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Sarkki, Simo; Acosta García, Nicolás

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Merging social equity and conservation goals in IPBES

Simo Sarkki, (Corresponding author)

Anthropology, PO BOX 1000, 90014, University of Oulu, Finland.

Email: simo.sarkki@oulu.fi

Nicolás Acosta García

Department of Geosciences and Natural Resource Management

Rolighedsvej 23, 1958 Frederiksberg C, University of Copenhagen, Denmark.

Email: nicolas.acosta@gmail.com

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Social equity can be enhanced in IPBES work to promote its positive impacts on conservation and local people.

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Social equity

Introduction

Finding ways to manage interrelations between conservation objectives and social goals is of interest to conservation biologists, social scientists, policy makers, and local and indigenous communities. Focusing merely on development leads to ecological degradation, biodiversity loss and unbalanced use of ecosystem services. On the other hand, focusing solely on conservation objectives neglects local realities and may compromise UN Sustainable Development Goals, according to which development should be socially equitable, “*leaving no one behind*”. The concept of social equity suggests that those most affected by the implementation of conservation should be able to participate in conservation governance (i.e. structures and processes by which conservation-related decisions are made), share the benefits and have their worldviews recognised (Dawson et al. 2017). The social equity of

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conservation governance can advance the acceptability of conservation strategies, and enhance local compliance with rules set by conservation governance schemes, thereby contributing to conservation outcomes in the long term (Wilshusen et al. 2002). Therefore, social science on conservation can be also social science for conservation (Sandbrook et al. 2013; Bennett et al. 2017). The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is used in the present paper as a promising case study on integrating the goals of conservation and social equity (Díaz et al. 2018).

IPBES was established in 2012 and currently has 128 member states. IPBES “*provides policymakers with objective scientific assessments about the state of knowledge regarding the planet’s biodiversity, ecosystems and the benefits they provide to people, as well as the tools and methods to protect and sustainably use these vital natural assets*” (www.ipbes.net). As a UN based platform, IPBES functions in a rather similar manner than the Intergovernmental Panel on Climate Change (IPCC), which has contributed significantly to global climate governance. One of IPBES’ key innovations is its conceptual framework describing human-nature relations intended to provide a participatory process that integrates scientific disciplines, stakeholders and knowledge systems via the concept of ecosystem services and its recent modification: Nature’s Contributions to People (NCP) (Díaz et al. 2018).

Key actors in IPBES are the national delegates having voting rights in the plenary, the Multidisciplinary Expert Panel (MEP) with five expert participants from each of the five UN regions, various Expert Groups responsible for assessments and deliverables, and stakeholder groups such as the Society for Conservation Biology (SCB). Stakeholders nominate up to 20 % of experts who work IPBES assessments (Lundquist et al. 2015). SCB can influence IPBES activities also by coordinated, up-to-date, and diplomatic interactions with government negotiators to push SCB agenda (Gracey 21 Jan 2015; SCB 2018). Furthermore, SCB is a

stakeholder group recognized strongly by IPBES and SCB ideas has been many times been established as formal stakeholder positions. Therefore, there is space for stakeholders, like SCB, to contribute in defining the scope of IPBES assessments and other operations. In the present paper, we provide concrete and systematic proposals on how SCB and other experts can take IPBES work forward especially to enhance social equity. SCB members should be concerned about social equity of IPBES because it is linked to conservation success (Oldekop et al. 2016), and because IPBES can make greater impact if its operations and outputs are legitimate and accepted by wide array of societal actors.

In academic literature, social equity has been frequently discussed in relation to IPBES' operation and agenda. For example, there is ongoing discussion on how to balance the disciplinary focus of IPBES by including more experts in social science and humanities (Vadrot et al. 2018), and how to better include indigenous and local knowledge into IPBES (Löfmarck & Lidskog 2017). Scholars also note that IPBES is increasingly recognising the importance of multiplicity of positions and worldviews in its conceptual frameworks (Pascual et al. 2017; Díaz et al. 2018). However, some challenges remain, including the unbalanced power-relations, problems in stakeholder participation in IPBES discussions and decisions (Esguerra et al. 2017), and limited learning due to a lack of practical mobilisation of knowledge with local communities by IPBES experts (Tengö et al. 2017).

The present paper falls within conservation social science and can be viewed as a reflexive thought exercise with an instrumental aim (see Bennett et al. 2017): to use conservation social science to make relevant proposals on 1) organisation level principles by which IPBES can enhance social equity for local communities, and 2) broker roles IPBES experts can use to facilitate engagement of local people into IPBES work to contribute simultaneously to social equity and conservation objectives. This is done by casting 'local people' into the

focus of the four IPBES work areas: assessments, capacity building, policy support and outreach. In order to achieve these aims, we perform two kinds of analytical exercises outlined under the two next headings. The results of these analyses are presented in Table 1 (organisation level principles) and Figure 1 (broker roles).

Organisation level principles for enhancing social equity

First, we reflect on the social equity of IPBES via focusing on dimensions of 1) *recognition* (acknowledgement and respect of plural local and indigenous perspectives on conservation), 2) *context* (multi-level political economy and its relationship to the local socio-cultural context where the conservation measures are implemented), and 3) *process* (decision-making and knowledge co-production processes in terms of their equity, i.e. abilities of local actors to influence these processes) (Table 1) (Dawson et al. 2017; Friedman et al. 2018). We do not take 4) *distribution* (benefits and costs of conservation) into consideration, because it is the most researched dimension of social equity in conservation social science (Friedman et al. 2018), and because IPBES' work will likely have its major distributional effects in the future. IPBES can enhance the three dimensions of social equity by various ways across its four work areas (Table 1).

Broker roles for social equity

Second, we reflect roles by which conservation experts could facilitate inclusion of local people to IPBES operations across the four work areas. Various so-called 'broker roles' that facilitate the connectivity between science and policy have been discussed widely in this

journal (see e.g. Meffe 1998; Meinard & Quétier 2014; Pitt et al. 2018; Reed et al. 2018). In Figure 1, we outline twelve broker roles classified as affirmative (use of approaches, which acknowledge views and concerns of indigenous and local communities as legitimate), collaborative (use of co-design, mediation and negotiation techniques) and authoritative (use of robust and credible expertise) (Rantala et al. 2017; Crouzat et al. 2018; Reed et al. 2018) that can be performed across four IPBES work areas.

Conclusion

We put forward the view that finding an appropriate balance between global and local, conservation and development, authority and affirmation, natural science and social science, and neutrality and policy advocacy, can enhance both conservation outcomes and social equity (see Oldekop et al. 2016). This paper proposes that instead of dichotomising these counter pairs, they are all needed in conservation governance. In particular, IPBES can enhance social equity by recognising concerns of local communities as legitimate, by mapping key contexts relevant both to local concerns and global conservation and ecosystem services, and then designing multi-directional interaction processes that can deal with the identified contexts (Table 1). IPBES experts can play a set of broker roles in these interaction processes (Figure 1). As IPBES experts have wide knowledge of ecosystem services, the broker roles on specific issues should often start by performing affirmative roles to provide necessary space for recognising local concerns. The acquired insights can then be taken into collaborative negotiation and mediation processes. The results of these negotiations can then be disseminated, communicated or implemented via robust authoritative roles. Such a strategy utilises particular strengths that affirmative (recognition of local concerns and contexts), collaborative (iterative relationship building and knowledge exchange processes)

and authoritative (robust and credible expertise to connect science, policy and society for balanced use of ecosystem services) roles embody. These conclusions can be used to inform science-policy-society interfaces, like IPBES, to integrate conservation and development targets in productive ways to secure future human well-being and the natural conditions underpinning it.

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Table 1. Four IPBES work areas (ipbes.net.), related stakes and uncertainties, and principles furthering social equity. BES stands for Biodiversity and Ecosystem Services.

IPBES work area	Stakes and uncertainties:	Principles for social-equity:
Assessments: <i>on specific themes on BES, methodological issues, and at both the regional and</i>	To promote acceptable solutions on using and governing BES by creating ownership of assessments,	<i>Recognition:</i> To use concepts and frameworks (e.g. relational values) that capture indigenous and local knowledge and values and treat them as equal with scientific knowledge (Pascual et al. 2017). <i>Context:</i> To understand knowledge co-

<i>global levels.</i>	which fully recognise diversity of local knowledge in an unbiased and legitimate manner.	production as boundary spanning, which needs to address existing power imbalances and potential conflicts (Löfmarck & Lidskog 2017). <i>Process:</i> To use typologies and other forms of outputs that maintain diversity and do not force singular conclusions, which exclude legitimately plural views (Montana 2017).
Building Capacity & Knowledge: <i>to identify and meet the priority capacity, knowledge and data needs of member states, experts and stakeholders.</i>	To facilitate sustainable use of BES for human well-being through reciprocal knowledge flows relevant for everyday practices of local communities.	<i>Recognition:</i> To take local concerns seriously and avoid default assumptions deriving from global drivers and universalising discourses on the best solutions also for indigenous and local people (Turnhout et al. 2016). <i>Context:</i> To identify ethical issues and indigenous and local views on trade-offs between material needs and conservation targets (Bennett et al. 2017). <i>Process:</i> To incorporate local knowledge into science (e.g. citizen science; local monitoring of socio-environmental change; BES-based social innovations) (Löfmarck & Lidskog 2017).
Policy support: <i>to identify policy-relevant tools and methodologies, facilitate their use, and catalyse their further development.</i>	To promote knowledge-based foundations for policy making that are fair and inclusive towards local communities.	<i>Recognition:</i> To recognise that societal challenges – such as poverty and inequality – must be addressed by conservation governance to enhance sustainable use of BES at the local level (Wilshusen et al. 2002). <i>Context:</i> To ensure that proposed tools and instruments fit to local conditions (e.g. social, cultural, ideological and environmental contexts, property rights, local knowledge) (Sarkki et al. 2015). <i>Process:</i> To ensure that tools and procedures comply with existing community level decision-making practices to avoid mismatches and to support adaptiveness, flexibility, and learning (Armitage et al. 2012).
Communications and outreach: <i>to ensure the</i>	To overcome the knowledge-action gap by	<i>Recognition:</i> To increase sensitivity in identification and equal treatment of diverse stakeholder groups (e.g. informal local leaders,

<i>widest reach and impact of IPBES.</i>	communication that is able to resolve the trade-off between local needs to use the BES and conservation goals.	local groups in weak positions) (see Esguerra et al. 2017). <i>Context:</i> To recognise the political dimensions of knowledge on ecosystem services in order not to reinforce or further bias existing power relations (Kull et al. 2015). <i>Process:</i> To ensure that IPBES avoids globalised technocratic practices and properly communicates subaltern voices to ensure that indigenous and local views are covered also in outreach (Tengö et al. 2017).
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Figure 1. Potential affirmative, collaborative and authoritative broker roles across four IPBES work areas.

IPBES work areas	Affirmative roles	Collaborative roles	Authoritative roles
Assessments	Humble listener (Pascual et al. 2017; Rantala et al. 2017): To respect and be open to learning new things across cultures, positions and values. Can take place via engaging stakeholders as co-authors to assessments and as equal advisors in expert groups to enrich global assessments with local and regional knowledge.	Adaptive expert (Pullin et al. 2016; Rantala et al. 2017): To adapt the scope and insights of assessments to issues raised during knowledge co-production processes. Can take place via extended stakeholder review processes, Double Sided Critique and expert consultations by focus groups or Delphi panels.	Officer (Pullin et al. 2016; Crouzat et al. 2018): To synthesise and formalise diverse views to robust and legitimate definitions, methods and interpretations. Can take place by structuring diversity, identification of commonalities and differences, and ranking alternatives.
Capacity building	Empathetic visitor (Rantala et al. 2017): To show understanding for stakeholders' concerns and enable their capacity to act. Can take place via considering scientists as visitors who can learn from local communities, and by supporting horizontal relationship building within and between local communities.	Trustworthy matchmaker (Michaels 2009; Rantala et al. 2017): To earn trust by providing knowledge and networks. Can take place via inclusion of local communities to networks of knowledge by identification on what expertise local communities need, who can provide it, and the best ways to make required connections.	Conservation supporter (O'Connell et al. 2017): To use best available science to provide support for local institutions for conservation. Can take place by enhancing local capacities for environmental monitoring and supporting predetermined capacity building processes replicated in various sites.
Policy support	Policy enabler (Berkes 2007): To enable local communities and institutions to design, implement and evaluate policies that ease the problems that the local communities face. Can take place via providing resources (e.g. time; expertise, finances, equipment, tools) with flexible opportunities for their usage.	Fair deliberator (Michaels 2009; Rantala et al. 2017): To facilitate interactions and negotiations to address key issues related to co-defined policy problems. Can take place via workshops and meetings with linkages to policy makers at local and other levels.	Policy advocate (Michaels 2009; Crouzat et al. 2018; Reed et al. 2018): To promote knowledge, tools and methodologies to be used to push agendas for sustaining ecosystem services. Can take place via identification and working with relevant decision-makers to ensure that policies and governance secure ecosystem services.
Outreach	(Self-)Reflexive communicator (Kunseler & Tuinstra 2017): To reveal hidden motives and agendas affecting outputs and decision-making. Can take place via transparency on underlying power structures and interests of all involved parties.	Holistic mediator (Löfmarck & Lidskog 2017; Rantala et al. 2017): To merge western sciences (e.g. natural, social) with local knowledge capturing the plurality of world views to create a holistic view. Can take place via sketching alternative solutions and maintaining distinct styles of diverse knowledge systems in outputs.	Thought leader (Díaz et al. 2018; Reed et al. 2018): To consider ecosystem services / Nature's Contributions to People (NCP) as the paradigm to understand the central role of culture in defining links between people and nature. Can take place via effective dissemination arguing NCPs' relevance for various policy settings.