

Assessment Report on the Diverse Values and Valuation of Nature

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The Intergovernmental Science-Policy Platfor on Biodiversity & Ecosystem Services







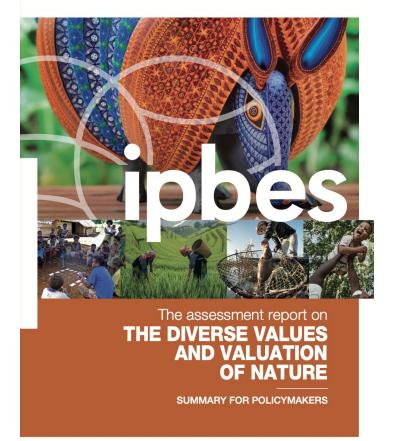


Decisions based on narrow set of market values of nature underpin the current global biodiversity crisis.

Many opportunities exist to embed the diverse values of nature into decision making for navigating towards more just and sustainable futures.

#### **1 August 2022**

Texts extracted from the SPM at https://iefworld.org/biodiversity\_values





The assessment of the diverse values and valuation of nature of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) provides guidance to navigate pathways for reconciling people's good quality of life with life on Earth and advancing the intertwined economic, social and environmental dimensions of sustainable development in a balanced manner.

It includes an understanding of the relations between different world-views and values, a values typology, guidelines for designing and implementing valuation methods and processes, and for embedding the diverse values of nature into decision-making and policymaking.

The assessment also highlights key capacities for working with multiple values to leverage transformative change across different stakeholders and institutions. Nature is understood by IPBES and by the assessment in an inclusive way, encompassing multiple perspectives and understandings of the natural world, such as biodiversity and the perspectives of indigenous peoples and local communities who use and embody concepts like Mother Earth.

In addition, the assessment of the diverse values and valuation of nature is expected to contribute to achieving the 2050 Vision for Biodiversity, the 2030 Agenda for Sustainable Development and the future post-2020 global biodiversity framework, towards just and sustainable futures.



Economic and political decisions have predominantly prioritised market-based instrumental values of nature.

Many of nature's values are often ignored in favour of short-term profits and economic growth.

Conservation policies also risk downplaying the values of local communities that depend on nature for their livelihoods.



KM1. The causes of the global biodiversity crisis and the opportunities to address them are tightly linked to the ways in which nature is valued in political and economic decisions at all levels.

Unprecedented climate change and decline of biodiversity are affecting ecosystem functioning and negatively impacting people's quality of life.

An important driver of the global decline of biodiversity is the **unsustainable use of nature**, including persistent **inequalities** between and within countries, emanating from predominant political and economic decisions based on a narrow set of values (e.g., prioritizing nature's values as traded in markets). KM1. The causes of the global biodiversity crisis and the opportunities to address them are tightly linked to the ways in which nature is valued in political and economic decisions at all levels.

Simultaneously, access to and distribution of the benefits from nature's many contributions to people are highly **inequitable**.

Yet, a consolidated global consensus reflected by the 2030 Agenda for Sustainable Development and the 2050 Vision for Biodiversity has established a **shared vision of prosperity** for people and the planet. KM1. The causes of the global biodiversity crisis and the opportunities to address them are tightly linked to the ways in which nature is valued in political and economic decisions at all levels.

Achieving this vision depends on **system-wide transformative change** that incorporates the diverse values of nature and is aligned with the mutually supportive goals of **justice** and **sustainability** and their intertwined economic, social and environmental dimensions.

People perceive, experience and interact with nature in many ways. This results in different understandings of the role that nature plays as the foundation of people's lives and in contributing to their quality of life, leading to a diverse range of values related to nature.

However, policymaking largely disregards the multiple ways in which nature matters to people in that it often prioritizes a **narrow set** of nature's values.

For example, the predominant focus on supporting short-term profit and economic growth typically relies on macroeconomic indicators like gross domestic product. Such indicators generally consider only those values of nature reflected through markets and therefore do not adequately reflect changes in quality of life.

One important reason is that they overlook the non-market values associated with nature's contributions to people, including the functions, structure, and ecosystem processes upon which life depends. In addition, such indicators do not account for the over-exploitation of nature and its ecosystems and biodiversity and the impact on long-term sustainability.

Conservation policies that focus on biodiversity for its own sake may downplay other values and exclude local populations that depend on nature for their livelihoods. The use of a restricted set of values of nature that underpins many development and environmental policies is embedded in and promoted by societal norms and formal rules.

Ignoring, excluding or marginalizing local values often leads to socio-environmental conflicts linked to value clashes, especially in the context of power asymmetries, which undermines the effectiveness of environmental policies.



The values of nature vary greatly across knowledge systems, languages, cultural traditions and environmental contexts.

People and nature can be seen as part of holistic and **interdependent** systems of life, or, in other world-views, considered as **separate** from one another. Diverse understandings of nature are expressed in different ways (e.g., via symbols, rituals, languages, and data and models).

Given the **diversity** of world-views, cultures, knowledge systems and disciplines, it is challenging to define nature's values in a universally practical and acceptable way.

A comprehensive typology of the diverse values of nature can help guide decisions that affect nature and its contributions to people in diverse contexts, including economic (e.g., investment, production, consumption), political (e.g., recognition of individual and collective rights and duties) or sociocultural (e.g., forming, maintaining or changing peoples' sociocultural identities) decisions.

A typology of nature's values requires value perspectives that encompass the richness of people's relationships with nature, including:

(i) world-views, the ways in which people conceive and interact with the world;

(ii) knowledge systems, bodies of knowledge, practices and beliefs such as academic, indigenous and local knowledge systems embodied in world-views;

(iii) broad values, the moral principles and life goals that guide people-nature interactions;

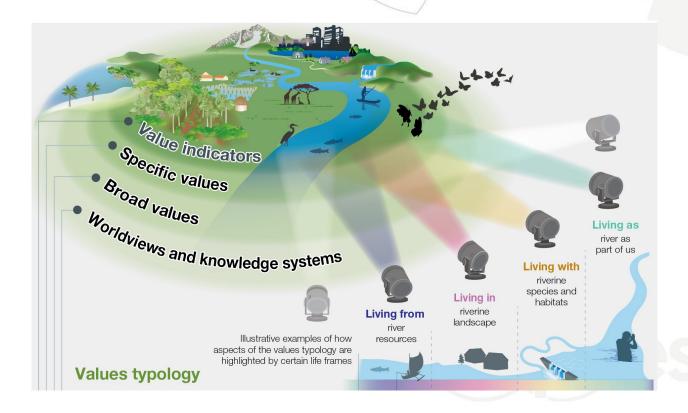
(iv) specific values, judgements regarding the importance of nature in particular contexts, grouped into instrumental values (i.e., means to a desired end often associated with the notion of "ecosystem services"), relational values (i.e., the meaningfulness of human-nature interactions), and intrinsic values (i.e., independent of people as valuers); and

(v) value indicators, the quantitative measures and qualitative descriptors used to denote nature's importance in terms of biophysical, monetary or sociocultural metrics.

The values typology helps to promote the use of values that have been underutilized in decision-making.

People value nature in different ways depending on their knowledge systems, languages, cultural traditions and environmental contexts.

A novel typology of nature's values can help guide decisions.



People conceive of or relate to nature in multiple and often complementary ways: living **from**, **with**, **in**, and **as** nature. These different ways of relating to nature reflect people's different **world-views**.

Although this typology may not capture the full range of values linked to various knowledge systems, it can help to understand how certain human-nature relationships can be incorporated into particular policy decisions.

A1. Over millennia, around the world, people have developed many ways of understanding and connecting with nature, leading to a large diversity of values of nature and its contributions to people.

A2. Using a typology of the values of nature can provide guidance to decision makers on understanding and engaging with the diverse ways in which people relate to and value nature.

A3. The multiple ways in which people conceive good quality of life are reflected in how they express broad values that shape people's interactions with nature, such as **unity**, **responsibility**, **stewardship** and **justice**, which can align with sustainability.

A4. The **complementary objectives** of justice and sustainability can be advanced through better recognition and uptake of nature's diverse values in political, economic and sociocultural decisionmaking.

A5. Incorporation of the diverse values of nature in decisions requires consideration of whether and how values can be directly **compared**, made compatible, or be considered in parallel.

A6. The way **decision-making** considers the values of nature at varying societal scales (e.g., local communities, countries) has implications for how different social groups are represented in decisions.

A7. Understanding how values are formed, changed and eroded helps policymakers identify options to achieve decision outcomes that better align with **sustainability** objectives.

# BACKGROUND MESSAGES A. Understanding the diverse values of nature

A8. **Institutions** (i.e., informal social conventions and norms, and formal legal rules) are underpinned by and support certain values in ways that strongly influence whose values count in decisions.

# BACKGROUND MESSAGES A. Understanding the diverse values of nature

A9. Predominant economic and political decisions have **prioritized** certain values of nature, particularly market-based instrumental values, often at the expense of non-market instrumental, relational and intrinsic values.

Valuation is an explicit, intentional process in which agreed-upon methods are applied to make visible the diverse values that people hold for nature. The type and quality of information obtained from valuation depend on how, why and by whom valuation processes are designed and implemented.

The way valuation is conducted, including the methods chosen, is in part determined by **power relations** in society, which influence which and whose values of nature are recognized and how equitably the benefits and burdens arising from these decisions are distributed.

Considering the values of multiple individuals, stakeholders and interest groups at scales beyond the individual is an essential part of valuation. One way is to aggregate individual or group values into social values, which can be weighted to account for differences between stakeholders (e.g., income disparities).

Another way is to collectively form or express shared social values through **deliberative processes**, which can help bridge multiple values that are difficult to aggregate (e.g., via talking circles).

These are two complementary strategies, yet any strategy to achieve valuation beyond the individual needs to consider challenges of representation, inequity (e.g., within and between generations) and asymmetric power relations (e.g., predominance of certain worldviews) among the actors affected.

Furthermore, the following five steps help guide valuations:

- (i) constructing a legitimate process;
- (ii) defining the purpose of valuation;
- (iii) scoping the valuation;
- (iv) selecting and applying valuation methods; and
- (v) articulating the values into decision-making.

These steps can increase robustness of valuations to inform different decision-making **contexts**, including in the context of indigenous peoples' and local communities' territories.

Achieving sustainable and just futures requires the recognition and integration of diverse values of nature into political and economic decisions.

Recognising the values of local people affected by decisions results in better outcomes for people and nature.



There exist many valuation methods and approaches to elicit and assess the diverse values of nature. Valuation methods, originating from diverse disciplines and knowledge systems (including indigenous peoples and local communities), can be grouped into four nondisciplinary "method families":

(i) nature-based valuation gathers, measures or analyses information about the properties of nature and its contributions to people;

(ii) statement-based valuation directly asks people to express their values;

(iii) behaviour-based valuation identifies how people value nature by observing their behaviour and practices; and

(iv) integrated valuation brings together various types of values assessed with different information sources.

Each method family relies on different data sources, different levels and forms of social participation, identifies different value types, and has specific technical and skill requirements and limitations.

While the method families help highlight the commonalities of procedures across different valuation traditions, other considerations are needed to fully appreciate the variations of valuation undertaken according to specific knowledge systems, particularly those of indigenous peoples and local communities.

Different valuation approaches have trade-offs between **relevance** (i.e., salience in terms of the values that can be used in decisions), **robustness** (i.e., reliable, consistent and socially representative) and **resources** (i.e., time, financial, technical and human resources).

Given the diversity of social, economic and ecological contexts, there is no one-size-fits-all valuation method and available valuation methods may be adapted to address local realities. The use of complementary methods helps to make a wider diversity of values visible, while improving the quality and legitimacy of the information generated to support decisions about nature.

B1. Over 50 different methods to assess nature's values have been applied in diverse socialecological contexts around the world.

B2. The large portfolio of valuation methods, originating from diverse disciplines and knowledge systems (including indigenous and local knowledge systems), can be grouped into four non-disciplinary method families that consist of nature-based, behaviour-based, statementbased and integrated methods.

B3. Indigenous peoples and local communities undertake valuation of nature in their places and territories in accordance with their own **world-views** and applying locally established procedures, which can offer **new perspectives** to improve and advance valuation processes.

B4. Different valuation methods and approaches can assess different types of values of nature; however, challenges emerge when **comparing** different values to inform decision-making.

B5. While meaningful **stakeholder participation** in valuation is needed to ensure appropriate consideration of their values in decisions, participation at every step of valuation is only found in 1 per cent of valuation studies reviewed.

B6. A key challenge when eliciting values at higher social scales is identifying and addressing ways in which **access** to nature's contributions is **inequitably** distributed across individuals, groups and generations.

B7. Standardization procedures in valuation can help increase the uptake of ecosystem accounting into national policies, with due consideration to the ongoing challenges of implementation in decision-making, linking accounting to diverse valuation perspectives and the challenges of measurement and valuation.

B8. Valuation processes can follow five iterative steps to address the **trade-offs** between the relevance, robustness and resource requirements of valuation methods.

B9. Choosing appropriate valuation methods involves identifying their comparative strengths and weaknesses, particularly by taking into account their relevance, robustness and resource requirements.

B10. Different economic nature valuation initiatives can **complement** one another to inform policy decisions.

International initiatives (e.g., the Aichi Biodiversity Targets, The Economics of Ecosystems and Biodiversity; the System of Environmental-Economic Accounting – Ecosystem Accounting; various "inclusive/comprehensive wealth" approaches; United Nations General Assembly resolution 74/244 on harmony with nature) have promoted the integration of the values of nature into national-level policies.

Yet, the vast majority of peer-reviewed literature on valuation studies do not document influence on decisions. A majority of countries have not made progress at a rate that would have allowed achievement of Aichi Target 2 by 2020 of integrating biodiversity values into strategies, planning process and accounting, as reported in their national reports to the Convention on Biological Diversity.

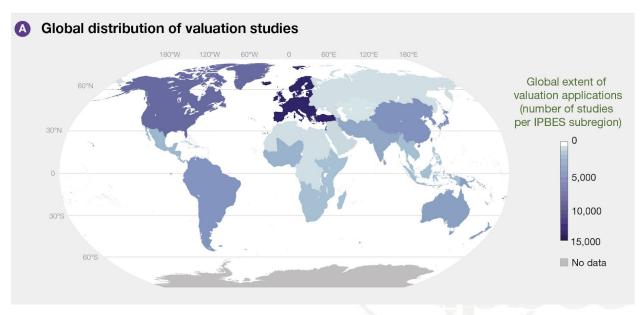
The uptake of valuation in Governmental decision-making is more likely when the valuation process is relevant to the different stages of policymaking and when it is sufficiently resourced. Furthermore, documenting the use and impact of valuation knowledge can be improved by iterating studies through the policy cycle.

Valuation uptake can also be improved by coproduction of valuation knowledge, best practice guidance, standardization of valuation methods where this is suitable, and more use of participatory and deliberative methods that represent indigenous peoples' and local communities' values. Gaps in knowledge and capacities are more prevalent in developing

## There is no shortage of methods and approaches to value nature, yet their uptake into decisions remains limited.

Less than 5% of published valuation studies report uptake in policy decisions.





Informal social conventions and norms and formal legal rules (i.e., institutions) govern people's lives and regulate actions by decision makers. In addition, institutions play a crucial role in shaping how nature is valued within and across societies. Institutions influence which values become socially legitimized and which ones are excluded from decision-making.

Hence, ensuring greater transparency about which values are embedded in institutions is key to recognizing the values of nature that are at stake in any decision-making context. Enhancing the institutional and technical capacities to monitor and assess nature's contributions to people is also crucial to improve uptake of valuation methods and practices, and enable more transparent and inclusive decision-making processes.

Reforming existing institutions and creating new ones can improve political, economic and social decision-making, mainstreaming the consideration of nature's diverse values and leading to better outcomes for people and nature. For example, policies giving local people authority in protected area management often result in improvement of people's good quality of life and more effective, long-lasting conservation.

Tackling power **asymmetries** is important because power shapes the extent to which the values held by different actors are considered in decision-making. Institutions that enable more diverse values to be considered have greater potential to avoid or mitigate conflicts, as these often arise from not identifying and anticipating value clashes.

KM7. Achieving sustainable and just futures requires institutions that enable a recognition and integration of the diverse values of nature and nature's contributions to people.

**Recognizing** and respecting the world-views, values and traditional knowledge of indigenous peoples and local communities and the institutions that support their rights, territories or interests allow policies to be more inclusive of how different people live, relate to and value nature, which also translates into better outcomes for people and nature.

Putting sustainability at the heart of decisionmaking can be supported by **redefining** "development" and "good quality of life", and recognizing the multiple ways in which people relate to each other and to nature.

Societal goals will need to align more strongly with broad values like justice, stewardship, unity and responsibility, both towards other people and towards nature. This shift in the framing of decision-making can be supported by ensuring that a more balanced range of values are considered in political and economic decisions by:

(i) reducing the dominance of those broad values that mostly relate to **individualism** and **materialism**, whilst mobilizing broad values that are consistent with living in **harmony** with nature; and

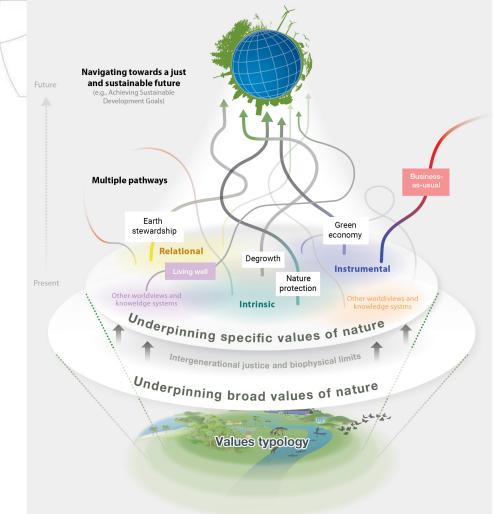
(ii) reducing the dominance of specific values to remove the dominance of **market-based** instrumental values, whilst mobilizing **relational**, **intrinsic** and non-market instrumental values.

Balancing and mobilizing values can be facilitated by **participatory processes** for envisioning alternative futures that are inclusive of diverse world-views, knowledge systems and values.

Various **pathways** can contribute to achieving just and sustainable futures, including, but not limited to, the "green economy", "degrowth", "Earth stewardship", "nature protection" and other pathways arising from diverse world-views and knowledge systems (e.g., living well and other philosophies of good living).

All of these sustainability pathways are associated with certain sustainability-aligned values and seek a more **diverse valuation** of nature as a foundation for reconciling social, economic and ecological dimensions.

These and many other pathways from other world-views and knowledge systems (e.g., living well in harmony with Mother Earth, among others) reflect different perspectives on how best to bring about values-based transformative change. However, all are founded on the need to rebalance the range of values shaping individual and collective decisions.



C. Leveraging the diverse values of nature for transformative change towards sustainability

C1. Transformative change towards sustainability can be facilitated through policies designed to incorporate **sustainability-aligned values** into established social conventions, norms and legal rules that shape human-nature relations.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C2. Valuation can support policymaking across the different stages of the **policy cycle**.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C3. Despite the significant increase in valuation studies over the last 30 years, **less than 5 per cent** report the uptake of valuation in decision-making.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C4. More equitable and sustainable policy outcomes are more likely to be achieved when **decision-making** processes recognize and balance the representation of the diverse values of nature and address social and economic power asymmetries among actors.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C5. Recognizing and respecting indigenous and local knowledge and their associated **diversity** of values is necessary to achieve outcomes that are respectful of different ways of living.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C6. Ignoring, excluding or marginalizing local values often leads to socio-environmental **conflicts** linked to value clashes, especially in the context of power asymmetries, which undermine the effectiveness of environmental policies.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C7. Pathways towards sustainability and justice hinge on the **inclusion** of a diverse range of nature's values.

C. Leveraging the diverse values of nature for transformative change towards sustainability

C8. Mobilizing sustainability-aligned values involves **empowering** civil society and **changing** societal structures and institutions.

C. Leveraging the diverse values of nature for transformative change towards sustainability

- C9. Transformative change towards more sustainable and just futures relies on a combination of actions that target different values-centred leverage points, in particular
- (i) undertaking valuation that recognizes the diverse values of nature;
  - (ii) embedding valuation into decision-making; (iii) reforming policies and regulations to internalize nature's values; and

(iv) shifting underlying societal norms and goals.

Transformative change is more likely to be catalysed through actions that target a combination of values- and valuation-based **leverage points**. These are:

(i) recognizing the **diversity** of nature's values through undertaking relevant and robust valuation;

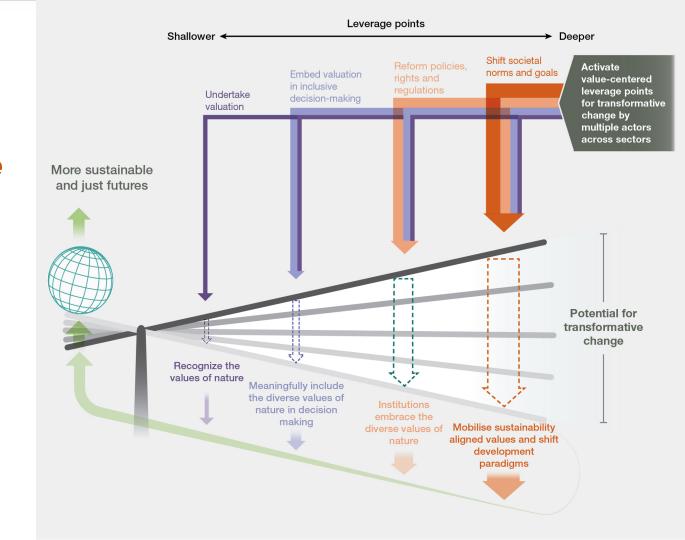
(ii) embedding valuation into the different **phases** of decision-making processes to allow meaningful consideration of nature's diverse values;

(iii) reforming policy in order to realign incentives, rights, and legal regulations with the diverse values of nature and to **empower** actors to express and act upon their sustainability-aligned values; and

(iv) creating **spaces** to deliberate, develop and shift societal goals and norms attuned to the agreed global objectives of sustainability and justice.

Activating the latter two deeper leverage points can be facilitated by aligning **bottom-up** approaches (e.g., empowering civil society via public deliberation) with **top-down** ones (e.g., changing regulations and policy frameworks).

Four key leverage points can help catalyze transformation towards sustainable and just futures.



The transformative changes needed to implement the 2030 Agenda for Sustainable Development, the future post-2020 global biodiversity framework and the 2050 Vision for Biodiversity can be advanced by bridging key knowledge-to-action gaps, which are unequally distributed between the developed and developing regions of the world.

Such gaps can be addressed through meaningful, context-specific, inclusive, legitimate, and iterative consideration of the **role** of diverse values of nature in decisions.

Sustainability-aligned values, including those of indigenous peoples and local communities, can guide the design and implementation of **transformative** policy instruments, cross-sectoral development policies, as well as policy initiatives across scales.

Aligning values with sustainability necessitates addressing **conflicting values**. This in turn calls for developing the capacities of various types of decision makers to

(i) enhance their **motivation** to recognize and address power and equity asymmetries;

(ii) use suitable valuation methods and approaches by enhancing the availability of **resources** needed (e.g., technical and financial);

(iii) foster inclusive **social learning** that involves different types of knowledge, including traditional knowledge of indigenous peoples and local communities;

- (iv) negotiate **compromises** among stakeholders' different interests and values towards achieving equitable outcomes;
- (v) improve **coherence** across sectors and jurisdictional scales; and
- (vi) increase transparency and accountability in decision-making.

Overcoming **knowledge-to-action gaps**, such as those related to understanding and addressing power asymmetries among stakeholders and their values, and fitting valuation supply to demand, would advance values-centred, system-wide transformations.

Values-centred transformations, through collaborations among the range of societal actors, are relevant to revert the current biodiversity crisis and to build more sustainable and just futures for people and nature.

Capacity building and collaborations among a wide range of stakeholders can facilitate transformative change to address the current biodiversity crisis.





# BACKGROUND MESSAGES D. Embedding the values of nature for transformative decision-making for sustainability

D1. Decision-making that fosters sustainability transitions can be advanced by following six interrelated values-centred **guidelines**: contextualization, design, representation, engagement, legitimization and reflection.

# BACKGROUND MESSAGES D. Embedding the values of nature for transformative decision-making for sustainability

D2. Environmental policy instruments and policy support tools are more likely to foster transformative change for sustainability and justice when they are **aligned** with nature's diverse values.

D3. Enhancing the capacities of decision makers to address **conflicting** or contradictory values can facilitate the consideration of the diverse values of nature in policy decisions.

D4. Key knowledge and operationalization gaps **limit** opportunities to effectively embed nature's diverse values in decision-making.

D5. The values held and expressed by indigenous peoples and local communities can **inspire** environmental governance models in different social-ecological contexts.

D6. Balancing perspectives on nature's values across sectoral policies can enhance **coherence** among policy instruments needed for sustainability.

D7. Value trade-offs across scales can be addressed by institutions that permeate **across** administrative boundaries.

D8. Social **learning** facilitates embedding the values of nature in decision-making.

D9. Scientists, policymakers, indigenous peoples and local communities and other societal actors can collaborate in achieving the 2030 Agenda for Sustainable Development and implementing the future post-2020 global biodiversity framework by ensuring due consideration of the diverse values of nature.



Justice is a broad value connected to the principle of fairness, i.e., the fair treatment of people and other-than-human nature, including inter- and intra-generational equity.

Achieving **justice** implies considering its various dimensions, including:

- (i) recognition justice, acknowledging and respecting different world-views, knowledge systems and values;
- (ii) procedural justice, making decisions that are legitimate and inclusive for those holding different values; and
- (iii) distributional justice, ensuring the fair distribution of nature's contributions to people.

Values-centred policies to advance justice involve engaging with and addressing **power asymmetries**. Social, economic and political processes shape power relations that constrain access to and control over nature and its contributions to people.

Power is exercised through the development of institutions (i.e., informal social conventions and norms, and formal legal rules) that establish the legitimate ways of relating to nature, who decides, whose values count, who can benefit from nature's contributions and who bears the cost of ecosystem degradation.

For example, within the international conservation movement, the multiple values associated with biodiversity conservation have not always been inclusive of the needs of indigenous peoples and local communities and have tended to favour the intrinsic values of biodiversity promoted by other stakeholders.

This narrative has often underpinned global and national agendas that **marginalize** alternative discourses, such as biocultural diversity perspectives that draw on instrumental and relational values of nature.

Hence, managing the different dimensions of justice allows for the different roles of power asymmetries in shaping people's relations to (and values of) nature to be dealt with. This can strengthen the representation of values of underrepresented social groups in decisions through ensuring a participatory process.

Respect for the different ways of valuing nature is an act of **recognition** that can advance just decision-making and allow for the mainstreaming of these values into policy. For example, recognizing the role of women in the stewardship of nature and overcoming power asymmetries frequently related to gender status can advance the inclusion of the diversity of values in decisions about nature.

# Box SPM.3 Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

A pathway to transformation is a strategy for getting to a desired future based on a recognizable body of sustainability thinking and practice. Among the many potential pathways to more sustainable futures, for example, the "green economy" pathway emphasizes the primacy of reform of economic institutions, technologies and performance metrics.

Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

The "degrowth" pathway emphasizes strategies that reduce the material throughput of society, protecting human well-being through equitable distribution of material wealth rather than growth, reducing energy and resource consumption in the most industrialized countries as a means to achieve inter- and intra-generational equity and good quality of life for all.

Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

The "Earth stewardship" pathway emphasizes local sovereignty and agrarian reform, solidarity, and the promotion of biocultural practices. The "nature protection" pathway emphasizes protecting biodiversity for its own sake and expanding protected area networks.

### Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

Box SPM.3

These pathways pay attention to some form of **social justice**, especially between generations. The nature protection pathway considers justice as a separate goal to saving biodiversity, whilst the other pathways see justice and sustainability as interdependent.

Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

These four pathways emphasize different social justice principles, such as the utilitarian approach to maximising aggregated benefits (green economy), consumption thresholds (degrowth), strengthening rights and empowerment (Earth stewardship) and safeguarding option values (nature protection).

Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

All the pathways reveal diverse ideas about what constitute sustainability-aligned values. The green economy is underpinned by prioritization of nature's instrumental values, emphasizing the role of nature as an asset that supports people's good quality of life. Degrowth is underpinned by values of sufficiency and egalitarianism for shaping people's balance with nature.

Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

Earth stewardship is underpinned by relational values linked to biocultural diversity, alongside broad values like unity and reciprocity among people and between people and nature. Nature protection is underpinned by intrinsic values of nature, particularly concerned with the inadequacies of an instrumental basis for protection.

Pathways that contribute to just and sustainable futures prioritize distinct underlying values of nature

There are many other pathways referring to other world-views and knowledge systems found throughout the world, including those based on the fulfilment of a collective good **quality of life** (mostly based on non-anthropocentric world-views).

The findings of the values assessment are expected to contribute to achieving the shared visions for prosperity for people and nature such as:

- the 2050 Vision for Biodiversity,
- the 2030 Agenda for Sustainable Development, and
- the future post-2020 global biodiversity framework.



The findings of the Values **Assessments are expected** to empower the voices of emerging social actors such as women, youth, and **Indigenous Peoples and Local Communities to** promote their role in transformative change.

