Principle 11: The BSM should maintain additionality and seek to activate positive feedback loops for people and nature.

What does this mean?

NbS themselves require additionality to be effective and credible; and in particular, NbS “activities that generate carbon credits must be additional – that is, the emissions reductions they generate wouldn’t have occurred without the added incentives arising from” the NbS ([Hacking et al. 2021](#)). They must also not be double counted, or used to decrease commitment or ambition in other mitigation areas ([Schneider et al. 2020](#), [TFCI 2022](#)).

The BSM should meet the same criteria. The benefits shared with stakeholders should be additional to the benefits they would have received absent the intervention. While some short-term benefits may of course be appropriate, at least some of the benefits should feasibly extend beyond the life of the specific intervention. Finally, the benefits from the intervention also cannot offset other resources to which the community is entitled. For example, if decision makers reallocate public investment away from communities benefiting from the NbS, it is possible that the BSM will not actually benefit stakeholders on net ([Bertzky et al. 2021](#)).

Why does this matter?

To make sure that the BSM reinforces the environmental goals of the intervention, its design should target the drivers of the environmental issue (like the most relevant local causes of deforestation or barriers to restoration). Strengthening IP and LC tenure and governance, as already mentioned for its benefit to people, is a highly effective measure for creating positive feedback loops for nature ([WWF et al. 2021](#)). Other examples might include investing some of the benefits of the NbS in:

- Technologies that reduce community pressures on forests (e.g., [solarization](#)) or help communities prevent external pressures (e.g., [drones for forest monitoring](#)).
- [Community conservation enterprises](#), including non-timber forest products.
- Participation in broader initiatives, like sustainability certifications or advocacy for conservationist public policies.

To help assure additionality in benefits, some resources can be targeted toward “reinforcing” or “multiplier” activities that either help stakeholders generate additional revenue or secure rights or capacities with compounding future welfare gains. Examples include tenure security ([Bertzky et al. 2021](#)) and activities related to “governance and recovery of ancestral knowledge” ([TFCI 2022](#)). Such activities can create positive feedback loops for the communities participating in the NbS.

Bear in mind:

This principle should NOT be interpreted to contradict the previous principle. Ultimately, specific uses of the benefits from NbS cannot be imposed on stakeholders.

In addition, both the NbS and the BSM rely on accurate, honest accounting. Unfortunately, there are incentives (and often, opportunity) for many of the parties in NbS transactions to over-represent the positive climate or social impacts and downplay the negative effects. With potentially expensive commitments over long time periods, there are also incentives for making promises that will not be delivered. Strong anti-corruption measures must be built in to interventions to help ensure accuracy and deter predatory practices ([Whitt 2022](#)).

See the box below for an example of how this principle has been applied in existing guidance.



Planting the Principles: Additionality and positive feedback loops

“Program Entities have also considered ways of reinforcing ER [emission reduction] Program implementation by specifying that Monetary and Non-Monetary Benefits must be used to fund activities that further support ER Program implementation and, thereby, help reduce emissions. This can take several forms, including the creation of a revolving fund for sustainable land use activities, policy changes, investments in forests and sustainable agriculture, and/or the continued oversight and implementation of the ER Program activities. For example, some Benefit Sharing Plans specify that a majority of ERPA Payments will be used to provide...capacity building, law enforcement, investments (seedlings, equipment, etc.), and monitoring for forest and agriculture sectors... This approach can have compounding effects on the potential to generate additional ERs, and thereby, additional ERPA Payments, which can once again be shared and re-invested. Program Entities are encouraged to consider this type of approach...”

–Forest Carbon Partnership Facility “[Guidance Note on Benefit Sharing for Emission Reductions Programs](#)”

Principle 12: The BSM should adapt to changes in science, implementation, or the stakeholders' needs.

What does this mean?

The BSM should be designed and rigorously monitored so that it can respond to changes, address new or unforeseen risks, and take advantage of new or unforeseen opportunities.

Why does this matter?

As the IUCN Global Standard for Nature-based Solutions notes in its Criterion 7, “A degree of uncertainty is inherent when managing most ecosystems due to their complex, dynamic and self-organising nature...By proactively adopting an adaptive management approach, the NbS can continue to be relevant through the lifecycle of the intervention and the risk of redundancy and stranded investments minimised...” ([IUCN 2020a](#)). The Criterion further recognizes scientific progress, changes to the drivers of the environmental degradation, unintended consequences of implementing the NbS, and previously unidentified or new opportunities to achieve greater impact as types of uncertainty that make adaptive management necessary.

Bear in mind:

Community and stakeholder needs and preferences may also change over the lifecycle of an NbS intervention, and the BSM must be able to adapt to

those changes as well. Some changes, like stakeholders being disappointed by program results or promised benefits that never materialize, can be mitigated by transparency, fairness, and equity in BSM design and the incorporation of anti-corruption protections. Others, however, may result from external forces beyond anyone's control. As the global price of carbon rises (as expected in the coming years), additional resources will need to be allocated through climate NbS' BSMs. If the costs of non-monetary benefits rise (like fertilizer in 2022, for example), the real value of the benefits to stakeholders will fall. If agricultural prices rise (as also happened in 2022), the opportunity cost to using land for carbon storage instead of farming may also rise significantly ([Bertzky et al. 2021](#)).

See the box below for two examples of how this principle has been applied in existing guidelines.



Planting the Principles: Adaptive management

“Adaptive management of the design and implementation of benefit-sharing arrangements based on the results of monitoring and evaluation is critical for improving effectiveness, efficiency, and equity over time. Piloting of benefit sharing can help facilitate adaptive management during the design phase.”

- Forest Carbon Partnership resource “[Designing Benefit Sharing Arrangements](#)”

“A plan must be developed and implemented to continue communication and consultation between the project proponents and communities, including all the community groups, and other stakeholders about the project and its impacts to facilitate adaptive management* throughout the life of the project.

*Adaptive management is an approach that accepts that management must proceed without complete information. It views management not only as a way to achieve objectives, but also as a process for probing to learn more about the resource or system being managed. Learning is an inherent objective of adaptive management. Adaptive management is a process where policies and activities can adapt to future conditions to improve management success.”

–Climate, Community & Biodiversity Standards [v3.1](#), “G3. Stakeholder Engagement,”

IN SUMMARY

**WWF believes that nature-based solutions' benefit sharing mechanisms should be:
FAIR, ACCOUNTABLE, RIGHTS-BASED, AND EFFECTIVE**

Which require the interdependent principles of:

- 1. Deep, significant participation**
- 2. Broad, inclusive representation**
- 3. Distributive equity**
- 4. Value pluralism**
- 5. Transparency and understanding**
- 6. Real grievance redress**
- 7. Respect for Indigenous Peoples and local communities**
- 8. Free, prior, and informed consent**
- 9. Net positive benefits**
- 10. Appropriate compensation**
- 11. Positive feedback loops and additionality**
- 12. Adaptive management**

GLOSSARY

Note: These definitions explain how these concepts are used in this discussion paper specifically.

Benefit: Incentives, opportunities, payments, or compensation provided via entitlements, goods, or services, such as tenure, infrastructure, or social services, in exchange for or as part of participation in an NbS intervention ([Chandrasekharan Behr et al. 2012](#), [Hite 2015](#)).

Benefit sharing mechanisms (BSMs): Arrangements for the “allocation, administration, and provision” and “intentional transfer of monetary and nonmonetary incentives (goods, services or other benefits) to stakeholders for the generation of environmental results (such as greenhouse gas emission reductions) funded by revenues derived from those results” ([Bertzky et al. 2021](#), [Durbin et al. 2019](#)).

Corruption: [Abuse of entrusted power for private gain](#). In the context of NbS BSMs, the main corruption risk is [elite capture](#) ([Labonte 2012](#)): corrupt decision making by powerful interests to drive benefits disproportionately to their own interests instead of the general or public interest. Other corruption risks include manipulation of co-benefit data, fraudulent claims, vulnerabilities to external corrupt actors, exclusion and coercion in engagement, and intentionally undermining rights ([Whitt 2022](#)).

Equity: Ensuring “that benefits are distributed among all legitimate actors that have contributed to results in a manner that is widely perceived as fair” ([Davis, Nogueron, and Javelle 2012](#)).

Elite capture: See “Corruption.”

Human rights-based approach: “When applied to conservation, sustainable use and benefit-sharing, a human rights-based approach means, in simple terms, that biodiversity policies, governance and management do not violate human rights and that those implementing such policies actively seek ways to support and promote human rights in their design and implementation. This must include supporting duty-bearers to meet their obligations, and rights-holders to claim and exercise their rights. This latter element is particularly important, requiring proactive, concrete measures to ensure full and effective participation of rights holders, including in virtual spaces, and with particular focus on Indigenous Peoples and local communities” ([Human Rights in Biodiversity Working Group 2022](#)).

Integrity: Consistent, firm, and active commitment to ethical principles. In this case, commitment to the principles outlined in this document.

Free, prior and informed consent (FPIC): “Principles of consultation and consent that together constitute a special standard that safeguards and functions as a means for the exercise of Indigenous peoples’ substantive rights, such as the right to property and other rights that may be implicated in natural resource development” ([Hacking et al. 2021](#)).

Nature-based Solutions (NbS): Interventions “to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits” ([UNEP/EA.5/Res.5](#)). This discussion paper “focuses on forests, including mangroves. However, many of the same considerations can also apply to NbS for climate mitigation deriving from other ecosystems, such as marine ecosystems, grasslands and agricultural lands” ([Hacking et al. 2021](#)).

Social inclusion: “The process of improving the terms on which individuals and groups take part in” NbS interventions, with a focus on “improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity” ([World Bank](#)).

Transparency: [The clear disclosure of information so that decisions and activities are visible, predictable, and understandable](#).

Value pluralism: Welcoming and incorporating a diversity of views of the value of nature to society ([IPBES](#)).

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