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**Plenary of the Intergovernmental Science-Policy
Platform on Biodiversity and Ecosystem Services
Sixth session**

Medellin, Colombia, 18–24 March 2018

Item 5 of the provisional agenda*

**Report of the Executive Secretary on the implementation
of the first work programme for the period 2014–2018****Information on the integration of the diverse conceptualization
of multiple values in Platform deliverables (deliverable 3 (d))****Note by the secretariat**

1. In section V of decision IPBES-4/1, the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) welcomed the preliminary guide on the conceptualization of values of biodiversity and nature's benefits to people (contained in document IPBES/4/INF/13) and approved the scoping report on the methodological assessment regarding diverse conceptualization of values of nature and its benefits, including biodiversity and ecosystem services (deliverable 3 (d)) (contained in annex VI to decision IPBES-4/1, reproduced in background document IPBES/6/INF/9).
2. In section V of the same decision, the Plenary requested the Multidisciplinary Expert Panel to nominate a set of experts to ensure, in collaboration with the Multidisciplinary Expert Panel, that values and valuation were incorporated appropriately into all IPBES deliverables. In section VI of decision IPBES-5/1, the Plenary welcomed the progress made and next steps planned in the work of the expert group, extended its mandate until the seventh session of the Plenary and requested progress reports to be made available to the Plenary at its sixth and seventh sessions.
3. The annex to the present note provides information on progress made by the expert group and on its future planned activities. The annex is presented without formal editing.

* IPBES/6/1.

Annex

Integration of the diverse conceptualization of multiple values in ongoing assessments and other IPBES deliverables

I. The expert group on values

1. The expert group on values, consisting of 14 members selected in response to decision IPBES-4/1, continued its work led by co-chairs Brigitte Baptiste and Unai Pascual (members of the Multidisciplinary Expert Panel). Robert Watson and Diego Pacheco (Bureau members) oversee the progress of the expert group on behalf of the Bureau. The group also maintains collaboration with experts from the expert group that prepared the preliminary guide on the multiple conceptualizations of values of biodiversity and nature's benefits to people (hereinafter referred to as the guide on values).
2. The expert group on values is mandated to ensure that values and valuation are appropriately taken into account in all IPBES deliverables. The activities of the expert group, as endorsed by the Multidisciplinary Expert Panel and outlined in sections II and III below, comprise support by the expert group to:
 - (a) The appropriate consideration of values in on-going IPBES assessments;
 - (b) The appropriate consideration of values in other deliverables of IPBES; and
 - (c) The development of an easily accessible online resource based on the preliminary guide on values.
3. The technical support unit (TSU) for the IPBES work on values continues to be hosted by the Ecosystems and Sustainability Research Institute of the National Autonomous University of Mexico (IIES-UNAM), which supports the head of the TSU, Prof. Patty Balvanera on a part time basis, with continued financial support from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) since 30 May 2016 supporting one full time project officer, Dr David González. In addition, UNAM established in March 2017 a new half time postdoctoral position, as an additional in-kind contribution to IPBES, filled by Dr Louise Guibrinet, to complement the staff of the TSU, now amounting to three staff members. This position was created for one year with the possibility of extension for another year.
4. A meeting of the expert group was held in Budapest, Hungary, on 3 April 2017 to review work undertaken so far and discuss next steps towards achieving the mandate of the expert group.

II. Support provided to the integration of values in ongoing IPBES assessments

5. Since the fifth session of the Plenary, the following activities have been undertaken to support the integration of diverse conceptualization of multiple values into the regional assessments of biodiversity and ecosystem services, the land degradation and restoration assessment and the global assessment of biodiversity and ecosystem services:
 - (a) An online meeting for authors of chapters 2 of the regional assessments and chapter 5 of the land degradation and restoration assessment, held on 25 January 2017. Topics addressed involved progress on the use of indicators and the integration of indigenous and local knowledge and multiple values in the assessments;
 - (b) An internal review of the regional assessment for Europe and Central Asia regarding the integration of values in the assessment. The technical support unit for the Europe and Central Asia assessment organized a workshop that took place in Garmisch, Germany, from 20 to 23 June 2017. During the workshop, members of the assessment expert group for the Europe and Central Asia assessment and the expert group on values reviewed the draft chapters of the assessment regarding the consistent and accurate use of terminology related to multiple conceptualizations of values and nature's contributions to people and their consideration across the assessment;
 - (c) Preparation of a concise summary of the main concepts surrounding the IPBES approach to conceptualizations of multiple values. This document was distributed to assessment expert groups to support the adequate consideration of key concepts and definitions, especially in Chapters 1 of all on-going assessments;

(d) The development of guidelines for the integration of values into the IPBES global assessment of biodiversity and ecosystem services. A workshop was held in Budapest, Hungary, from 3 to 5 April 2017 organized by IPBES and supported by the Swedish International Development Cooperation Agency through SwedBio and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ-ValuES). During the workshop, a question-based approach to integrating multiple conceptualizations of values into the chapters of the global assessment was developed, considering the scope of each chapter. The report of the workshop, including the guidelines, is contained in appendix I. The technical support unit also provided comments on the first order draft of the global assessment through the external review process using these guidelines;

(e) The development of a guidance document on multiple conceptualization of values for reviewers of IPBES documents. The guidance document was developed and reviewed by members of the expert group on values. It summarizes the main concepts regarding conceptualizations of multiple values and the main issues to take into consideration when reviewing IPBES documents with a focus on multiple values of nature. The document is contained in appendix II. The guide is intended to become part of the methodological guidance on multiple conceptualizations on values (see paragraph 7(b) below);

(f) Support to on-going assessments to highlight economic values: In response to a request by the Multidisciplinary Expert Panel, the co-chairs and contributing lead authors of the ongoing regional assessments and the assessment of land degradation and restoration were offered support from the technical support unit regarding the integration of values in IPBES assessments, and in particular economic values of nature and its contributions to people.

III. Support provided to the integration of values in other IPBES deliverables

6. Regarding IPBES deliverables beyond assessments, the expert group on values and the technical support unit on values have provided support in the following ways:

(a) The technical support unit provided support to the task force on knowledge and data regarding the development of an approach to social-ecological bundles of indicators: In this context, the technical support unit supported the organization of a workshop in Budapest, Hungary on 6 and 7 April 2017. Financial support to the workshop was provided by the Swedish International Development Cooperation Agency through SwedBio and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ-ValuES). The output of the workshop was an approach to socio-ecological bundles of indicators, which addresses the different boxes and arrows of the conceptual framework integrating also previously selected core and highlighted indicators. The technical support unit on values provided continued support to work led by members of the assessment expert groups and the task force on knowledge and data to strengthen the approach to socio-ecological bundles of indicators. The technical support unit also provided support to piloting the approach on socio-ecological bundles of indicators in the global assessment. A workshop to support this work was held in Seoul, Republic of Korea from 5 to 7 December 2017, supported by the Ministry of Environment of the Republic of Korea. The output of the workshop was a selection of indicators that can become a starting point for the development of policy-relevant messages regarding the link between food and biodiversity in the global assessment. For further information see background document IPBES/6/INF/14;

(b) The expert group on values developed a section on methodological guidance on values for inclusion into the catalogue on policy support tools. This guidance was developed in a web-based format and reflects the content of the IPBES guide on values, taking into account inputs from the expert group and comments provided by stakeholders during the fifth session of the Plenary and afterwards. The section on methodological guidance on values comprises three different entries that address conceptual elements of the guide on values, the six-step approach to valuation proposed in the guide, and guidance to experts involved in IPBES deliverables related to values. Users can directly access relevant parts of the sections and follow links that provide access to and information on specific tools included in the catalogue of policy support tools. Infographics are used to summarize the content and facilitate navigation within the website. The content of the sections will be continuously updated to reflect future evolution in thinking and progress made across IPBES deliverables on the integration of multiple values of nature and its contributions to people to good quality of life.

IV. Next steps in supporting the integration of values in IPBES deliverables

7. The expert group on values and the technical support unit on values will continue to provide support for the integration of values in ongoing IPBES assessments, in particular to the global assessment. Furthermore, it will continue its collaboration with other task forces such as the task force on knowledge and data regarding the work on socio-ecological bundles of indicators.
8. The expert group on values, supported by its technical support unit, will continue to develop the methodological guidance on values as part of the catalogue on policy support tools, taking into account any further comments received on the tool.
9. The expert group on values will undertake efforts to build links with the task force on capacity-building to generate strategies to support the adequate consideration of values in IPBES deliverables other than assessments.
10. The financial implications of this continued support are outlined in appendix III. The budget considers the costs of travel and daily subsistence allowance to support the integration of multiple values in ongoing assessments.
11. If the Plenary decides at its sixth session to undertake the methodological assessment on values, it is expected that the assessment expert group that would be appointed would: take over the responsibilities of the current expert group appointed in response to decision IPBES-4/1; be funded through the budget made available for the assessment; and be coordinated by the technical support unit that would be selected to provide support to the assessment expert group.

Appendix I

Report of the global assessment values workshop

Global Values Workshop
Budapest, Hungary, 3-5 April 2017

Outcome document

1. Introduction and overview

1. On 3-5 April 2017, IPBES held a workshop to catalyse the integration of multiple conceptualizations of values across the chapters of the ongoing IPBES global assessment of biodiversity and ecosystem services. The workshop was organized in Budapest, Hungary, with financial support from the Swedish International Development Cooperation Agency (Sida) through SwedBio and the Gesellschaft für Internationale Zusammenarbeit (GIZ) through the ValuES project on behalf of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety of the Federal Republic of Germany.

2. 31 experts participated in this workshop. The workshop was facilitated by the IPBES technical support unit for values (TSUV) supported by the IPBES secretariat in Bonn. See annex II for the full list of participants.

3. During the workshop participants familiarized themselves with key concepts related to multiple conceptualizations of values as presented, developed a question-based approach to the integration of multiple conceptualizations of values into the global assessment (section 2.1 below), and suggested a process linked to the chapters and timeline of the assessment (sections 2.2 and 2.3 below). Participants also offered their support to the integration of multiple conceptualizations of values into the global assessment and suggestions are presented in section 3 for experts working on the IPBES global assessment to draw upon, as appropriate.

2. A question-based approach to integrating values across the global assessment

2.1 Process and outline

4. Leading up to the workshop, invitees to the workshop and other experts contributing to the global assessment with an interest in the topic of multiple values were asked to provide a set of cross-cutting questions that they thought should be addressed within the IPBES global assessment. During the workshop, participants selected a subset of these questions and prioritized them regarding their relevance to the assessment, the feasibility of answering them as part of the assessment, their policy relevance and their relationship with key concepts related to multiple conceptualizations of values.

5. The questions in the prioritized set were linked to specific chapters of the assessment, and links to other chapters were noted that would supply information required for an answer to the question. For each chapter, an outline was developed that identified key issues to be addressed in order to answer the following over-arching question across the assessment: What are the worldviews on human-nature relations and the main associated values shaping the world today and how would this change if multiple values were incorporated in the science-policy arena? The questions reflect the complexity of the topic of multiple values and can be used as guiding questions across the different chapters of the assessment.

Broader question	Questions	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	
What are the worldviews on human-nature relations and the main associated values (value systems/principles) shaping the world today and how would this change if multiple values were explicitly incorporated in the science-policy arena?	How can values be communicated in reference to the Conceptual Framework?	1						
	What worldviews and values are contributing to the status and trends in nature, NCP and Good Quality of Life and underpin their drivers?		1					
	What worldviews and value systems underlie multilateral agreements and to what extent covering multiple values could lead to better implementation of their goals and targets?			1				
	How do scenarios and future pathways incorporate different values and what are the implications for nature, NCP and good quality of life?					1	1	
	Which values are acknowledged, assessed and included in decision-making processes by public policies and measures?							1
	How are values shaped by different knowledge systems?	1	1	1	1	1	1	1

2.2 Specific approaches for each assessment chapter

6. For each of those questions, an approach was developed regarding how they can be addressed in the relevant chapters. The implementation of the approach for each chapter allows other chapters to address, in turn, multiple values within their own scope. The approaches developed for each chapter are presented below:

Chapter 1- How can values be communicated in reference to the Conceptual Framework?		
Approach	Contact person	Considerations
<ul style="list-style-type: none"> • Make explicit the role of multiple values across the assessment • Mention values understood as principles, preferences, importance and measures • Talk about how values are shaped by different knowledge systems including ILK • Mention values as intrinsic, instrumental and relational • Talk about the role of values across the boxes and arrows of the Conceptual Framework • Talk about the role of values for decision making acknowledging distribution, equity, mismatches, power relations. • Express the methodological bias related to multiple values, what and whose values are represented relate to the methodologies available to make them visible 	Sandra Diaz & Unai Pascual	This chapter should set the conceptual basis for the rest of the chapters to be able to discuss further on issues related to multiple conceptualizations of values

Chapter 2- What worldviews and values are contributing to the status and trends in nature, NCP and Good Quality of Life and underpin their drivers?			
Approach	Contact person	Considerations	
What are the range of different worldviews and values (as principles) held/attributed/observed/linked to Good Quality of Life?	Patricia Balvanera	Some of these experts are not authors in the assessment but they are ready to contribute with text if necessary.	
<ul style="list-style-type: none"> Contrast the blue vs. green tracks of the conceptual framework – Anthropocentric vs. holistic & biocentric values Emphasize the role of different contexts on worldviews and values: cultural, biophysical, socioeconomic conditions Highlight different human-nature relationships linked to good quality of life Understand the different ways in which Good Quality of Life is defined 	Diego Pacheco Mahdi Kolahi Diego Pacheco In progress		
What are the perceptions of different stakeholders in different contexts of changes in nature and how have the changes in nature affected world views values/principles held/attributed to nature? (This could be captured by taking a geographic representation sample by contacting experts across regions from IPBES and beyond)	Marwa Halmy		This expert is ready to address these issues through text and study cases.
What is the monetary value of the changes in NCP (material, non-material, regulating)? What is the socio-cultural value of the changes in NCP? What is the health value of the changes in NCP? What is the biophysical value of the changes in NCP? What is the holistic value of the changes in NCP?	In progress		
What is the contribution of nature and the different NCP to GQL? Economic growth, income/job security, health security, food security, water security, energy security, poverty alleviation, ecological security/resilience?	In progress but depends on data availability	This could be addressed through text and study cases. Look for the proceedings of the ILK workshops for already written up cases.	
Have the worldviews and values of different stakeholders been embedded into governance and decision-making and how and where has this occurred?			
<ul style="list-style-type: none"> What is the role of power relations among them? What is the role of inequities distribution of benefits and costs, participation in decision making and recognition of rights and identities? Examples of embedding diverse values/principles into governance ILK/IPLC: Whose rights? Whose values? Private property vs. common goods and values associated to them. The role of other-regarding values. The role of teleconnections and spill overs (globalization in general) on values- Impacts on ILK and IPLCs The role of urbanization (indirect driver, direct drivers, UofA) in shifts/trends of value paradigms and its consequences on decision making 	Peter Brosius Unai Pascual Diego Pacheco & Madhu Verma Brigitte Baptiste Leticia Merino Marwa Halmy Nidhi Nagabhatla		

Chapter 3 – To what extent multilateral agreements cover diverse value systems and can this lead to better implementation of their goals and targets?		
Approach	Contact person	Considerations
What values underlie SDGs, Aichi targets and the goals of other biodiversity-related agreements? Do their reporting requirements accommodate diverse values?	Suneetha Subramanian	Local Biodiversity Outlook can be a source of information
To what extent do SDGs and CBD / other biodiversity agreement-related targets cover the diverse types of values?		GBO is a key source of information
Aichi <ul style="list-style-type: none"> • Target 1 – awareness of whom? How? What is the role of ILK? • Target 11 – consider equity as a principle (value). This implies recognizing issues such as environmental justice, benefit sharing (distribution) and participation • Target 14 – Requires looking at multiple dimensions of the values of nature (health, economic, ILK/holistic, biophysical, socio-cultural) 		This chapter requires for Chapter 1 to define a typology of values (principles, preferences, importance & measure) to use for the chapter.
SDGs <ul style="list-style-type: none"> • 1, 2, 6, 7, 3, 8, 11, 12, 13,14, 15, 16, 17 • Articulate the discussion of structural problems (poverty/inequalities) with nature conservation indicators • Common indicators that link with Chapter 2 • SPCs -> production / consumption • SDG 16 – Related to equity and relational values 		Contact Joji Cariño for further information on ILK.
Other Biodiversity-related Agreements - CITES, Nagoya Protocol, UNCTAD, BIOTRADE, etc.		Look at report on SDGs CBD/WHO, State of the worlds indigenous peoples (2015) and Biodiversity/Health report 2015.
<ul style="list-style-type: none"> • Contrast the blue vs. green part of the conceptual framework – Anthropocentric vs. holistic & biocentric values 	Diego Pacheco	
<ul style="list-style-type: none"> • Emphasize the role of different contexts on worldviews and values: cultural, biophysical, socioeconomic conditions 	Mahdi Kolahi	
<ul style="list-style-type: none"> • Highlight different human-nature relationships linked to good quality of life • Understand the different ways in which Good Quality of Life is defined 	Diego Pacheco In progress	
Synthesis <ul style="list-style-type: none"> • Highlight protected area networks and same areas • State explicitly if diverse values/worldviews are not addressed in sources or are nominally, moderately or very well addressed 	Marwa Halmy	This expert is ready to provide text and study cases.

Chapter 3 – To what extent multilateral agreements cover diverse value systems and can this lead to better implementation of their goals and targets?		
<p>How can attention to diverse worldviews and values lead to informed implementation and reporting on N, NCP, GQL targets?</p> <p>Post 2020 Biodiversity Strategies</p> <ul style="list-style-type: none"> • Make explicit plural values/worldviews related to nature, NCP and GQL • Strengthening the discussion of ‘living in harmony with nature’ • Approach the role of ‘collective action’ • Approach the role of increasing participation of IPLCs e.g. in Global platforms 	In process	
<p>Research / Capacity Building Requirements</p> <ul style="list-style-type: none"> • Include diverse values and worldviews • Make explicit the link between health values to Nature, NCP and GQL • Ecosystem based valuation and accounting (research and training) • Developing a toolkit for valuation and training modules 	In process but depends on data availability	This could be addressed through text and study cases. Look for the proceedings of the ILK workshops for already written up cases.
<p>Have the worldviews and values of different stakeholders been embedded into governance and decision-making and how and where has this occurred?</p>		

Chapter 4 - How do scenarios and future pathways incorporate different values and what are the implications for nature, NCP and good quality of life?		
Approach	Contact person	Considerations
<p>How do trends and changes in life styles and aspirations relate to changes in biodiversity and ecosystem services?</p> <ul style="list-style-type: none"> • Include literature related to life style and its implications on biodiversity and ecosystem services 	Jyothis Sathyapalan	
<p>How do different scenarios incorporate different values and what are the implications for Nature, NCP and GQL?</p> <ul style="list-style-type: none"> • Consider what kind of worldviews and values are the basis for these scenarios. • Consider how these future scenarios affect broader human populations and IPLCs 		
<p>How could diverse values be used and integrated into scenario development?</p> <ul style="list-style-type: none"> • Scenarios appear to be value neutral but this is not the case. Multiple values (as principles, preferences, importance, measures) are embedded in scenarios. We must make these explicit. • Papers on critics from IPLCs to global scenarios should be included • Try to identify certain globally relevant multi-cultural connectivity in archetype scenarios • Rows should be added to the original synthesis table analysing archetype scenarios to include values through for example: economic instruments like taxes, health implications, social integration and participation, etc. (if not yet considered) 		
How do we integrate private and social values in policy decisions and future scenarios?		
How can we deal with information gaps regarding values?		
How are diverse values reflected in arrows 1,2,4,5,6,8 of the conceptual framework?		This section can build on the explanations presented in Chapter 1 and the results portrayed in Chapter 2
Chapter 5 - How do scenarios and future pathways incorporate different values and what are the implications for nature, NCP and good quality of life?		
Approach	Contact person	Considerations
<p>To what extent and in which way are multiple values (held e.g. principles & attributed e.g. monetary, health related, etc.) considered in target seeking scenarios and pathways developed for achieving the specified targets and goals relating to nature and NCP?</p> <ul style="list-style-type: none"> • Focus on Policy Objectives and Valuation • Identify valuation approaches (Economic, Biophysical, Social cultural etc.) • Identify if they are multidimensional and integrated or not 	Patrick O'Farrell, Bernardo Strassburg & Unai Pascual	Within the assessment it is only possible to address a typology related to policy and valuation, addressing worldviews would be too difficult.
<p>How will each pathway play out in terms of either leading to or hindering the potential for acknowledging the need for considering multiple values (held & attributed) in terms of being expressed or retained?</p> <ul style="list-style-type: none"> • Develop a scoring system (low, medium, high) to quickly establish the degree to which selected target seeking scenarios consider multiple values (are we talking about strong integration or superficial statements?) 		

Chapter 6 - Which values are acknowledged, assessed and included in decision-making processes by public policies and measures?		
Approach	Contact person	Considerations
<p>Sub-questions:</p> <p>Which/whose values are reflected in policy instruments?</p> <p>What policy support tools, instruments and mechanisms are being used to integrate multiple values in different scales of policy-making and implementation?</p>	Roldan Muradian	
<p>Section 1: Introduction</p> <ul style="list-style-type: none"> Policy support tools and policy instruments themselves articulate values, selecting between them is a selection between underlying value systems / principles → FOD 		
<p>Section 2: Policy instruments addressing direct drivers</p> <ul style="list-style-type: none"> Take different values (principles / importance / preferences / measures) as criteria when assessing the different policy instruments (addition to the lit rev template) <ul style="list-style-type: none"> Description of instruments – if possible add information about the underlying principles / worldviews of the specific instrument Effectiveness of instruments – if possible add information on measures for intrinsic, relational and instrumental values Stakeholders involved/affected by instruments – if possible consider preferences of different stakeholder groups 		Not feasible to follow directly the COSUST table (values, policy objectives, valuation, policy support tools, policy instruments) for the assessment of each instrument
<p>Section 3: Policy instruments addressing indirect drivers</p>		
<p>Section 4: Challenges, opportunities for stakeholders</p> <ul style="list-style-type: none"> Touch upon the issue of diverging interests / power related to values General messages as ‘early warnings’ for different stakeholder groups 		Develop further how values can be incorporated into the key messages considering different stakeholder groups
<p>Section 5: Conclusions</p> <ul style="list-style-type: none"> Current worldviews to be changed: it is continuously evolving but the actual direction might not result in diversity of worldviews, it can only be achieved if power relations will change Nature and NCP are global commons, joint decision-making is needed for more effective policy. Which combination of instruments produces a comprehensive picture of diverse values? How to make joint decisions? Focus should be on both processes and content to cover diverse values. 		
<ul style="list-style-type: none"> Institutional innovations as examples for policies representing diverse values 		Brigitte Baptiste and Thomas Hahn could be contacted to address this aspect.

2.3 Timeline

7. To address the questions with the outlined approaches a set of tasks was developed that should be achieved by the deadline of the first order draft of the global assessment (23 May 2017) and a set to be achieved by the deadline of the second order draft (April 2018). These tasks are described by chapter in the following table:

Chapter	First Order Draft (FOD)	Second Order Draft (SOD)
1	Headers for values discussion	
	Headers for all discussions	Contribution of different Units of Analysis and NCP to Quality of Life
	Blue vs. Green part of the conceptual framework	ILK/IPLC whose rights? Whose values?
	The role of different contexts on values	Private property vs. Common goods (related to values)
	Different human-nature relations	Role of teleconnections and spill overs on values
2	Different definitions of GQL	Role of urbanization in shifts/trends in values
	Perceptions of stakeholders	
	Monetary values of changes in NCP	
	The role of power relations between stakeholders	
	The role of inequities in access and recognition	
	Examples of values (principles) in governance	
	Headers for all discussions	Undertake gap analysis on values for targets
	Review of reporting guidelines for international agreements	Create a brief guidance to show how states can apply the IPBES guide on values in reporting against targets
3	Assessing the values in the language of the targets vs. Values as in the IPBES guide	
	Create a brief guidance to show how states can apply the IPBES guide on values in reporting against targets	
	Headers for all discussions	How could values be used in scenario development?
4	Scenarios incorporating values	Integrating private and social values
	Diverse values reflected in boxes and arrows	Information gaps
	Changes in lifestyles and aspirations	Changes in lifestyles and aspirations
5	Headers for all discussions	Typology for the analysis
		Analysis of papers
	Headers for all discussions	Different values as criteria for assessing policy instruments
6	Values (as principles) when selecting policy support tools	Policy instruments addressing indirect drivers
	Different values as criteria for assessing policy instruments	Challenges and opportunities for stakeholders
	Conclusions	Conclusions

3. Resources

3.1 Documentation

8. To support the work on the integration of multiple conceptualizations of values, the secretariat will create a SharePoint site on 'multiple values' where documents regarding this topic will be hosted. This site will include the references cited in this document as conceptual basis for use by the global assessment expert group.

3.2 Expert group

9. A group of experts on values was mandated by the IPBES Plenary in decisions IPBES-4/1 and IPBES-5/1 to support the integration of values into ongoing IPBES deliverables (which includes regional, thematic and the global assessments). However, some experts from the broader group of authors of the guide on multiple conceptualizations of values is willing to support the work of the global assessment on specific tasks. For example, these experts could review draft assessments during the expert review periods of the first and second order drafts as well as completed assessments to identify lessons learned, distribute the calls for review among their networks and encourage colleagues to review the assessments, and make themselves available as contributing authors, if requested by the coordinating lead authors of the assessment.

10. Authors can also draw upon the experts who participated in the Global Values Workshop, some of which are not authors of the assessment but can contribute as liaisons with other assessments or as contributing authors in specific sections of the assessment.

3.3 The Technical Support Unit on Values

11. The TSUV has as one of its objectives to support the integration of multiple values into the IPBES Global Assessment. The TSUV – lead by Patricia Balvanera & David González - will provide technical and logistical support to achieve this objective by following up on progress regarding the activities above and by preparing online meetings to move forward in the integration of multiple values.

12. Authors of the assessment can contact the TSUV directly with specific demands related to multiple conceptualizations of values which will be considered and resolved or re-directed to the adequate person.

13. Authors can also contact the MEP co-Chairs of the Values Expert Group (Unai Pascual and Brigitte Baptiste), while informing the TSU of their concern.

Annex II

List of participants of the global values workshop

Abbreviations: CLA: Coordinating lead author; MEP: Multidisciplinary Expert Panel; ECA: Europe and Central Asia:

Surname	Name	Affiliation	Role
Anderson	Christopher Brian	Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)	Author, Americas assessment
Balvanera	Patricia	Instituto de Investigaciones en Ecosistemas y Sustentabilidad (IIES), Universidad Nacional Autónoma de México	Head, technical support unit; CLA, global assessment
Baptiste	Brigitte	The Alexander von Humboldt National Institute of Research on Biodiversity	Member, MEP
Daly-Hasen	Hamed	National Institute of Agronomic Research of Tunisia	Author, guide on values
Díaz	Sandra	Community and Ecosystems Ecology	Co-Chair global assessment; Author, guide on values
Garibaldi	Lucas	Universidad Nacional de Río Negro (UNRN)	CLA, global assessment
Gonzalez	David	Technical Support Unit on Values (IPBES, GIZ, IIES-UNAM)	Technical support unit
Hahn	Thomas	Stockholm Resilience Centre	Author, ECA assessment
Halmy	Marwa	Alexandria University	Author, Africa assessment
Heubach	Katja	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	Author, Africa assessment
Jacobs	Sander	Research Institute for Nature and Forest INBO	Author, ECA assessment
Jyothis	Sathyapalan	Centre for Economic and Social Studies (CESS) Hyderabad	Author, Asia-Pacific assessment and global assessment
Kelemen	Eszter	Environmental Social Science Research Group (ESSRG)	Expert group on values; author, global assessment
Kolahi	Mahdi	City University of Hong Kong, Hong Kong	Author, Asia-Pacific assessment and global assessment
Kumar	Ritesh	Wetlands International South Asia	Author Guide on Values, Asia-Pacific assessment and global assessment
Molnar	Zsolt	Centre for Ecological Research, Hungarian Academy of Sciences	CLA global assessment; member ILK task force
Muradian	Roldan	Universidade Federal Fluminense	Author, global assessment
Nagabhatla	Nidhi	United Nations University (UNU-INWEH) Institute for Water, Environment and Health	Author, global assessment; member, task force on knowledge and data
Ngo	Hien	IPBES Secretariat	Secretariat
O'Farrell	Patrick John	Council for Scientific and Industrial Research (CSIR)	Expert group on Values, Author, Africa assessment and global assessment
Pacheco	Diego	IPBES Bureau	Member, Bureau
Panahi	Mostafa	Science and Research Branch/IAU	Review Editor, Asia-Pacific assessment; author, global

			assessment
Pascual	Unai	Research Professor Ikerbasque (Basque Foundation for Science), Basque Centre for Climate Change, Bilbao	Member, MEP
Preston	Susan	Department of Environment, Government of Canada	Expert group on Values
Schiele	Simone	IPBES Secretariat	Secretariat
Schröter	Matthias	Helmholtz Center for Environmental Research – UFZ	Author, ECA assessment
Sonnewend Brondizio	Eduardo	Department of Anthropology at Indiana University	Co-Chair global assessment; member, ILK task force
Strassburg	Bernardo	Pontifícia Universidade Católica do Rio de Janeiro	Author, guide on values and global assessment
Subramanian	Suneetha	UNU-Institute for the Advanced Study of Sustainability	Expert group on values, CLA, global assessment; author, Asia-Pacific assessment
Verma	Madhu	Indian Institute of Forest Management/ Centre for Ecological Services Management, Indian Institute of Forest Management	Author, guide on values and global assessment
Zayas	Cynthia	University of the Philippines	CLA, global assessment; member, ILK task force

Appendix II

Guidance for reviewers on multiple conceptualizations of values of nature and nature's contributions to people.

1. Background and Context

After the Plenary welcomed the preliminary guide on the multiple conceptualizations of values of biodiversity and nature's contributions to people, the Plenary requested that values and valuation were incorporated appropriately into all IPBES assessments. The Multidisciplinary Expert Panel (MEP) nominated a set of experts to ensure that values and evaluation were incorporated appropriately into all IPBES assessments.

As part of this effort the Expert Group on Values supported by the Technical Support Unit on Values developed this guide for reviewers on multiple conceptualizations of values of nature and NCP which attempts to summarize the main concepts of the IPBES approach to values, inform about how these concepts are expected to be considered in IPBES assessments, share the main documents supporting this guide and the IPBES work on values, and present a rough glossary of terms related to multiple values which may be useful for everyone reviewing assessments through a values approach.

We invite all reviewers and authors of IPBES assessments to take a look at this guide before looking back into the assessments to provide comments.

2. Key concepts on multiple values relevant for assessments

Multiple worldviews are built upon diverse ways of understanding reality, human-nature relationships and social interactions. These may lead to *diverse values* among individuals and social groups. Values can be conceptualized as *principles, preferences, importance and measures*.

A distinction can be made between *non-anthropocentric (intrinsic)* and *anthropocentric (instrumental and relational)* values (Figure 1), which can be elicited through different approaches including *biophysical, socio-cultural, health, economic, and holistic/ILK approaches*.

Values can also be often in *conflict* as they may respond to different approaches, worldviews or types of value. Values are *dynamic and scale dependent* across time, space and social organization levels. However, the integration of plural values provides an opportunity to discuss issues related to *equity, power and integration* (see supporting documents in section 5 for more information).

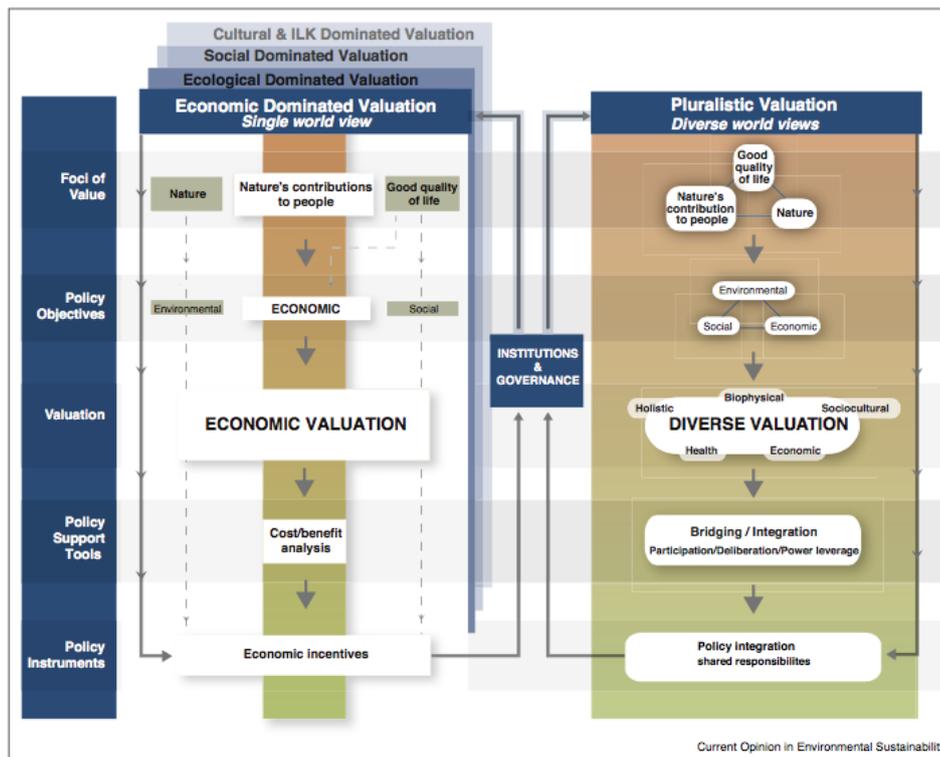
The IPBES approach to values shows a *plural* perspective in contrast to monistic approaches to value framing. This relates to different worldviews but also influences what is valued, what are the policy objectives for such valuation, how it is valued (through which methodologies), and what policy support tools and policy instruments are suggested to achieve policy objectives (Figure 2).

FOCI OF VALUE	TYPES OF VALUE	EXAMPLES
NATURE	Non-anthropocentric (Intrinsic)	Animal welfare/rights
		Gala, Mother Earth
NATURE'S CONTRIBUTIONS TO PEOPLE (NCP)	Instrumental	Evolutionary and ecological processes
		Genetic diversity, species diversity
GOOD QUALITY OF LIFE	Anthropocentric	Habitat creation and maintenance, pollination and propagule dispersal, regulation of climate
		Food and feed, energy, materials
		Physical and experiential interactions with nature, symbolic meaning, inspiration
		Physical, mental, emotional health
		Way of life
		Cultural identity, sense of place
	Relational	Social cohesion

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Diverse values related to nature, nature's contributions to people (NCP) and a good quality of life. The grading in the colors indicate that both instrumental and relational values can be ascribed to the value of NCP, and to highlight that NCP are intertwined with nature and a good quality of life.

Figure 1. Types of value across NCP (Pascual et al., 2017)



A stylized illustrative framework of contrasting approaches to the process of valuation. The right side panel emphasizes the importance of a pluralistic valuation approach, compared with value monism or unidimensional valuation approaches to human-nature relationships represented in the left side panel.

Figure 2. Monistic vs. plural approaches to values and valuation (Pascual et al., 2017)

3. Multiple conceptualizations of values in IPBES assessments

IPBES assessments have the mandate to incorporate the approach of multiple conceptualizations into the development of their content. Each assessment has more or less specified where and how these approaches should be incorporated. However, the Expert Group on Values has recognized the need to tackle this issue all throughout the assessments as it is a transversal element and not one that can be tackled in isolated chapters. The IPBES guide on multiple conceptualizations of values (see section 5) identifies in Chapter 5, five steps for assessing multiple values from different worldviews within IPBES assessments:

- **Step 1 – Identifying value dimensions & understanding where values play a role in the assessment:** This implies considering different paradigms, worldviews and knowledge systems as well as all key targets of valuation and types of value for each worldview.
- **Step 2 – Searching the literature:** This should tackle each target of valuation through different relevant value dimensions (biophysical, economic, health, ILK, holistic).
- **Step 3 – Categorizing, sorting and assessing values:** If there are available studies to reflect multiple values, this should be characterized to identify what values are covered, at what scales, and using which methods (as they may elicit the values from different stakeholders and represent distinct knowledge system)
- **Step 4 – Synthesis, up-scaling and integration & Step 5 – Deriving and communicating results:** The results from assessing values should be combined with other elements of the assessments, e.g. it will be assessed what certain changes in biodiversity will imply in terms of values. It is important to reflect on gaps regarding multiple values of nature and NCP.

4. Questions to ask when reviewing assessments

When reviewing IPBES assessments with a focus on values you may want to ask yourself the following questions:

What values does this chapter / SPM / assessment cover?

- Which values does it not cover?
- Which valuation approaches did the chapter / SPM / assessment synthesized?
- Is this made explicit in the text?
- Which consequences does this have on the findings?
- Which steps did the chapter apply and did not apply? (see section 3)
- Which consequences does this have on the findings?

5. Supporting documents

IPBES Guide on Values: At IPBES-5, the ‘Preliminary guide regarding diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services (deliverable 3(d))’ was accepted by the Plenary. The guide presents a stepwise approach to assessing diverse conceptualizations of multiple values of nature and NCP which includes: 1) Identifying the purpose of an assessment, 2) defining the scope of the assessment, 3) choosing the right valuation methods, 4) Integrating, bridging and up-scaling, 5) communicating results to the public and decision makers, and 6) Reviewing the process. The guide expanded in each of these steps throughout 6 chapters taking on: 1) the purpose of the guide, 2) the conceptual background to the idea of multiple conceptualizations of diverse values, 3) valuation methodologies and approaches, 4) data and knowledge sources and gaps, 5) the relevance of the guide to IPBES assessments, 6) capacity building needs, and 7) the relevance of the guide for policy design. The full guide can be reviewed on the IPBES website (http://www.ipbes.net/sites/default/files/downloads/IPBES-4-INF-13_EN.pdf).

A paper published on the journal Current Opinion on Sustainability titled ‘Valuing nature’s contributions to people: the IPBES approach’ highlights the links between diverse values and nature, NCP and Good Quality of Life, and reflects on the relevance of considering multiple values to address power relations to achieve sustainability (valuing nature's contributions to people (<http://www.sciencedirect.com/science/article/pii/S1877343517300040>)).

IPBES Conceptual Framework: The conceptual framework guiding IPBES assessments includes six linked boxes constituting a social-ecological system which operates at various scales. These boxes tackle elements such as nature, nature’s contributions to people, anthropogenic assets, institutions, governance systems and other indirect drivers, direct drivers of change, and good quality of life. The framework also considers different knowledge systems expressing these elements in multiple languages responding to western science and indigenous and local knowledge. At least three documents are relevant to understand IPBES’s conceptual framework: 1) the approved conceptual framework for the IPBES (http://www.ipbes.net/sites/default/files/downloads/Decision%20IPBES_2_4.pdf), 2) a paper published in the journal Current Opinion on Sustainability after the approval of the conceptual framework titled ‘The IPBES conceptual framework – connecting nature and people’

(<http://www.sciencedirect.com/science/article/pii/S187734351400116X>), and 3) a paper published in the journal PLOS Biology titled ‘A Rosetta stone for nature’s benefits to people’ which highlights the commonalities between diverse value sets to facilitate crossdisciplinary and crosscultural understanding (<http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002040>).

6. Glossary

- **Values systems:** Set of values according to which people, societies and organizations regulate their behavior. Value systems can be identified in both individuals and social groups (Pascual et al., 2017).
- **Value (as principle):** A value can be a principle or core belief underpinning rules and moral judgements. Values as principles vary from one culture to another and also between individuals and groups (IPBES/4/INF/13).
- **Value (as preference):** A value can be the preference someone has for something or for a particular state of the world. Preference involves the act of making comparisons, either explicitly or implicitly. Preference refers to the importance attributed to one entity relative to another one (IPBES/4/INF/13).
- **Value (as importance):** A value can be the importance of something for itself or for others, now or in the future, close by or at a distance. This importance can be considered in three broad classes. 1. The importance that something has subjectively, and may be based on experience. 2. The importance that something has in meeting objective needs. 3. The intrinsic value of something (IPBES/4/INF/13).
- **Value (as a measure):** A value can be a measure. In the biophysical sciences, any quantified measure can be seen as a value (IPBES/4/INF/13).
- **Non- anthropocentric value:** A non-anthropocentric value is a value centered on something other than human beings. These values can be non-instrumental or instrumental to non-human ends (IPBES/4/INF/13).
- **Intrinsic value:** The value inherent to nature, independent of human experience and evaluation, and therefore beyond the scope of anthropocentric valuation approaches (IPBES/4/INF/13).
- **Anthropocentric value:** Human-centred, the value that something has for human beings and human purposes (IPBES/4/INF/13).
- **Instrumental value:** The direct and indirect contribution of nature’s benefits to the achievement of a good quality of life. Within the specific framework of the Total Economic Value, instrumental values can be classified into use (direct and indirect use values) on the one hand, and non-use values (option, bequest and existence values) on the other. Sometimes option values are considered as use values as well (IPBES/4/INF/13)
- **Non-instrumental value:** The value attributed to something as an end in itself, regardless of its utility for other ends (IPBES/4/INF/13).
- **Relational value:** The values that contribute to desirable relationships, such as those among people and between people and nature, as in ‘Living in harmony with nature’ (IPBES/4/INF/13).
- **Integrated valuation:** The process of collecting, synthesizing, and communicating knowledge about the ways in which people ascribe importance and meaning of NCP to humans, to facilitate deliberation and agreement for decision making and planning (Pascual et al., 2017).

Appendix III

Financial budget requirements for the continued work on values for 2018

The financial requirements to continue supporting the integration of values in IPBES deliverables include travel support for one member of the technical support unit to participate in relevant meetings. The details of the budget of \$50,000, included in the provisional budget for 2018 (option A) to be considered by this session of the Plenary (IPBES/6/9), are outlined below:

<i>Year</i>	<i>Objective</i>	<i>Concept</i>	<i>Budget</i>
2018	Operating costs of the technical support unit	Technical support (1 full time technical position, 1 half time technical position provided as in-kind contributions)	0
		Travel support to two meetings of the Multidisciplinary Expert Panel and two expert meetings	15 000
	Support to ongoing assessments	Travel and DSA	35 000
	Continued technical support on the sections of the catalogue on policy support tools	Virtual meetings and online technical support	0
	Continued technical support on the work on socio-ecological indicators	Virtual meetings and online technical support	0
	Continued technical support on the integration of values in on-going deliverables	Virtual meetings and online technical support	0
Total			50 000