

Appendix 3. Selection of studies for review and data coding procedure.

Screening process

First, titles and abstracts were assessed for the 3100 publications identified by the literature search to determine whether they meeting the selection criteria. Two of the authors completed the screening process, utilising Colandr software to initially screen the same 100 publications to ensure consistent application of inclusion criteria, with all divergent decisions discussed and agreed upon. The inclusion rate averaged approximately 20% of the first 1000 publications screened, then dropped to less than 10% of the second 1000 publications with approximately five included per hundred at that stage. After 2200 publications had been screened at abstract level titles were scanned, through which a small number of relevant studies were identified and included. This resulted in 307 selected for full review.

During full review, a further 138 papers were excluded. Many did not adequately conceptualise both the well-being of IPLCs and conservation effectiveness to provide a complete picture of links between them. For example, some focused on the ‘conservation attitude’ of IPLCs, which was deemed insufficient as a proxy for conservation effectiveness. Others were excluded because they did not provide evidence for the claims made in the title or abstract. Our stringent inclusion requirements also helped to exclude studies exhibiting bias, for example by assuming that traditional ecological knowledge automatically leads to sustainable resource use or that lower material poverty in an area results in reduced environmental degradation, without providing supporting evidence. We also excluded 12 studies meeting the primary criteria, but involving multiple cases, for which the description of any single case was too limited to extract sufficient detail about the specific relationships and pathways. Among the nine publications that involved three or less cases and met our criteria, we included the case that was afforded most attention in the study or the case that best met the inclusion criteria.

Data coding procedure

Eleven individuals completed the data extraction between June and November 2019. All are scientists working on social dimensions of conservation or conservation governance, and ten of the eleven are listed among the authors. More than two thirds of publications were reviewed by one of three reviewers, including the lead author. In addition to the protocol, descriptive guidance was provided to all reviewers on inclusion/exclusion decisions, as well as type of and how much detail to provide, and on distinguishing findings supported by empirical evidence from unsubstantiated claims. The lead author and reviewers discussed papers and provided two-way feedback after initial reviews until both were comfortable with decision making and levels of consistency. All inclusion/exclusion decisions made at full review stage were verified by revisiting the original publication, and extracted data were checked by the lead author for completeness and accuracy.

Table A3.1 Review protocol

<i>Topic</i>	<i>#</i>	<i>Variable</i>	<i>Notes/ Categories</i>
<i>Study characteristics</i>	1	Number of cases included in paper	If more than one case, separate by using extra lines
	2	Year/range of years of case study/ data analysed (not year of publication)	
	3	Study not suitable for review - recommend exclusion. Mark box with X. Do not continue.	Each study must consider a) aspect of Indigenous Peoples and Local Communities' (IPLC's) well-being, b) conservation (ecological) effectiveness, c) empirical findings linking IPLC well-being and effectiveness (not assumed or potential links).
<i>Conservation intervention</i>	4	Conservation intervention type	Possibilities include protected/conserved area, conservation of particular species, sustainable use, restoration, or mixture of those. Be as specific as possible.
	5	Governance arrangement/power relations – who are main actors controlling the design and implementation of the primary intervention	May include community-based, indigenous led, co-managed, government run, non-governmental organisation led, privately run protected area. What role for IPLCs initially and ongoing. If more than one intervention then use numbering
	6	Any subtypes/secondary interventions mentioned and key characteristics (number if more than 1)	Could include tourism, benefit sharing, species programs, human-wildlife conflict program, capacity building, tenure provision, farming, livelihood program, participatory land use planning etc. Key characteristics may include

		biodiversity target, incentive/benefit provided, level of participation, additional actors governing program etc.
	7	Locality, country/ region
	8	Name of primary intervention Site or program name given
	9	Year primary intervention introduced (note any important changes and year they occurred)
	10	Ecosystem type E.g. Forest; Dryland/ semi-arid; Grassland; Shrubland; Wetland; Coastal; Marine; Mountain; Polar; Agriculture; Other
	11	Any aspect of biodiversity mentioned as the priority focus of the conservation intervention? Species, species groups, habitat, ecosystem, ecosystem services etc
<i>Well-being or social dimension of governance</i>	12	Specific well-being goals, social objectives, related governance features/equity principles associated with the conservation intervention? List them
	13	Specific social groups targeted through the conservation intervention Local communities as a whole or any specific subgroups mentioned? If so, note pathway through which they are expected to benefit/be involved
	14	Additional notes about conservation intervention/governance Space for reviewer to note important information not covered by other questions

Research methodology – well-being/ social research

- 15 What key social science terms, concepts, approach, framework are applied in the study's methodology?
- 16 How is this social dimension conceptualised? What aspects of IPLCs' well-being or equity are studied?
- 17 Research methods used to investigate well-being and links to conservation: method type/detail
- 18 Scale at which data is presented and at which analysis takes place.
- May range from holistic, interdisciplinary study of all aspects of well-being to simpler focus on ecosystem services only in context of the conservation intervention/area/resource, to a quantitative economic approach focused on single resource type. Possible categories of focus include income/wealth, employment, infrastructure; different physical resource types including food, materials and access; human resources, education, skills; health; social cohesion, collective resources/ agency, leadership; trust, empowerment, relations, collaboration; cultural values and respect for identity, knowledge, practices. If land/resource tenure please specify what form of tenure considered (from property rights to customary, collective).
- Qualitative: interviews, observation etc; Quantitative: survey data, spatial model etc ; Participatory, action research; Others
- For example household level data may be analysed at the protected area level, between villages, nationally etc. Data may be at village, community, household, individual level, with analyses at local,

subnational, national, international scales or cross-scale comparison.

This may not be clear for more descriptive case studies.

- 19 Whose well-being is considered in the study? Local communities as a whole, Indigenous Peoples as a group or any specific sub-groups within them? Women, youth, the poorest, resource users, livelihood types etc. If well-being of other, wider stakeholders considered, are there any tradeoffs noted with well-being of IPLCs?
- 20 Methodological assumptions to be considered when interpreting findings: Are there any clear ideological positions guiding the research? E.g. some researchers clearly assume (without themselves demonstrating) that material poverty is the primary cause of ecological degradation or that social and ecological outcomes will be improved through promotion of alternative livelihoods/ education/training regardless of local values or alternatively that Indigenous Peoples all exhibit pro-conservation behaviours.
- 21 Important contextual factors – social, economic, political, environmental? Any key details given on the status of well-being, livelihoods, equity or wider issues: major land use changes & pressures, population density, conflict, political insecurity, natural disaster, economic forces, policies introduced etc.
- 22 What are the major changes in well-being (or other social term) shown or reported? What aspect of well-being has changed for whom and over what timescale? Number if more than 1

	23	To what extent and through what mechanisms is conservation governance shown/reported to have caused or contributed to changes in well-being?	Try to mention a) specific feature of governance, b) pathway through which well-being influenced and c) how well-being affected for whom
	24	What are the other main causes or drivers given for those changes in well-being and through what mechanisms? (wider social, economic, political and environmental factors)	Number if more than 1
<i>Conservation effectiveness</i>	25	Conservation/ ecological effectiveness – how is it conceptualised in the study?	(Refers to effectiveness in conserving biodiversity in some form, not simply effectiveness of management systems)
	26	Effectiveness – what are the major changes shown or reported? Evidence of conservation success/non-success, ecological state improving or otherwise?	How has the change been evidenced? Is it assumed or described/quantified in some way?
	27	To what extent and through what mechanisms is conservation governance shown/reported to have caused or contributed to changes in conservation effectiveness?	Number if more than 1. Try to mention a) specific feature of governance, b) pathway through which effectiveness influenced and c) how effectiveness has been affected
	28	What other main causes or drivers have contributed to changes in effectiveness and through what mechanisms? (any local or wider social,	Number if more than 1 (e.g. invasive species, political insecurity, migration, climate change, agricultural policy or shifts, social change, economic forces, shift in

		economic, political and environmental factors)	demand for natural resources, land ownership change etc)
<i>Links between well-being and effectiveness</i>	29	What are the key findings or conclusions reached about the relationship between well-being and conservation effectiveness or vice versa. If more than 1 please number each separate finding	Number if more than 1. Possibility of multiple links, positive and negative, working synergistically, trading off against one another or mixed effects. Not only direct links but quite indirect. Provide any detail given about mediating factors or dynamics.
	30	Additional notes on well-being, conservation effectiveness and links between them	Space for reviewer to note important information not covered by other questions
	31	Any key recommendations made in the article for conservation or development policy/practice?	Number if more than 1
