1 **Title:** Conservationists' perspectives on poverty: an empirical study
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Title: Conservationists' perspectives on poverty: an empirical study

Abstract

1. Biodiversity conservation interventions have long confronted challenges of human poverty. The ethical foundations of international conservation, including conservation's relationship with poverty, are currently being interrogated in animated debates about the future of conservation. However, while some commentary exists, empirical analysis of conservation practitioner perspectives on poverty, and their ethical justification, has been lacking thus far.
2. We used Q methodology complemented by more detailed qualitative analysis to examine empirically perspectives on poverty and conservation within the conservation movement, and compare these empirical discourses to positions within the literature. We sampled conservation practitioners in western headquartered organisations, and in Bolivia, China, Nepal and Uganda, thereby giving indications of these perspectives in Latin America, Asia and Africa.
3. While there are some elements of consensus, for instance the principle that the poor should not shoulder the costs of conserving a global public good, the three elicited discourses diverge in a number of ways. Anthropocentrism and ecocentrism differentiate the perspectives, but beyond this, there are two distinct framings of poverty which conservation practitioners variously adhere to.
4. The first prioritises welfare, needs and sufficientarianism, and is more strongly associated with the China, Nepal and Uganda case studies. The second framing of poverty focuses much more on the need for 'do no harm' principles and safeguards, and follows an internationalised human rights-oriented discourse.
5. There are also important distinctions between discourses about whether poverty is characterised as a driver of degradation, or more emphasis is placed on overconsumption and affluence in perpetuating conservation threats. This dimension particularly illuminates shifts in thinking in the 30 or so years since the Brundtland report, and reflecting new global realities.
6. This analysis serves to update, parse and clarify differing perspectives on poverty within the conservation, and broader environmental movement, in order to illuminate consensual aspects between perspectives, and reveal where critical differences remain.

Key-words:
conservation organisations; discourse analysis; poverty; Q methodology

1. Introduction

The ethical foundations of conservation are under scrutiny. This is evident in the animated so-called 'new conservation' (Kareiva and Marvier, 2012; Soule, 2013; Holmes, Sandbrook and Fisher, 2017), and the Half Earth/Whole Earth debates (Wilson, 2016; Büscher, Fletcher, Brockington et al., 2017). This paper interrogates contemporary debates about one of the most ethically urgent issues that intersects with conservation: human wellbeing and its converse, poverty (Adams, Aveling, Brockington et al., 2004; Howe, Corbera, Vira et al., 2018; Lehmann, Martin and Fisher, 2018). Conservation has long confronted poverty because of the spatial intersection at a global scale of biodiversity and of human development challenges, noted in Fisher and Christopher (2007), and described by E. O. Wilson as an 'awful symmetry' (Wilson, 1992; 260). Until relatively recently, mainstream sustainable development thinking considered poverty as a chief cause of environmental degradation, and hence appropriate target of conservation (Duraiappah, 1998). However, social scientists have also documented how conservation benefits tend to accrue to the global community, while the disbenefits are localised and can exacerbate poverty, through displacement or restricted access to natural resources associated with protected areas (e.g. Brockington and Igoe, 2006). Brockington

78   (2009) therefore argues that we should see conservation processes as spreading fortune and,
79   crucially, misfortune around the landscape. The global political economy of conservation
80   makes social impacts particularly contested; the conservation movement had a colonial
81   genesis (Grove, 1995; Adams, 2004), and there are continuing legitimacy questions raised by
82   the influence of conservation organisations headquartered in wealthy countries with the power
83   to shape the relations between society and nature in poorer places (Chapin, 2004;
84   MacDonald, 2008). Hence, the conservation/poverty nexus forms an arena of competing
85   imperatives and obligations towards human and non-human nature, and the resulting trade-
86   offs are amongst the most dramatic, or 'tragic' (Martin, 2017), and therefore contested and
87   debated, within the broader field of environment and development.
88
89   The 1987 World Commission (WCED, or Brundtland report) had a wide remit, but was
90   particularly influential in framing linkages between poverty and conservation. Indeed, it is
91   considered so influential that Duraiappah (1998) described it as a 'blueprint', and it dominated
92   how international environment and development fora considered poverty at least through the
93   1990s. Poverty was characterised as a fundamental threat to sustainability and a central driver
94   of resource degradation; 'poor and hungry' people were portrayed as driven by survival to
95   overexploit and degrade resources (WCED 1987; 28). The logic presented by Brundtland and
96   institutionalized at the 1992 Earth Summit, was that if poverty was to be addressed,
97   instrumental benefits could accrue for conservation. Developments in the policy realm
98   continued to shape these debates through the 2000s. The 2010 biodiversity target adopted in
99   2002 by the 7th Conference of Parties to the Convention on Biological Diversity emphasized
100   poverty reduction, albeit in the target's less quoted second phrase: 'to achieve by 2010 a
101   significant reduction of the current rate of biodiversity loss at the global, regional and national
102   level *as a contribution to poverty alleviation and to the benefit of all life on Earth*'
103   (https://www.cbd.int/2010-target/). Similarly, the 2003 World Parks Congress was formative,
104   with the Durban Accord offering a new paradigm for protected areas which sought to integrate
105   conservation goals with the interests of all affected people (Roe, 2008). More concretely, the
106   Durban Action Plan developed targets for protected areas to strive to alleviate poverty and in
107   no case exacerbate poverty, and committed that all existing and future protected areas be
108   required to comply with the rights of indigenous and mobile peoples and local communities
109   (IUCN, 2003, in Roe 2008). Concurrently, in an article taken very seriously within the
110   movement, Chapin (2004) attacked the social impacts and human rights records of a number
111   of the prominent, western headquartered conservation NGOs. These developments in the
112   2000s led to a moment of reckoning regarding conservation's social impacts and the
113   exacerbation of poverty. The establishment of the Conservation Initiative on Human Rights
114   (CIHR: http://www.thecihr.org/), a network of organisations integrating rights based
115   approaches in conservation, was in many ways attributable to these developments through
116   the 2000s, taking impetus from the Durban Congress (CIHR, 2014). Hence, the instrumental
117   logic of the Brundtland report yielded to a more normative logic for conservation to take
118   account of poverty through the 2000s. In contrast also to the Brundtland logic which
119   conceptualised strong alignment between action on conservation and poverty alleviation,
120   there developed increasing recognition of trade-offs and hard choices between these goals
121   (McShane, Hirsch, Trung et al., 2010). The upshot of all of these developments, however, was
122   that it became the norm for conservation organisations to seek to engage with matters
123   associated with poverty for both ethical and pragmatic reasons (Walpole and Wilder, 2008).
124
125   Without necessarily denying the linkages drawn above, a related but distinct debate continued
126   during the 2000s as to whether it was appropriate or effective for conservationists to attempt
127   to address poverty issues, and some argued that this might detract from organisational
128   missions (e.g. Sanderson and Redford, 2003), and core conservation activities (Terborgh,
129   1999). In this perspective, poverty and conservation are characterised as separate goals
130   (Robinson, 2004). This mirrors the Tinbergen principle in economics which advocates one
131   policy instrument per policy target (Klein, 2004). Redford, Levy, Sanderson et al. (2008) argue
132   that there is actually very little spatial coincidence of global poverty hotspots with biodiversity

133 in 'wild' areas (as a result of low density of poverty), and thus a genuine focus on addressing
134 poverty would detract substantially from the core mission of conservation.
135
136 Effectively capturing a number of the positions described above, Adams et al. (2004) develop
137 an influential typology of the different perspectives on relationships between poverty and
138 conservation, which forms a central reference point for this paper. It is worthy of note, however,
139 that this typology was derived from literature and deep knowledge of the field, rather than with
140 reference to primary empirical material:
141   1) The first position considers that 'poverty and conservation are separate policy realms'
142   (p.1147).
143   2) The second position considers that 'poverty is a critical constraint on conservation'
144   (p.1147). This is the Brundtland position described above, effectively an instrumental
145   argument.
146   3) The third position takes a normative stance that 'conservation should not compromise
147   poverty reduction' (p.1147). This is a manifestation of the 'do no harm' principle.
148   4) The fourth position considers that 'poverty reduction depends on living resource
149   conservation' (p.1148); in other words, this reverses the causal Brundtland logic and
150   postulates that environmental degradation results in poverty, therefore conservation
151   can be promoted on the basis of supporting livelihoods. This position would tend to
152   prioritise harvestable resources above species- or biodiversity-conservation (Adams
153   et al. 2004; Howe et al. 2018). There are parallels between this position and the
154   'environmentalism of the poor', ideas associated with Guha and Martínez-Alier (1997;
155   Martinez-Alier, 2002), that the poor have a very considerable stake in the responsible
156   management of the environment, for livelihood considerations.
157
158 The transitions in thinking we have traced through the literature constitute an anthropocentric
159 turn seen more broadly in environmental management imperatives, but especially noticeable
160 in conservation because of a stronger tradition of ecocentric protectionism. Conservation is
161 increasingly justified through people-centred rationales, and attempted through people-
162 centred approaches (Mace, 2014). The contemporary 'new conservation' debates turn on a
163 hinge of whether conservation should be anthropocentric (Holmes et al. 2017), and
164 Sandbrook, Fisher, Holmes et al. (2019) find that 94.7% of a global sample of 9264
165 conservationists are in favour of people-centred conservation. The mission and public policy
166 statements of most international conservation organizations show increasing attention to local
167 livelihood issues, indigenous rights, and poverty (Roe, 2008). Much organisational literature
168 promotes the idea that human wellbeing depends centrally on ecological health (e.g.
169 Conservation International, 2015; WWF, 2018). Yet, there remain enduring concerns about
170 instances where human rights or wellbeing have been compromised by conservation (e.g.
171 Brockington and Igoe, 2006; Dowie, 2011; Reuters, 2019; Survival International, 2019).
172 Hence, there remain questions about how far the anthropocentric turn goes, particularly
173 beyond rhetoric to implementation. Ongoing concerns about the social impacts of
174 conservation suggest that genuine commitments to poverty alleviation are more demanding,
175 requiring more effort to achieve, than a generalised orientation towards people that seems to
176 characterise the communications and direction of travel of many environmental organisations.
177
178 The aim of this paper is to investigate contemporary discourses amongst conservation
179 practitioners on poverty and conservation. The novel contribution this paper offers is an
180 empirical analysis; existing commentary and analysis of historical developments are described
181 above, but systematic and contemporary empirical analysis of practitioner perspectives is
182 lacking. In particular, there is a need to examine how far commitments go towards poverty
183 alleviation, beyond a widely noted generalised anthropocentrism. We provide an in-depth
184 analysis of how debates about poverty and conservation are manifest in contemporary
185 conservation organisations, examining organisations headquartered in the global north, but
186 also compare and contrast these with perspectives from divergent illustrative contexts in the
187 global south. We employ a novel combination of Q methodology and qualitative analysis in a

discourse analytical approach to scrutinise the ethical commitments of conservationists in a context in which the ethics of conservation, and particularly its social implications, are intensely debated (Sandbrook et al. 2019; Holmes et al. 2017). More generally, Sandbrook, Scales, Vira et al. (2010) note a lack of research on conservation values and ethics, which we address empirically in this paper. We use the Adams et al. (2004) framework outlined above to interrogate the discourses we elicit and to reflect on their contemporary implications. In line with Adams et al. (2004), and Howe et al. (2018), we offer this effort to parse and clarify differing perspectives on poverty within the conservation movement in order to illuminate consensual aspects between perspectives, and show where critical differences remain.

2. Methodology and methods

We employed a discourse-analytical approach to understand the perspectives of conservation professionals, drawing upon triangulated data from secondary materials, qualitative key informant interviews and Q methodology. Q methodology enables the comparison of individuals' ranking of statements to explore the structure and form behind subjective positions, giving the means to combine the qualitative study of perceptions with the statistical rigour of quantitative techniques (McKeown and Thomas, 1998). Respondents consider statements reflecting various perspectives on a topic, and place them on a grid conveying agreement and disagreement (see Figure 1). Q supports the analysis of how subjective positions are shared by people, rather than with their prevalence in a population, the domain of conventional surveys. Q studies intensively analyse relatively small populations, often purposively sampled, rather than aiming to be statistically representative of larger populations.

-4 least like I think	-3	-2	-1	0	+1	+2	+3	+4 most like I think

Figure 1: The Q methodology grid used for this study. Respondents were asked to allocate statements to cells reflecting their relative agreement with each statement.

Q methodology is an increasingly popular tool in the social science of conservation (Sandbrook, Fisher and Vira, 2013; Fisher and Brown, 2014; Zabala, Sandbrook and Mukherjee, 2018). While Q is now relatively established in conservation science (Zabala et al. 2018), it has not been used previously to investigate perspectives of conservationists on poverty. It is a powerful tool for identifying and analyzing discourses and provides particularly strong triangulation in conjunction with more conventional qualitative analysis. In particular, initial impressions of qualitative data can be systematically investigated with Q methodology (Fisher and Brown 2014; Zabala et al. 2018), and qualitative data can support the interpretation of discourses elicited with Q methodology (Watts and Stenner, 2012). This study employs Q methodology in this triangulation role, accompanied by qualitative data. This combination allows us to investigate systematically the perspectives of conservation practitioners on the ethics underpinning and motivating their activities related to local

226   communities and poverty.

227   Respondents for interviews and Q methodology were selected purposively to represent the
228   broadest range of perspectives from international and national contexts on the issues of
229   conservation and poverty in the global south. The total number of respondents engaged for
230   this work is 39. An 'international' dataset comprised 14 respondents who work for
231   organisations headquartered in North America and Europe, with at least some initiatives in the
232   global south. This included all mainstream, prominent, conservation organisations, and
233   further, smaller organisations representing a diversity of approaches, for instance, focused
234   particularly on charismatic or endangered species, or conservation with development. Some
235   groups were members of the CIHR. Because of this dense sampling (see Table 1) of large,
236   mainstream international conservation organisations, we make representative claims about
237   this group from our findings.

238   The sampling strategy also sought to include the perspectives of a number of respondents
239   from national level conservation organisations, to investigate aspects of debates about
240   conservation and poverty in national settings. These country case studies were selected to be
241   illustrative of widely differing geographies in Africa, Asia and Latin America and the countries
242   chosen were Bolivia, China, Nepal, and Uganda. The country cases were chosen partly for
243   familiarity to the research team, allowing us to leverage deeper understanding from the
244   findings. As case studies, these were not selected to be representative (Flyvbjerg, 2006), for
245   instance at a continental scale, but instead to illustrate the character of debates manifest at
246   national scale in diverse countries. Because of dense sampling (see Table 1), we can make
247   claims about mainstream conservation within each national context, but we cannot generalize
248   to any larger geographical unit. The combination of international and national organisations
249   meant that some organisations were represented within both the international and national
250   samples (Table 1).

251   A standardised semi-structured interview schedule and a structured Q methodology protocol
252   was used throughout the research to ensure internal validity. Within organisations, we typically
253   interviewed the respondent with the role most closely associated with local people.
254   Respondents were asked to represent their own views, rather than to represent an
255   organisation, to avoid ambiguity and because of respondents' understandable reluctance to
256   claim to represent sometimes large and complex organisations. Each interview has a unique
257   code for reference. The sample is characterised in Table 1. The sample contains 26 male and
258   13 female respondents. Data were collected over the course of a year, starting in April 2016.
259   The research received clearance from the GeoSciences research ethics committee, University
260   of Edinburgh. All respondents gave informed consent to participate in the study, and we
261   maintain anonymity of respondents throughout.

262   To maintain complementarity between the qualitative analysis and Q, we sought a Q response
263   from all interview respondents in the international and national samples. We have Q
264   responses from 37 of 39 responses; there was attrition of two respondents (within the
265   international sample) because they were unavailable at the time of the Q methodology
266   interaction*. Table 1 describes the sample.

267

268

Respondent type	Organisation *Note: an asterisk marks a respondent for whom there is an interview, but not a Q sort. Numbering bears no resemblance to nomenclature of interviews in results section, but is simply to show the size of samples (to protect anonymity).
International conservation organisations (headquartered in the West, with operations in the global south)	1 Save the Elephant 2 Save the Rhino 3 Wildlife Conservation Society 4 Conservation International* 5 WWF International 6 The Nature Conservancy 7 World Land Trust 8 Durrell Wildlife Conservation Trust 9 Zoological Society of London* 10 Arcus Foundation 11 IUCN (World Conservation Union) 12 Birdlife International 13 African Wildlife Foundation 14 Fauna & Flora International
Bolivia national level conservation organisations	1 Fundación Bosque Seco Chiquitano (Foundation for the Dry Chiquitano Forest) 2 Fundación amigos de la naturaleza (Friends of Nature Foundation) 3 CANAVALIA- Servicios verdes 4 Natura 5 WWF Bolivia
China national level conservation organisations	1 The Nature Conservancy, China 2 Shanshui 3 Rare 4 Conservation International, China 5 WWF China 6 Fauna & Flora International, China 7 Greenpeace, China
Nepal national level conservation organisations	1 Department of Soil Conservation and Watershed Management 2 The President Chure Conservation Board 3 Community Forestry Supporters Network (COFSUN) 4 WWF Nepal 5 Women Leading for Change in Natural Resource Management 6 National Trust for Nature Conservation 7 IUCN Nepal
Ugandan national level conservation organisations	1 Uganda Wildlife Authority 2 IUCN Uganda 3 Ecotrust 4 Nature Uganda 5 Treetalk Plus 6 Environmental Alert
Total	**39 interview respondents**

269

270   **Table 1:** Composition of sample of respondents

271   A Q study starts by defining statements reflecting the range of perspectives on a topic and in
272   relation to the research questions. Stephenson (1952; 223) argued that the Q set (of
273   statements chosen for a study) should be designed 'to suit the particular requirements of an
274   investigation', and Watts and Stenner (2012) note that a balanced Q set is representative
275   without core ideas missing. We used statements from primary empirical material (international

276 sample interviews) and from a document analysis of secondary material released by sampled
277 conservation organisations, which we had previously coded[1] for qualitative analysis. We also
278 incorporated statements that we developed to ascertain responses to specific ethical
279 principles. This combination of primary and secondary material is acceptable within Q
280 methodology (Sandbrook et al. 2010; Watts and Stenner, 2012).

281 Adhering to the aims of representativeness and balance in statement design, we selected 32
282 statements from an initial list of 126, reducing the number by eliminating statements of lower
283 relevance, or redundant statements whose meaning was more effectively conveyed by
284 retained statements. Some statements were altered slightly for clarity or to reverse their
285 meaning, to improve balance (Watts and Stenner, 2012). This Q set was then piloted with 8
286 respondents, after which some small changes for clarity were made. The grid used is
287 displayed in Figure 1, and respondents were asked to sort statements from 'most like I think'
288 to 'least like I think'.

289 The internet software, htmlQ[2] was used to administer the Q survey with international
290 respondents, who engaged with Q methodology some months after their interview. This
291 software offered the submission of qualitative commentary on the statement rankings, which
292 is important for interpreting Q results. Respondents in Bolivia, China, Nepal and Uganda were
293 engaged with a paper version of the same Q exercise immediately after their interview. As
294 regards the 'forced versus free' distinction, we encouraged respondents to follow the grid as
295 closely as possible. Rather than as a requirement of statistical analysis, this encourages
296 respondents to prioritise statements and place those most salient to them at the extremes
297 (McKeown and Thomas, 1998; Watts and Stenner, 2012).

298 The interviews were conducted in English with international, Ugandan and Nepalese
299 respondents. However, the Bolivian and Chinese respondents were engaged in Spanish and
300 Mandarin respectively. For the Bolivian and Chinese studies, Q statements were available in
301 these languages as well as English (printed on the reverse of the cards), to aid understanding.
302 Statement translations were undertaken by the bilingual leaders of country case studies, and
303 checked using back translation to ensure validity. Where necessary, interviews were also
304 translated into English for qualitative analysis. Qualitative thematic analysis of interviews was
305 undertaken using Nvivo software and these themes were drawn upon to illustrate results.

306 Q sorts were analysed using PQMethod software. Q methodology analysis focuses around
307 factors, which are common orderings of statements (see Figure 2). We used a centroid factor
308 analysis, in keeping with the principles of Q methodology (Watts & Stenner, 2012). Three

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[1] We reviewed website pages from organisations within the sample for the dual purpose of developing Q
statements and preparing interviews. We selected the most appropriate pages (for instance, regarding work
with local communities, or explicitly about approaches to poverty), and undertook qualitative thematic coding.

[2] https://github.com/aproxima/htmlq

309 factors were extracted[3] and rotated[4]. Six respondents did not associate sufficiently with any
310 one factor. Once factors are identified, the analysis becomes more interpretive and factors
311 can be understood (and are thus labelled henceforth) as discourses, constellations of attitudes
312 or values; in Dryzek's words: 'shared way[s] of apprehending the world' (Dryzek, 2005; 9).

3. Discourses on poverty within conservation

315 Three discourses were identified, which we name as follows: Discourse 1: needs-based pro-
316 poor with ecocentrism; Discourse 2: rights based pro-poor; Discourse 3: ecocentrism with
317 rights commitments. Figure 2 presents the numerical characterisations of discourses, showing
318 z-scores[5] and normalised scores (corresponding with positions in Figure 1) for each
319 statement. These numerical characterisations of the discourses are based upon an 'ideal-type'
320 Q sort, which represents the mean ordering of statements for respondent Q sorts associated
321 with this discourse. We encourage readers to directly consult Figure 2 to interpret differences
322 between the discourses, and readers can cross reference Figure 2 whilst reading the following
323 results section which closely references statements. In what follows, we describe and interpret
324 the discourses, referring to Q statement numbers and their normalised score (position in the
325 Figure 1 grid) in parentheses (Q-#: normalised score), and marking distinguishing statements
326 (ranked in a significantly different way in other discourses; Watts and Stenner, 2012), with an
327 asterisk. In addition, we illustrate the discourses with qualitative data (italicised) derived from
328 the Q sorting process (marked with a superscript [Q]), and interviews (marked with a superscript
329 [I]).

3.1 Discourse 1: needs-based pro-poor with ecocentrism

333 Discourse 1 expresses joint ecocentric and pro-poor anthropocentric imperatives. In straddling
334 what are often thought of as opposite poles of anthropocentrism and ecocentrism, the
335 discourse is relatively nuanced. It is also distinguished by emphasising human needs and
336 interests rather than human rights and safeguards. The emphasis on needs, interests and

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[3] Watts & Stenner (2012) describe objective criteria for factor choice, whilst emphasizing that these can be contradictory, and holistic judgement is required in order that extracted factors are meaningful in Q methodology terms. The Eigenvalues (or Kaiser-Guttman) criterion would have led us to extract six factors. However, this would not represent much reduction of the correlation matrix, and Brown (1980) argues that this criterion is relatively meaningless in Q studies. A further criterion is that meaningful factors should have at least two associated respondents. This would eliminate the four and five factor solutions. Humphrey's rule (see Watts & Stenner (2012)) would suggest a two factor solution was appropriate. Overall, we drew on our experience of Q methodology and also considered the accompanying qualitative dataset, which indicated that the third factor contributed meaning to the study, and aided understanding in terms of contrast with the other two factors. Including it meant that ecocentrism was expressed in the Q analysis, and because this was very evident in the qualitative data, we considered it merited expression through Q. In summary then, the extraction of the third factor was supported by the eigenvalue criterion, the criterion that a meaningful factor must have at least two associated respondents (Factor 3 has 5, and explains 13% of study variance). Its inclusion was also supported by related qualitative data, although it did not meet the Humphrey's rule criterion.

[4] Factors were rotated using a varimax procedure within PQMethod, followed with 'by-hand' rotation (this combination is described by Watts and Stenner (2012; 126) as useful and effective for exploiting the 'complementary strengths' of both processes). We rotated F1 and F2 anticlockwise by 2 degrees to incorporate two further respondents in the factor solution (moving from eight to six respondents not associated with any factor). This greater incorporation of respondents in factors is noted as desirable by Stricklin and Almeida (2000) and Watts and Stenner (2012). Respondents were flagged for factors using manual flagging (as recommended by Watts & Stenner (2012), when exceeding the threshold of 0.46 and a clear 10 decimal points higher than their association with another factor (see Watts & Stenner (2012)).

[5] z-score numeric values are given in Table 2, supplementary materials.

livelihoods finds resonance with ideas around the 'environmentalism of the poor' (Guha & Martínez-Alier, 1997). It is associated with 16 respondents, including: one US based representative and five of seven respondents from each of China and Nepal, and five of six from Uganda; it therefore has very strong representation from these country case studies. The gender balance broadly represents the sample. It is associated with a range of organisations with species-oriented and broader conservation interests.

Discourse 1 promotes the economic and participatory interests (Q-28*: -4; Q-30*: -4) of poor people to meet livelihood needs (Q-8: +2) and on the basis of what people deserve (Q-16: +4). This deservedness principle is evident in this quote:

'*the poor have always provided some form of protection to the very systems that provide goods and services to humanity*' [I-09, international dataset^Q].

However, the discourse does not more generally prioritise related international principles/norms around human rights (Q-18*: +1; Q-6: 0) or do no harm (Q-4*: 0). In addition, when compared with other discourses, Discourse 1 is more inclined to see poverty as a threat to biodiversity in the tropics (Q-22*: +1), for instance:

'*The poor are most destructive because they lack alternative, hence [they] need to be targeted because of the threat they cause from their activities*' [I-16, Uganda dataset^i].

The discourse hence recognizes the role of poor people in protection (Q-16, above), but distinctively compared to other discourses, in some circumstances also regards poverty as a threat to biodiversity. This discourse more strongly promotes human wellbeing as a conservation goal than other discourses (Q-26*: -3), and considers a moral imperative in conservation organisations seeking to alleviate poverty (Q-27: -2). The discourse weakly prioritises humans above non-human nature (Q-21: -1; Q-32: -1), suggesting the following caveated response to Q-21 is typical:

'*Non-human nature is essential to the health of the planet Earth and to human survival. There are times when human desires must not be met in order to save the planet.*' [I-12, international dataset^Q].

There is a related indication that the risk of species extinction might elevate the rights of non-human nature (Q-25*: +1). Ecocentric dimensions are also expressed in the strong salience of intrinsic values of biodiversity (Q-15: +4) and the human virtue of caring for nature (Q-2: +3). In Q methodology, ideas are salient when they feature towards the grid extremes (see Figure 1).

Relatively high salience is given to the SDGs in promoting pro-poor environmental governance (Q-10*: +3), and greater social equality is prioritised as the rationale for conservation organisations to promote poverty alleviation (Q-7*: +3). The needs and rights of *future* human generations are salient as something conservation organisations should champion (Q-19*: +3).

3.2 Discourse 2: rights based pro-poor

Discourse 2 is pro-poor and strongly emphasises the 'do no harm' principle, human rights and social safeguards. It is more closely associated with Discourse 1 than 3. It is associated with 10 respondents, five international, and including one from each of Uganda and Nepal, and three from Bolivia. The gender balance roughly represents the sample. Most Discourse 2 respondents are drawn from organisations with a focus broader than species, and four of five of the international respondents are drawn from organisational signatories to the CIHR.

Discourse 2 promotes anthropocentric conservation imperatives (Q-26*: -1) and is distinctively characterised by giving priority to do no harm (Q-4*; +4) standards in conservation and international human rights norms (Q-18: +4; Q-6*; +3). This is exemplified in the qualitative data:

'*Standards are there to protect vulnerable people. It is important to respect them. Conservation that doesn't is unlikely to succeed or be sustainable.*' [I-02, international dataset[Q]]; [we all] '*have a responsibility to adhere to internationally accepted human rights standards... Everything else (referring to other statements) should fall under this one.*' [I-08, international dataset[Q]; similar sentiments expressed by I-03, I-06, I-36].

Reactions to Q-23 (-1) and Q-25* (0) (non-salient, but with a lower rank position in this than any other discourse) also signify the importance of human rights within this discourse.

In Discourse 2, there is outright rejection of the idea that poverty is the main threat to biodiversity in the tropics (Q-22: -4), e.g. (direct responses to *Q-22*):

'*Don't blame poverty for the impact on biodiversity, the poor are not the culprits of the loss of biodiversity*' [I-33, Bolivian dataset[Q]]*, and:*
'*Wealth, and the increasing consumption of natural resources around the world is the greatest threat. Poor people consume a lot less than wealthy people*' [I-05, international dataset[Q]].

There is also rejection of the idea that the poor should shoulder the costs of conserving a global public good (Q-17: -4), although as a consensus statement, Q-17 does not differentiate the discourses. Respondents associated with Discourse 2 noted the following:
'*[These costs] should be shouldered by those most able to pay and/or those causing the damage.*' [I-03, international dataset[Q]]*;*
'*Given the extent to which environmental issues… are driven by consumption in developed countries (not by local poverty) poor people should not have to bear the costs of conserving these global public goods*' [I-08, international dataset[Q]].

There is some related critique of the consumption impact of the world's wealthy on ecosystems and poverty (Q-1: +3; Q-12: +2; Q-5: +1 (all of which take a higher rank in this discourse than the others)), and to illustrate this:

'*...wealth is a much greater threat to ape survival than poverty… The greatest threats and challenges we have seen have been more from this very strong wave of consumption of natural resources… which is much more driven by large companies and feeding populations very, very far away... than local people and their…direct poverty*' [I-05, international dataset[Q]]. Likewise: '*The greatest threat has to do with consumer society, with the interests of the big monopolies, with corrupt governments, and with an uninformed society*' [I-33, Bolivian dataset[Q]].

However, social equality is not strongly prioritised as a principle for conservation promoting poverty alleviation (Q-7*: +1). As with Discourse 1, but not quite so strongly (at least on Q-28 and 30), this discourse prioritises the economic (Q-28*: -4), participatory (Q-30*: -4), and cultural (Q-29: -3) interests of the poor in conservation:

'*Conservation is about conserving irreplaceable public goods (biodiversity) often rooted in culture and intrinsic values... To ignore cultural interests of the poor seems deeply hypocritical*' [I-08, international dataset[Q]].

Discourse 2 ranks Q-20 (-1) about nature being used to alleviate poverty now, rather than preserved for future generations, more highly than others. This discourse puts overall less emphasis than other discourses on ecocentric conservation and intrinsic value (Q-15*: +1),

446 and prioritises human rights, but appears agnostic about the rights of non-human nature (Q-
447 25*: 0): When asked to consider situations where conservation and poverty alleviation are in
448 direct opposition, associated respondents tend to prioritise humans, although Q-32 is not
449 highly salient.
450
451 **3.3 Discourse 3: ecocentrism with rights commitments**
452
453 Discourse 3 is ecocentric and articulates some pro-poor commitments in terms of social
454 safeguards. It shares with Discourse 2 the importance of human rights and safeguards, and a
455 critique of wealth as a driver of conservation threats. Some aspects of ecocentrism are shared
456 with Discourse 1. It is associated with three respondents from the international sample and
457 two from the Bolivian country case study. It is associated with four male respondents, and one
458 female. Among international organisation respondents associating with this discourse, two of
459 three represent more species-oriented organisations.
460
461 Discourse 3 is characterised by an ecocentric, as distinct from anthropocentric, or pro-poor,
462 imperative (Q-21*: +4; Q-32*: +2), e.g.

463 '*Given that every species' survival, including our own, depends on a healthy, functioning*
464 *planet, we must surely sometimes or often prioritise other species' over humans' needs.'* [I-
465 01, international dataset^Q].

466 The expression of ecocentrism is manifest particularly in relation to the extinction of non-
467 human nature (Q-25*: +3), e.g.:

468 '*one of the positions that we've tried to take is that all species have a right to exist*' [I-07,
469 international dataset^i]*; and* '*endangered species simply don't get anywhere near the funds that*
470 *they should be getting* [I-08, international dataset^i].

471 This is associated with human wellbeing as an ultimate goal of conservation being non-salient
472 (Q-26*: +1), for instance:

473 '*Humans are just one species on the planet so it is not the ultimate goal to preserve more*
474 *humans but to preserve the vast biodiversity of life'* [I-04, international dataset^Q].

475 There was weak rejection of the idea of a moral imperative for conservation organisations to
476 seek to alleviate poverty (Q-27*: +1) and a number of statements about economic (Q-28*: +1),
477 participatory (Q-30*: 0) and cultural interests (Q-29*: -1) were non-salient, which distinguishes
478 this discourse from others. However, 'do no harm' principles are salient as regards the
479 interests of poor people (Q-4*: +2) and the idea of conservation acting consistently with human
480 rights standards is promoted (Q-18: +3). Yet, in the view of this discourse, this does not mean
481 that conservation cannot violate any human right (Q-6: 0). There is a rejection of conservation
482 targeting on the basis of where it can alleviate poverty (Q-13*: -3) and other rationales for
483 conservation to alleviate poverty are non-salient (Q-5*: -3; Q-7*: -1; Q-10*: -1), as is the idea
484 of self-determination by local people (Q-24*: -2). However, there is strong rejection of the idea
485 that the poor should shoulder the costs of conserving a global public good (Q-17: -4), and
486 strong priority is given to future generations of humans (Q-20: -4), commensurate with the
487 posterity ethic of ecocentrism, for instance:

488 '*actions to reduce poverty in the short-term potentially ignore the long-term and much more*
489 *serious consequences of environmental destruction'* [I-01, international dataset^Q].

490 The idea of poverty being the main threat to tropical biodiversity is non-salient (Q-22*: -1).

491

Number	Statement	z-score (chart)	Normalised scores F1	F2	F3	Consensus/distinguishing
1	Because wealthy people derive benefits from ecosystems, they should pay the poor who steward those ecosystems		2	3	2	Consensus
2	Caring for nature is a quality of a good human being		3	2	1	Consensus
3	Caring for the poor is a quality of a good human being		1	2	1	Consensus
4	Conservation activities must, at the very least, not further disadvantage poor people		0	4	2	F1, F2, F3
5	Conservation should benefit the poor to compensate for the destruction of their natural resources by affluent consumers		0	1	-3	F3
6	Conservation should never violate any human rights		0	3	0	F2
7	Conservation should prioritise poverty alleviation to foster greater social equality		3	1	-1	F1, F2, F3
8	Conservation should prioritise the ability of the poor to meet their basic livelihood needs		2	1	0	F3
9	Conservation should promote poverty alleviation only where to do so is part of the ethical code of local people		-1	0	-2	F2
10	Conservation should promote pro-poor environmental governance because this is consistent with the internationally agreed Sustainable Development Goals (SDGs)		3	1	-1	F1, F2, F3
11	Conservation should pursue a social agenda because this can help to attract new funders		-1	-1	-2	F1
12	Conservation should tackle the root cause of environmental degradation, which is consumption by the global wealthy		1	2	0	F3
13	Conservation should target places where protecting nature can improve conditions for poor and vulnerable communities		0	0	-3	F3
14	Conservation should think about human outcomes only to the extent that human outcomes affect conservation effectiveness		-1	-2	-1	Consensus
15	Humans should preserve biodiversity for its intrinsic value		4	1	4	F2
16	If the poor have stewarded biodiversity, they deserve to benefit from the resulting ecosystem services		4	3	3	Consensus
17	It is acceptable for the poor to shoulder the costs of conserving a global public good		-3	-4	-4	Consensus
18	Conservation actions should be consistent with internationally accepted human rights standards		1	4	3	F1
19	It is the role of conservation organisations to champion the needs and rights of future generations of humans		2	0	0	F1
20	It is more important for nature to be used to alleviate poverty now, than to be preserved for future generations of humans		-2	-1	-4	F3
21	People are not always more important than non-human nature		-1	0	4	F3
22	Poverty is the main threat to biodiversity in the tropics		1	-4	-1	F1, F2, F3
23	The resource use rights of people should be limited when they destroy nature		0	-1	0	
24	The only morally defensible approach to conservation is one that recognises the right of local people to self-determination		0	0	-2	F1, F2, F3
25	The rights of non-human nature should take higher priority when species extinction is possible		1	0	3	F1, F2, F3
26	The ultimate goal of conserving nature is not to support human wellbeing		-3	-1	1	F1, F2, F3
27	There is no moral imperative for conservation organisations to seek to alleviate poverty		-2	-2	1	F3
28	Conservation organisations should not be required to protect the economic interests of the poor		-4	-3	1	F1, F2, F3
29	Conservation organisations should not be required to respect the cultural interests of the poor		-3	-3	-1	F3
30	Conservation organisations should not be required to support the participation of the poor		-4	-3	0	F1, F2, F3
31	Benefits to people from conservation should be determined by markets		-2	-2	-3	Consensus
32	Where conservation and poverty alleviation are in opposition, human welfare should not necessarily take precedence		-1	-1	2	F3

z-score axis: -2 most disagree, -1, 0, 1, 2 most agree

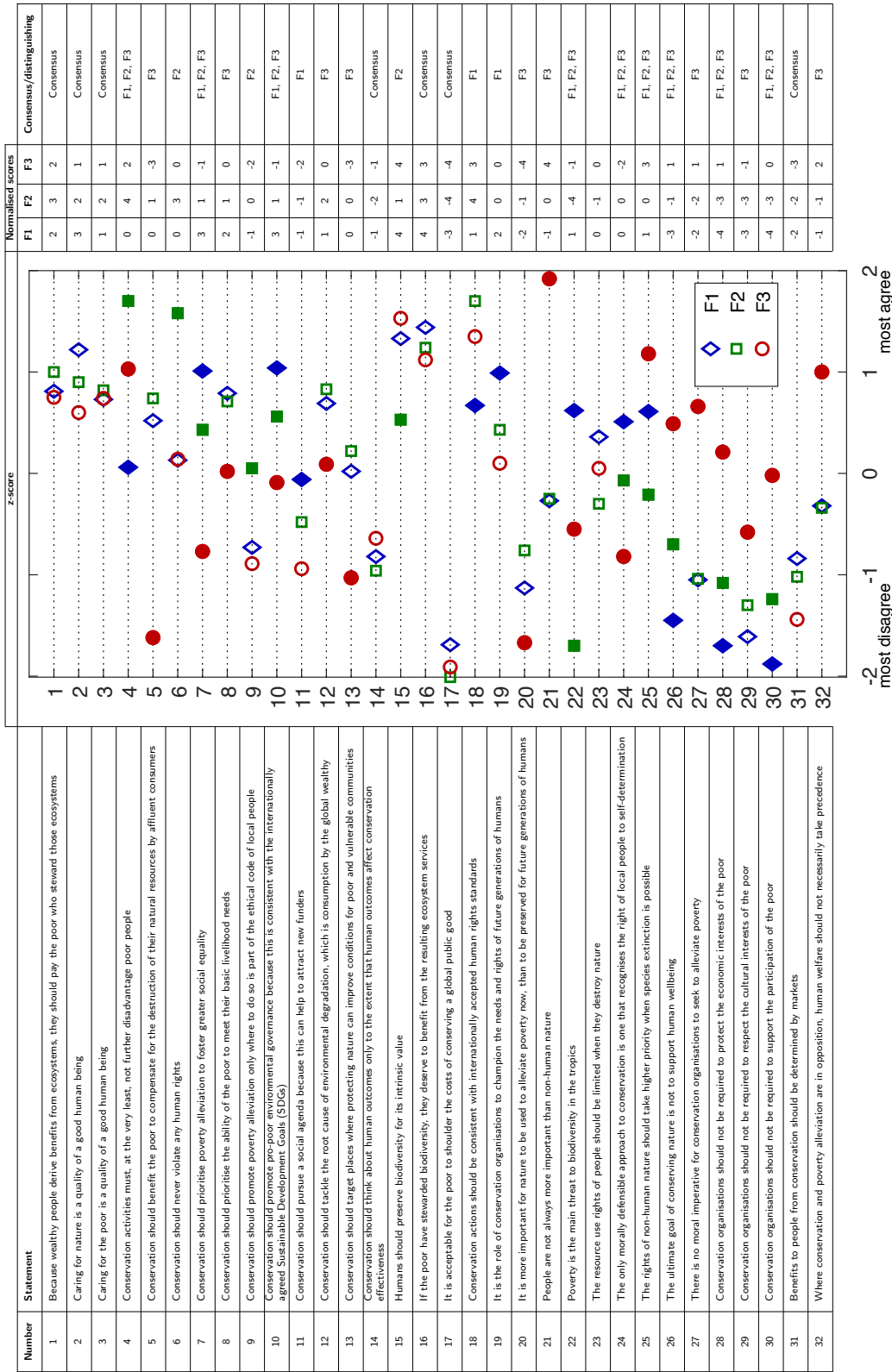Legend: F1 (blue diamond), F2 (green square), F3 (red circle)

Figure 2. Statements with corresponding z-scores and normalised scores for each factor. z-scores are displayed for each factor, with Factor 1 in blue diamond, Factor 2 in green square and Factor 3 in red circle. Where statement is distinguishing for the factor (at $p < 0.05$), the symbol is filled. The right-hand column indicates where a statement is a consensus statement, otherwise it indicates whether it is distinguishing at $p < 0.05$, and for which factor. Note that statement 23 is not a consensus statement, nor statistically significant in distinguishing between factors. Normalised scores are given, corresponding to the positions in the Figure 1 Q methodology grid.

3.4 Summary of convergence and divergence between the discourses

The three discourses have a number of points of convergence, most evidently that the poor should not shoulder the costs of conserving a global public good (Q-17). Qualitative material from different discourses is representative:

'*From the humanitarian perspective, the rich people have capability and should bear more cost… to let the poor people bear the cost is unacceptable*' [I-30, Chinese dataset[Q]; identical sentiment expressed by I-08, international dataset[Q]].

In addition, there is consensus about a 'justice as deservedness' basis for the poor to benefit from ecosystem services that they have stewarded (Q-16). Similarly, there is consensual support for compensation to the poor for their stewardship (Q-1), and the virtue ethics statements, both ecocentric (Q-2) and anthropocentric (Q-3), are relatively consensual.

Broadly, in terms of the anthropocentrism and ecocentrism dimensions, all discourses share some element of ecocentrism, with Discourse 3 being the strongest followed by Discourse 1 and Discourse 2, respectively. Discourse 3 is more willing to prioritise non-human nature in the case of extinction (Q-25* (distinguishes all), whereas Discourses 1 and 2 lean more towards anthropocentrism and Q-25 accordingly has low salience (1*; 0*, respectively). All have some commitment to anthropocentrism, although there is some contention as to whether human wellbeing should be an ultimate goal (Q-26*) of conservation. However, different discourses bring to bear different rationales, with Discourse 1 prioritising the interests (Q-28, 29 and 30), needs and sufficientarian basis (Q-8 (marginally) highest for Discourse 1) (sufficientarianism being the idea that everyone has a right to a decent livelihood (see Lehmann et al. (2018) or Gosseries (2011)). Discourse 2 adds to this focus on interests a strong priority around do no harm principles (Q-4: +4* (distinguishes all discourses)), and social safeguards, emphasising human rights (Q-6: 3*, and Q-18, +4).

The conceptualisations of poverty as a driver of conservation threats (Q-22) is also an instructive way of differentiating the discourses, and particularly important in distinguishing Discourse 1 (+1*) from Discourse 2 (-4*). As shown, particularly in the qualitative data from Discourse 2 respondents (and also a feature of the qualitative data from those associated with Discourse 3 (I-01 and I-07 from international dataset), there is an often robust rejection of the idea of poverty as a driver of degradation. In interviews, associated respondents often made immediate and necessary associations instead with drivers associated with wealth and (over)consumption. On wealth as a driver of threats (Q-5 and Q-12), the differences between discourses are less compelling, with Discourse 2 being arguably the most critical of threat drivers originating in wealth and consumption. Figure 3 presents a radar diagram showing 5 key dimensions of divergence between the discourses.

Figure 3: Comparison of discourses on five key dimensions
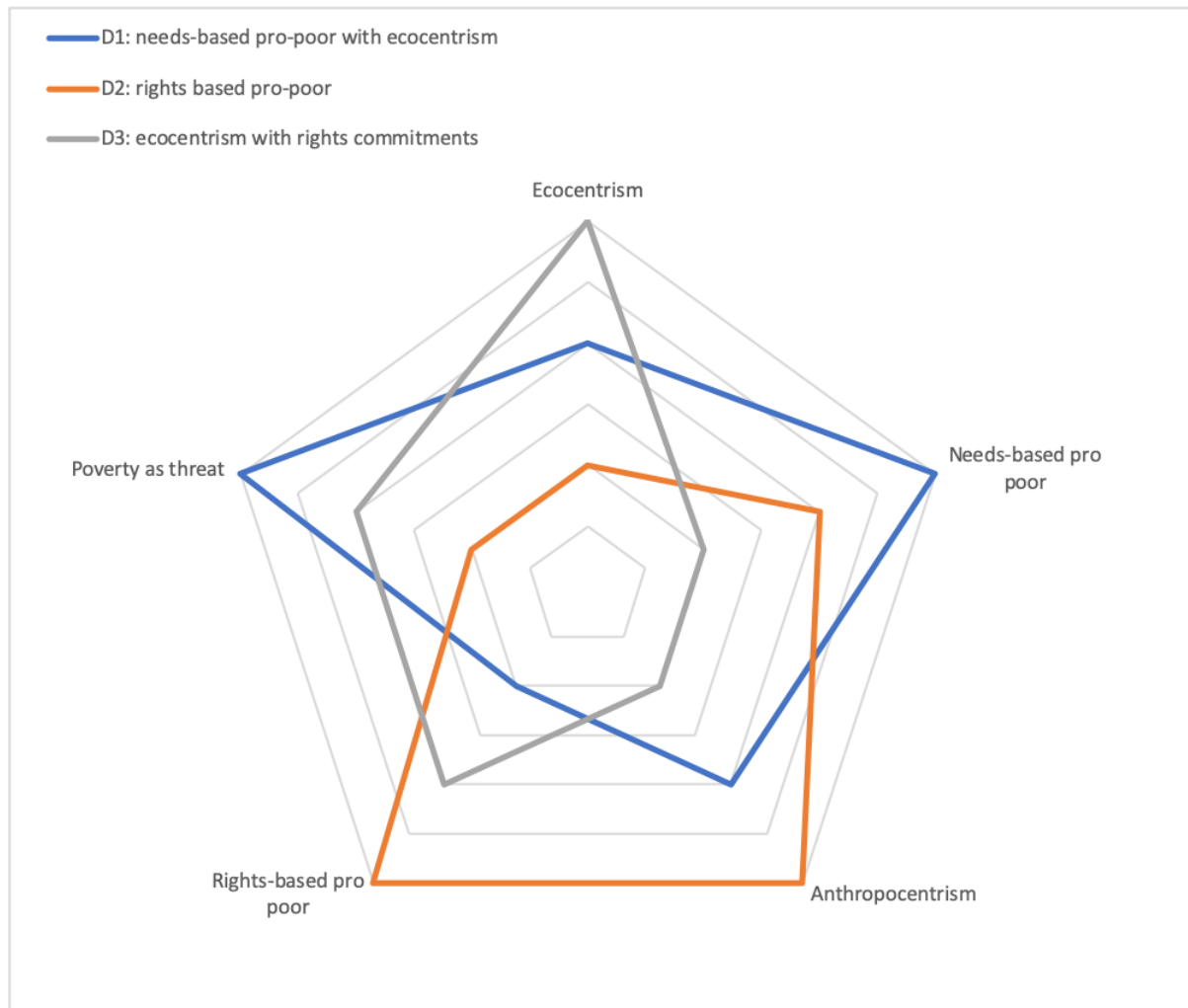
Comparison of discourses on 5 key dimensions of difference. Discourses are compared on a simple ordinal scale, and accordingly should only be interpreted in relative positions to one another (for instance, D3 is more ecocentric than D1). Relative positions are described in the text in Section 3.4, which references the corresponding Q statement rankings for selected dimensions.

4. Comparing the discourses alongside positions in the literature

All of the discourses share some commitments to not solely an anthropocentric, but rather a more demanding set of pro-poor concerns. Thus Adams et al.'s (2004) first position, that poverty and conservation are separate realms is not a view well represented in mainstream contemporary international conservation organisations, nor in the conservation sectors of sampled country cases. The separation of conservation and poverty realms would actually be inimical to Discourses 1 and 2, and although the moral reasoning in Discourse 3 is more ecocentric, there was certainly no attempt, particularly in the qualitative data, to disregard poverty concerns. However, such concerns were placed within an overall ecocentric rationality, to which were added particular commitments to social safeguards. Hence, what Adams et al. (2004) characterise as 'separate realms' thinking does not appear to have survived well the test of time, at least within this mainstream international conservation-focused sample and sampled national settings. However, it is critical to note that perspectives within the international development community are also influential at the poverty/conservation nexus, and have not been addressed at all here. Yet, if our findings do indicate a broader trend in the conservation movement that 'separate realms' thinking has declined, this could be seen as a triumph for those who have been promoting the joint consideration of poverty

and conservation, and more broadly, integrated thinking about the environment and human wellbeing. This possible shift might not be surprising when we consider the foregrounding of these concepts in recent initiatives such as the Millennium Ecosystem Assessment (2005) and the Intergovernmental Panel on Biodiversity and Ecosystem Services.

The second and essentially Brundtland viewpoint of 'poverty is a critical constraint on conservation' (Adams et al., 2004; 1147), was a matter of contention in these data, with an interesting geographical inflection. The extent to which poverty was conceptualised as a driver of conservation threats (Q-22) is a statement that distinguishes all of the discourses, and particularly Discourse 1 (+1) from Discourse 2 (-4). While it is not a strength of Q methodology to link discourses with demographics, it remains worthy of note that Discourse 1 is very dominated by representatives from China, Nepal and Uganda. It is also notable that respondents from the global north and Bolivia were more circumspect about poverty as a driver of conservation threats, marking a strong departure from Brundtland. It is also instructive to contrast these perspectives about poverty as a driver with those relating to wealth as a driver of threats. Discourse 2 is arguably the most critical of threat drivers with a basis in wealth, and critical commentary about wealth and overconsumption as drivers was very much present in the qualitative data, particularly amongst Discourse 2 and 3 respondents. These discourses were overwhelmingly dominated by respondents from the global north and Bolivia, whereas the discourse that is dominated by respondents from China, Nepal and Uganda was more likely to associate some drivers with poverty. The preliminary indicative findings we present here could motivate further research to investigate these questions with a research design more appropriate for understanding links between perspectives and demographics. However, there appear to be two elements to try and explain in relation to this preliminary finding. Firstly, we need to explain a possible move away from the conceptualisation of poverty as a driver amongst respondents from the global north, in contrast to the logic of the Brundtland commission, which predominated at least during the 1990s (Duraiappah, 1998). This perhaps reflects the more recent realities of globalised consumption, along with emerging research demonstrating the importance of contemporary globalised drivers of biodiversity threats, originating in the global north (Moran and Kanemoto, 2017; Barlow, França, Gardner et al., 2018). It may also reflect the traction of ideas of environmental justice, and the environmentalism of the poor in challenging the previously dominant narratives. Secondly, we must explain why respondents from the global north tended to be more critical of wealth and overconsumption as drivers, compared to Asian or African counterparts in this research. This may be as a result of respondents feeling more able to criticise the impacts of their own societies, or perhaps more aware of the growing evidence demonstrating the shifting origin of conservation threats.

Within the conservation community, it is contentious whether conservation organisations should contest the global economic order, which frames globalised patterns of wealth and consumption (Corson, 2010; Büscher et al., 2017). Adams writes: conservation organisations 'see their job as saving nature in its last fastnesses, and not as considering the wider picture of the world economy' (2013; 311). This perspective about the appropriate scope of conservation action was discernible in our qualitative data. It would surely take significant restructuring and reformulation of organisations' rationale and functioning to contest wealth and consumption drivers, and may also jeopardise organisational funding from corporations or individuals. However, a number of respondents, particularly those associated with Discourse 2, did promote the idea that this agenda did need to be championed in the conservation movement. For instance: *'Inequality is one of the critical drivers of degradation in my field and one of the critical targets we've not yet figured out how to hit… I don't think conservation organisations are in the slightest bit equipped to address issues of inequality other than by targeting the very poorest in the work they do'* [I-02, international dataset[i]]. It was also noted that some organisations do, increasingly, extend the remit of traditional conservation foci by adopting stances around broader issues of consumption and climate change, for instance [e.g. I-03, international dataset[i]].

We also used the research to examine whether respondents applied an instrumental logic to poverty and conservation. It is important to understand how significant this logic is today, given its influence in the Brundtland report and throughout the 1990s (Duraiappah, 1998). With reference to the typology of Adams et al. (2004), this is an extension of the second viewpoint; if 'poverty is a critical constraint on conservation', an instrumental logic supports the conservation movement taking an interest in poverty, because poverty reduction will lead to conservation gains. Whilst this logic was certainly evident at times in qualitative data, for instance: *'we care about people's wellbeing because we see it as a purposeful way to get to a conservation outcome. So we see improving people's wellbeing as a way to provide incentives for conservation practice'* [I-10, international dataset[I]][6]; and a further quote: '*I think we have to be totally up front and say that as an organisation our mission is very clear: to save species from extinction. So… we work with human communities as a way of saving species from extinction... You can't do one without the other'* [I-07, international dataset[I]]. However, despite some instrumental perspectives being present in the qualitative data, statement Q-14, which explicitly tests an instrumental logic, was not salient for any discourse (Figure 2). Indeed, the placement of Q-14 (and furthermore the pragmatism embodied in Q-11, which is also non-salient), points to a normative - rather than instrumental - logic that respondents applied to the Q methodology instrument. This normative logic is also very evident in the following qualitative data (in direct response to Q-14): '*I also disagree with this, because there is the moral obligation, no?'* [I-35, Bolivian dataset[Q]]*; 'There is a moral obligation to consider human outcomes, at a minimum in order to do no harm, but ideally to actively promote human welfare'* [I-03, international dataset[Q]].

In contrast, therefore, to the instrumental perspective, the predominant view, particularly within Discourses 2 and 3, was an ethically justified idea that 'conservation activities must, at the very least, not further disadvantage poor people' (Q-4: 0*; 4*; 2*). Adams et al. (2004) are clear that this third position ('conservation shouldn't compromise poverty reduction' (p.1147)) is conceptually distinct from the instrumental (second) position. The third position relates closely to the idea of 'do no harm' in conservation, which was prominent in much of the document analysis we undertook, e.g. 'Make special efforts to avoid harm to those who are vulnerable to infringements of their rights and to support the protection and fulfilment of their rights within the scope of our conservation programs' (Principle 3 of CIHR: http://www.thecihr.org/about), and the interview data, e.g.: '*Conservation actions should never further disadvantage poor people who are already struggling to survive. Conservation actions should secure livelihoods, human rights and access to natural resources, and help achieve a decent quality of life. Only then will these actions will be effective.'* [I-06, international dataset[Q]].

Thus, a strong theme in our data is the direct linkage many respondents particularly in Discourses 2 and 3 made between human rights and the do no harm principle. In a post-Brundtland world where trade-offs between conservation and poverty are more widely recognised, our research demonstrates very clearly how safeguard frameworks based around human rights are now emphasised to prevent conservation compromising human wellbeing. It is worth noting that human rights are not mentioned in the discussion Adams et al. (2004) develop around position 3, and the strong emphasis in our data on rights protections seems to have really developed since the Adams et al. (2004) publication. The CIHR itself has developed subsequent to 2004. A related, and potentially profound, shift indicated in our data is that many (particularly Discourse 2) respondents characterised poverty alleviation in terms of the achievement and protection of rights (e.g. I-02, 03, 06, 08), rather than in what might have been expected as narrow, conventional understandings of poverty, for instance based on income. Indeed, and going further into rights issues, many respondents associated with

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[6] It should however also be noted that this quote was later coupled with an assertion about it being unacceptable for the poor to bear the burden of conserving public goods.

667 Discourse 2 highlighted in interviews that the realisation of rights can in fact promote
668 conservation.
669
670 While ideas about rights were strongly associated with Discourse 2, and also prominent in
671 Discourse 3, one important finding of this research was that they had little resonance in
672 Discourse 1. This is evident in a group of statements which most clearly allow Discourses 1
673 and 2 to be differentiated (Q-4; Q-6; Q-18; Figure 2). While Discourse 1 takes a welfare-
674 oriented approach to poverty, Discourse 2 (and 3 to an extent), prioritise more of a rights-
675 based approach. That this emphasis on rights is not, however, universally prioritised, is an
676 important indicative finding of this research. It is however important to question the
677 significance of this, given that safeguards and rights are often designed specifically to protect
678 welfare and needs. Yet, the communication of these aspects was consistently distinct in
679 different discourses, and at the very least, the mismatch might lead to a different basis for
680 claims to natural resources, different policy imperatives, and challenges of communication
681 between those associated with different discourses. It is also worth highlighting that beyond
682 the corollary emphases of rights and needs, there remains substantive disagreement on Q-4
683 and the acceptability of harm to humans from conservation.
684
685 Another implication of this differentiation in discourses is geographical. The difference
686 between Discourse 1 (largely respondents from China, Nepal and Uganda) and, particularly
687 Discourse 2, but also Discourse 3 (both largely respondents in the global north) on the 'do no
688 harm' position and the emphasis placed upon rights and safeguards in harm mitigation is
689 significant. It may even signify implications for the potential for shared perspectives between
690 conservation organisations working in partnership across the global north and south. One
691 respondent discussed the challenges of harmonising the implementation of social policies
692 across a large conservation network: '*this comes back to the quality of implementation of our*
693 *social policies… we have the principles in place but it is an absolute fact that we need to*
694 *continue to build those down… from project design through monitoring and the way we*
695 *implement our work.'* [I-03, international dataset[i]]. More broadly, the geographical mismatch
696 in perspectives on safeguards and rights may already be, or be set to become, a blockage in
697 the agenda of, for instance, the CIHR in national contexts, particularly perhaps in Africa and
698 Asia, if our results are indicative of broader patterns. While human rights are conceived as
699 universal, this research indicates that their importance in conservation safeguards may not be
700 universally accepted.
701
702 Finally, we relate our findings to Adams et al.'s (2004) fourth position, that 'poverty reduction
703 depends on living resource conservation' (p. 1148). It is worth noting that this goes beyond
704 the promotion of the general idea that globally, the environment supports human wellbeing, to
705 a more specific rationale that local conservation strategies should target poverty alleviation
706 objectives in terms of what is conserved. The 'resource conservationist' position is
707 represented in Q-8 and Q-13. While Q-13 is not salient for Discourses 1 and 2, it is
708 distinguishingly negatively placed (-3*) in Discourse 3 (Figure 2). Similarly, Q-8 was most
709 salient for Discourse 1 (in line with its welfare approach to poverty), less so for Discourse 2
710 and distinguished at low salience (0*) for Discourse 3. It was however, a consensual statement
711 with high agreement that there is a deservedness basis for poor people benefiting from ES
712 they have stewarded (Q-16; Figure 2). Therefore, the 'resource conservationist' position had
713 some limited resonance within Discourse 1, little salience at all in Discourse 2, and Discourse
714 3 rejected conservation planning on a pro-poor basis, as part of a general agnosticism about
715 conservation and human wellbeing, beyond securing 'do no harm' principles. Hence, Adams
716 et al.'s (2004) position 4 garners little support within these discourses elicited from mainstream
717 international conservation organisations, and the mainstream conservation sectors in sampled
718 countries. This may not be surprising given the sampling strategy of this research, to focus on
719 conservation organisations as opposed to those championing rights of local and indigenous
720 peoples.
721

5. Conclusion

We investigate contemporary discourses about poverty and conservation within the conservation sector, and offer the first empirical analysis of perspectives on this nexus. Using a novel combination of Q methodological and more conventional qualitative analysis, we distinguish and elaborate three distinct positions on the issues, and compare these to the literature, including the influential Adams et al. (2004) framework. In relation to this framework, we find little support within our sample for Positions 1 ('separate realms') or 4 ('resource conservationist'), suggesting either that these positions would be more likely found in professional perspectives beyond our mainstream conservation-focused sample, for instance within the development sector, or that they have not stood well the test of time. However, there is synergy between Adams et al.'s (2004) Position 2 'poverty as a critical constraint on conservation' (p. 1147), within Discourse 1, where poverty is conceived as a driver of conservation threats. In contrast, however, to this effectively Brundtland logic, Discourse 2 (and 3 to some extent) challenge this idea, and it was striking that respondents adhering to these discourses sometimes highlighted instead what they see as the challenges of overconsumption and affluence in both generating conservation threats and perpetuating poverty. Our research suggests that this is an area in which thinking has shifted in the thirty or so years since the Brundtland report, perhaps reflecting new globalised realities. Adams et al.'s (2004) 3rd position 'conservation should not compromise poverty reduction' (p. 1147) has particularly strong resonance with Discourses 2 and 3, whereas we have already noted that Discourse 1 places less emphasis on the idea of safeguards and do no harm principles.

Motivations for conservation are often characterised as dichotomously either anthropocentric or ecocentric (e.g. Kareiva and Marvier, 2012), and this has been a problematic facet of the 'new conservation' debates (Holmes et al., 2017). However, our analysis shows the complex hybridity of perspectives within our sample, with all three discourses containing some elements of both. This supports recent evidence that contemporary conservationists adhere to both imperatives (Sandbrook et al, 2019). However, more effectively than a Likert survey, Q methodology does reveal respondents' ultimate priorities, for instance in response to statements 21 and 32, which convey the essential ecocentrism of Discourse 3 (Figure 2). Discourses 1 and 2 lean most towards anthropocentrism, but they are characterised by different orientations of conservation to poverty. Hence, below the surface of the 'anthropocentric turn' we traced above, there appear to be two essentially distinct framings of poverty considerations that conservation practitioners adhere to. The first prioritises welfare, needs and sufficientarianism and this perspective is more strongly associated with respondents in China, Nepal and Uganda. Our research design does not enable us to generalise these findings, but further research could investigate whether these perspectives are associated with the continents of Asia and Africa. The second framing of poverty drawn upon by Discourses 2 and 3 focuses much more on do no harm principles and social safeguards, and this appears to follow a western, or internationalised human rights-oriented discourse. It is striking to note, therefore, that whilst Discourse 3 is essentially ecocentric, it was not accompanied by a disregard for poverty concerns, but instead an adherence to this internationalised rights discourse. This suggests that agendas such as the Conservation Initiative on Human Rights may have traction even amongst organisations dominated by ecocentric perspectives.

Using Q methodology, underpinned by more nuanced qualitative research, we have elicited and elaborated upon areas of consensus and divergence within conservation practitioner perspectives. We expect that these results and analyses will serve to update, parse and clarify perspectives on poverty within the conservation movement, illuminating consensual aspects and revealing where critical differences remain. Although the three discourses lean in different directions on anthropocentrism and ecocentrism, there is significant common ground on many principles of both. There is consensus that the poor should not shoulder the costs of conservation, but two distinct framings of poverty emerge, bringing different emphases and

implying distinct policy imperatives. Finally, practitioners afford different weights to poverty and wealth drivers of environmental threats, and debates are clearly ongoing amongst our respondents and elsewhere (Adams, 2013), as to what this changing picture of drivers demands of the conservation, and broader environmental, movement.

Author statement

All authors conceived the ideas. JF, AM, IL and HS designed the Q methodology instrument and interviews. JF, HD, HJ, MI, DM and IR collected the qualitative and Q methodological data for the international and country case studies. JF and JD analysed the Q methodology data; JF analysed the qualitative data. JF led the writing of the manuscript. All authors contributed critically to the drafts and gave final approval for publication.

Conflict of Interest statement

We do not have any conflicts of interest to declare.

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939 **Supplementary materials. Table 2. z-scores for each factor, corresponding to statement**
940 **numbers. Reference table for z-score data presented in Figure 2.**
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No.	*Statement*	Factor 1	Factor 2	Factor 3
1	Because wealthy people derive benefits from ecosystems, they should pay the poor who steward those ecosystems	0.81	1.00	0.75
2	Caring for nature is a quality of a good human being	1.22	0.90	0.60
3	Caring for the poor is a quality of a good human being	0.73	0.82	0.74
4	Conservation activities must, at the very least, not further disadvantage poor people	0.06	1.70	1.03
5	Conservation should benefit the poor to compensate for the destruction of their natural resources by affluent consumers	0.52	0.74	-1.62
6	Conservation should never violate any human rights	0.13	1.58	0.14
7	Conservation should prioritise poverty alleviation to foster greater social equality	1.01	0.43	-0.77
8	Conservation should prioritise the ability of the poor to meet their basic livelihood needs	0.79	0.71	0.02
9	Conservation should promote poverty alleviation only where to do so is part of the ethical code of local people	-0.73	0.05	-0.89
10	Conservation should promote pro-poor environmental governance because this is consistent with the internationally agreed Sustainable Development Goals (SDGs)	1.04	0.56	-0.09
11	Conservation should pursue a social agenda because this can help to attract new funders	-0.06	-0.48	-0.94
12	Conservation should tackle the root cause of environmental degradation, which is consumption by the global wealthy	0.69	0.83	0.09
13	Conservation should target places where protecting nature can improve conditions for poor and vulnerable communities	0.02	0.22	-1.03
14	Conservation should think about human outcomes only to the extent that human outcomes affect conservation effectiveness	-0.82	-0.96	-0.64
15	Humans should preserve biodiversity for its intrinsic value	1.33	0.53	1.53
16	If the poor have stewarded biodiversity, they deserve to benefit from the resulting ecosystem services	1.44	1.24	1.12
17	It is acceptable for the poor to shoulder the costs of conserving a global public good	-1.69	-2.01	-1.91
18	Conservation actions should be consistent with internationally accepted human rights standards	0.67	1.70	1.35

19	It is the role of conservation organisations to champion the needs and rights of future generations of humans	0.99	0.43	0.10
20	It is more important for nature to be used to alleviate poverty now, than to be preserved for future generations of humans	-1.13	-0.76	-1.67
21	People are not always more important than non-human nature	-0.27	-0.25	1.92
22	Poverty is the main threat to biodiversity in the tropics	0.62	-1.70	-0.55
23	The resource use rights of people should be limited when they destroy nature	0.36	-0.30	0.05
24	The only morally defensible approach to conservation is one that recognises the right of local people to self-determination	0.51	-0.07	-0.82
25	The rights of non-human nature should take higher priority when species extinction is possible	0.61	-0.21	1.18
26	The ultimate goal of conserving nature is not to support human wellbeing	-1.45	-0.70	0.49
27	There is no moral imperative for conservation organisations to seek to alleviate poverty	-1.05	-1.04	0.66
28	Conservation organisations should not be required to protect the economic interests of the poor	-1.70	-1.08	0.21
29	Conservation organisations should not be required to respect the cultural interests of the poor	-1.61	-1.30	-0.58
30	Conservation organisations should not be required to support the participation of the poor	-1.88	-1.24	-0.02
31	Benefits to people from conservation should be determined by markets	-0.84	-1.02	-1.44
32	Where conservation and poverty alleviation are in opposition, human welfare should not necessarily take precedence	-0.32	-0.34	1.00

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