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Forest tenure and the Sustainable Development Goals – A critical view

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ABSTRACT

Agenda 2030 and its 17 Sustainable Development Goals (SDGs) form an overarching framework to guide development at all scales from local to global. They are intended to holistically address sustainability across its economic, ecological and social dimensions. A core tenant of this holistic approach is that all dimensions of sustainability are interlinked, such that changes in one dimension can have pivotal effects on others. This paper focuses on land and forest resource tenure as one such pivotal issue that importantly shapes the achievement of the SDGs. It considers the current status of forest tenure globally and analyses critically how the different aspects of tenure rights are included and addressed in the SDG targets and indicators. The main conclusions of this analysis are that land and resource tenure, including forest tenure, is explicitly addressed in specific SDGs, but the way these SDGs, targets and corresponding indicators are formulated leads to only partial inclusion of important aspects of tenure rights.

1. Introduction

Agenda 2030 and its 17 Sustainable Development Goals (SDGs) form an overarching framework to guide development at all scales from local to global. The SDGs, and their associated 169 targets and 232 indicators, are intended to holistically address sustainability across its economic, ecological and social dimensions. A core tenant of this holistic approach is that all dimensions of sustainability are interlinked, such that changes in one dimension can have pivotal effects on others. This paper focuses on land and forest resource tenure as one such pivotal issue that shapes the achievement of all 17 SDGs. It considers the current status of forest tenure globally, how tenure is specifically addressed in the targets and indicators of the SDGs, and finally the potential for harnessing and/or enhancing these commitments in order to ensure the sustainable use of the world's land and forest resources.

Forests cover about one-third of the global land area and provide a wide range of critical supporting (biodiversity, primary production, water and nutrient cycling), regulating (climate regulation, flood regulation, water purification), provisioning (timber and non-timber forest products such as foods, medicines and fuelwood) and cultural services (spiritual, aesthetic, recreational and other non-material services) (Reid et al., 2005). At a global scale, forests are important for carbon storage and climate change mitigation and as a habitat for global biodiversity, with over 80% of global terrestrial biodiversity found in forests (Aerts and Honnay, 2011). The supporting and regulatory services that forests deliver provide critical foundations for sustainable agriculture and food production (Cumming et al., 2014). The conservation and sustainable use and management of forests are thus relevant to all aspects of sustainable development and human wellbeing.

The interaction between people and forests is governed by policies, institutions and social relations, which together mediate rights to land and resources or 'tenure' over them. Tenure refers to the conditions under which land is held or occupied, and determines who can access and use which land-related resources, in what way, for how long and under what conditions. The governance of tenure also includes decision-making mechanisms that establish how and by whom rules of access can be made and changed. Tenure may be regulated by statutory law or by customary laws and norms, or by both at the same time (FAO, 2002; Larson, 2012).

2. The current distribution of forest tenure

According to statutory law, 73% percent of the global forest area was publicly owned as of 2015. In some regions public ownership is

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even more dominant; in Western and Central Africa 93%, Western and Central Asia 99% and South and Southeast Asia 88% of forests is in public ownership (FAO, 2020). However, reliable information on forest resource tenure is lacking for large areas, and the above-mentioned government data often does not take into consideration customary forest ownership, even areas recognized by statutory law but not yet mapped and formalized. The broad categories (e.g. private or public) also hide great variation. For instance, private ownership includes forest owned by private people, households, communities and companies; and forests officially under public ownership include large areas used and managed by local people and communities under customary systems, parks and other conservation regimes, and areas that are in practice under open access.

Analysis from the Rights and Resources Initiative, which gathers data from multiple expert sources in 58 countries covering 92% of the global forest area, provides a more nuanced story. Private individuals and firms own 11% and indigenous and local communities own 12% (447 million ha) of the total forest area in the countries analyzed (RRI, 2018). Furthermore, indigenous and local communities hold legally designated rights to 80.5 million ha (2.2%) of the publicly owned forests, meaning that "national law recognizes Indigenous Peoples' and local communities' rights to access and withdrawal, as well as to participate in the management of forests or to exclude outsiders," but these rights fall short of ownership rights (RRI, 2018: 8). Most of the forest area either legally owned by or designated for indigenous and local communities is located in Latin America, followed by Asia and then Africa (RRI, 2018).

In many locations the legal tenure system has been overlaid on the customary resource management systems that local people and communities have traditionally used to manage and regulate resource access and use. This situation, also referred to as legal pluralism (Von Benda-Beckmann and von Benda-Beckmann, 2011), prevails in large areas of public forests which are used and managed by indigenous and local communities. The degree to which the formal statutory system respects and recognizes customary tenure systems varies greatly among countries, and an important proportion of publicly owned forests are used and managed by indigenous and local communities without formal government recognition. In many locations, overlapping tenure systems have led to uncertainty and conflicts among resource users (e.g. Marfo et al., 2010; Pham et al., 2013).

Secure rights to land and resources are widely accepted to be an important prerequisite for providing incentives for sustainable use and development of resources and thus essential for sustainable development (Larson and Springer, 2016). Land and resource tenure are also included in specific SDGs and targets (Arora-Jonsson et al., 2019; Lawlor et al., 2019; Sunderland et al., 2019).

3. Tenure rights and tenure security

Tenure rights, whether legal or customary, may consist of one or more of a wide range of rights often referred to as a 'bundle of rights' (Schlager and Ostrom, 1992; Sikor et al., 2017). The concept of a bundle of rights highlights how forest tenure may include different combinations of rights such as to access, use, manage, exclude and alienate a land-based resource. In forest contexts, access rights can mean access for purposes that are extractive or non-extractive, e.g. recreational or spiritual. Use rights refer to the rights to obtain products, such as timber or non-timber forest products, for subsistence or commercial purposes. Management rights refer to the rights to manage, change or develop the resource and thus alter the future benefit streams from the resource. Exclusion rights entail making decisions regarding who can access and use the resource, i.e. preventing others from using and benefitting from it; and alienation refers to rights to dispose of the resource by e.g. selling or leasing it (Schlager and Ostrom, 1992). This conceptualization differentiates between the rights to access and use forests (operational-level rights) and rights that relate to local forest governance (collective-choice level rights) constituting the decision-making or control rights over the resource (management, exclusion and alienation rights) (Agrawal and Ostrom, 2001; Schlager and Ostrom, 1992).

Which rights of the bundle the rights holders have affects their incentives to manage and use resources sustainably and invest in them, as well as the opportunities to benefit from the resource. In most cases the rights are shared in different ways among different actors. In most joint and community forest schemes for instance, local communities have use rights to certain forest products, but the harvesting and sale of commercially valuable timber, for example, is not permitted, or requires a management plan and is subject to strict government regulations. Hence the rights to management decisions, especially over timber, are often withheld (Cronkleton et al., 2012), as is the right to exclude others and to alienate the land.[1] The *stated* justification for these limitations on community rights is often associated with the protection of forest resources, but the evidence suggests otherwise (Kolstad and Søreide, 2009; Larson and Pulhin, 2012).

The incentive to manage resources sustainably is not only affected by the specific rights granted and withheld but also by the duration of rights (Larson and Pulhin, 2012; RRI, 2012). The duration of rights is an important distinguishing feature between ownership rights and more limited designated use rights; it is important in shaping people's ability to exert control over, and benefit from, those rights. This is particularly important in the case of natural forests, where the benefits from their sustainable management and development can take many years (RRI, 2012).

Sustainability also depends on the security of rights. Security refers to the confidence that rights will be upheld by all other actors, including the state (Sjaastad and Bromley 2000), so that the rights will not be arbitrarily withdrawn. Security refers to both perception (e.g. belief that their right is safe and not in jeopardy, Poffenberger, 1990) and to practice, as in "the ability of an individual to appropriate resources […] and to claim returns from investment" (Mwangi and Meinzen-Dick, 2009: 310). The right to exclude others is thus an important element of the security of rights, and to be effective it needs to be recognized, respected and enforced. Security is often equated with title – sometimes for expediency of measurement and sometimes because of bias regarding private property (Cronkleton and Larson, 2015). Indeed, legal recognition and documentation can in principle help right holders to defend their rights from external pressures. However, for this to be the case, the right holders would need to have the information, capacities and resources needed to defend their rights, and the legal system would need to include just procedures for addressing competing claims (Broegaard, 2005; Nygren, 2004). It is thus important to note that legal documentation does not necessarily lead to secure rights.

Customary tenure systems that are not legally recognized can be perceived as secure where people hold greater trust in customary institutions of governance than in state institutions. At the same time, legal recognition of traditional, informal or family-derived rights can lead to perceptions of and actual insecurity when confronted with market forces, state claims, or when male family members exert claims over women's rights. For example, one study in Guatemala found that "Rather than enhancing legal security of land claims, land titling in a context of intense speculative pressure seems to have had the effect of increasing land insecurity among the rural poor" (Milian and Grandia, 2013: 19). Tenure security is therefore highly contextual and can be provided by customary or statutory institutions. In addition to land

[1] The bundle of rights is sometimes seen as a continuum such that 'more rights' means 'better'. But many advocates for communal or customary lands argue that the right to sell or mortgage the land puts it at risk (Larson, 2012). This was also the case in many agrarian reforms of the 1980s, where the right to sell was seen as a risk to long-term structural changes in land distribution (Binswanger et al., 1993).

titling and formal titles it is shaped by a host of social relations and mechanisms that determine people's ability to access, as well as benefit from, land and forest resources (Ribot and Peluso, 2003).

Based on this understanding of tenure and its complexities, the following sections examine how tenure is explicitly addressed within the SDGs, as well as the relevance of the SDGs to tenure. We will then close with a general discussion and conclusion.

4. Land and forest tenure within the SDGs

4.1. SDGs with explicit focus on land tenure

Rural land rights are explicitly addressed in three SDGs: SDG 1 (End poverty), SDG 2 (End hunger) and SDG 5 (Gender equality).

4.1.1. SDG 1 No poverty

Under SDG 1, Target 1.4 aims to "…ensure that all men and women, in particular the poor and the vulnerable, have *equal rights to economic resources*, as well as access to basic services, *ownership and control over land* and other forms of property, inheritance, *natural resources*, appropriate new technology and financial services, including microfinance".

The indicator for tracking progress in this target (Indicator 1.4.2) covers both urban and rural tenure and is divided in two parts. First, it monitors the *proportion of population with secure rights to all land* and equates security with legally recognized documentation. Legal documentation in this connection includes land ownership by title deed and other legally enforceable documentation of user rights defined at country level.

The second part of this indicator focuses on the *perception of tenure security*, which is defined to be secure if (i) the landholder does not report a fear of involuntary loss of the land within the next 5 years due to, for example, intra-family, community or external threats and (ii) the landholder reports having the right to bequeath the land. This second part of the indicator is intended to account for situations where legal documentation does not provide adequate security, for example when the state fails to protect and enforce rights, or where customary tenure systems provide greater tenure security than the state.

But, it is worth noting here that perception is subjective and rights can be perceived as secure based on past experiences and lack of information about possible threats from, for instance, infrastructure development projects and government land allocations to the private sector. Hence perceptions may not capture fully the actual state of affairs with regards to tenure security. We suggest that ultimately both legal rights and perceptions of security are necessary to fully capture the state of tenure security of right holders.

The wording of target 1.4, "… equal rights to economic resources… ownership and control over land and other forms of property, inheritance, natural resources…," encompasses the different bundles of rights, making a clear reference to control and ownership of land and other resources. Control rights might have also included alienation rights; however in this respect the target specifically mentions only inheritance rights. The second part of the indicator 1.4.2 also restricts the definition of security to the right to bequeath the land. Yet, according to classic economic theory, rights to sell or lease land and resources and well-functioning markets may contribute to the profitability of land use (Cole and Grossman, 2002). It may however also lead to deforestation when forest land is parceled and sold and cleared for agriculture or other uses that may yield higher returns than forest activities. At the same time, it could erode common property regimes and result in land grabs and resource concentration (D'Odorico et al., 2017). Hence the focus of SDG 1 targets on inheritance rights might be considered more consistent with the overall focus of SDG 1 on poverty reduction and 'equal rights to economic resources' (Target 1.4.).

Overall, the focus of the indicators on the security of rights overshadows other important aspects such as the extent of rights to use resources and make decisions regarding their use and management. Restricted rights to manage forests and/or benefit from e.g. economically valuable timber may undermine the benefits that local people and communities receive from forests, and their associated incentives to invest in forest management and protection (Gritten et al., 2015). Research shows widespread agreement on the importance of "early and regular supply of material benefits" as an important factor for successful local forest management (Baynes et al., 2015: 231).

Laws and regulations governing valuable natural resources often favor large-scale industry and international trade, and conservation laws continue to restrict local forest use and control. Increased law enforcement as targeted under SDG 16 can in these cases worsen existing inequalities (McDermott et al., 2019).

4.1.2. SDG 2 End hunger

SDG 2 contains only indirect or tangential links to land and resource tenure. Specifically, Target 2.3 calls for the doubling of agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment. In this target, secure and equal access to land and other resources is framed relatively narrowly as a means to increase productivity and incomes. Accordingly, the SDG 2 indicators focus on volume of production per labor unit of farming/pastoral/forestry enterprises (Indicator 2.3.1) and average incomes of small-scale food producers (Indicator 2.3.2).

4.1.3. SDG 5 Gender equality

Under SDG 5, target 5a calls for undertaking reforms to give women equal rights to economic resources, access to ownership and control over land and other forms of property and natural resources. The related indicator includes two parts. Indicator 5.a.1 monitors the (a) proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or right-bearers of agricultural land, by type of tenure. Although the text of target 5a seems to apply to all land and natural resources, the indicators 5.a.1a and 5.a.1b tracking the progress toward this target focus only on 'agricultural land' which does not include forests and other wooded land.

Indicator 5.a.2 monitors the number of countries where the legal framework (including customary law) addresses women's equal rights to economic resources, as well as access to ownership and control over land. It looks at the extent to which the legal framework supports equal land rights to women. This indicator is monitored through six proxies (http://www.fao.org/sustainable-development-goals/indicators/5a2/en/):

A: Joint registration of land compulsory or encouraged through economic incentives.

B: Compulsory spousal consent for land transactions.

C: Women's and girls' equal inheritance rights.

D: Allocation of financial resources to increase women's ownership and control over land.

E: In legal systems that recognize customary land tenure, existence of explicit protection of the land rights of women.

F: Mandatory quotas for women's participation in land management and administration institutions.

Despite the focus on monitoring women's land rights, indicator 5.a.2 also conveys important information about tenure for all. If a country 'scores' well in the proxies of this indicator, it is very likely that the overall legal framework is supportive for different aspects of tenure. For example, proxy E calls for explicit protection of the land rights of women in legal systems that recognize customary land tenure and proxy F for mandatory quotas for women's participation in land management and administration institutions. If a country fulfills these proxies it also implicitly means that the legal systems recognize

customary land tenure systems and that participatory land management and administration institutions exist. Unfortunately recent analysis of these two proxies show them to be quite weak (RRI, 2017), and what happens in practice for women's tenure rights in many forest areas depends not only on national law but also an additional layer of community or customary norms (Arora-Jonsson et al., 2019; Monterroso et al., 2019).

5. SDGs relevant for tenure

As discussed above, Agenda 2030 emphasizes the interconnectedness of the SDGs and their targets. This is well in line with the scholarship on land tenure and resource rights and their relationship with, and contributions to, sustainable use and management of natural resources, livelihoods and community well-being. In addition to the extent and security of tenure rights discussed above, exercising these rights and benefiting from the opportunities they provide requires a supportive and enabling environment. However, and reflecting the nature of Agenda 2030 as a state-based initiative, the emphasis is placed on state-based law, in ways that downplay the key role of customary institutions, and local and domestic as opposed to global trade, in enabling local communities secure access to, and benefits from, forest resources. That is, the Agenda refers to 'good governance' as synonymous with the rule of law, supporting polices, legislation and administration, participation in relevant rule and decision making including (presumably state-based) land-use planning, access to finance and commercial markets as well as capacity building and education. Specifically, SDGs[2] 5, 10 and 16 include targets for participatory and representative governance and rule-making; SDGs 8, 10, 15 and 16 include targets addressing administration, policy and regulatory frameworks and effective enforcement; SDG 16 addresses accountable and transparent institutions; SDGs 2, 8, and 9 access to markets, infrastructure and finance; SDG 4 focuses on education, skills and capacities; and SDGs 10 and 16 on social capital and absence of unmanageable levels of conflict (Katila et al., 2019a, 2019b). While progress toward these goals could support local tenure, what is lacking is a more holistic consideration of tenure as a cross-cutting issue, which goes beyond state law and its enforcement, to mediate the distribution of power, control and benefits over land and forest resources.

6. Discussion and conclusions

The main conclusions of this analysis are that land and resource tenure, including forest tenure, is explicitly addressed in specific SDGs, but the way these SDGs, targets and corresponding indicators are formulated leads to only partial inclusion of important aspects of tenure rights. Notably, the rights to manage, use and benefit from land and resources, and to have a meaningful role in decision-making related to these, are not fully included. Furthermore, the security of rights is in the SDGs equated with legal documentation and perception of security. However, legal documentation alone is not enough; it needs to be supported with accessible, just and equitable mechanisms for protecting rights, which are still lacking in many countries. Strengthening the security of customary rights and mechanisms to uphold these rights are especially important in forest areas that are used and managed by local people on the basis of customary resource management systems which are not recognized by the state. The urgency of this is emphasized by research on land investments and large-scale land acquisitions showing that "land investments are more directed to countries with a high share of rural land under traditional systems and high diversity of land tenure system (and weak procedures for land tenure formalization), confirming that these systems with complex structure of property rights and widespread insecurity of land tenure are under strong commercial pressure" (Conigliani et al., 2018: 652, see also D'Odorico et al., 2017).

Large-scale land acquisitions also increase pressure for deforestation (Conigliani et al., 2018), which is continuing; according to FAO (2020) the global forest area decreased by an estimated 10 million ha per year in 2015–2020. The SDG 15 (Life on land) is specifically directed to forests and calls for their restoration, protection and sustainable use and management. Yet, it does not mention land or resource tenure, even though the extent and security of tenure rights largely shape resource users' and managers' possibilities and incentives to invest in and manage resources sustainably. Many countries have adopted some forms of forest tenure reform for moving toward sustainable forest management and improving local livelihoods, but most of the world's forests are still in public ownership and the reforms have mostly led to the devolution of limited rights to forest resources (Aggarwal et al., 2020; RRI, 2018).

The interconnected nature of the SDGs is clearly manifested in how the issues that are crucial for tenure and to support sustainable resource use and management and related livelihoods are included in the different SDGs (e.g. SDGs 2, 4, 8, 9, 10, 16 discussed above). In practice, strengthened community and smallholder rights to forests or customary rights recognition are rarely accompanied by various forms of support given to other sectors (agriculture) and to other actors (large industry). Successful cases show that strong rights can improve forests and livelihoods, but only when these are accompanied by multi-dimensional support (Gilmour, 2016; Nunan et al., 2018).

In other words, an integrated approach toward progress that covers all the relevant SDGs is needed to enable rights holders to fully exercise and benefit from their legal and/or customary rights. Important issues in this connection are the strength and breadth of the rights to forest lands and resources, recognition and protection of these rights by the state, the extent and degree of external pressures (and support in resisting problematic ones), community governance and collective action, an enabling regulatory framework, and access to appropriate markets, finance, capacity building and technologies. A gender-responsive approach is needed to benefit both men and women.

On the other hand, secure tenure and rights are also instrumental for moving forward with several other SDGs besides the ones where it is already mentioned, such as SDG 8 on employment and economic growth, SDG 10 to reduce inequality within and among countries, SDG 14 to conserve and sustainably use coastal areas and mangrove forests and SDG 15 on protection and sustainable use of terrestrial ecosystems such as forests. Land and resource tenure is clearly a cross cutting issue that is affected by or affects the progress of almost all SDGs.

Despite the limitations highlighted in this commentary, the inclusion of land and resource tenure even in its current limited extent can still be considered a positive development, given the highly contested and politically sensitive nature of land and resource tenure issues within many countries. At country level, it may pave the way toward improved legal frameworks, policies and institutions. However for these changes to improve local access to, and benefits from, land and forest resources, attempts to formalize tenure must be sufficiently flexible and tailored to local contexts, and they must go beyond just formalization. Such locally tailored approaches will be critical for providing smallholders and indigenous and local communities secure rights to use, manage and benefit from forest resources and meaningfully participate in the decision-making that concerns these rights.

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.

[2] The SDGs referred to in this paragraph are: SDG 4 Quality education; SDG 5 Gender equality; SDG 8 Decent work and economic growth; SDG 9 Industry, innovation and infrastructure; SDG 10 Reduced inequalities; SDG 15 Life on land; SDG 16 Peace, justice and strong institutions

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