

Perspective

Towards a more just approach to community forestry initiatives: Confronting contradictions, trade-offs, and threats to fairness

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A B S T R A C T

Community forest management (CFM) has gained prominence globally and shown great value as a community-based conservation approach to protecting and sustainably managing forest ecosystems while, at the same time, devolving tenure rights to local populations and stimulating local livelihoods and economies. Given CFM's relative successes and socioeconomic goals, it is often assumed to be an inherently just approach. Here, we challenge that assumption. We present a framework rooted in environmental justice to uncover how some initiatives can perpetuate or exacerbate unfairness and thus undermine the core purpose and spirit of CFM. We put forward three questions on the fairness of CFM programs. First, we call to question the imposition of new CFM-related restrictions and rules, considering Indigenous and local communities' legal autonomy and/or long-standing *de facto* rights. Second, we interrogate the burden of CFM-related economic costs and opportunity costs, in light of communities' poverty conditions and vulnerable livelihoods. Third, we examine the fairness of focusing on the role of local communities in tackling deforestation and forest degradation, given these groups might not be the ones primarily responsible for those problems. Our discussion exposes several contradictions, trade-offs and justice implications of CFM that have remained largely unrecognized. We conclude by providing recommendations for a more just approach that centers a rights-needs-merit rationale. Our analysis is relevant for community-based conservation efforts around the globe.

1. Introduction

Over the last 40 years, the community forest management (CFM) approach has been heavily promoted by scholars and practitioners as a way to emphasize win-win-win outcomes, simultaneously advancing three agendas: (i) environmental conservation, (ii) recognizing communities' natural resource rights and (iii) economic development (Hajjar and Oldekop, 2018; Humphries et al., 2020; Hajjar et al., 2021a). The CFM approach consists of devolving some control over forests from central governments to local communities, for them to formally and sustainably manage their forests and benefit from timber and non-timber forest products and services (Humphries et al., 2020; Lund et al., 2018). CFM emerged in the late 20th century as part of community-based conservation (CBC) and community-based natural resource management (CBNRM), when attention in the global conservation and development agenda shifted towards the role of Indigenous and local populations in forest conservation in light of their rights and needs (Chiaravalloti, 2019; Mulder and Copolillo, 2005). With most well-preserved forests concentrated in Indigenous territories (Fa et al., 2020), and with growing evidence that granting tenure rights and resources to Indigenous and other forest-dwelling communities largely leads to forest conservation and improved quality of life (Blackman et al., 2017; Ravikumar, 2022; Aggarwal et al., 2021), CFM policies and

practice continue to grow globally.

Given relative successes of several CFM initiatives (Hajjar et al., 2021a), and the philosophies of rights recognition and livelihoods improvement being tenets of CFM, there is a risk of scholars and practitioners assuming that CFM as an approach is inherently just and apolitical, resulting in adverse unintended outcomes. In reality, however, scholars have pointed to the detrimental effects of power relations, trade-offs, and contextual factors that bring to the fore justice implications of a, presumably, just form of conservation. Despite attempts to identify more generalizable conditions that enable CFM outcomes (Hajjar and Oldekop, 2018), the CFM approach is context-sensitive and highly political. CFM initiatives are deeply shaped by competing interests, power asymmetries, broader forces (e.g., politics, markets, commodity prices, international trade policies), and other contextual factors (e.g., colonial and postcolonial impacts, local diversity, heterogeneity among groups, ethnicities, communities, regions, etc.) (Mulder and Copolillo, 2005; Charnley and Poe, 2007; Heffernan, 2022; Robbins, 2012) that ultimately can result in unpalatable trade-offs. As Heffernan (2022) said, CFM should not be approached as an apolitical policy fix for domestic conservation that happens in a vacuum; "[in CFM] there are important politics and power imbalances between local, national, and global actors, that sees the will of some win out over others" (p.480) and that create unavoidable trade-offs between CFM's three agendas.

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In this perspective piece, we use a justice lens and political ecology approach to critically examine and explicitly recognize the fairness implications of CFM as a conservation approach. While the concept of ‘fairness’ is often used interchangeably with ‘equity’ and ‘justice’ in the conservation literature (Friedman et al., 2018), we approach fairness as a component of environmental justice, in terms of the fairness of the distribution of costs, benefits, resources and responsibilities (distributive justice) (Robbins, 2012; Nnodim, 2020; Menton et al., 2020) in CFM. What is judged to be fair can be based on criteria of rights, needs, merit, utility, or equality (Bennett et al., 2019). Using these criteria, we review scientific evidence documenting social and economic challenges in CFM across the last decades to interrogate the inherent fairness of the CFM approach. We show the ways how some CFM initiatives can make communities face opportunity-costs and restrictions in the name of forest conservation and the related fairness implications, in light of communities’ rights, historical marginalization, and relatively low levels of responsibility over deforestation and forest degradation. We ask (Fig. 1):

(i) What are the fairness risks of CFM-related restrictions and rules, considering Indigenous and local communities’ autonomy and/or long-standing de facto rights? (rights as fairness criterion – treatment should respect existing rights of communities)

(ii) What are the fairness risks of CFM-related economic costs and opportunity costs, in light of communities’ poverty conditions and vulnerable livelihoods? (needs as criterion – preferential treatment, and thus less of the costs, should be held by the poorest or most vulnerable)

(iii) What are the fairness risks of focusing on the role of local communities in tackling deforestation, forest degradation, and global climate change given those groups might not be the ones primarily responsible for those problems? (merit as criterion – parties should get what they deserve (and thus not what they do not deserve) based on effort and inputs)

In eschewing the use of utility (actions for the greater good or the majority) and equality (all parties treated the same) as fairness criteria, we are deliberately putting forward an environmental justice and rights-

based perspective (Merritt, 1973). As we examine these questions, we discuss how fairness in these contexts is shaped by procedural justice (access to and inclusivity in rule-making and other decision-making processes), recognitional justice (acknowledging differences in identities, worldviews, and existing rights and institutions), situated and critical justice (recognizing the role of the historical context and multi-scalar interactions, and that inequalities intersect with all forms of oppression and are embedded in society) and decolonial justice (inclusion of self-governing authority and self-affirmation) (Menton et al., 2020; Temper, 2019).

To be clear, our aim is not to argue against CFM, CBC or CBNRM. We believe there is great value and potential in the CFM approach, with documented cases in several countries leading to positive outcomes in relation to communities’ incomes, rights, and environmental health (Bray, 2020; Hajjar et al., 2021b; Oldekop et al., 2019). Rather, our aim is to highlight risks and shortcomings of some current approaches, with the ultimate goal of improving their practice. In addressing the above questions, our objectives are to (i) demonstrate that CFM initiatives are not inherently fair, by showing three avenues through which recent CFM policies and practices can perpetuate or exacerbate injustices, and (ii) shed light on how CFM can be made more just, starting from how it is framed, the assumptions behind it, and the ways it tackles contextual factors and inequalities. We end by making recommendations on how to improve the fairness of CFM initiatives.

2. What are the fairness risks of creating CFM-related restrictions and rules, considering indigenous and local communities’ autonomy and/or long-standing de facto rights?

Indigenous and other traditional rural communities living in and around working forests have customary, long-standing, exclusive rights to their territories and forest resources (i.e., autonomy and sovereignty rights) (Barletti et al., 2022). Those rights have historically been systematically infringed upon in the hands of colonizers, invaders, industries, governments, and other actors (Zarin et al., 2004; Schmink and

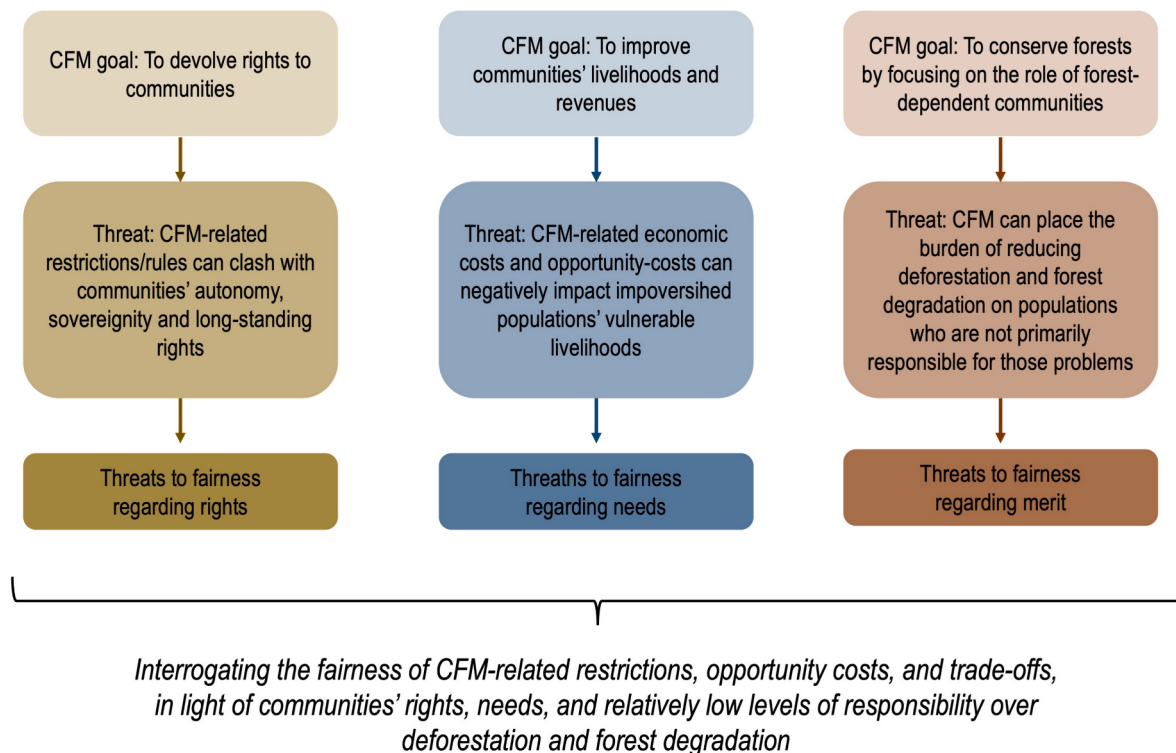


Fig. 1. Fairness of CFM from a justice and political ecology approach: Using a rights-needs-merit rationale, we interrogate fairness in current CFM approaches by examining the goals of CFM and the fairness risks involved.

Wood, 1992). European colonizers appropriated much of the forest estate around the globe and claimed it as state property, “altering and often undermining customary forest tenure and management systems” (Charnley and Poe, 2007) (p. 305). To this day, communities continue to face serious struggles over forest access, use, ownership and control, tenure security threats, and associated human rights issues (Lammers et al., 2017), in some instances directly linked to government economic development policies (Zarin et al., 2004). Partly born as a response to communities’ protests against centralized, bureaucratic forest governance structures, and national and international struggles for democratization and resource access, the CFM approach aimed to devolve power over forests to local people (Heffernan, 2022; Chomba et al., 2015; De Royer et al., 2018; Brosius et al., 2005). Evidence from around the world shows several successful cases of CFM initiatives allowing communities to repossess their forests from the government or private firms, as observed, for instance, in Oaxaca (Mexico) and Bhutan (Barkin and Fuente, 2013; Belsky, 2015).

However, there is an inner contradiction in the CFM approach as it has been often practiced. CFM projects end up creating conservation-oriented rules, conditions and restrictions (e.g., where to extract a certain resource, or how much to extract) (Kurashima et al., 2015) for groups that have internationally recognized autonomy and/or long-standing de facto rights (Barletti et al., 2022) – the same groups that they are supposed to devolve rights to. When project proponents have a protectionist or technocratic view of CFM, rules can end up being imposed too strictly, and are overly bureaucratic and complex (De Royer et al., 2018; Simunovic et al., 2018; Pulhin et al., 2007). Thus, even though CFM projects are portrayed as ‘community-based’ and intend to engender ‘ownership’, in practice the extent to which management rights are devolved is relative and decision-making autonomy varies greatly across CFM cases (Hajjar et al., 2012). Some have described devolution of forest management authority from states to communities as “partial”, “disappointing” and not sufficient (Charnley and Poe, 2007; Pulhin et al., 2007). A systematic review of the impacts of CFM globally (Hajjar et al., 2021a) found that, of the 249 cases reporting on resource access rights, 54 % actually reported decreases in resource rights of community members, with many cases showing that while some rights were expanded, others were restricted. Overall, devolution of authority to communities and community empowerment through CFM has often proven to be limited (i.e., governments and other external actors retain substantial control) and/or conditional (i.e., rights devolution and related benefits only occur as long as people comply with the new CFM rules) (Charnley and Poe, 2007; Heffernan, 2022; De Royer et al., 2018; Brosius et al., 2005; Hajjar et al., 2012; Ribot et al., 2006; Pacheco et al., 2008).

Maintaining or increasing formal control, strict limitations, and highly restrictive regulations over forest management decisions through CFM can come in different ways. Local land tenure arrangements are often being replaced or modified by CFM. Sometimes, local peoples can lose their access rights, as accessing and extracting resources from certain areas become forbidden, and other times they can see their use rights curtailed, as commercializing forest resources, clearing forests for subsistence agriculture purposes, or practicing logging, fishing, and hunting become restricted or even prohibited (Hajjar et al., 2021a; Hajjar et al., 2012; Ribot et al., 2006; Mohammed and Inoue, 2013; Larson et al., 2010; Vyamana, 2009). For example, a CFM project in Namibia centered around the sustainable management of wildlife (to commoditize it for tourism purposes), prohibited communities from killing problem animals that cause destruction or threaten human populations (Heffernan, 2022). A local interviewee in that study stated: “[The project] has empowered us in many ways. But in many ways, we do not have power and the government keeps us under their thumb” (p.484). In Indonesia, CFM participating communities are “subject to state-imposed restrictions on the determination of sites and land uses, therefore, limiting their development aspirations” (De Royer et al., 2018, p. 1778). Other times, CFM projects give some access and use

rights to local peoples but little or no management rights. For instance, across Southern Africa, CFM projects give forest people access rights to forests, share benefits and make local investments, but limit community involvement in forest management to only assisting with protection functions, such as patrolling (Charnley and Poe, 2007). In Cambodia, CFM administrators deny management rights to communities arguing a “lack of adequate management” (Kurashima et al., 2015). It is worth noting that sometimes the impact of such restrictions can vary among community members: for those individuals previously involved in those activities before they were regulated by CFM (e.g. hunting or logging), CFM meant having their rights curtailed, while for others it meant benefiting from alternative income sources (e.g. NTFP harvesting) (Nielsen, 2011).

In some cases, CFM bureaucracies and burdensome rules constitute imposed conditions that communities need to comply with to be allowed to join the CFM program, extract resources, or receive benefits (Charnley and Poe, 2007). That way, CFM provides incentives that then are retracted if communities break the ‘rules.’ CFM rules include participating in technical training (Cossío et al., 2014), developing new governance and management tools, and formalizing forest enterprises (Sabogal et al., 2008). These preconditions are created with the goal of having communities demonstrate their willingness and capacity to manage forests (Heffernan, 2022; Brosius et al., 2005) – which is problematic by itself, as it devalues traditional systems and infringes upon local peoples’ sovereignty. The establishment of such legal requirements is also rooted in the fact that many CFM policies and practices are designed and implemented to go in line with previously created, general forestry laws and policies, which rarely respond to communities’ realities (Pacheco et al., 2008; Guiang and Castillo, 2006). In many countries, the extraction of timber is particularly onerous; besides developing management plans (Pulhin and Dressler, 2009), often modeled after corporate commercial logging occurring at much larger scales, communities are also asked to prepare projections for future timber volumes, apply for annual resources use permits, and other bureaucratic and legal procedures designed for industrial forestry practices (Bartholdson and Porro, 2019; Hajjar, 2011; Baral and Vacik, 2018; de Jong et al., 2010; Jones and Murphree, 2013; Sears et al., 2021; Cronkleton et al., 2012). Few communities are able to comply with the financial and technical requirements without significant help from external governmental or non-governmental actors (de Jong et al., 2010; Hajjar et al., 2011).

Moreover, communities or community members may even be evicted, punished, or excluded from benefits if the project’s conservation goals are not met or if the project’s rules are not strictly followed, therefore reducing prior local rights to privileges (Brosius et al., 2005). This can happen when CFM programs function under REDD+ or payment for ecosystem services schemes, where communities only receive the (conditional) incentives as long as they comply with the program rules, with the risk of being sanctioned or ejected from the program – as observed in the CFM initiatives implemented in Peru under the National Forest Conservation Program and in both Peru and Indonesia under the Dedicated Grant Mechanism (Montoya-Zumaeta et al., 2021; Monterroso and Sills, 2022). In Cambodia, CFM administration punished communities that violated the CFM contracts (Kurashima et al., 2015).

Why do CFM initiatives impose rules, restrictions, and conditions? We highlight three root causes. One, even though CFM is partly based on the idea of devolving rights to communities because they would do better managing forests, many of the intervening NGOs or government agencies that bring CFM ironically consider local or traditional practices ‘unsustainable’ (Robbins, 2012). This has to do with powerful racist colonial narratives that classify Indigenous practices as backwards and inefficient, in order to justify replacing them with production systems oriented towards export commodities – ideas that remain dominant in post-colonial governments pursuing ‘technification’, ‘modernization’ and ‘development’ through economic growth (Robbins, 2012; Medina et al., 2009a). With CFM projects being initiated and maintained

through broad and complex webs of actors characterized by competing interests and power imbalances, local populations are usually the ones who are left out (Heffernan, 2022) in designing new programs. Their local knowledge and practices, in these instances, are being subsumed by dominant narratives of what sustainable hunting or sustainable forestry should look like, narratives pushed by conservation-oriented actors (both governmental and non-governmental organizations) who have “a certain degree of authority and legitimacy based on the way they portray their missions as unquestionably good” (Heffernan, 2022, p. 486). There is a general tendency to “assume that officials sitting in the capital have a better knowledge of the local situation than the locals themselves” (Jones and Murphree, 2004, p. 79).

Second, despite CFM consisting of three pillars (economic, conservation and empowerment), in reality CFM projects tend to be conservation oriented. Globally, evidence suggests that, when faced with trade-offs between rights devolution and conservation goals, most CFM projects prioritize conservation (Hajjar et al., 2021a). With conservation goals prioritized in CFM initiatives, they often restrict consumptive use of resources (Heffernan, 2022). In sum, (i) with the aim of advancing their conservation goals and (ii) with the conviction that their techniques are the best way to do so, CFM projects often introduce new rules, regulations, and practices to make Indigenous and local communities ‘improve’ their practices and/or their governance systems.

Third, structural inequities play a role in limiting how much power is devolved to communities through CFM. Friedman et al. (2020) found that local peoples in the Hutan Desa model of community forests in Indonesia have limited ability to make decisions over their forests given that the CFM model was not sufficient to overcome existing, ingrained land tenure insecurity and social inequities, and can even help perpetuate them. Similarly, in some countries, governmental agencies and practitioners promoting CFM purposely decide to work only with communities that already had their lands titled or legally recognized, avoiding the challenges of helping communities get their land rights recognized (Charnley and Poe, 2007; Barletti et al., 2022). In these contexts, CFM initiatives might not be making any significant contribution to communities’ land rights recognition; they might only be creating new rules and restrictions.

Devolving some control over forests to populations with long-standing rights is an important contribution of CFM to fairness (distribution of benefits based on rights) and recognition justice (considering the systematic rights violations that Indigenous and local peoples have suffered throughout history). However, CFM initiatives should be interrogated as to whether devolving some rights to rightsholders and at the same time pulling back or hindering other rights is not contradicting CFM’s rights devolutions goals, instead contributing to situated and decolonial injustices by perpetuating rights violations. Moreover, CFM should be interrogated as to whether imposing new restrictive rules, rather than including local voices in decision-making, makes sense from a procedurally just conservation perspective.

In the next section we discuss how CFM restrictions and conditions impact not only peoples’ rights but also people’s livelihoods and economies.

3. What are the fairness risks of generating CFM-related economic costs and opportunity costs, in light of communities’ poverty conditions and vulnerable livelihoods?

Still suffering the consequences of historical oppression, Indigenous and local populations face important economic barriers (Robbins, 2012) and “a precarious existence under modern economy capitalism” (Ravikumar, 2022), often struggling to have their basic needs covered (Lammers et al., 2017). CFM constitutes part of the economic efforts to alleviate poverty among forest-dependent populations, the argument being that, by allowing communities to manage their forests, not only can forests be conserved but also local livelihoods, revenues, and well-being can improve through the commercial and subsistence use of forest

products and services (Cossío et al., 2014; Sabogal et al., 2008). CFM’s win-win rationale is partly based on the idea that communities have vested interests in conserving forests because their livelihoods and subsistence directly depend on (well-conserved) forest resources (Mulder and Copolillo, 2005; Heffernan, 2022).

Rigorous, national-level analyses have demonstrated that CFM has led to poverty alleviation in Nepal, Indonesia, Bangladesh, China, and Madagascar (Oldekop et al., 2019; Santika et al., 2019; Rasolofoson et al., 2017; Farouque, 2017; He et al., 2021), adding to a multitude of case studies around the world where CFM has brought economic benefits to the poor (Frey et al., 2021). However, the economic performance of CFM has been mixed across cases (Hajjar et al., 2021b; Jones and Murphree, 2013; Medina et al., 2009a; Santika et al., 2019), and dependent on numerous contextual factors that vary across countries and regions (Arts and de Koning, 2017; Baynes et al., 2015). In some cases, CFM has increased vulnerability of disadvantaged groups (Chomba et al., 2015). Examples of within-community variation, where only some members of the community benefit economically while others lose access to previous livelihood activities, are also prevalent in the literature (Hajjar et al., 2021a), as are cases of elite capture (Chomba et al., 2015). Scholars explain that income generation is not a guarantee in CFM experiences, and many CFM initiatives do not achieve their economic objectives (Gilmour, 2016). To illustrate, in the Philippines a logging ban was imposed without providing alternative livelihood sources (Pulhin et al., 2007).

As such, we identify a second inner contradiction in the CFM approach: As CFM emphasizes win-win outcomes, presumed livelihood and economic benefits can be taken for granted, and conservation-economy trade-offs and opportunity costs can be overlooked or not fully addressed. CFM initiatives often require communities to follow conservation-oriented rules, face costs and make decisions that may limit their monetary income in the name of the environment (Kurashima et al., 2015). For instance, in Cambodia CFM administrators limit commercial crop cultivation in the forest (Kurashima et al., 2015), but by also not allowing villagers to commercially harvest timber, they are left without meaningful alternative income sources. Certain CFM programs can restrict and even punish activities and practices that are key for local livelihoods (e.g., logging, family agriculture or shifting cultivation) but that CFM implementors consider unsustainable (Heffernan, 2022) or illegal (Kurashima et al., 2015) and, therefore, “in need of change” (Kurashima et al., 2015, p. 1; Wong et al., 2022). In cases in Mexico and Brazil (Hajjar et al., 2013), communities’ long-standing practices of integrating forestry and agricultural activities spatially, temporally, and economically, were altered substantially with the introduction of CFM projects that physically separated the two. Wong et al. (2022) showed that the “problematization of smallholder and shifting cultivation farming as practices in need of change” constitutes a dominant narrative in the Congo Basin and Southeast Asia (p. 100451). Consequently, some CFM projects may fail in generating enough revenues to achieve socioeconomic goals (Frey et al., 2021). They may even achieve their forest conservation goals at the expense of poverty alleviation outcomes (Santika et al., 2019), exacerbating local poverty conditions. In other cases, CFM programs can create or exacerbate inequalities within communities, such as when they distribute benefits only among the people directly involved in the program, rather than among all families in the community (Barletti et al., 2022).

As with the first contradiction, the problem here is partly rooted in the fact that, when faced with trade-offs, CFM projects tend to prioritize the global conservation agenda over local development and poverty alleviation agendas, making communities face opportunity costs of forgoing more lucrative economic opportunities and sacrifice their economies (Charnley and Poe, 2007; Heffernan, 2022). Studies show that NGOs, some of the main actors leading CFM projects across the world, have a particular tendency to believe that CFM should mainly aim to protect forests and forbid or limit communities commercial use of forests (Charnley and Poe, 2007; Barletti et al., 2022). Authorities and

CFM advocates often optimistically focus on the win-win aspects of CFM (e.g., (Humphries et al., 2020)) which might lead to overlooking trade-offs and opportunity costs and failing to provide adequate strategies to make CFM projects economically feasible or profitable in the long term.

An additional problem is linked to the fact that those CFM projects that involve communities selling forest products to alleviate their poverty levels are subject to the barriers posed by a globalized capitalist (and, more recently, neoliberal) market system (Belsky, 2015), encouraging people into commodity-based livelihoods that can increase their vulnerability and perpetuate situated injustices. A case of a community forest enterprise in Mexico illustrates how competitive and specialized production that comes with the current market system competes with diversification of income (Villavicencio Valdez et al., 2012), therefore threatening the economic security of communities. In Bhutan, a country internationally known for its significant efforts to promote a national community forestry program, there are “concerns about using the market to resolve an essentially market-driven problem” (p.35), as the ongoing expansion of (corporate) power and market-based interests in environmental and conservation matters can restrain the potential of community forestry to deliver livelihood and economic benefits to communities (Belsky, 2015). Also, CFM projects that encourage timber certification or seek international markets entail high investment costs, with no guarantee that the production levels and market demand will cover such costs and generate enough profits. This was observed in Tanzania, where “timber sales would have to increase almost tenfold for these communities to be economically viable independent of external donations” (Frey et al., 2021, p. 1). As mentioned above, a large part of CFM project costs needs to be covered by external funds and donors, just so that communities can participate in this system (Frey et al., 2021) – a system which, in seeking solutions in capitalist and market-based rationales, is part of a dominant narrative based on colonial worldviews (Wong et al., 2022). Another issue is discrimination by the project personnel and structural inequalities, which can undermine the livelihoods benefits of CFM for Indigenous peoples, as documented in Bangladesh (Farouque, 2017).

It is not surprising, then, that achieving proportionality of costs and benefits has been widely recognized as one of the big challenges of CFM projects (Mahajan et al., 2021). CFM activities generate significant costs for communities. Transaction costs associated with administrative processes and overhauling existing institutions to be compliant with new rules, which they would not have to face in the absence of CFM projects (e.g., by managing and using their forest products informally) are high (Kurashima et al., 2015; Pacheco et al., 2008; Friedman et al., 2020). Walker (2009) showed that sometimes costs of formal forest monitoring systems are “greater than the product of the probability of catching a rule breaker and the benefit of doing so” (p.1294). Power inequalities are an important barrier, with local peoples often lacking sufficient political and economic power to exert influence on the government bureaucracy (Cronkleton et al., 2012). In the complex networks of actors involved in CFM projects, the members of local communities are often the ones experiencing the least benefits (Heffernan, 2022).

As such, is it fair to assume that impoverished populations can face significant conservation-economy trade-offs, costs, and opportunity costs to their economies to engage with CFM, when that might mean receiving limited socioeconomic benefits in return and, consequently, not being able to satisfy their most basic needs? By expecting impoverished communities to prioritize conservation over their own economies, and not properly addressing market-related forces, pressures and paradoxes, a conservation-focused CFM agenda can fail to improve local economies and, instead, perpetuate, or even exacerbate, structural inequalities. This seems to be the opposite of the fairness criterion of preferential treatment on the basis of need. In a CFM approach that embraces procedural, recognition and situational justice, such trade-offs would be adequately considered and decided on by those experiencing the potential trade-offs’ negative effects (the communities themselves), and would be properly mitigated or compensated.

4. What are the fairness risks of focusing on the role of local communities in tackling deforestation and forest degradation, given their relatively low levels of responsibility over those?

About 23 % of total anthropogenic greenhouse gas emissions (2007–2016) derive from agriculture, forestry and other land uses (IPCC, 2019), while 90 % of global deforestation is the result of agricultural expansion (FAO, 2022). But what is behind those numbers? Globally, a large portion of agricultural expansion is largely linked to international markets and global commodity value chains (e.g., beef, soy, palm oil, timber, paper, rice, rubber) (FAO, 2022) – more than to rural communities’ consumption or local commerce systems. Kissinger et al. (2012) show how, in Latin America, the deforestation caused by commercial agriculture is double that caused by local/subsistence agriculture. In an analysis across 41 countries in the humid tropics, Defries et al. (2010) found that deforestation was positively correlated with urban, not rural, population growth, and exports of agricultural products, leading them to conclude that deforestation reduction policies should focus on industrial-scale, export-oriented agriculture, rather than on local, rural populations. Jayathilake et al. (2021) showed that, in the particular case of Asian landscapes, land use change is mainly driven by large-scale commercial agriculture destined for international markets, which in turn is linked to medium to large-scale land holdings (rather than to small-scale holdings). Yet, by imposing trade-offs, restrictions, and conditions on communities and smallholders in the interest of forest conservation, CFM places much of the burden of halting global forest loss and climate change on their shoulders. These costs on communities, who have sovereignty rights and who have been historically impoverished and marginalized, are even more unfair considering that they are not the principal drivers of deforestation – a violation of the merit criterion of fairness. In the study by Heffernan (2022), a local interviewee, referring to the restrictions posed by a CFM project, stated: “the North did all the polluting, but the South pays. The North also did a lot of poaching but now the South must save the animals.” That is not to say that we dismiss the impacts of small-scale and subsistence agriculture. Rather we contrast it with the impact of large-scale actors.

It is also necessary to examine indirect, underlying drivers of agricultural expansion and land use change among smallholders and communities, which tend to receive comparatively less attention (Jayathilake et al., 2021; Ravikumar et al., 2017). Such drivers, the result of the global political economy, include the international market system, the demand for agricultural and extractive commodities, economic growth policies, insecure local tenure rights, poverty, and unsustainable production practices and consumption patterns (FAO, 2022; Jayathilake et al., 2021). Those very diverse and complex economic, demographic, political, institutional, and legal factors can, indirectly, drive small-scale farmers and communities to clear or degrade some forests (Mulder and Copolillo, 2005; Ravikumar, 2022; Robbins, 2012; Bos et al., 2020).

Robbins (2012) provides examples from West Africa, the Amazon and the Caribbean to explain how “otherwise environmentally innocuous production systems undergo transition to overexploitation of natural resources they depend as a response to state development intervention and/or increasing integration in regional and global markets” (p.159). For instance, in Peru some impoverished populations clear Amazonian forests and engage more intensively with commercial agriculture and even illegal activities with the hope of overcoming poverty and meeting their basic needs (Cossío et al., 2014). The neoliberal policy approach of outsourcing basic rural public works to private companies has also been a major underlying driver of the negative outcomes of oil palm company-community partnerships in Peru (Bennett et al., 2018). Oil palm expansion through such partnerships in Peru has resulted in 40,000 ha of old growth forest being cleared for large oil palm plantations (Bennett et al., 2018). Also in Peru, logging companies who were quickly depleting stocks of commercial timber species were informally negotiating timber rights within communities (Medina et al., 2009b),

demonstrating how companies can operate indirectly through (often unfair) deals with smallholders and communities. The study by [Jaya-thilake et al. \(2021\)](#) on multiple landscapes across the tropics showed that when deforestation was associated with small to medium-scale land holdings, global industries such as those for beef and leather were behind such a dynamic. In the Brazilian Amazon, tenure insecurity and the expansion of the timber market led to class stratification and, ultimately, to different groups (with different levels of power) struggling over forest resources and over-extracting timber, while credit systems, middlemen, and commercialization of agriculture further reduce household margins and pushed communities to clear more forests ([Schmink and Wood, 1992](#)). Thus, as noted in the previous section, there is a fairness problem if CFM projects too easily label the practices of local communities and smallholders as ‘unsustainable,’ shaming them for clearing or degrading forests and imposing new restrictions and resource use techniques to make them ‘sustainable’ without properly considering the historical context and external pressures that communities face. This does not mean that we should not bother with CFM and focus only on the major drivers of deforestation. It rather means that a more just CFM would more deeply and consciously recognize these indirect drivers at play, and address them where possible.

5. Towards a more just CFM

Previous work has shown that the majority of CFM initiatives face trade-offs that make ‘win-win’ outcomes difficult to achieve ([Hajjar et al., 2021a](#); [Charnley and Poe, 2007](#); [Frey et al., 2021](#)). In this perspective piece, we discuss the justice implications of these tensions, looking at the fairness of CFM as a conservation approach based on a rights, needs, and merit framework. Our analysis exposes tensions not only between conservation, income, and rights outcomes, but also between global and local priorities and other contradictions that have remained widely unrecognized. We show that CFM initiatives can be unfair when they impose restrictions and opportunity costs to communities in the name of conservation, in light of communities’ rights, historic and current marginalization, and relatively low levels of

responsibility over deforestation, forest degradation, and climate change. Evidence from around the globe shows that fairness is not a guarantee in current CFM initiatives, particularly given contradictions that are inherent to the CFM approach. This paper does not disregard the value and potential of CFM to reach conservation and social objectives. Instead, it joins the existing calls for a more careful approach to CFM, in such a way that CFM initiatives can be made more fair. Giving local people rights over the forest with the expectation that they will be better stewards is not inherently unjust; forcing them to make tradeoffs where they are compromising their rights and livelihoods to protect global forests is unjust if they are vulnerable populations, with long-standing autonomy and sovereignty rights, and not the ones principally causing the problem in the first place.

Successes and lessons learned from CFM experiences around the globe show the importance of promoting distributive, procedural and recognition justice and of adopting a multi-cultural approach ([De Royer et al., 2018](#); [Barkin and Fuente, 2013](#); [Pulhin et al., 2007](#); [He et al., 2021](#)). We call for an equity approach to CFM that centers a rights-needs-merit rationale (see [Fig. 2](#)) that includes: acknowledging the systemic marginalization of Indigenous and local peoples, rooted in a legacy of colonization and continued power asymmetries; prioritizing communities’ rights, basic needs, and well-being, rather than considering these tangential or optional benefits; addressing structural inequities and indirect drivers of deforestation in program design; avoiding utilitarian views that prioritize thinking of forests as a global resource rather than a local one; and enhancing local and traditional institutions while overcoming paternalistic and colonial views that perpetuate the continued marginalization of Indigenous and local communities.

As a starting point, promoting justice and challenging power asymmetries cannot happen without critically acknowledging the systemic marginalization of Indigenous and local peoples ([Roy and Hanaček, 2023](#)). Fair CFM approaches need to recognize situations where communities constitute underprivileged groups that still suffer the consequences of a legacy of colonization and an oppressive political-economic system controlled by powerful actors’ interests ([Brosius et al., 2005](#)).

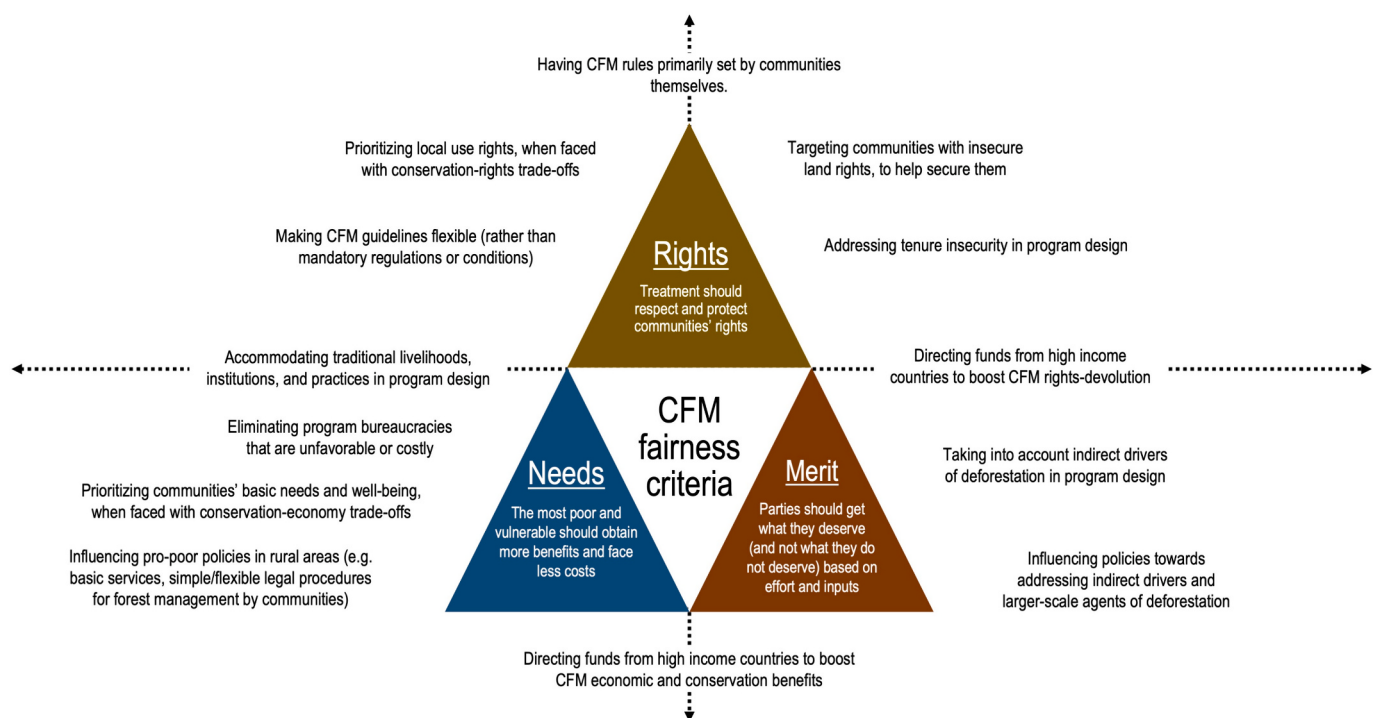


Fig. 2. A rights-needs-merit rationale for fairness in CFM: A more just approach to CFM would explicitly consider a number of factors that meet the rights, needs, and merit criteria of fairness.

These communities face important economic, social, and political barriers and systematically see their rights infringed upon. These are the same groups currently being asked to help protect the world's forests and mitigate global climate change, through CFM and other mechanisms (Ravikumar, 2022).

In light of this, CFM projects should look for ways to address such underlying social inequities. For starters, and following the rights criteria for fairness (Fig. 2), CFM proponents and practitioners should look beyond livelihoods as the main social measure of success, and focus on *rights* as the starting point. This means that rules should be set primarily by communities themselves (De Royer et al., 2018). CFM initiatives should be designed to respect, protect, and reinforce local rights and accommodate local institutions and practices rather than eradicating them and imposing new, external ones, and retaining local authority over key decisions in the interest of forest ecosystems conservation and climate change mitigation (Cronkleton et al., 2012; Selfa and Endter-Wada, 2008). CFM initiatives should help communities address indirect drivers of deforestation – a key one being tenure insecurity (Ravikumar et al., 2017). Several cases from around the world suggest that robust tenure is key for CFM and forest conservation goals (Blackman et al., 2017; Aggarwal et al., 2021; Porter-Bolland et al., 2012; Schleicher et al., 2017). Having official land titles should not be a precondition for communities to be able to participate in and benefit from CFM initiatives, as is the case in some countries; instead, CFM projects should especially target communities with insecure land rights to help secure them. This entails governments strengthening local rights through legal frameworks, and civil society, donors, and academia supporting policy implementation and inclusive policy processes (Aggarwal et al., 2021).

In keeping with the needs and rights criteria, when faced with trade-offs, CFM projects need to prioritize the rights, basic needs, and well-being of historically exploited, discriminated, racialized, impoverished and/or vulnerable groups over other agendas, including global conservation goals. That is, even if that means that some forests will be cleared or degraded. As illustrated by a case study in Mexico, CFM projects that focus more on the people rather than the trees can better achieve all social, economic, and environmental goals *in the longer term* (Villavicencio Valdez et al., 2012). Overall, combining the needs and merit criteria, CFM projects should not be negatively impacting communities who have less resources and lower historical responsibility for the loss and degradation of forest ecosystems and for climate change. In that same line, just CFM policies and practices should avoid utilitarian views, which might justify harming or violating the rights of a few for what is considered the “greater good” (Merritt, 1973). Forests, then, should be seen in CFM initiatives not only as a global resource for humanity but also as a local resource for the benefit of those marginalized populations, and part of their historical territory and means for survival – these needs should not be sacrificed for the global good.

Following the decolonizing conservation movement, fair CFM approaches also need to overcome colonial and paternalistic views, where Indigenous and local practices for community forest management are labeled as unsustainable and their knowledge unscientific (Robbins, 2012; Brosius et al., 2005). Fair CFM approaches should not only help destigmatize traditional and informal forest practices and consider how broader contextual forces (e.g., the global market) shape them; fair CFM approaches also need to empower communities by valuing their rich knowledge, institutions, and values regarding forests and forest management and accommodate them in program design (Pacheco et al., 2008; Hajjar et al., 2013; Diemont et al., 2011). This is linked to both the rights and needs criteria, as it means prioritizing local community rules that are more socially sensitive and often more environmentally attuned over top-down policies, norms, and bureaucracies unfavorable to small producers. At the same time, CFM proponents should be active in trying to influence policies and laws that would make it easier for underprivileged populations to access CFM programs and related benefits and take charge of their own resources. These include, as shown by previous

evidence, socially and culturally appropriate training (Frey et al., 2021), participatory mapping (Osorno-Covarrubias et al., 2018), diversification of income (Villavicencio Valdez et al., 2012), and simplified or flexible legal processes and management (Sears et al., 2018). Flexibility also applies to CFM policies and institutions: “legislated community forestry policy should be ‘enabling’ rather than ‘enforcing’” (p.880) and public agencies need to support and facilitate rather than regulate (Pulhin et al., 2007).

Similar to the demands of the climate justice movement and loss and damage compensation mechanisms, meeting the *merit* criteria would entail high income countries – not impoverished nations and groups – holding the main responsibility (and assume most of the costs) for conserving forests and tackling climate change, given their historical role. This means high income countries should spend “unprecedented resources to meet the needs of Indigenous and forest-dwelling communities (...) in an international effort to repair the historical harm that colonization has caused while also securing the well-being of the people who protect forests” (Ravikumar, 2022). This needed investment should go towards CFM approaches and policies that prioritize Indigenous and local peoples’ rights, needs, and well-being; address underlying social inequities and systemic marginalization; and respect different histories, knowledges, norms, and values.

By rethinking assumptions and addressing fairness implications that consider rights, needs, and merit, community-based forest management initiatives, and community-based conservation initiatives in general, can effectively align conservation goals with social justice for historically marginalized peoples around the globe.

CRediT authorship contribution statement

Jazmin Gonzales Tovar: Conceptualization, Formal analysis, Investigation, Visualization, Writing – original draft, Writing – review & editing. **Reem Hajjar:** Conceptualization, Formal analysis, Investigation, Writing – review & editing, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data were used for the research described in the article.

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