

## Forest Tenure

### Basic knowledge



**Welcome to the Forest Tenure Module, which is intended for people involved in forest-tenure reforms or who are charged with implementing or facilitating SFM in forests under varying or contested tenure arrangements.**

**This module provides insights into issues related to forest-tenure systems and governance; key tools for analysing tenure systems, identifying stakeholder perspectives on tenure and assessing tenure governance arrangements and practices; and case studies on the practical application of such tools.**

The condition of forests depends on how they are used and managed, which in turn depends largely on who has rights to their ownership and management. Tenure is a generic term referring to a variety of arrangements that allocate rights to land and resources and (usually) set conditions on those who hold land. Tenure regulates access to, and the use of, resources. Tenure arrangements may involve exclusive rights (where only one person or group has access to a resource), or non-exclusive rights, where more than one group of people have certain tenure rights to the same resources.

Forest tenure is a broad concept that includes ownership, tenancy and other arrangements for the use of forests. It is a combination of legally or customarily defined forest ownership and other rights and arrangements for the management and use of forest resources. Forest tenure determines who can use which resources, for how long and under what conditions. While forest tenure is closely linked to land tenure, it concerns not only the land but also the forest growing on the land.

SFM is unlikely to succeed without the security provided by credible, negotiated arrangements on tenure. In many countries, resolving disputes on forest tenure is not easy but must be done – most effectively through a transparent and equitable process – if resource management is to be sustainable.

Different forest-tenure arrangements may allocate different combinations of rights, such as rights to use, manage and control forest resources; market forest products; and inherit, sell, transfer, dispose of, lease or mortgage forest land (and sometimes trees and other resources on such land). Some tenure systems give people the right to use land (including forests), but not the right to own or transfer them.

In some places, traditional ownership and management may apply to forests that are also subject to a statutory tenure system (either for exploitation or conservation). A lack of clarity on rights and responsibilities for forest land and resources is likely to lead to confusion and

conflicting claims.

In many contexts, decisions about resource tenure are critical for forests and livelihoods. Forest tenure determines who:

- has access and rights to use or withdraw forest resources;
- can make decisions on forest use or a change in land use;
- decides who may use resources and who is prevented from using them; and
- determines who may transfer, sell or lease the resources.

A change in forest tenure implies changes in the distribution of rights and forest management responsibilities among stakeholders. As forests come under increasing stress due to the impacts of environmental degradation and climate change, and growing demand for land and forest products, the governance of tenure will be even more crucial for SFM.

A forest-tenure system that is clear, just and appropriate for local conditions is more likely to result in SFM and lead to a concomitant reduction in deforestation and forest degradation because secure tenure provides incentives for people to invest time and resources in forest management. People are more likely to look after forest resources if they can benefit from them.

It is vital, therefore, that forest managers:

- understand local tenure arrangements for land and other resources and the impacts (positive or negative) these might have on stakeholders, especially the poor;
- understand how tenure influences SFM; and
- participate in forest-tenure reform processes, for example by providing accurate data, facilitating multistakeholder dialogue, and providing space for local people to articulate their views and issues.

#### **Forest tenure contributes to SDGs:**





#### Related modules

- [Collaborative conflict management](#)
- [Forest law enforcement](#)
- [Gender in forestry](#)
- [Participatory approaches and tools for SFM](#)

## In more depth

A wide range of rights, with various sources of legitimacy and held by a wide range of stakeholders, prevail in forests. Forest-tenure systems, therefore, are usually highly complex. Tenure may vary over time and be subject to rapid change; thus, forest-tenure systems are dynamic. They also operate at different scales – at the local level, at the landscape or other intermediate scale, and at the national (and increasingly international) scales. Many different stakeholders, even at the local level, have, or aspire to have, forest tenure.

The complexity, diversity, dynamism and multiplicity of scales and stakeholders present considerable challenges for the design of processes and arrangements for forest-tenure reform and governance.

Land and forest tenure can be categorized as:

**Private** – rights are assigned to private parties, who may be individuals, groups of people, or corporate bodies such as a commercial entities or non-profit organizations. For example, within a community, individual families may have exclusive rights to residential parcels, agricultural parcels and certain trees. Other members of the community may be excluded from using these resources without the consent of those who hold the rights.

**Communal** – a right of commons may exist within a community, whereby each member has a right to independently use the holdings of the community. For example, members of a community may have the right to harvest forest products in a forest (but non-members of the community may be excluded from using the common areas).

**Open access** – specific rights are not assigned to anyone, and no one may be excluded. For example, access to the high seas is generally open to anyone. Free access may also apply to certain land resources (e.g. rangelands or forests).

**State** – property rights are assigned to an authority in the public sector. In some countries, for example, forests fall under the mandate of the state, whether at a central or decentralized level of government. States may grant limited user rights (e.g. through permits), or allow collaborative management arrangements under certain conditions.

### **Principles for reforming forest tenure**

The following principles have been found to be important considerations in any adaptive, deliberative, reflective process of tenure reform.

*Principle 1 – adaptive multistakeholder approach.* The reform of forest tenure is a learning process. Implementation requires sufficient time for the identification of key stakeholders, discussions within and among stakeholder groups, negotiations among stakeholders over forest management objectives, and feedback from field experiences to guide policy dialogue and allow incremental change. An adaptive multistakeholder approach enables experiential learning to be used to continually update knowledge and inform future planning and action.

*Principle 2 – tenure as part of a wider reform agenda.* Tenure reform should be supported by enabling policy, legislation and institutional arrangements, and should not be limited to recognizing or granting title or usufruct rights. In particular, tenure reform should be embedded in a country's overall development agenda.

*Principle 3 – social equity.* Control over natural resources is an important source of power. Establishing pro-poor tenure systems requires that power relations are tackled at all levels by applying principles of democratic governance. Women's tenure security needs special attention. Women are often responsible for managing household income, providing food and raising children, but they frequently lack secure access to resources because of discriminatory norms and practices. Intra-community relations may need to be addressed to ensure that women and men have equal rights of access to and control over forest resources, and to safeguard against unintended negative impacts on women of tenure reform.

*Principle 4 – customary rights and systems.* In many countries, customary forms of forest tenure overlap with formal (or "statutory") legal tenure. In some cases, statutory tenure has little or no effect on the way in which the people living in and around forests regulate their access to and use of forests. In other cases, however, statutory and local tenure operate in parallel and often in contradiction; this invariably leads to confusion and conflict and frequently to forest degradation. Reconciling customary and statutory rights should be a basic aim of forest-tenure reform. [The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security](#) (the VGGT, May 2012) provides comprehensive coverage of tenure with regard to the recognition of customary rights, protection of rights, support for enjoyment of rights, access to justice, and prevention of disputes (e.g. through transparent and non-corrupt processes of rights allocation).

*Principle 5 – regulatory framework.* A regulatory framework should aim to encourage the mandated individuals and groups (such as

smallholders or local communities) to manage forests in ways that improve both their own livelihoods and the condition of the forests. Although government agencies may retain the mandate for appropriate law enforcement, in devolved forest management they also need to adopt a supportive and facilitative role in assisting the efforts of forest owners and managers.

*Principle 6 – tenure security.* This principle requires that access and use rights are expressed as “hard” rights. This means that, ideally, access and use rights are included in the higher levels of the regulatory framework (e.g. constitution, legislation and policy) rather than subordinate levels (e.g. implementation guidelines), so they cannot be revoked at bureaucratic discretion.

*Principle 7 – compliance procedures.* When tenure has been reformed, complex compliance procedures such as multiple or costly processes for registering forests and establishing forest management groups can neutralize the benefits of secure tenure and make it difficult or impossible for stakeholders to comply with laws and regulations. When developing rules and implementation guidelines, it is useful to distinguish between the government's needs to satisfy its own requirements for monitoring biophysical and socioeconomic outcomes and the needs of communities in managing their forests. Both sets of needs are frequently made the responsibility of the new forest managers, increasing the burden of compliance.

*Principle 8 – minimum standards of forest management.* Governments frequently prescribe very detailed, highly technical and complex management plans, thereby limiting or preventing effective decision-making about resource use by smallholders or communities. A minimum standards approach sets a few rules about what cannot be done rather than lengthy prescriptions about what must be done. Such an approach implies leaving as much decision-making about management objectives as possible to local discretion, subject to clear standards for conservation and regeneration.

*Principle 9 – good governance.* Good governance is essential for translating the regulatory framework that defines and legitimizes reformed tenure arrangements into meaningful outcomes.

*Principle 10 – capacity building.* Key stakeholders, particularly local and indigenous communities and smallholders, frequently have limited knowledge of their rights and responsibilities under reformed tenure arrangements. Empowering these stakeholders so they can exercise their rights usually requires their involvement in intensive capacity building and social mobilization.

### ***The process of tenure reform***

There is no linear approach to reform. Therefore, the following description of a tenure-reform process should not be seen as a series of sequential steps in which one task is completed before moving on to the next. Instead, tenure reform involves a process of interrelated, overlapping tasks and actions, lessons from which can be used to update knowledge and inform future planning and action.

Tenure reform usually involves:

- understanding the social and biophysical context at multiple levels, including by identifying stakeholders and dealing with multiple (and sometimes conflicting) interests;
- negotiating objectives and outcomes at different levels;
- applying action learning (“plan, act, observe and reflect”) to facilitate the implementation process; and
- undertaking monitoring and impact assessment.

*Analyse the context.* An analysis of the current situation is an essential step in tenure reform. A useful starting point is to locate the tenure reform agenda in the overall historical, political, economic and development context of the country or subnational region. Issues that need to be considered include: international agreements or treaties; historical trends of tenure change; the country's (or subnational region's) development context; the current regulatory framework for forest management; current governance arrangements; the current state of the country's (or subnational region's) forests; current tenure arrangements; and key stakeholders.

*Consider forest management objectives in the contemporary political and development context.* This step involves conducting stakeholder workshops or some other participatory process to canvas a wide range of views on the objectives of forest management and to negotiate a consensus.

*Consider tenure models for achieving forest management objectives.* A wide range of views should be canvassed in stakeholder workshops or other participatory process on appropriate tenure models for achieving the negotiated forest management objectives. It is important to identify customary tenure systems that continue to be relevant. It may be useful to build on the success of, and to learn from, pilot trials and other experiences. If relevant pilot trials are unavailable, experiences in other countries with similar contexts may be helpful.

*Revise/reform the regulatory framework.* It is important to incorporate new tenure arrangements in relevant parts of the framework, with particular emphasis on making it as enabling as possible. The regulatory framework includes policy, legislation, rules and regulations and

implementation guidelines.

*Modify governance arrangements to support the reformed regulatory framework.* Governance arrangements include:

- the institutional arrangements best suited to managing power relations in ways that will achieve the desired forest management objectives; and
- the organizational structures most suited to fulfilling the functions needed to deliver forest management objectives, which should be identified by applying the adage that “form follows function” – in other words, first determine the function an organization (or part of an organization) should fulfil, then consider the most appropriate structure (form) for carrying out that function.

*Analyse the regulatory frameworks applied to other sectors.* A holistic approach is important for the success of tenure reform; it will include looking beyond the forest sector. The changes that are needed in other sectors to support forest-tenure reform should be identified and those sectors encouraged to make such changes. This generally requires good cross-sectoral cooperation and coordination. Reference to national development agendas, strategies and frameworks can frequently provide strategic support for such endeavours.

*Review implementation experiences.* Assess the appropriateness of tenure and governance arrangements in achieving forest management objectives, based on actual experiences.

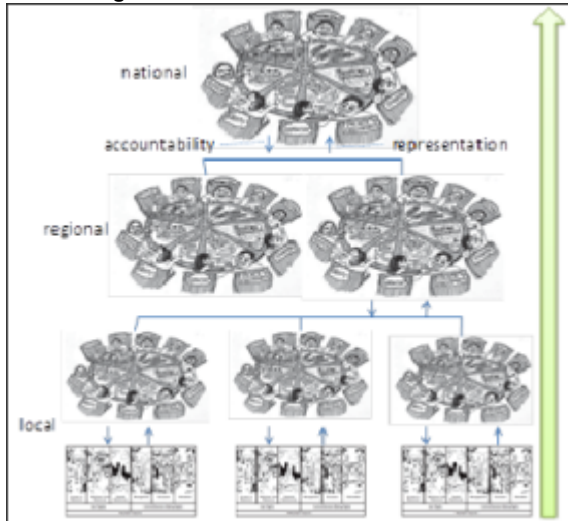
*Revise the regulatory framework and governance arrangements.* The regulatory framework (particularly the lower-level subordinate instruments) and governance arrangements should be revised regularly, based on reviews of their efficiency and effectiveness, in a process to improve forest management outcomes continually.

*Support implementation of the reformed tenure arrangements.* Stakeholders need information and capacity to make the most of their involvement, particularly to identify and articulate their interests. Awareness raising and capacity building are therefore critical aspects of reform and need attention throughout the entire process.

### **Tenure governance**

The strengthening of forest-tenure governance is both a means and an end in forest-tenure reform. The current state of forest-tenure governance should be assessed through an analysis of the institutional capacity and arrangements for co-governance (involving civil society and government) as well as the benchmarking of current tenure governance practices.

### **Multilevel governance**



**Forest tenure “happens” at the local level; the local level is where the “rubber hits the road”. However, institutions operating at other (e.g. district, provincial or national) levels are also involved in making and enforcing the rights and rules of forest use and management.**

**In many countries, historical patterns of public ownership and administration mean that forests**

are often subject to a hierarchical (“top-down”) style of governance. Forest tenure reforms that lead to a decentralization of ownership and management will usually require the strengthening of self-governance arrangements at the local level and co-governance (“stakeholder partnership”) arrangements at higher levels. This, in turn, will require the strengthening of representative institutions at all levels as a prerequisite for downward accountability, as illustrated in Figure 1.

The green arrow in the diagram indicates that a strengthening of representativeness and downward accountability starts with representative and accountable institutions at the local level. The choice of such institutions is therefore a critically important decision for forest-tenure reform.

There is a need to critically assess current local forest governance institutions and their representativeness and accountability to members and other relevant stakeholders, and to assess networks and organizations at higher levels. The purpose of such assessments is to identify opportunities for strengthening the representativeness and accountability of existing institutions and the need for the development of new institutions.

#### ***Gender and forest tenure***

Rural women depend heavily on forest resources both for household subsistence needs and to sell forest products. They are often the primary collectors of forest resources for daily needs. The way women use forests is not often recognized as they lack representation in decision making bodies. Thus, when there are opportunities, high value commercial uses of forest resources often override women’s uses of forests. Likewise, government afforestation and reforestation efforts often overlook the ways that women use forests, consequently increasing women’s work load as they have to go longer distances to collect forest resources for their daily use. Additionally, some studies have shown that community forests that are managed and governed by women have a greater positive impact (better enforcement of rules, less corruption) than in other forests. Thus, both for the critical livelihood impacts on women and families, and the opportunity of good governance, women’s involvement is critical in forest governance decision-making processes at the national and local levels.

It is important that equitable forest tenure systems are promoted through policies and laws that improve access to, and use and management of, forest resources for the benefit of men and women. This can be done by: i) taking time to understand the gender inequities created by statutory and customary law with regard to rights to land, forests, trees, and NWFPs; ii) raising awareness and advocating for the equal tenure rights of women and men to land, forests, and trees; iii) taking active measures to inform and include women in formulating forestry, REDD, and climate-change-related policies, laws, and local decisions at the community level, and engaging women’s NGOs, women’s associations, women leaders at local levels in this process; iv) requiring women’s representation in decision-making bodies at national and local levels; v) during major decision making at the local level, consulting with women’s groups separately as women may not voice their concerns in public; vi) when initiating any new programme at the local level, taking time to fully understand women’s uses of forests, and the implication of any proposed activity on these uses; vii) targeting specific activities for women to ensure that they benefit from projects and programmes along with men; viii) likewise, targeting all training and capacity building programmes to women in addition to men; and ix) ensuring that any impact evaluation and monitoring of programme/project indicators track the impact on women. Where possible, women’s groups should be engaged in monitoring and evaluation activities.

## E-learning

### [Addressing corruption in the tenure of land, fisheries and forests](#)



Addressing Corruption in the Tenure of Land, Fisheries and Forests

**This course provides an overview of corrupt practices in the tenure sector. It analyses the drivers and impact of corruption on the livelihoods and food security of poor and vulnerable people. It also introduces...**

### [Addressing disputes and conflicts over the tenure of natural resources](#)



Addressing Disputes and Conflicts over the Tenure of Natural Resources

**This course provides guidance on managing competition over the use of land, fisheries and forests. It introduces a process for analyzing the underlying causes of disputes and conflicts. It also illustrates...**

### [Addressing tenure issues in the context of natural disasters](#)



Addressing Tenure Issues in the Context of Natural Disasters

**One of the impacts of climate change is an increase in the incidence, severity and unpredictability of natural disasters. This course explains how livelihoods and tenure rights are affected by natural disasters, and illustrates how responsible governance of tenure of land, fisheries and forests...**

### [Governing land for women and men](#)



Governing Land for Women and Men

**This course explains the importance to take into account gender and social issues when dealing with land tenure, and what actions must be adopted so that women and men from different social groups can equally participate in and benefit from land tenure governance processes...**



[How to monitor and promote policy changes on governance of tenure](#)



How to monitor and promote policy changes on governance of tenure

The course provides guidance on some of the main issues to consider when implementing a monitoring activity: how to select the most appropriate approach or to identify the best data sources for monitoring, how to effectively communicate the results of the monitoring activity...

[Introduction to the responsible governance of tenure](#)



Introduction to the Responsible Governance of Tenure

The course introduces the main concepts and principles of the Voluntary Guidelines on the Responsible Governance of Tenure. It aims to help people understand the Guidelines and to apply the principles to practical situations in their countries, as well as to raise the general...

[Putting the voluntary guidelines on tenure into practice: a learning guide for civil society organizations](#)



Putting the Voluntary Guidelines on Tenure into Practice: A Learning Guide for Civil Society Organizations

This online guide for trainers and facilitators in Civil Society Organizations presents a methodology and a set of materials to enhance capacities on the “Voluntary Guidelines on the Responsible governance of Tenure of Land, Fisheries and Forests in the context of National Food security”...

[Spatial planning in the context of the responsible governance of tenure](#)



Spatial Planning in the context of the Responsible Governance of Tenure

The course introduces spatial planning, identifying its rationale and benefits, its key principles and the main stages in the spatial planning process. It represents a useful reference for all those who want to promote and implement spatial planning in their countries as an instrument to...

[Tenure security for better forestry - Applying the Voluntary guidelines on the responsible governance of tenure](#)



**Governments and development actors increasingly recognize that strengthening tenure can create powerful incentives for the sustainable use of forest resources and contribute to achieving the UN Sustainable Development Goals and the Paris Agreement on climate change...**

[Respecting free, prior and informed consent](#)



**The Voluntary Guidelines on Governance of Tenure state that responsible investments should do no harm, and safeguard against dispossession of legitimate tenure right holders. They also embody international legal provisions requiring the Free, Prior and Informed Consent (FPIC) from...**

## Further Learning

- Alden Wily, L.** 2004. *Can We Really Own the Forest? A Critical Examination of Tenure Development in Community Forestry in Africa*. Paper presented at Tenth Biennial Conference, International Association for the Study of Common Property (IASCP), Oaxaca, Mexico.
- Ashby, W.R.** 1956. *An introduction to cybernetics*. Chapman & Hall, London.
- Barry, D. & Meinzen-Dick, R.** 2008. *The invisible map: Community tenure rights*. CIFOR & CAPRI.
- Bavinck, M., Chuenpagdee, R., Diallo M., van der Heijden, P., Kooiman, J., Mahon R. & Williams, S.** 2005. *Interactive fisheries governance*. Delft.
- Braakman, L.** 2002. *The art of building training capacities*. RECOFTC, Bangkok
- Braakman, L. & Edwards, K.** 2002. *The art of building facilitation capacities*. RECOFTC Bangkok.
- Bray, D.A., Antinori, C. & Torres-Rojo, J. M.** 2006. The Mexican model of community forest management: the role of agrarian policy, forest policy and entrepreneurial organization. *Forest Policy and Economics* 8 (2006) 470– 484.
- CAPRI (CGIAR Systemwide Program on Collective Action and Property Rights).** 2010. *Resources, rights and cooperation: a sourcebook on property rights and collective action for sustainable development*. International Food Policy Research Institute, Washington, DC
- Contreras-Hermosilla, A. & Fay, C.** 2005. *Strengthening forest management in Indonesia through land tenure reform: issues and framework for action*. Forest Trends, Washington DC.
- Engel, A. & Korf, B.** 2005. *Negotiation and mediation techniques for natural resource management*. Livelihood Support Programme, FAO. Rome.
- Engel, A.** 2007. *Negotiation and mediation techniques for natural resource management. Training guide*. FAO, Rome.
- Evans, K., Velarde, S.J., Prieto, R., Rao, S.N., Sertzen, S., Dávila, K., Cronkleton P. & de Jong, W.** 2006. [Field guide to the future: four ways for communities to think ahead](#). Bennett E. and Zurek M. (eds.). Nairobi, Center for International Forestry Research (CIFOR), ASB, World Agroforestry Centre. p.87.
- FAO.** 2010. *Developing Effective Forest Policy - A guide*. FAO Forestry Paper 161. FAO, Rome.
- FAO.** 2011. *Reforming forest tenure. Issues, principles and process*. FAO Forestry Paper 165. Rome, Italy.
- FAO.** 2012. *Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security*. 9 May 2012. FAO, Rome.
- Forest Trends.** 2005. *Strengthening forest management in Indonesia through land tenure reform: issues and framework for action*. Washington, D.C.
- Galudra, G., Sirait, M., Pasya, G., Fay, C., Suyanto, van Noordwijk, M. & Pradhan, U.** 2010. *RaTA: A rapid land tenure assessment manual for identifying the nature of land tenure conflicts*. World Agroforestry Centre. Bogor, Indonesia.
- Gray, D., Brown, S. & Macanujo, J.** 2010. *GameStorming, A playbook for innovators, rulebreakers and changemakers*. O'Reilly.
- IIED & FAO.** 2012. *How to shape forest governance, Toolkit*. Draft, March 2012. FAO. Rome.
- IUCN, RECOFTC & SNV.** 2011. *Natural resource governance trainer's manual*. 2011, Gland – Bangkok – Hanoi.
- Jessop, B.** 2003. [Governance and meta-governance: on reflexivity, requisite variety, and requisite irony](#).
- Larson, A.M.** 2004. *Democratic decentralisation in the forestry sector: lessons learned from Africa, Asia and Latin America*. CIFOR, Managua.

- Larson, A.M. & Ribot, J. C.** 2007. [The poverty of forestry policy: double standards on an uneven playing field.](#) *Sustainability Science*, 2007, Volume 2, Number 2. P. 16.
- Larson, A.M., Barry, D. & Dahal, G.R.** 2010. New rights for forest-based communities? Understanding processes of forest tenure reform. In: *International Forestry Review* Vol.12(1), 2010, 78-96.
- Larson, A.M., Barry, D., Dahal, G.R. & Pierce Colfer, C.J.** (eds). 2010. *Forests for people. Community rights and forest tenure reform.* Earthscan. London and Washington, D.C.
- McDougall, C., Ojha, H. M., Banjade, R., Pandit, B. H., Bhattarai, T., Maharjan, M. & Rana, S.** 2008. *Forests of learning. Experiences from research on an adaptive collaborative approach to community forestry in Nepal. A synthesis of lessons from the Adaptive Collaborative Management Research Project in Nepal.* 1999–2002 and 2004–2007. CIFOR. Bogor.
- Meinzen-Dick, R.S. & Pradhan, R.** 2002. *Legal pluralism and dynamic property rights.* CAPRI Working Paper No. 22, Washington DC.
- Meinzen-Dick, R. & Di Gregorio, M.** 2004. Collective action and property rights for sustainable development. *Focus 11*, Brief 1 of 16, February 2004. IFPRI. Washington, DC
- Ostrom, E.** 1999. Self-governance and forest resources. *Occasional Paper* No. 20 Feb. 1999. CIFOR, Bogor.
- Qiang, M.** 2013. Presentation: [Supporting forest tenure reform in China](#), at the *Forest Management Team Meeting*, February 2013. FAO, Rome.
- RECOFTC & RRI.** 2008. *Forest tenure reform in Vietnam: case studies from the Northern Upland and Central Highlands Region.* Bangkok and Washington, DC.
- Ribot, J.C. & Peluso, N. L.** 2003. A theory of access. In: *Rural Sociology*, Vol. 68, No. 2. P. 153-181.
- Robinson, B.E., Holland, M.B. & Naughton-Treves, L.** 2011. *Does secure land tenure save forests? A review of the relationship between land tenure and tropical deforestation.* CCAFS Working Paper 7. Copenhagen, Denmark: CCAFS.
- RRI.** 2007. *Transitions in Forest Tenure and Governance: Drivers, Projected Patterns and Implications for the Global Community.* Washington, D.C.
- RRI & ITTO.** 2010. *Tropical forest tenure assessment; trends, challenges and opportunities.* Washington DC and Yokohama.
- Springate-Baginski, O. & P. Blaikie** (eds.). 2007. *Forests, people and power: the political ecology of reform in South Asia.* Earthscan. London.
- Sunderlin, W.D., Larson, A.M., Duchelle, A.E., Resosudarmo, I. A. P., Huynh Thu Ba, Awono, A. & Dokken, T.** 2013. *How are REDD+ Proponents Addressing Tenure Problems? Evidence from Brazil, Cameroon, Tanzania, Indonesia, and Vietnam.* World Development
- Wachter**, 1992, cited in **Katz, E.** 2000. Social capital and natural capital: a comparative analysis of land tenure and natural resource management in Guatemala. *Land Economics*, Vol. 76, No.1
- WWF.** 2013. [Strengthening land tenure through participatory land-use mapping in the Democratic Republic of Congo.](#)

## Credits

This module was developed with the kind collaboration of the following people and/or institutions:

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**Reviewer(s):** ITTO; Tropenbos International

This module was revised in 2018 to strengthen gender considerations.

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