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Title: The *Rights* Way Forward: How Conservation and the Right to Food can Meet Conservation and Livelihoods goals.

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Abstract

The right to food is a fundamental human right that can be achieved, but also hindered, by a myriad of complex and nuanced factors and actors. One such actor has been the continued annexation of land in the name of conservation which has resulted in the extinguishment of rights and access to local food sources for many communities. While the focus has begun to shift away from the fortress conservation model to more bottom up and egalitarian approaches, there remains room to re-think and re-work conservation by anchoring it around rights. One fundamental human right that has historically clashed with conservation has been the right to food. The enactment of protected areas (PAs), one of the main forms through which we aim to conserve biodiversity, has left a legacy of exclusionary practices that have negatively impacted the lives of many forest dependant people. Indigenous People are fundamental players when it comes to conserving biodiversity, as this is a role they have been championing for millennia, despite repeated attacks to dispossess them from their lands, their culture, and their knowledge. It has been this traditional and land-based knowledge that has led to the conservation of biodiversity that has riveled that of protected areas, whilst also supporting healthy, diverse, and nutritious diets that are sustainable and culturally enriching. As the evidence on the intricate and vital relationships between people and land continues to expand, the shift to rights-centered policies and agendas has been slow. If we are to achieve a more just and sustainable future, we need to continue to center conservation initiatives around rights and access that respect a diverse set of perspectives and worldviews. This paper will be a review of the literature in order to expand on how the right to food and conservation interreact and how we can move forward in ways that are equitable and just for both the people and the planet.

Keywords: Right to Food; Conservation; Food Security; Rights

Introduction

In the midst's of rapid species extinction, biodiversity loss, land degradation, deforestation, pollution and ever-present climate change, the need to conserve nature has become more important than ever. International agencies, governmental bodies, local organizations, intergovernmental panels, activists and individual citizens from disperse ethnicities, disciplines and backgrounds have revived the calls to conserve biodiversity for the good of the planet and the people. These calls to conserve, however, have for centuries been predicated on erroneous divisions of humans and nature (Fletcher et al. 2021) which have led to disastrous consequences for lands and people alike (West et al. 2006). This division of humans and nature has also gravely impacted the forest-food nexus that has been sustaining healthy, diverse and nutrition diets for millennia (HLPE 2017; Asprilla-Perea and Díaz-Puente 2019).

As protected areas (PAs) have been established throughout the world to conserve biodiversity, the ties between people and the lands that have sustained them have been severed, impacting the long-term food security and well-being of local communities. Given that around 1.2 billion people are considered *highly*

dependent on nature to meet their basic needs (Fedele et al. 2021), the impact PAs can have on food security cannot be understated. Despite this, the research on how PAs can impact food security has been lacking, with a recent systematic review only finding 19 published studies on the subject (Jouzi et al. 2020).

Meanwhile, we are facing large scale food insecurity and malnutrition across the world despite the *right to food* being an enshrined human right under several national and international decrees, including the 1974 Universal Declaration on the Eradication of Hunger and Malnutrition (UN General Assembly, 1975, art. 1). The latest statistics on global food security and nutrition estimate that around 2.37 billion people around the world are facing moderate or severe food insecurity (FAO et al. 2021). Although no doubt exacerbated by the global COVID-19 pandemic, this rise in food insecurity has been on an upward trajectory over the last couple years (FAO et al. 2021). This is a worrying trend since food insecurity can lead to malnutrition which can have far reaching and long-lasting consequences on the health, wellbeing, and development of those affected (Popkin 2001; Cawthorn and Hoffman 2015; Nielsen et al. 2018; Savage et al. 2019). While the reasons behind malnutrition are complex and multifold, there is a growing body of literature that is shining a light on how forests and natural ecosystems can support the food security of rural communities.

This review paper therefore looks to highlight how the inextricable link between people, forests and food has been impacted by the predominant exclusionary model of conservation and proposes some ways forward that go beyond tradeoffs and instead call for transformative, placed-based and holistic conservation strategies that are just and equitable. In doing so, it will be possible to conceive new conservation models that don't infringe upon the indivisible and inalienable *right to food* but lean on diversified worldviews and knowledge systems that looks to unify conservation and livelihoods goals.

The forest-food nexus

Food security, defined as existing when "all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO et al. 2017, p. 107) remains a major challenge around the world today. However, for much of human history, forests and other natural landscapes have been supporting food security by helping to sustain healthy and nutritious diets directly through the provisioning of wildfoods and indirectly through ecosystem services such as pollination, water regulation and soil stabilization, to name a few (Fig. 1). Forests can also help bolster food security by increasing dietary diversity (Galway et al. 2018), acting as a safety-nets during droughts, crop loss and illness (Pouliot and Treue 2013; Clements et al. 2014), and increasing the resilience of food systems (Wunder et al. 2014), an important factor in the face of climate change.

Another fundamental aspect of the forest-food nexus is the crucial role that Indigenous People have played in the creation of these highly biodiverse, productive, and nutritionally rich landscapes (Armstrong et al. 2021). While the dominant conservation narrative sees human use as detrimental to nature, this dichotomous view has been challenged by many Indigenous People, and western science has now started to prove what Indigenous People around the world have been proclaiming for decades – Indigenous People have been creating, managing, and safeguarding high biodiversity landscapes for millennia (FAO and FILAC 2021; Fletcher et al. 2021). In fact, Indigenous governance over ancestral lands have played a vital role in combating deforestation, poverty, hunger, and malnutrition (FAO and FILAC 2021). All this despite the continual oppression of Indigenous people and their rights, knowledge systems and ways of knowing that has been exacerbated by historical and ongoing colonial practices and land dispossession. A recent, first of its kind study on land dispossession and forced migration in the Unites States has estimated that Indigenous people have seen a staggering 93.9% reduction to their historically documented lands, with 42% of tribes seeing a complete loss of land (Farrell et al. 2021).

This forest-food nexus has also been increasingly challenged as diets have undergone changes under industrialization and urbanization (Damman et al. 2008). Indigenous people in particular, have been found to be at greater risks of developing non-communicable diseases like diabetes and cardiovascular disease, when they undergo nutrition transitions away from their traditionally diverse and nutritionally dense diets in favour of western diets that rely on a narrower range of foods that, while calorie dense, are often highly processed and nutritionally poor (Kuhnlein et al. 2004; Damman et al. 2008; Lourenço et al. 2008). This 'nutrition transition' and its adverse impacts on the health of people has been documented in various countries like Canada (Kenny et al. 2018; Farquhar 2020) Sri Lanka (Weerasekara et al. 2018) and Brazil (Lourenço et al. 2008).

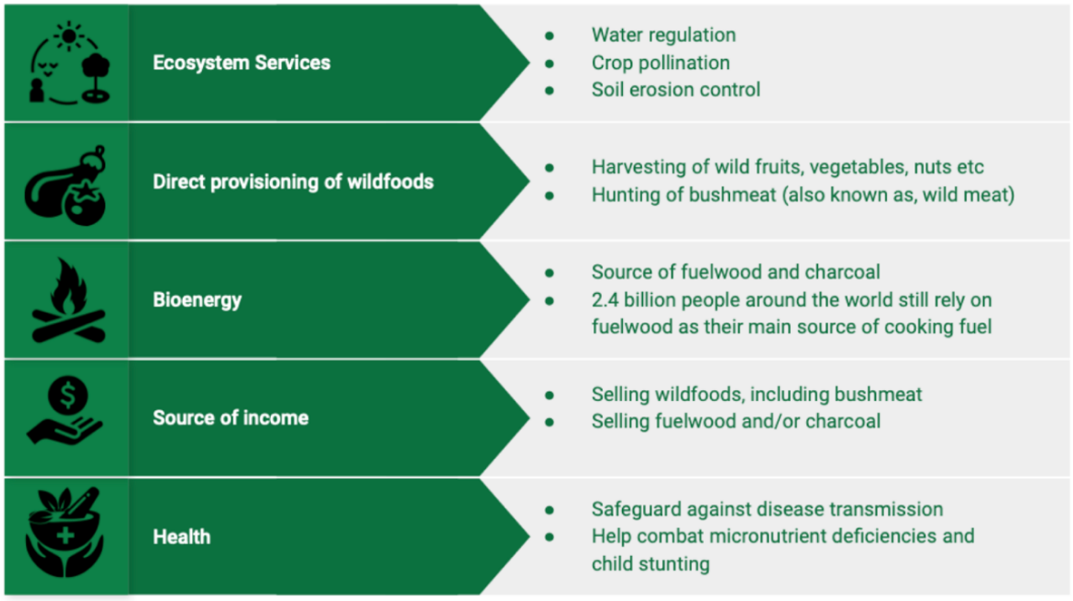

Fig. 1: Forests contribute to food security in both direct and indirect ways. Five main categories through which forests contribute to food security are (1) ecosystem services, (2) direct provisioning of wildfoods (3) bioenergy (4) source of income and (5) health

Several recent studies have advocated for increased access to forests as one way to help mitigate food insecurity in rural settings and have shined a light on the various mechanisms though which access to forests and natural resources can help not only increase food security but also supply individuals with more nutritious, diverse, and culturally supporting diets than those available from agriculture and local markets alone (Rasolofoson et al. 2020; Sunderland and Vasquez 2020). However, despite an increased awareness on the intrinsic relationships between forests, people and food, there still remains a policy disconnect between increased calls for rights-based frameworks and approaches and forest and conservation policies (HLPE 2017). Namely there is a substantial lag between calls to action, legal frameworks, international agreements, and changes on the ground (Tauli-Corpuz et al. 2020). Despite the diverse ways in which forests, people and food interact and sustain one another, these linkages remain underutilized when it comes to conservation and food related policies.

Although this forest-food link is becoming increasingly recognized, the right to food is still heavily contested inside of PAs where conservation objectives can clash with local livelihoods and even lead to human rights violations (West et al. 2006). A recent example of this has been the humans rights abuse allegation levied against the WWF by a 2019 Buzzfeed investigation and the subsequent hearing on October 26, 2021 by the US Subcommittee on Water, Oceans and Wildlife (See https://www.survivalinternational.org/news/12683). This virtual hearing unveiled how deeply rooted colonialist ideas of conservation have had far reaching impacts on the rights, dignity and well-being of local communities. These types of human rights abuses in the name of

biodiversity conservation will no doubt continue to impact the food security of communities that live inside or in close proximity to PAs.

Biodiversity Conservation

While there are many ways to conserve biodiversity there has been a historical bias towards the establishment of PAs as the most effective means of conservation, despite a lack of evidence to support this, as the efficacy of PAs is rarely scrutinized. When the efficacy of PAs is reviewed however, the results are often more dire than we would like to acknowledge (Watson et al. 2014). For example, a study by Hayes (2006) looking at 163 forests across 13 countries found no statistically significant difference in forest condition between legally protected forests and forests governed by local users and in fact found higher levels of vegetation density in forests that are not legally protected. This study is evidence that there are conservation and governance structures outside of the PA model that are effective means of conservation (Hayes 2006). A more recent study in the Peruvian Amazon, found that Indigenous territories were twice as effective at reducing deforestation than PAs with similar ecological conditions (Schleicher et al. 2017). While these and other studies have shown that PAs are not always the most effective means by which to conserve biodiversity, the conservation world still heavily relies on this method for biodiversity conservation.

The half earth movement (Ellis and Mehrabi 2019) started by E. O. Wilson and the 30x30 movement that calls to protect 30% of the earth's surface by 2030 (NRDC 2020) are two examples of conservation strategies that rely heavily on the PA narrative, despite mounting evidence that the PA model, at its most stringent, devalues the important role that Indigenous and local communities have had in creating and maintaining healthy and diverse ecosystems (FAO and FILAC 2021; Fletcher et al. 2021b).

The establishment of PAs, based on the fortress conservation model has led to several negative social impacts as the communities who previously relied on these landscapes have had to bear the consequences that come with the separation of people from the resources that sustain them, both physically and spiritually (Brockington & Igoe, 2006; West et al., 2006). Large scale displacement (both economic and physical) in the name of conservation has led to food insecurity as a loss of access has meant a breakdown of the many ways in which forests and other natural landscapes support food security, as explained above. This breakdown of the link between humans and nature has also weakened the forest-food nexus as we have increasingly narrowed our focus on agricultural production as the only means by which to assure food security for all. Further still, conservation policies that disregard the rights and local communities and impose restrictions on their livelihoods have been shown to lead to a 'double unsustainability' in which biodiversity conservation and human livelihoods are both compromised (Anaya and Espírito-Santo 2018).

Ameliorating conservation and rights

Mounting evidence on the negative impact of PAs on livelihoods and by extension food security have highlighted the need for new conservation strategies that recognize the rights of Indigenous People and local communities as actors with knowledge and agency. Three fundamental questions to keep in mind as we look for new ways forward are (1) What values and assumptions are embedded in our knowledge systems, and ways of thinking, which then go on to guide conservation initiatives, management, implementation, and monitoring? And (2) How are power asymmetries determining what knowledge is being privileged and acted upon? And (3) How can we build upon existing practises and knowledge systems rather than importing knowledge systems from the outside in ways that are not contextualize or respectful of the customary practises, epistemologies, or ontologies in these landscapes?

One mechanism that has been proposed as a way to integrate rights into conservation policies and practices, has been the idea of melding together the rights of nature and human rights through the recognition and implementation of 'biocultural rights' (Bavikatte 2011; Chen and Gilmore 2015). Biocultural rights are seen as a basket of group rights that aim to protect both natural and cultural resources of Indigenous people as well the environment and the resources they steward (Chen and Gilmore 2015; Sajeva 2015). This conceptualization of the rights of nature and humans into one may therefore be more congruent with the holistic worldview of Indigenous communities with respect to people and nature (MacPherson et al. 2020). While biocultural rights are still being delineated, conceptualized and in some cases legalized, their remain challenges with regards to their meaning and subsequent implications on who is classified as a rights-holder and duty-bearer (Sajeva 2015). While biocultural rights are a relatively new concept with substantive barriers to implementation, they stand as an example of how governance structures and western legal systems can be re-envisioned to better align with local ways of knowing and being.

Another means by which to achieve transformative change and environmental justice, as described by Guibrunet et al. (2021), it to pay more attention to understanding the value-system of local communities, as this value system is what underpins how people view and interact with their land. If the local value-system is not adequately recognized and understood, we run the risk of carrying on harmful conservation practices that do little but continue to impose outside perspectives and priorities and dismiss the wealth of knowledge and agency of local communities. Indigenous and local people who carry generations of place-based knowledge and practices are often best suited to conceptualize and formulate new conservation strategies that will be effective and sustainable over time (Bray and Velázquez 2009), all while taking care to no engender Indigenous and local communities with romanticized ideas of the 'noble savage'. Guibrunet et al. (2021) also argue for an epistemological transformation, in which experiential knowledge is considered an equal to scientific knowledge – a bold idea in a world where the superiority of scientific knowledge is so enshrined in academia. This idea, however, can be one way of advocating for rights centered approaches by recognizing and respecting the rights of Indigenous People and local communities to use and protect their own knowledge systems. Finally, the international conservation world also needs to allocate more resources to closing the gap between the myriad of declarations asserting the rights of people to nature, self-determination, free prior and informed consent, customary law, and restitution, among others, and the realization of these rights on the ground.

Conclusion

Conservation models that are more equitable, inclusive, and just will only be possible if we acknowledge the rights and agency of local communities to their traditional lands as well as their accompanying value systems, traditional knowledge, and ways of knowing and being. Placed-based conservation schemes that uphold the universal, inalienable, and indivisible rights of local communities to their lands, culture and traditions will help break away from the historically siloed approach to conservation and help foster self-sustaining practices that support conservation and food security. Challenges and barriers to implementing conservation projects centered around rights will continue to persist until we take stock of and recognize the inherent and built-in biases that demote other ways of knowing and seeing and delegitimize local knowledge, worldviews, and value systems.

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References

Anaya FC, Espírito-Santo MM. 2018. Protected areas and territorial exclusion of traditional communities: Analyzing the social impacts of environmental compensation strategies in Brazil. Ecology and Society 23:. https://doi.org/10.5751/ES-09850-230108

Armstrong CG, Miller JED, McAlvay AC, et al. 2021. Historical indigenous land-use explains plant functional trait diversity. Ecology and Society 26:. https://doi.org/10.5751/ES-12322-260206

Asprilla-Perea J, Díaz-Puente JM. 2019. Importance of wild foods to household food security in tropical forest areas. Food Security 11:15–22

Bavikatte S. 2011. Stewarding the earth: rethinking property and the emergence of biocultural rights

Bray DB, Velázquez A. 2009. From displacement-based conservation to place-based conservation. Conservation and Society 7:11–14. https://doi.org/10.4103/0972-4923.54791

Brockington D, Igoe J. 2006. Eviction for Conservation : A Global Overview. Conservation and Society 4:424–470. https://doi.org/10.1126/science.1098410

Cawthorn DM, Hoffman LC. 2015. The bushmeat and food security nexus: A global account of the contributions, conundrums and ethical collisions. Food Research International 76:906–925. https://doi.org/10.1016/j.foodres.2015.03.025

Chen CW, Gilmore M. 2015. Biocultural rights: A new paradigm for protecting natural and cultural resources of indigenous communities. International Indigenous Policy Journal 6:. https://doi.org/10.18584/iipj.2015.6.3.3

Clements T, Suon S, Wilkie DS, Milner-Gulland EJ. 2014. Impacts of Protected Areas on Local Livelihoods in Cambodia. World Development 64:S125–S134. https://doi.org/10.1016/j.worlddev.2014.03.008

Damman S, Eide WB, Kuhnlein H v. 2008. Indigenous peoples' nutrition transition in a right to food perspective. Food Policy 33:135–155. https://doi.org/10.1016/j.foodpol.2007.08.002

Ellis EC, Mehrabi Z. 2019. Half Earth: promises, pitfalls, and prospects of dedicating Half of Earth's land to conservation. Current Opinion in Environmental Sustainability 38:22–30. https://doi.org/10.1016/j.cosust.2019.04.008

FAO, FILAC. 2021. Forest governance by indigenous and tribal peoples. An opportunity for climate action in Latin America and the Caribbean

FAO, IFAD, UNICEF, et al. 2017. The state of food security and nutrition in the world 2017. Building resilience for peace and food security

FAO, IFAD, WFP, WHO. 2021. The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all. Rome

Farquhar SD. 2020. Inuit seal hunting in canada: Emerging narratives in an old controversy. Arctic 73:13–19. https://doi.org/10.14430/arctic69833

Farrell AJ, Mcconnell K, Burow PB, et al. 2021. Effects of land dispossession and forced migration on Indigenous peoples in North America. Science 4943:. https://doi.org/10.1126/science.abe4943

Fedele G, Donatti CI, Bornacelly I, Hole DG. 2021. Nature-dependent people : Mapping human direct use of nature for basic needs across the tropics. Global Environmental Change 102368. https://doi.org/10.1016/j.gloenvcha.2021.102368

Fletcher M-S, Hamilton R, Dressler W, Palmer L. 2021. Indigenous knowledge and the shackles of wilderness. Proceedings of the National Academy of Sciences 118:e2022218118. https://doi.org/10.1073/pnas.2022218118

Galway LP, Acharya Y, Jones AD (2018. Deforestation and child diet diversity: A geospatial analysis of 15 Sub-Saharan African countries. Health and Place 51:78–88. https://doi.org/10.1016/j.healthplace.2018.03.002

Guibrunet L, Gerritsen PRW, Sierra-Huelsz JA, et al. 2021. Beyond participation: How to achieve the recognition of local communities' value-systems in conservation? Some insights from Mexico. People and Nature 3:528–541. https://doi.org/10.1002/pan3.10203

Hayes TM. 2006. Parks, People, and Forest Protection: An Institutional Assessment of the Effectiveness of Protected Areas. World Development 34:2064–2075. https://doi.org/10.1016/j.worlddev.2006.03.002

HLPE. 2017. Sustainable forestry for Food Security and Nutrition

Jouzi Z, Leung YF, Nelson S (2020. Terrestrial protected areas and food security: A systematic review of research approaches. Environments - MDPI 7:1–15. https://doi.org/10.3390/environments7100083

Kenny T-A, Fillion M, Simpkin S, et al. 2018. Caribou (Rangifer tarandus) and Inuit Nutrition Security in Canada. EcoHealth. https://doi.org/10.1007/s10393-018-1348-z

Kuhnlein H v., Receveur O, Soueida R, Egeland GM. 2004. Arctic Indigenous Peoples Experience the Nutrition Transition with Changing Dietary Patterns and Obesity. The Journal of Nutrition 134:1447–1453. https://doi.org/10.1093/jn/134.6.1447

Lourenço AEP, Santos RV, Orellana JDY, Coimbra CEA. 2008. Nutrition transition in Amazonia: Obesity and socioeconomic change in the Suruí Indians from Brazil. American Journal of Human Biology 20:564–571. https://doi.org/10.1002/ajhb.20781

MacPherson E, Ventura JT, Ospina FC. 2020. Constitutional law, ecosystems, and indigenous peoples in colombia: Biocultural rights and legal subjects. Transnational Environmental Law 9:521–540. https://doi.org/10.1017/S204710252000014X

Nielsen MR, Meilby H, Smith-Hall C, et al. 2018. The Importance of Wild Meat in the Global South. Ecological Economics 146:696–705. https://doi.org/10.1016/j.ecolecon.2017.12.018

NRDC. 2020. Why the world must commit to protecting 30 percent of the planet by 2030 (30X30). National Resource Defense Council

Popkin BM. 2001. The Nutrition Transition and Obesity in the Developing World. The Journal of Nutrition 131:871S-873S. https://doi.org/10.1093/jn/131.3.871s

Pouliot M, Treue T. 2013. Rural People's Reliance on Forests and the Non-Forest Environment in West Africa: Evidence from Ghana and Burkina Faso. World Development 43:180–193. https://doi.org/10.1016/j.worlddev.2012.09.010

Rasolofoson RA, Ricketts TH, Jacob A, et al. 2020. Forest Conservation: A Potential Nutrition-Sensitive Intervention in Low- and Middle-Income Countries. Frontiers in Sustainable Food Systems 4:. https://doi.org/10.3389/fsufs.2020.00020

Sajeva G. 2015. Rights with limits: biocultural rights – between self-determination and conservation of the environment. Journal of Human Rights and the Environment 6:30–54. https://doi.org/10.4337/jhre.2015.01.02

Savage A, McIver L, Schubert L. 2019. Review: the nexus of climate change, food and nutrition security and diet-related non-communicable diseases in Pacific Island Countries and Territories. Climate and Development 0:1–14. https://doi.org/10.1080/17565529.2019.1605284

Schleicher J, Peres CA, Amano T, et al. 2017. Conservation performance of different conservation governance regimes in the Peruvian Amazon. Scientific Reports 7:1–10. https://doi.org/10.1038/s41598-017-10736-w

Sunderland TC, Vasquez W. 2020. Forest Conservation, Rights, and Diets: Untangling the Issues. Frontiers in Forests and Global Change 3:. https://doi.org/10.3389/ffgc.2020.00029

Tauli-Corpuz V, Alcorn J, Molnar A, et al. 2020. Cornered by PAs: Adopting rights-based approaches to enable cost-effective conservation and climate action. World Development 130:104923. https://doi.org/10.1016/j.worlddev.2020.104923

Watson JEM, Dudley N, Segan DB, Hockings M. 2014. The performance and potential of protected areas. Nature 515:67–73. https://doi.org/10.1038/nature13947

Weerasekara PC, Withanachchi CR, Ginigaddara GAS, Ploeger A. 2018. Nutrition Transition and Traditional Food Cultural Changes in Sri Lanka during Colonization and Post-colonization. Foods 7:1–18. https://doi.org/10.3390/foods7070111

West P, Igoe J, Brockington D. 2006. Parks and Peoples: The Social Impact of Protected Areas. Annual Review of Anthropology 35:251–277. https://doi.org/10.1146/annurev.anthro.35.081705.123308

Wunder S, Angelsen A, Belcher B. 2014. Forests, Livelihoods, and Conservation: Broadening the Empirical Base. World Development 64:S1–S11. https://doi.org/10.1016/j.worlddev.2014.03.007