



Will the Sustainable Development Goals address the links between poverty and the natural environment?

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The relationships between the natural environment and poverty have been a central theme in the sustainability and development literatures. However, they have been less influential in mainstream international development and conservation policies, which often neglect or fail to adequately address these relationships. This paper examines how the Sustainable Development Goals (SDGs) may influence the framing of environment–poverty relationships. We argue that the SDGs' comprehensive nature could provide an opportunity for better environment–poverty integration. To realise this potential, SDG-related activities will need to challenge the institutional *status quo*; transform how we measure, understand and implement development; design interventions that reflect local visions of development; make trade-offs between SDGs explicit; and address ultimate drivers of environmental degradation and poverty.

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Introduction

With the adoption of the Sustainable Development Goals (SDGs) in 2015, governments around the world endorsed a new framework that will guide the international development agenda. By putting sustainability at their centre, the SDGs mark a shift from the Millennium Development Goals (MDGs) and emphasise the interconnected environmental, social and economic aspects of development [1]. Compared to the MDGs, the SDGs' comprehensive ambitions may therefore facilitate better integration of these objectives [2^{*}]. However, it remains to be

seen whether they will lead to a genuine change in how the connection between the natural environment, poverty and development is understood, measured and realised [3], or whether they will simply maintain the *status quo*.

The importance of the relationship between the natural environment and human wellbeing and poverty has increasingly gained attention in the sustainability, environmental and development literatures [3–6]. So far, however, the recognition of the relevance of the natural environment for human wellbeing has been less influential in mainstream international development policies and poverty alleviation strategies, which often neglect the environment [7–9]. This neglect is manifested in how poverty is defined and measured, and how environmental drivers and impacts of development strategies are considered in project design, implementation and evaluation. Despite the recognition of the importance of the social aspects of conservation [10], problems continue to arise around local rights and benefit-sharing of conservation projects [11]. Maintaining the *status quo* — in separating human wellbeing and environmental sustainability, and in failing to change governance and to pay attention to trade-offs, root causes of poverty and environmental degradation, and social justice issues — will therefore fall short of delivering on the ambitious development agenda.

In this piece, we reflect on how the SDG agenda might influence the framing of environment–poverty relationships, compared to the MDGs. In particular, we consider firstly, whether the broadened SDGs' framing of the environment–poverty relationship is reflected in poverty targets and indicators; secondly, whether the SDGs' more holistic approach can be reconciled with national target setting and local visions of development; and thirdly, whether the agenda facilitates addressing trade-offs and root causes of environmental degradation and poverty.

Poverty indicators need to reflect the broadened framing of environment–poverty relationships

Mainstream development and ecosystem services debates primarily conceive of nature or the natural environment as an instrumental factor, or external driver, impacting wellbeing and poverty [12,13]. They typically frame the environment as a means-to-an-end (e.g. for eradicating poverty). However, several philosophical accounts and worldviews (e.g. biocentric or ecocentric) allow for the natural environment to take on a constituent role in human wellbeing and poverty, whereby the

environment is an integral part of how wellbeing and poverty are defined and experienced [14]. This recognition suggests the need for including an environmental dimension in poverty assessments in contexts where this is deemed relevant [14,15].

Although the sustainable development discourse, and hence the SDGs, embrace an anthropocentric perspective on the human–environment relationship [16], the SDG's broadened framing of multidimensional poverty is consistent with a constituent role of the environment in poverty concepts. This constituent role is reflected in the language of the targets of SDG 1, but is not adequately captured in the proposed indicators. While the first target under SDG 1 on ending poverty in all its forms still focuses on unidimensional income poverty (target 1.1), the next targets recognise poverty in all its dimensions (1.2), and include ownership and control over natural resources (1.4) and the need to reduce exposure and vulnerability to climate-related and other (economic, social and) environmental shocks (1.5).

Therefore, we argue for developing SDG indicators that incorporate a constituent role of the natural environment in poverty and wellbeing, through a more inclusive process. Developing, and reporting on, holistic indicators that capture the constituent elements of the environment, may be more legitimate, but requires mobilising new and diverse data sources, methodologies and datasets. The current reliance on quantitative data for reporting on internationally agreed goals furthermore creates a risk that the SDGs implicitly prioritise aspects of the environment–poverty relationship that lend themselves to quantitative assessments. Key elements of the poverty perspectives in targets 1.2, 1.4 and 1.5 include the recognition of people's *rights*, the *equitable* sharing of access to and *control* of land and natural resources, (*in*)*justice* associated with decisions about ecosystems, and especially poor people's sense of *resilience* and *vulnerability* to climate and environmental shocks and disasters. These poverty aspects can be subjective and difficult to measure quantitatively, and are therefore less likely to be represented if quantifiable outcomes dominate the indicators for the SDGs. This may reduce the visibility of these crucial factors in the monitoring of progress towards the SDGs, and as a result, they could become lower priorities for implementing governments. An example are the indicators selected for targets 1.4 and 1.5 in the global indicator framework, developed by the Inter-Agency and Expert Group on SDG Indicators. The indicators focus on access to services and tenure, and impacts of disasters on people and property, including economic losses [17]. They miss the more subtle issues of equality, control, vulnerability and resilience.

We argue that this is a missed opportunity. The framing of SDG 1 as poverty *in all its dimensions* promises a much better recognition of the diverse relationships between

the environment and multidimensional poverty. There is a need to harness this potential by working out ways to reflect our more nuanced and meaningful understanding of poverty–environment relationships, especially their constituent elements, into the SDG reporting framework and capacity for monitoring progress towards the global goals.

National and local adaptation, visions and implementation of sustainable development

The SDGs articulate a set of aspirations for human development. Their language reflects what was globally acceptable for all countries, without necessarily adequately capturing local perspectives. Individual nations have to translate these aspirations into local and national visions of a development pathway and decide on specific actions towards achieving the goals. In this process, there is scope for allowing plural perspectives and local visions to be more visible, for instance in the Voluntary National Reviews of implementation towards the 2030 Agenda for Sustainable Development. Guidelines for country-level reporting to the UN High-Level Political Forum on the SDGs are explicit about the need to take into account, and respond to, different national realities, capacities, needs and priorities, and about the option to refer to national and regional indicators in their reporting [18].

The broadened scope of the SDGs can be a challenge for national-level reporting. There is an associated risk of 'cherry picking', potentially to the neglect of some of the more difficult to measure targets (such as those related to poverty and the environment). The shift from 8 MDGs to 17 SDGs means that the development community and national governments have to address, and report on, an increased number of global goals. The 17 SDGs are further broken down into 169 targets and an even larger number of indicators, which are still being finalised. The increased reporting requirements may mean that national governments focus their attention on specific SDGs. While it is necessary for countries to prioritise and adapt the SDGs to their context, the goals are non-binding and aspirational, which puts at risk some of the more challenging, or difficult to measure, goals. In addition, governments may not be held accountable for missing the targets [19]. Moreover, if past priorities are an indication of future ones [20], the possibility to select only a subset of the SDGs will likely result in less attention to environmental issues even if their direct relationship to prioritised SDGs is known. Furthermore, the heavy burden of reporting on all SDGs may reduce *efforts* going into each of the goals. Which SDGs will be taken forward may depend not only on national priorities, but at least in the short term also on what can be measured, and for which SDGs data already exist or can be obtained relatively readily. The indicators currently proposed within the international process primarily aim to be based on the availability of globally comparable information and are

not necessarily ideal proxies locally for the new targets and goals included in the SDGs. Convergence on globally comparable data risks obscuring important detail at local and subnational scales to support intervention strategies aimed at the poorest people or localities. For example, indicators of economic losses due to natural disasters [17] do not say much about the wider poverty impacts. Instead, they may even put higher emphasis on the losses of richer people or nations due to the focus on economic losses and actuarial assessments.

National and local-level relevance, buy-in and actions are critical for delivering on the SDGs. There is a risk that the current SDG process takes an overly technocratic approach to achieve an ideal of a universal collective, leaving little space for communities and local groups to have agency as forces of human development. By consolidating global, national and local efforts and priorities in a nested system, we argue that reporting requirements must be balanced with transformative action and realising the potential for local innovation [21^{*}]. This requires more emphasis on implementation by translating the SDGs into concrete actions.

This also advocates for concerted efforts to link and integrate the global, national and local actions, values and voices [21^{*}]. Given that the SDGs aim to propose a unifying development agenda, they should accommodate diverse worldviews on development and the environment–poverty relationship, and therefore engage with multiple knowledge and value systems [22^{*}]. International policy frameworks have often not been sensitive to the alternative ways of framing the nature–society relationship, even though the SDGs emerged out of a global consultative process under the Open Working Group reporting to the UN General Assembly. However, there are ways of facilitating indicator development and linkages between multiple perspectives and across scales, for example based on biocultural approaches [23]. In addition, recent discussions within the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) may signal the start of an engagement with different worldviews at international policy levels [24^{*}]. Although its processes have been criticised for lacking diversity and inclusivity [25,26], the IPBES framework explicitly includes diverse worldviews on nature–society relationships [5,27]. This is a step in the right direction, but very significant challenges remain to reconcile multiple values legitimately. It will require wider and deeper future engagement with multiple visions and knowledge systems [28], within and across, policy, practitioner and academic spaces, in order to lead to tangible action.

Trade-offs and root causes of environmental degradation and poverty

A further set of critical perspectives on the SDGs has argued that unless the transformation of underlying

political and economic structures and processes is considered, and environmental, social and economic goals are truly integrated (recognising potential trade-offs), the SDGs on reducing poverty and equality are unlikely to be met, putting at risk the core elements of the global goals agenda [20,22^{*}].

It is encouraging that the SDGs not only put more emphasis on environmental aspects of development, but — unlike the MDGs — they are also applicable beyond low-income countries and aim to reduce inequality within and between countries (SDG 10). The universality of the SDGs represents an important ethical principle, and enables environmental and poverty issues to be addressed from a global perspective. Since in many cases the ultimate drivers of environmental degradation stem from the consumption of natural resources in high-income countries, this shift could lead to approaches that assess and address environmental problems more holistically. This creates a need to better understand trade-offs between SDGs, and discuss how to address the unwarranted impacts of consumption patterns, waste, and commodity trade on biodiversity and environmental targets, as well as the direct and indirect effects on poverty targets [29,30]. SDG 12 on sustainable consumption and production has already been identified as the goal most associated with trade-offs in meeting other SDGs [31]. Further research triggered by the SDGs' focus on sustainable consumption and production will be necessary to make integrated links from consumption and production to the environment-related SDGs, especially those which deal with food security (SDG 2), water and sanitation (SDG 6), climate change (SDG 13), and the sustainability of the marine (SDG 14) and terrestrial (SDG 15) environments.

However, the SDGs do not explicitly address these root causes, or draw attention to the contradictions that might emerge from trade-offs between SDG targets. In fact, some SDG targets could paradoxically result in promoting pathways to development that will deepen environmental problems rather than reducing them [22^{*}], such as promoting sustained economic growth (target 8.1) or the increase in air transport (see SDG 9 [32]). Although SDG 8 'endeavour[s] to decouple economic growth from environmental degradation' (target 8.3), this is not a strong enough commitment to ensure that economic growth does not continue at the detriment of the environment [20]. Instead there is a risk that economic growth is seen as an end in itself, rather than as a means for achieving social and environmental goals [33], and promoting the wellbeing of both people and the planet.

More generally, the SDGs and the concept of 'sustainable development' have been criticised for maintaining the *status quo*, rather than seeking transformations that address the uneven power dynamics and deeper structural causes of environmental degradation and poverty

[34*,35]. For example, the SDGs have been argued to promote a highly contested neoliberal capitalist approach to development [36,37], including through its emphasis on sustained economic growth as measured in GDP (e.g. target 8.1) [38] and the promotion of an open trading system under the World Trade Organization (target 17.10). Although the SDG agenda has been framed as a universal project of 'leaving no one behind' and promoting peaceful development, this line of critique suggests that the SDGs undermine political struggles of those demanding more ecologically sustainable and socially just approaches to development [37,39]. Similarly, building on the ambivalent relationship between the private sector and international development, the SDGs have been criticised for failing to create obligations for businesses that they can be held accountable for [40]. This is argued to undermine more transformative shifts towards people-centred development, for example by empowering people and guaranteeing the provision of life-sustaining resources to those in need [37]. From a different perspective, the SDGs have to ensure they result in sufficiently strong actions for steering development away from potentially disastrous ecological thresholds and tipping points which might threaten the biosphere [21*]. Such critiques argue that current framings will encourage a business-as-usual approach, whereas what is needed are more radical transformations of social-ecological systems, including their economic structures and underlying power dynamics.

There is a clear need for thinking critically about the trade-offs involved in the SDGs and the systemic causes of both poverty and environmental loss. Making these trade-offs explicit can provide an informational basis for such a debate. The universality and solidarity principles of the SDGs provide imperatives for richer nations and private sector actors to structurally change their economic patterns. Moreover, greater insight is needed into which interactions between SDGs related to poverty and environment are most important [41].

Conclusions

The SDGs offer important new opportunities for addressing environment–poverty linkages in a more holistic and integrated manner. There are however, a number of ways the SDG agenda can be interpreted and implemented, which could likely lead to a failure in realising this potential. We suggest that achieving these ambitious goals will need to stay clear of maintaining the *status quo* and to result in more radical transformations. This requires profound changes in how we measure and understand development, and in development and environmental interventions that are designed to have positive impacts on wellbeing.

We have highlighted three issues that need to be addressed in particular to enhance the potential of the

SDGs to contribute towards transformation. Firstly, the need firstly to develop innovative poverty indicators and measures, which acknowledge diverse values of nature including the constituent elements of the environment–wellbeing relationship. Secondly, to foster and integrate locally secondly to develop locally shared visions of sustainable development that lead to concrete actions and inform what is measured and reported on. Thirdly, to make explicit the root causes of environmental loss and poverty, as well as the trade-offs involved. This includes more fully accounting for the global impacts of consumption choices and trade on the ecological performance of nations.

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References and recommended reading

Papers of particular interest, published within the period of review, have been highlighted as:

- of special interest

1. Sachs JD: **From millennium development goals to sustainable development goals**. *Lancet* 2012, **379**:2206–2211.
2. Le Blanc D: **Towards integration at last? The Sustainable development goals as a network of targets**. *Sustain Dev* 2015, **23**:176–187.
- The article explores the extent to which the Sustainable Development Goals (SDGs) and associated targets reflect a better integration across sectors. Drawing on network analysis techniques, the author highlights that the SDGs are a more integrated system than the Millennium Development Goals; however, the SDGs are unevenly integrated, with some documented links across biophysical, economic and social dimensions not being reflected.
3. Mace GM: **Ecology. Whose conservation?** *Science* 2014, **345**:1558–1560.
4. Helne T, Hirvilammi T: **Wellbeing and sustainability: a relational approach**. *Sustain Dev* 2015, **23**:167–175.
5. Díaz S, Demissew S, Carabias J, Joly C, Lonsdale M, Ash N, Larigauderie A, Adhikari JR, Arico S, Báldi A et al.: **The IPBES conceptual framework—connecting nature and people**. *Curr Opin Environ Sustain* 2015, **14**:1–16.
6. Milner-Gulland EJ, McGregor JA, Agarwala M, Atkinson G, Bevan P, Clements T, Daw T, Homewood K, Kumpel N, Lewis J et al.: **Accounting for the impact of conservation on human well-being**. *Conserv Biol* 2014, **28**:1160–1166.
7. Bojö J, Green K, Kishore S, Pilapitiya S, Reddy R: *Environment in Poverty Reduction Strategies and Poverty Reduction Support Credits*. 2004.
8. Nunan F, Campbell A, Foster E: **Environmental mainstreaming: the organisational challenges of policy integration**. *Public Adm Dev* 2012, **32**:262–277.
9. Vira B: **Taking natural limits seriously: implications for development studies and the environment**. *Dev Change* 2015, **46**:762–776.

10. McKinnon MC, Cheng SH, Dupre S, Edmond J, Garside R, Glew L, Holland MB, Levine E, Masuda YJ, Miller DC *et al.*: **What are the effects of nature conservation on human well-being? A systematic map of empirical evidence from developing countries.** *Environ Evid* 2016, **5**.
 11. Martin A: *Just Conservation: Biodiversity, Wellbeing and Sustainability*. Routledge; 2017.
 12. Millennium Ecosystem Assessment (MA): *Ecosystems and Human Well-Being. Island*; 2005.
 13. TEEB: *The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations*. Edited by Pushpam Kumar. Earthscan; 2010.
 14. Schleicher J, Schaafsma M, Burgess ND, Sandbrook C, Danks F, Cowie C, Vira B: **Poorer without it? The neglected role of the natural environment in poverty and wellbeing.** *Sustain Dev* 2018, **26**:83-98.
 15. Dasgupta P: **Constituents and determinants of well-being.** In *Human Well-Being and the Natural Environment*. Edited by Dasgupta P. Oxford University Press; 2001.
 16. Keitsch M: **Structuring ethical interpretations of the sustainable development goals— concepts, implications and progress.** *Sustainability* 2018, **10**.
 17. United Nations: *Resolution Adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313), Annex*. 2017.
 18. United Nations Secretary-General: *Voluntary Common Reporting Guidelines for Voluntary National Reviews at the High-Level Political Forum for Sustainable Development (HLPF)*. 2017.
 19. Biermann F, Kanie N, Kim RE: **Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals.** *Curr Opin Environ Sustain* 2017, **26–27**:26-31.
 20. Stewart F: **The Sustainable Development Goals: a comment.** *J Glob Ethics* 2015, **11**:288-293.
 21. Leach M, Rockström J, Raskin P, Scoones I, Stirling AC, Smith A, Thompson J, Millstone E, Ely A, Arond E *et al.*: **Transforming innovation for sustainability.** *Ecol Soc* 2012, **17**:11.
- In this article, the authors argue that delivering on the SDGs requires major transformation in policy, technologies and modes of innovation. According to the authors, the latter needs to give much greater recognition and power to local actors and processes, connecting them to global efforts linked to the SDGs. Illustrated through examples of innovation in agriculture in East Africa and rural energy in Latin America, the authors highlight a set of three underlying principles to guide the development and meeting of the SDGs, along the interlinked dimensions of direction, diversity, and distribution.
22. Kopnina H: **The victims of unsustainability: a challenge to sustainable development goals.** *Int J Sustain Dev World Ecol* 2016, **23**:113-121.
- The author argues that the SDGs are unlikely to solve inequality and environmental problems and that there will remain human and non-human victims. To address this, the paper argues for a greater emphasis on duty toward environmental sustainability, transformation of economies, addressing population growth, and moving towards ecological justice and biospheric egalitarianism considerations.
23. Sterling EJ, Filardi C, Toomey A, Sigouin A, Betley E, Gazit N, Newell J, Albert S, Alvira D, Bergamini N *et al.*: **Biocultural approaches to well-being and sustainability indicators across scales.** *Nat Ecol Evol* 2017, **1**:1798-1806.
 24. Pascual U, Balvanera P, Díaz S, Pataki G, Roth E, Stenseke M, Watson RT, Başak Dessane E, Islar M, Kelemen E *et al.*: **Valuing nature's contributions to people: the IPBES approach.** *Curr Opin Environ Sustain* 2017, **26–27**:7-16.
- The article reviews the rationale for an inclusive valuation of the contributions of nature to people, which reflects the diversity of ways in which nature is perceived and valued by people and which was an approach developed as part of the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES). The authors argue that practices aimed at developing more sustainable futures would benefit from embracing the diversity of views on nature's values. This would require recognizing and addressing power relationships between stakeholders who hold different values in this respect.
25. Turnhout E, Bloomfield B, Hulme M, Vogel J, Wynne B: **Listen to the voices of experience.** *Nature* 2012, **488**:454-455.
 26. Heffernan O: **Major biodiversity panel desperately seeks social scientists.** *Nat News* 2016 <http://dx.doi.org/10.1038/nature.2016.19778>.
 27. Díaz S, Pascual U, Stenseke M, Martín-López B, Watson RT, Molnár Z, Hill R, Chan KMA, Baste IA, Brauman KA *et al.*: **Assessing nature's contributions to people.** *Science* 2018, **359**:270-272.
 28. Peterson GD, Harmáčková ZV, Meacham M, Queiroz C, Jiménez-Aceituno A, Kuiper JJ, Malmberg K, Sitas N, Bennett EM: **Welcoming different perspectives in IPBES: "nature's contributions to people" and "ecosystem services."** *Ecol Soc* 2018, **23**:39.
 29. Godar J, Suavet C, Gardner TA, Dawkins E, Meyfroidt P: **Balancing detail and scale in assessing transparency to improve the governance of agricultural commodity supply chains.** *Environ Res Lett* 2016, **11**:35015.
 30. Wiedmann T: In *Impacts Embodied in Global Trade Flows. In Taking Stock of Industrial Ecology*. Edited by Cliff R, Druckman A. Springer; 2016:159-180.
 31. Pradhan P, Costa L, Rybski D, Lucht W, Kropp JP: **A systematic study of Sustainable Development Goal (SDG) interactions.** *Earth's Future* 2017, **5**:1169-1179.
 32. United Nations: *Sustainable Development Goals Report 2017*. 2017.
 33. van Egmond ND, de Vries HJM: **Sustainability: the search for the integral worldview.** *Futures* 2011, **43**:853-867.
 34. Koehler G: **Assessing the SDGs from the standpoint of eco-social policy: using the SDGs subversively.** *J Int Comp Soc Policy* 2016, **32**:149-164.
- The article assesses the extent to which the SDGs are transformative and whether the SDG agenda refers to eco-social policy, through the lenses of critical theory and sufficiency economics. The author highlights numerous omissions and clashes among the SDGs, and argues for instrumentalising the commitments of the 2030 agenda, but instilling radical thinking and action for environmental, social and economic justice.
35. Sachs W: **The Sustainable Development Goals and Laudato si': varieties of post-development?** *Third World Q* 2017, **6597**:1-15.
 36. Weber H: **When goals collide: politics of the MDGs and the post-2015 sustainable development goals agenda.** *SAIS Rev Int Aff* 2014, **34**:129-139.
 37. Weber H: **Politics of "leaving no one behind": contesting the 2030 sustainable development goals agenda.** *Globalizations* 2017, **14**:399-414.
 38. Gupta J, Vegelin C: **Sustainable development goals and inclusive development.** *Int Environ Agreem* 2016, **16**:433-448.
 39. Kothari A, Demaria F, Acosta A: **Buen Vivir, degrowth and ecological Swaraj: alternatives to sustainable development and the Green Economy.** *Development* 2014, **57**:362-375.
 40. Scheyvens R, Banks G, Hughes E: **The private sector and the SDGs: the need to move beyond "business as usual."** *Sustain Dev* 2016, **24**:371-382.
 41. Stafford-Smith M, Griggs D, Gaffney O, Ullah F, Reyers B, Kanie N, Stigson B, Shrivastava P, Leach M, O'Connell D: **Integration: the key to implementing the Sustainable Development Goals.** *Sustain Sci* 2017, **12**:911-919.