Embracing complexity in international forest governance: a way forward

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Foreword by Jagmohan S. Maini

In recognition of an unacceptable rate of deforestation and forest degradation, forests first emerged on the international political agenda at the United Nations Conference on Environment and Development held at Rio de Janiero in June 1992. The "Forest Principles" agreed at Rio underscored that the management, conservation and sustainable development of all types of forests are in the collective interest of all people worldwide. At Rio, forests also emerged as a significant component of the three environmental conventions aimed to address issues associated with climate change, biodiversity and to combat desertification. These forest- and environment-related initiatives agreed at Rio also highlighted that forest issues are cross-sectoral and that their governance is cross-institutional. The cross-sectoral nature of forest issues is further illustrated by the fact that references to forests are made 285 times in nearly 50% of the 40 chapters of Agenda 21 agreed at Rio.

In addition to the cross-sectoral nature of forest issues, it is possible to identify, three additional underlying factors that contribute to complexity and challenges associated with global forest governance. First, global forest cover is distributed very unevenly; 66 % of the world's forest cover is located in 10 "forest-rich" countries, while 170 "low forest cover countries" share 18% of the world forest cover. Consequently, based on per capita forest cover and

per capita income, there is considerable divergence on areas of priority concern among the "have" and "have-not" countries.

Second, multiple benefits (e.g., carbon sequestration, habitat for biodiversity, economic benefits from timber, fuel wood, non-wood forest products for subsistence of forest dwellers) are provided simultaneously by forests and have resulted in multiple constituencies, beneficiaries and special interest groups. These groups compete with each other for political and financial support at sub-national and national levels and their specific interests are advanced by different government departments at various institutions of governance at regional and global levels. Consequently, the fragmentation of global forest governance is mirrored at the regional and national levels. Special interest groups need to communicate and cooperate with each other to identify areas of convergent interest and advance their collective agenda.

Third, the activities of multilateral organizations at the regional and global levels are governed by the mandate defined by their member countries and under certain situations may constrain cross-institution cooperation.

There is a critical need for policy-relevant research on the architecture and functions of institutions and sectors interfacing with the forest sector to achieve the cross-sectoral and cross-institutional cooperation and

policy learning that will enhance the contribution of forests to human well-being from local to national, regional and global level.

This Policy Brief summarizes the findings of a comprehensive assessment of scientific information about international forest governance carried out by an Expert Panel of over 30 of the world's leading scientists working in the areas of environmental governance and international forest law. It aims to provide policy and decision makers with essential knowledge and building blocks required for a more effective and inclusive governance of the world's forests. It is my sincere hope that in the International Year of Forests 2011, this unique assessment will make a significant contribution to meet the pressing challenges of international forest governance.

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Headline key messages

1. International forest governance is complex and fragmented.

2. Many critical forest problems are cross-sectoral.

3. Complex forest problems require synergistic approaches involving a wide range of policy instruments.

4. The forest governance challenge is to move from a focus on forests towards the concept of 'forests+', which embraces inter-sectoral and inter-institutional complexity.

5. Forests+ approaches will build on a better understanding of actors' interests, ideas and incentives in complex environments.

6. Forests+ will be coordinated by learning instruments, involving the development of new policy learning and engagement platforms.

7. Forests+ calls for more inclusive governance.

8. The nature of a forests+ approach will vary according to national capacities and policy styles.

9. Spatial scale is important for forests+.

10. New or adapted institutional arrangements are needed to strengthen and coordinate forest policy learning at the global level and to support engagement and problem solving among diverse stakeholders.

Why does international forest governance matter?

Forests provide many benefits

Forests cover one-third of the earth's land-mass – just over four billion hectares. They are enormously diverse, especially in the tropics; collectively they contain the majority of the planet's terrestrial species. The biodiversity of forests not only has potentially enormous economic value, it also has significant intrinsic and aesthetic value for people.

The importance of forests for people can hardly be exaggerated. More than 1.6 billion people depend on forests for subsistence, livelihoods and employment. Over 2 billion people – one-third of the world's population – use firewood to cook and to heat their homes, and hundreds of millions of people rely on traditional medicines harvested in forests. In numerous developing countries, forest-based hunting and fishing supply essential dietary protein.

Forests also make important contributions to national and local economies. Wood removals from forests are worth about US$100 billion per year, and the value of the harvest of non-wood forest products is increasing. In 2009 the worldwide export value of timber products amounted to more than US$235 billion. In many developing countries, forest-based enterprises provide at least one-third of all rural non-farm employment.

Forests are a critical factor in climate change. The carbon stored in forest biomass, deadwood, litter and soil is estimated to be double the amount of carbon in the atmosphere. Forests provide a range of environmental services fundamental to people's well-being and environmental sustainability. For example, they help stabilise soils, protect land from erosion by wind and water, and maintain a steady supply of clean water.

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Forests are under threat

Yet forests are under threat. An estimated 13 million hectares are lost per year globally. Forest planting and the natural expansion of forests, mainly in Europe and Asia, partly compensate for this, but the net annual loss of forests is still more than 5 million hectares. Deforestation threatens the huge store of carbon in forests; it is responsible for an estimated 12–20% of global carbon emissions. Carbon stocks in forest biomass are decreasing by about 0.5 gigatonnes per year.

The majority of the world's forests have been modified by human activities; only one-third remains as primary forests. Forest degradation threatens many of the values of forests – their capacity to produce goods and environmental services and to provide habitat for biodiversity, and their ability to support the livelihoods of forest-dependent people. The threat to forests could be exacerbated by climate change, which could lead to further degradation and loss.

Over the next 40 years, the world's population will likely increase by 50% to around 9 billion people. By 2030, around 1.2 billion people in developing countries will enjoy middle-class lifestyles as a result of successful economic development policies, with increased consumption of meat and dairy products. Together with higher demand for biofuels, these developments are likely to expand the proportion of land devoted to agriculture at the expense of forests, especially in the tropics.

Continuing deforestation and degradation has many implications for the livelihoods of some of the world's poorest people, who are in danger of losing not only key environmental services but, in some cases, the very basis of their subsistence. Their response to these stresses is complex and remains poorly understood.

International problems require international responses

Given the global nature of the problems associated with forests, an international response is required, but one that is more effective than in the past.

Governance for complexity

The purpose of the report **Embracing Complexity: Meeting the Challenges of International Forest Governance** is to examine how international forest governance can be strengthened in the face of these threats. The complexity of the issues around forests gives rise to what are known as 'wicked' problems – problems that defy efforts to break them down into simpler, easier-to-solve components. A succession of approaches to deal with the wicked problems of forests has captured the attention of policymakers and a range of international institutions have been created. None has been able to deal effectively with the complexity of the issues involved. Competing interests and divergence over key ideas have stalled international negotiations on global forest governance for years. Efforts to bypass the stalemate by moving forest concerns into biodiversity or climate change fora and to create parallel civil society-led processes have created a correspondingly complex set of institutions. These complex arrangements are difficult to navigate and prone to produce further conflict and suboptimal outcomes.

It is easy enough to describe this deadlock and its causes are well-known. Many states and some powerful non-state actors reason that they derive greater benefits from the status quo than from proposed alternatives. An increasingly complex set of governance arrangements contains a correspondingly large number of veto points that can be used to block change so forest area is lost and forest conditions continue to deteriorate. If we are to take steps right now to reverse this situation, more innovative and ambitious solutions need to be pursued.

To meet the urgent need for change, the proposal outlined in this policy brief is a radical one. Our review of the broad global forest governance arrangements shows that, in spite of some overlap and duplication, there is generally good coverage of the key themes and issues facing forests. In spite of the drawbacks of complexity in governance, the issues are complex and global forest governance arrangements need to reflect that complexity. The most important challenge is not how to simplify these arrangements but how to coordinate them in ways that build more authoritative, effective and enduring global governance.

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To meet the governance challenge, problem focused, synergistic coordination is required. By this we do not mean a return to multi-stakeholder processes in which deliberation is fostered in the absence of purposeful agreements. Instead, we are proposing ways to support problem-focused learning about institutional interactions that promotes legitimate, meaningful and effective global forest governance. This approach to learning is currently overshadowed, in both the scholarly literature and among practitioners, in favour of "win win" multi-stakeholder negotiations that tend to privilege compromise over problem solving.

The current global forest governance arrangements contain examples of attempted coordination through binding international law and through the provision of incentives. The vast majority of these mechanisms are neither forest-focused nor demonstrably effective in achieving the global objectives on forests. Our proposal is to add both structure and function to international coordination efforts by using learning as a governance mechanism.

This approach builds on the existence of the forest goals found in the Non Legally Binding Instrument on All Types of Forests. It acknowledges both the strength of the scientific and management expert communities that have developed the sustainable forest management paradigm and the vigour of the experiments currently under way with alternative approaches. Global forest

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policy will achieve very little if it is not scientifically grounded and evidence based; governance arrangements need to reflect this fact not fight it.

However, our proposal is not simply a call for "more research", which, like the compromise focused multi-stakeholder negotiations, cannot overcome the current obstacles to building better global governance arrangements. To be sure, enhanced knowledge of how to achieve the forest goals is always desirable. However, problem-focused learning that improves the coordination of institutions and the effectiveness of interventions is not simply about research. Instead it stresses knowledge mobilisation and knowledge translation over knowledge production. It takes a problem-based approach to learning to generate good practices in addressing

forest problems. It seeks to diffuse these practices through the international community as rapidly as possible. Using a variety of tools such as benchmarking, criteria and indicators, guidelines and reporting, it identifies those who are leading the adoption of these practices and those who are lagging behind. Above all, it is directed towards authoritative, effective and purposeful efforts that result in measurable behavioural change.

Many of the component parts of learning as coordination are already in place. Global objectives for forests have been negotiated. Reporting of forest extent and condition is already well advanced through the State of Forests reports. There is a decade or more of experience with the criteria and indicators of sustainable forest management, which relate practices to goals. Independent auditing of sustainably managed forests is being conducted on behalf of certifiers. There is widespread recognition of the importance of scale and context in forest management that will prevent mistaken attempts to impose "one size fits all" solutions. Yet the many examples of good practices that exist at a variety of scales have not been broadly diffused through the international policy community because these components of policy learning have not been assembled into a comprehensive supporting mechanism for international forest governance.

Rather than calling for more research, learning as coordination requires a reorganisation of the research effort. Reducing and, ultimately, reversing deforestation and forest degradation will be based on a greatly improved understanding of the com-

plex interconnections and interdependencies between environmental and socio-economic factors. For successful policy intervention, recognition of the complex interplay of social, economic and environmental factors must be accompanied by a careful analysis of the specific causal relationships that operate in particular cases.

Once these causal relationships are brought to light they reveal the existence of perverse incentives to engage in destructive – and often self-destructive – actions. Where such incentives persist, and whether they promote deforestation by powerful interests from outside the forest sector or by local communities, the political and economic costs of traditional, top-down government action alone is often too high to be seriously contemplated.

At this point, a coordinated effort to get countries to use the right mix of regulatory, market-based and informational instruments is the key to finding the appropriate level of intervention that will lead to the improvement of forest conditions and livelihoods.

Although creating such a policy mix will not be easy, it can be done. The international forest policy community's understanding of the complex linkages between social, economic and ecological systems is already improving through research and learning from policy outcomes and practices. This learning and understanding must be strengthened. The magnitude and urgency of the challenges that are being revealed as this understanding improves require more than minimal changes, and these changes must take place at a variety of scales.

How can the system of international forest governance that has been built up over the last two decades contribute to meeting these challenges? There are two essential steps:

First, instead of asking how the fragmented and complex international forest governance system can be restructured into a new and tidier top-down regime, reformers should embrace inter-sectoral and inter-institutional complexity. To emphasise this crucial need for institutional cooperation and inter-sectoral coordination we call this ambition of embracing complexity 'forests+': looking beyond forests is essential for solving forest-related global problems.

Second, instead of trying to simplify these governance arrangements and coordinate them primarily by rules or incentives, they should be coordinated through problem-focused, on the ground learning about institutional arrangements that work. This method of coordination builds on the existing strengths of forest governance arrangements and of the global forest policy community. It requires very few new components but it calls for a collective will to use those components differently than they are being used at present.

Key messages

International forest governance is complex and fragmented.

An increasingly comprehensive set of international goals and priorities has emerged to steer forest use and conservation, accompanied by institutions, policies and mechanisms. The result is a complex and fragmented web of international forest governance, the constantly evolving outcome of many different initiatives rather than the static product of an overall design. This set of governance arrangements has identifiable consequences but not always those that were originally intended or desired.

### Many critical forest problems are cross-sectoral.

Improving international forest governance means acknowledging that many of the most serious forest challenges are highly cross-sectoral and require significant engagement with the agricultural, mining, energy, transportation, trade, climate change and other sectors and interests. Although international forest institutions and actors have long recognised this problem and have called repeatedly for it to be addressed, identifying and promoting effective inter-sectoral coordination and collaboration remain a largely un-met need.

Complex forest problems require synergistic approaches involving a wide range of policy instruments.

The complex causes of forest problems, and the varied contexts in which they arise, require the application of the full range of available policy instruments. Thus, both formal international rules and other forms of authority and steering are potentially useful for achieving forest-related goals. An exclusive focus on one or the other overlooks the critical importance of developing a portfolio of mutually supportive policy instruments.
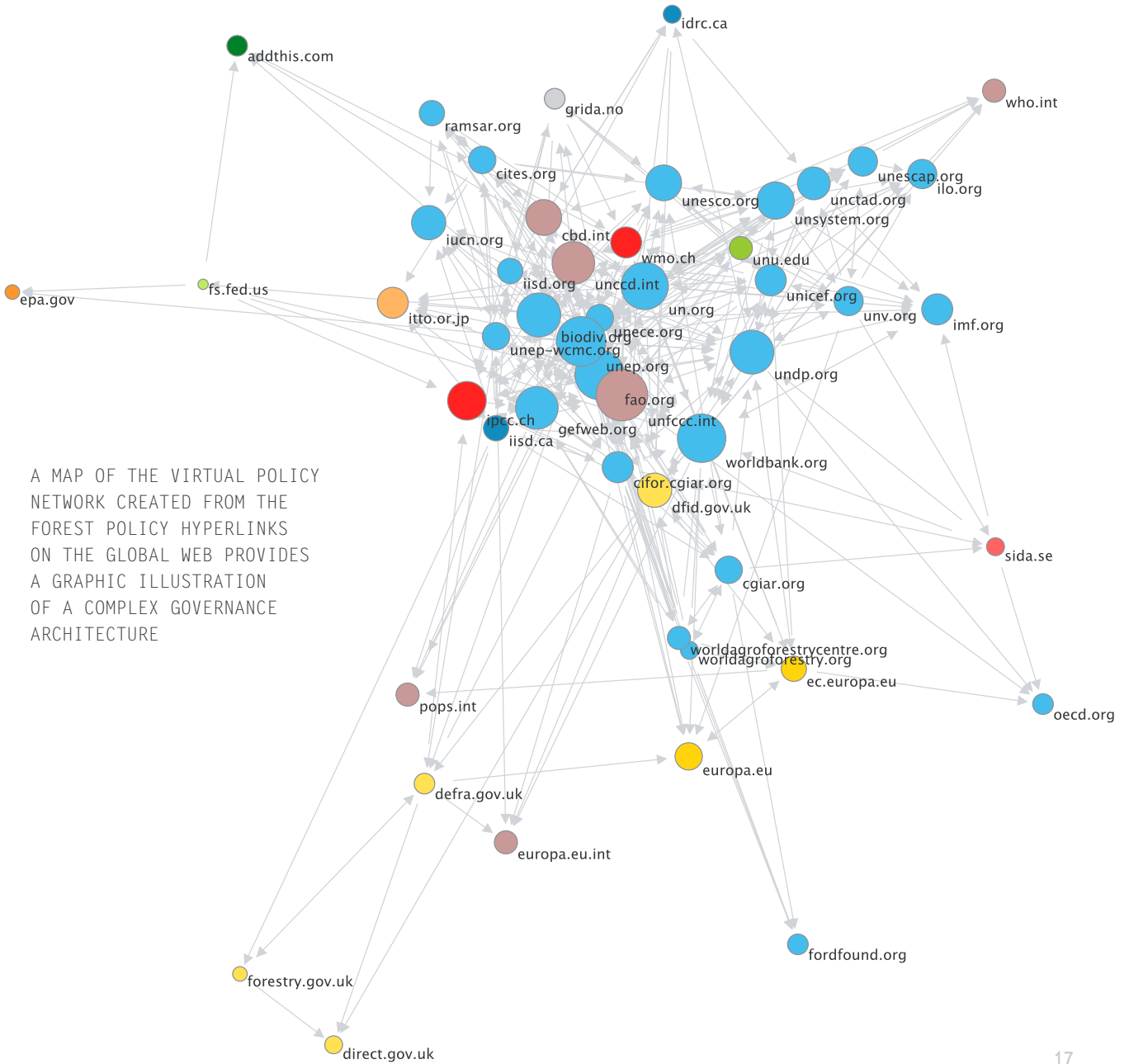
A MAP OF THE VIRTUAL POLICY
NETWORK CREATED FROM THE
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The forest governance challenge is to move from a focus on forests towards the concept of 'forests+', which embraces inter-sectoral and inter-institutional complexity.

Forest issues should be reframed as 'forests+' issues to capture their vital cross-sectoral dimensions. The international forest policy community must be more aware of and ready to act on developments outside the forest sector.

A comprehensive effort to reframe issues from forests to forests+ should begin with the acknowledgment that forest politics is not just about the interplay of interests and institutions. Ideas and discourses matter because they shape the nature and limits of governance arrangements. They do this by encouraging or discouraging the participation of relevant state and non-state actors and by enabling or disabling deliberation and policy learning in the deliberate attempt to adjust the goals or techniques of policy in response to past experience and new information.

Forests+ approaches will involve a greater understanding of actors' interests, ideas and incentives in complex environments.

International actors and institutions should support efforts to strengthen institutional cooperation and monitor and evaluate the degree and effectiveness of collaboration across relevant sectors and interests. Global governance arrangements should increasingly be based on a sound understanding of the conditions, interests and incentives that motivate collaboration between different actors rather than sustain conflict and divergence.

Forests+ will be coordinated by learning instruments, involving the development of new policy learning and engagement platforms.

To support coordination by learning, forests+ needs, at the international level, an open arena with a mandate to think more broadly about the drivers of undesirable change in forests and to facilitate collaboration and learning in global forest governance. While forest policy has attracted a more diverse group of actors over the last two decades, this highly desirable diversity is not always appropriately represented in international forest-related fora. Above all, the new platforms for policy learning must encourage broad participation and ensure that while forests+ embraces cross-sectoral and cross-institutional complexity it retains a central focus on forests and forest livelihoods.

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Forests+ calls for more inclusive governance.

Innovative mechanisms for international forest governance might include the generation and dissemination of norms, private rule-making (such as market-based incentives and standards-setting), network governance, social learning, capacity building and awareness-raising. As the full range takes effect there will be a transition to more inclusive global forest governance.

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The nature of a forests+ approach will vary according to national capacities and policy styles.

Implementation and enforcement strategies in target countries that include the direct provision of resources and improved access to policymaking networks can yield swift and immediate results – as long as international actors and organisations do not add requirements that directly conflict with the priorities of national governments or are beyond national capacity. For example, illegal logging can be addressed through a combination of bilateral and regional initiatives, such as trade and legality verification agreements, and domestic reform.

Spatial scale is important for forests+.

Many of the most promising international forest-related initiatives are taking place at a regional rather than a global level. Actors and institutions should develop and endorse an appropriate interpretation of the principle of subsidiarity (which holds that issues should be dealt with by the most decentralised competent authority) to support these initiatives and address the particular challenges of implementing forests+ at the regional, national and sub-national levels. This interpretation must balance current trends towards decentralisation and local control with the need for appropriate regulatory, financial and procedural support by national and international institutions.

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New or adapted institutional arrangements are needed to strengthen and coordinate forest policy learning at the global level and to support engagement and problem solving among diverse stakeholders.

This brief proposes three options for the institutional change required to support forests+ and coordination through learning.

The first steps

There is widespread and deep recognition that forests are critical for food security, the mitigation of climate change, the conservation of biodiversity and the maintenance of livelihoods. The governance challenge is how to promote these multiple goals simultaneously and synergistically. Meeting that challenge requires careful experimentation and rapid learning from successful innovation.

Forests+ implies an attempt to create a governance framework that captures all forest values and cross-sectoral linkages – and ensures that they are considered in forest policy and management. A narrow focus on forest practices to promote carbon sequestration, for example, might have unintended consequences that cause the loss of other forest values. When it became clear that robust land-use policies and other interventions are needed to control these consequences, attention shifted from REDD to REDD+. The proposed shift from forests to forests+ and the emphasis on coordination through learning are intended to bridge the gap between those actors taking part in international negotiations and those engaged in project-level activities. Many elements of a bridging architecture already exist: they include successful problem-focused partnerships, dialogues, round tables, working groups, networks, regional initiatives and collaborations. But such efforts need a different kind of coordination and support than they are currently receiving.

The first steps towards forests+ are proposed below. They emphasise policy learning because:

● Learning about the science of forest degradation and related issues can expose misunderstandings that limit common policy approaches and frameworks.

● Policy learning can expose legitimate differences over goals and objectives that divide stakeholders.

● Policy learning about 'how things work' can induce organisations to change their preferences for policy instruments. Learning reveals win-win solutions, the discovery of which might have been hampered in the past by debates over divergent goals. Such policy learning can occur within but also outside the core components of the international forest regime, as stakeholders puzzle through and identify innovative and synergistic interventions across sectors.

● Policy learning can expose difficult win-lose scenarios that, although much more intractable, have a greater chance of being resolved once their unique challenges are understood.

Knowledge management

The first step in building policy learning into the architecture of international forest governance is to take a global approach to *knowledge management*. This includes the setting up of a *comprehensive clearing-house mechanism* for forest-focused and forest-related research.

Such clearing houses already exist at national and regional levels (the Association of South East Asian Nations (ASEAN) Forest Clearing House Mechanism is a particularly strong example of the latter). These can be drawn on as models. A number of international organisations, especially those with a research mandate such as the International Union of Forest Research Organizations and the Center for International Forestry Research, can also provide insights. What is needed is an organisation with both a clear mandate and the capacity to scale up existing experiments with the use of learning as a coordination tool to the global level.

Learning platforms

Establishing a comprehensive clearing-house mechanism is largely a technical challenge requiring the imaginative use of appropriate information and communication technologies.

As many organisations have found to their cost, however, improved knowledge management does not necessarily lead to learning. To ensure learning, processes are needed for identifying policy-relevant knowledge (as well as knowledge gaps) and for communicating that knowledge and translating it to ensure that it is relevant and useful in different contexts.

The core ideas of support for and bridging between knowledge generation and knowledge use lead to the concept of a *learning platform* – defined as an integrated set of services that provide information, tools and resources to support policy learning. Learning platforms need both bottom-up tools of *inter-organisational network management* and the top-down impetus provided by *access to key decision-making and coordinating bodies*.

Bottom up

Forest policy learning platforms will be built partly on the basis of a wide variety of existing and future national, regional and global networks. The most useful examples are those organised at appropriate scales around a particular problem. They comprise stakeholders with on-the-ground experience as well as those with professional expertise in the problem to be addressed. Some, such as the Global Partnership on Forest Landscape Restoration, operate successfully at different scales. They survive and prosper by meeting the needs of their members and, to the extent that they are learning networks, by generating, communicating and translating knowledge.

Top down

Nonetheless, there are a number of reasons why forest policy learning platforms will not be built and coordinated entirely from the bottom up.

First, the theory of inter-organisational networks stresses the importance of trust between network members as a key requirement for participatory or shared network management. Given the history of conflict on forest issues and the parallel development of non-governmental and state-led forest networks, the level of trust among networks will initially be low. Creating the circumstances in which these disparate networks will willingly share

knowledge, and trust the knowledge obtained from external sources, will take time. At the outset, leading organisations or specialised network-administration organisations will be required.

Second, the policy learning literature emphasises the critical role of policy entrepreneurs in promoting innovation. Entrepreneurship in this context means not only being alive to the possibilities of new ideas in local contexts, but also identifying opportunities to build trust in the learning platforms and their ability to deliver successful outcomes.

Third, and perhaps most important, if information is to serve a coordination function, such as the organisation of monitoring, evaluation and peer review as mutual learning processes, there is a need for overall direction. Even if this direction is in the form of flexible guidelines with ample scope for national and local interpretation, general goals will need to be negotiated and agreed.

Both the ASEAN and European Union experiences suggest the importance of access to the key arenas where decisions are taken and policies are made. What is missing from current efforts is not so much the capacity to generate knowledge as the capacity to communicate it and to translate it into policy. Access to the centres of power will be indispensable.

Institutional change for forests+

There are three options for an institution that would serve both as a global-level clearing house for forest-focused and forest-related research and as a learning and a dialog platform to strengthen and coordinate policy learning and consensus building between different stakeholders, including policy makers, practitioners, scientists, and the civil society.

1. Build on an existing institution

One option could be to build on an existing institution. The United Nations Forum on Forests (UNFF) for example has significant existing capacities, a broad and comprehensive mandate, universal membership and a place in the United Nations system as a subsidiary body of ECOSOC. Since its inception its trajectory has been away from negotiating a top-down, legally binding agreement towards the adoption of a mix of other governance instruments, including the adoption of the Non-Legally Binding Instrument on all Types of Forests. This trajectory could support the development of appropriate instrument mixes and the knowledge on which such mixes could be based. The UNFF's current focus, as with other subsidiary bodies of ECOSOC, remains on high-level negotiations and resolutions and, while these activities would continue, the emphasis would need to shift. Not only its history but also its rules and procedures may make it difficult for the UNFF to be as inclusive and participatory as required to encourage broad participation and create new learning platforms and scientific advisory mechanisms. Much would need to be changed but the UNFF, with the support of the Collaborative Partnership on Forests (CPF) has potential as a bridging mechanism, not least because it is a firmly forest-focused institution committed to multiple perspectives.

2. A collaboration amongst existing institutions and actors

This option would draw on the diverse resources of a key group of organisations and actors. The Collaborative Partnership on Forests is an example of such an institutional arrangement. The advantage of collaboration is the ability to draw on a more diverse group of actors and institutions that would include collaborative learning organisation, as well as those with direct involvement in global forest governance. In the case of collaboration to support coordination by learning, the collaboration would need to include institutions and actors recognised as frontrunners in the development of innovative learning mechanisms beyond the existing membership of the CPF itself. Such a collaboration would need to do more than just open doors to include civil society NGOs as well as traditional international organisations. It will also need to convince NGOs that participation is worth their time and energy. Much can be learned from the experience of the CPF in this respect.

3. Create a new institution

This option would seek to create an entirely new institution that would stand largely or entirely apart from existing processes of high-level negotiation and global forest diplomacy. Its authority would be solely based on its ability to generate knowledge and strengthen engagement, collaboration and learning among diverse stakeholders. To succeed, the new institution would have to establish itself quickly as an authoritative source of knowledge about forests+ so that its auditing and reporting activities are regarded as legitimate. However, a new institution might be able to move more easily beyond the boundaries of the existing forest sector and the professional policy community. A possible model here, which would retain a link to the United Nations system, is the United Nations Secretary-General's Advisory Board on Water and Sanitation, an organisation that combines high-level access and openness to a wide variety of stakeholders. An alternative might be a version of the United Nations Global Compact.

In the past there has been a tendency to assume that problem-focused learning will take care of itself and that good practices and institutional innovation will eagerly be adopted by stakeholders. But genuine policy learning threatens the status quo and the interests of those who benefit from it. Coordination through learning is equally threatening. The exercise of power, which is distributed unequally among the principal actors, is inseparable from international forest governance. Thus, collaboration by learning requires more than simply research or even a space in which to develop a strong knowledge base about effective governance arrangements. It requires entrepreneurial leadership and new institutional forms dedicated to protecting that space and to promoting evidence-based debate about forests and their functions. Here is the key challenge for global forest governance.

Afterword and credits

This policy brief is based on an assessment of the available scientific information about international forest governance carried out by more than 30 leading experts in the framework of the IUFRO-led Global Forest Expert Panels of the Collaborative Partnership on Forests. The detailed findings of the assessment are contained in the peer-reviewed scientific global assessment report **Embracing Complexity: Meeting the Challenges of International Forest Governance. A Global Assessment Report**, published as IUFRO World Series Volume 28.

The policy brief was compiled by the editors of the assessment report with the help of an advisory team consisting of Benjamin Cashore, Hans Hoogeveen, Patrick Verkooijen and Peter Wood, who also served as authors of the full assessment report. Our work was greatly facilitated also by the Coordinating Lead Authors of the assessment report, who jointly developed the key messages of the policy brief and provided other written inputs and suggestions. However, the whole brief, including the key messages, have been edited for language and style and the editors are ultimately responsible for its contents.

A short publication such as this cannot do justice to all the complexities and controversies related to international forest governance. For a more comprehensive assessment, the reader is directed to the panel's report. Nevertheless, the central thread of both the report and this brief is the complexity of the problems that must be solved in order to improve forest conditions and livelihoods. Complexity is a daunting challenge that requires coordinated efforts at all scales from the global to the local. The key role international forest governance in this effort at coordination is to support problem-focused policy learning at the appropriate scales. It is our hope that the policy brief can effectively assist policy and decision makers in embracing complexity and tackling the challenges of international forest governance.

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