

Fighting against deforestation and forest degradation: public and private initiatives

The paper deals with the regulative and voluntary policy tools implemented by public institutions, enterprises and civil society to reduce the problems of forest destruction and degradation. In reviewing the initiatives related to the FLEGT and FLEG programs, REDD+ projects, the Due Diligence Regulation and the voluntary instruments like forest certification, a contradiction between the general principles that inspire the policy action and operational decisions is raised and discussed. Modern policy action should in theory favour a shift from regulative to voluntary policy tools, a shift that can be understood in the light of a general change of attention from “government” to “governance”. However, if we examine the development of public institutions’ action to reduce forest degradation, we see the emerging role of “hard” tools like the compulsory Due Diligence system, the VPA-based and the CITES licences. This emerging trend is creating problems of public actions’ effectiveness, of coordination costs and in the active involvement of civil society

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Introduction

The global forest cover – which the Forest Resources Assessment organized by FAO (2011) has recently estimated to be almost 4 billion hectares, or 30 percent of the world’s total land area – is shrinking at the rate of 13 million hectares per year, mainly because of land-use change in the tropics and Oceania. In addition, though forest cover has reportedly expanded in industrialized countries during the last decade, a large portion of these forest ecosystems is heavily degraded, as they are subjected to more intense and frequent biotic and abiotic stresses, such as overexploitation, wildfires, environmental pollution, introduction of non-native invasive species, urbanization, fragmentation, and the effects of climate change (Ciccarese,

2011). Forest degradation and deforestation account for at least 15% of the global anthropogenic emissions of greenhouse gases (Van der Werf et al., 2009).

The process of deforestation is, in most countries, decreasing both in absolute and relative terms, but this cannot always be assumed as a positive indicator of the reduced human pressure on forest resources: due to the definition of forest by FAO, formally accepted by international and national organizations, a clear-cut of 80% of a primary forest, with the harvesting of all old trees, is not statistically recorded as a deforestation. It appears obvious that the real problem has become the process of forest degradation, much more difficult to be monitored, measured and communicated to the public and policy makers.

The processes of forest destruction and degradation are strongly connected to poverty and to the need to cover the basic needs of the local population in developing countries (e.g., fuelwood, building materials,

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land for cultivation and grazing), but a certain role is also played by timber exploitation both for the domestic markets and for trade. When these commercial activities are causing forest processes of deforestation or serious degradation of the forest resources they are normally connected with the problem of illegality. As a matter of fact, countries, including third world's, have developed quite strict regulative frameworks in order to protect and conserve their forest resources; the main problem relies on law enforcement and corruption of public officials. Illegal acts occur in various forms along the wood supply chain, but they tend to be concentrated in timber harvesting and wood trading. The many different types of illegalities include: violation of standards set out in licences and concessions; unauthorized harvesting; unauthorised trade; the use of bribery to gain harvesting rights; evasion of taxes or other charges (Morozov, 2000; Sasse, 2000; Buttoud, 2001; FAO 2001; Brack et al., 2002; ITTO, 2002; Scotland and Ludwig, 2002).

The dimension of the problem is not officially known, but the Organisation for Economic Co-operation and Development (OECD, 2001) estimates that approximately one tenth of the international trade in timber is illegal, worth a minimum value of USD 150 billion/year. In several countries illegal harvesting exists along with legal harvesting; in other countries, illegality is more common than legality (World Bank, 2000). This opinion is confirmed also by various sources of information: "It seems likely that at least half of all the logging activities in particularly vulnerable regions – the Amazon Basin, Central Africa, South-east Asia and the Russian Federation – is illegal" (Brack et al., 2002). In many countries the situation in recent years appears to have become critical.

Apart from the obvious negative environmental and social impacts, there is direct economic damage to the national treasuries of countries affected by high levels of illegal practices in the forestry sector, in the form of lost tax revenue, licence fees, and customs duties, the total of which is estimated to be in the range of EUR 10-15 billion per year (World Bank, 2004). These eco-

nomic losses feed the problem since they can affect a government's capacity to monitor and enforce regulations as well as its potential to re-invest in the forestry sector, for example, to fund programmes for the sustainable management of its forest resources. Over the medium to long term, these conditions of illegality deplete the standing stock of timber and deteriorate the economic wealth of the country. In addition, illegalities tend to drive timber prices down, thus reducing the profit margins and possibly the competitiveness of those enterprises that are complying with the laws.

There are also secondary effects of illegality connected with the problems of deforestation and forest degradation. An example of this is the use of funds from "timber that has been traded at some point in the chain of custody by armed groups, be they rebel factions, regular soldiers or the civilian administration, either to perpetuate conflict or [to] take advantage of conflict situations for personal gain" (Global Witness 2003, p. 8). This definition of conflict timber by Global Witness was provided after the term was first coined in the report to the United Nations Security Council. There is evidence of the use of conflict timber in regional conflicts in Cambodia, Liberia, and the Democratic Republic of the Congo and other countries (Brack et al., 2002).

How to face the problem of forest degradation

The policy tools implemented by public institutions, enterprises and civil society to deal with environmental resources protection can be classified in two groups (see table 1):

- the regulative instruments based on a "command and control" approach, i.e., obligations, bans, thresholds, tax, licences,...; public authorities impose these instruments, they control economic actors that passively have to respect the rules;
- the voluntary instruments and market-led mechanisms (or "soft" tools); these include definition of standards, certification and labelling, reporting,

TABLE 1 Instruments for supporting environmental protection measures
 Source: processed by the author

Instruments	Direct costs for the public sector	Transaction costs for the public sector	Approach
Passive: command and control			
• Obligations, bans, thresholds, tax, licences,...	Relatively low	Relatively low costs	Top down
Active: stimulus to economic activities, creation of new markets			
• Tax deductions, tax exemption	Relatively high		
• Fixed incentives and compensations			
• Market-based instruments			
– PES and PES-like schemes	Very low (zero costs)	Low costs	Mixed
– Socially responsible procurement policies	Relatively high*	Low costs	Mixed
– Tradable permits	Relatively low	Low costs	Mixed
– Standard setting, certification and labelling	Zero costs	Zero costs	Bottom up
– Sponsoring, donations (philanthropy)	Zero costs	Zero costs	Bottom up
– Technical support, provision of services, promotion, ...	Relatively high	Low costs	Mixed

(*): only if carried out by public organizations.

contractual agreements for the payments for environmental services, adoption of codes of conduct and best practices, ... where public authorities are playing a minor role and the economic actors are active in defining, negotiating, and controlling the use of the instruments.

The implementation costs of voluntary instruments are, for the public institutions, generally lower than the “hard”, passive, instruments based on command and control criteria. This is only one, but significant, reason justifying a shift in the focus of policy makers from hard to soft policy tools, a shift that can be understood in the light of a general change of attention by policy makers and the civil society from “government” to “governance” (Secco et al., 2011).

The traditional government approach to decision-making is a hierarchical, typically top-down, one decision point-based, with well-defined and delimited tasks. The innovative participatory governance approach (Shannon, 2006) is networking, multi-decision level-based, with dynamics interactivity among actors, intersectoral links and less clearly defined tasks. Governance can be defined as “a method or system of management”, i.e., the set of processes, procedures, resources, institutions and actors that determine how

decisions are made and implemented. When it applies to a country, it is the method or system by which society is governed; when it applies to a sector, like forestry, it is the method or system by which the sector – with all its components, processes and actors – is managed. It includes “regionalisation, decentralisation and all the other formal (and informal) interactions between governmental institutions and other actors and the roles they play in delivering effective, accountable solutions to shared problems” (Swiderska et al., 2008). In other words, the concept relies on the distribution of authority among actors within a certain sector or relationships chain (Cashore, 2002). The term *per se* does neither imply an equal distribution of authority nor a high-level of stakeholders involvement: depending on the concerned sector and context, governance can be dominated by private actors, non-governmental organizations, public authorities or others. The difference in types of governance “is simply who is involved in making collective choices” (Shannon, 2006) and how the involvement is managed. Judgement and accountability are reported as main responsibilities of the public in an effective governance (Buttoud, 2000). Key indicators to assess the quality of governance are transparency, accountabili-

ty, legitimacy, law enforcement, stability, public participation, real capacity of various actors to influence policy and regulatory processes, social justice, equity, and mainstreaming of environmental and social aspects (Hemmati, 2001; Kaufmann and Kraay, 2002; Dowdle, 2006; Nakhooda et al., 2007).

In the following pages, presenting actions by public institutions and the voluntary initiatives by the private sector, we will try to verify the presence of the shift from a government to a governance-based approach when dealing with forest degradation and deforestation.

Public institutions' actions to fight against forest degradation

At international and national level many plans and programs have been approved in the last two decades with the aim of promoting the protection of forests and the production and trade of "legal wood", starting from the G8 Action Programme on forests and the conferences on Forest Law Enforcement and Governance organised by the World Bank with the support from major donor countries. Policy programs promoting legal activity along the wood supply chain were also defined through some international and national regulations and agreements, like the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the formal commitments by the International Tropical Timber Organization (like the Objective 2000) or bilateral agreements between commercial partners, like the Indonesia-United Kingdom Tropical Forest Management Programme (ITFMP, 1999).

For the European Union (EU) countries the two leading instruments implemented to control illegality in the forestry sector are the Action Plan for Forest Law Enforcement, Governance, and Trade (FLEGT), which was adopted by the European Parliament in 2003 (EU Commission, 2003) and Regulation No 995/2010.

The EU FLEGT Action Plan provides a number of measures to exclude illegal timber from markets, improve the supply of legal timber and increase the de-

mand for responsible wood products (Florian et al., in press). One of the key elements of the EU FLEGT framework are the Voluntary Partnership Agreements (VPAs), which aim to ensure legal timber trade and support good forest governance in the developing countries. A VPA should help identify legal timber and timber products in producer countries and license them for export to the EU. For different reasons, so far only six VPAs have been signed with exporter countries (Ghana, Cameroon, Republic of Congo, Central African Republic, Indonesia and Liberia).

Regulation No 995/2010, also known as EU Timber Regulation (EU-TR), is an additional measure expected to enter into force in March 2013 that should help prevent imports of illegal products from non-VPA countries to the EU. The EU-TR lays down requirements for different participants in the EU wood supply chain. For example, all organisations introducing timber and timber products in the EU market, either through import of rough materials from non-EU countries or from forest operations in a member country, shall have in place a Due Diligence system to demonstrate the legality of the wood origin. In addition the EU-TR also specifies requirements for traders (traceability), i.e., all the other participants in the supply chain prior to sale to the final consumer. The Regulation will be applicable for most wood products commonly traded in the EU, except for recycled and printing industry products.

While the above-mentioned initiatives are mainly connected to "hard" tools, some conventions, plan and programs have activated voluntary instruments, as in the case of Payments for Environmental Services that will be examined in the following section.

Voluntary instruments and initiatives

The second category of means used to fight illegal activities causing forest degradation and deforestation includes voluntary initiatives implemented by private organisations (i.e., both for profit and non-profit) or by national and/or local government authorities. The

TABLE 2 Potential global and regional supply of roundwood from certified resources, 2009-2011
Source: UNECE/FAO, 2011

	Total forest area (M ha)	Certified forest area (M ha)			Certified forest area (%)			Estimated volume of timber from certified forest (M m ³)			Estimated volume of timber from certified forest (%)		
		2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
North America	614.2	180.3	199.8	201.0	29.4	32.6	32.7	175.6	194.6	201.0	9.8	10.9	11.3
Western Europe	168.1	82.2	85.0	85.3	46.5	51.2	50.8	238.1	261.7	227.5	13.3	14.6	12.8
CIS	836.9	25.2	29.9	44.3	3.0	3.6	5.3	4.9	5.8	8.5	0.3	0.3	0.5
Oceania	191.4	10.3	11.6	12.3	5.0	5.6	6.4	2.5	2.8	3.5	0.1	0.2	0.2
Africa	674.4	5.6	7.3	7.6	0.9	1.2	1.1	0.6	0.8	0.8	0.0	0.0	0.0
Latin America	955.6	14.6	14.4	16.1	2.1	1.6	1.7	3.6	2.7	3.2	0.2	0.1	0.2
Asia	592.5	3.0	8.6	8.1	1.4	1.5	1.4	3.1	3.4	2.8	0.2	0.2	0.2
World total	4033.1	321.2	356.7	374.9	8.2	9.0	9.3	428.4	471.8	447.3	24.0	26.4	25.3

range of these initiatives and the goals vary; these instruments are established to provide public goods and services, to give assurance about the sustainability of the forest management practices, to develop legal markets, to promote transparency, as well as to increase the consumers' awareness of the current level of illegal activity in the forestry sector.

The most effective voluntary instrument implemented up until now to reduce forest degradation and raise the awareness of companies and consumers is by far the third-party certification of environmentally appropriate, socially beneficial, and economically viable forest management under the Forest Stewardship Council's (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) schemes (see table 2). FSC in particular has developed a scheme involving, at the moment, 12 African, 11 Asian and 17 Latin American countries with more than 25 million hectares (M ha) of certified forests (for PEFC these data are respectively: 0, 1 and 2, with 7.7 M ha certified). "Green" procurement policies (now better defined as socially responsible procurement policies) are another quite effective voluntary best practices implemented by companies (like the large retailers) and public

institutions. There are several positive examples of environmentally and socially friendly criteria being introduced as part of the purchasing procedures of national, regional, and local authorities, as well as in the private sector. The impact in the public sector may result remarkable: in the EU, government purchasing amounts to an average of 12% of the gross domestic product. Public spending is distributed over a wide range of "legal" wood-based products and services from paper to wood playgrounds and furniture. Responsible government spending could also influence private consumers to modify their behaviour, when they are buying goods and services.

One of the leading new instrument, promoted around the end of the nineties both by public institutions and by private operators are the Payments for Environmental Services (PES). As a matter of fact, PES are a class of instruments specifically oriented to a proactive environment resources conservation and to the provision of public services: biodiversity conservation, water supply, carbon sequestration, landscape protection, ... A PES scheme is defined as a "voluntary" transaction where a "well-defined" environmental service (or a land-use likely to secure that service)

is being “bought” by a (minimum one) “buyer” from a (minimum one) “provider”, if and only if the provider secures service provision (conditionality) (Wunder, 2005). Generally, PES are contract-based schemes acting as a financial tool. They target environmental service as traded goods among the parties, particularly where no public regulations have been implemented. The forestry sector is probably the most considerable and dynamic field of implementation of the PES idea, with many examples (especially in developing countries) related to water provision but, more recently, with increasing interest towards investments aiming at reducing CO₂ emissions deriving from deforestation and forest degradation. During the 15th Conference of the Parties (COP-15) of the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen, projects aiming at Reducing Emissions from Deforestation and forest Degradation (REDD) and supporting the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries were confirmed as priority measures to reduce forestry-based carbon emissions (UNFCCC, 2009). The early Avoided Deforestation (AD) proposal called for a national level implementation to prevent leakage risks inherently associated with project-based forest conservation activities (Santilli et al., 2003). Despite this, the need for a rapid on-the-ground testing of the AD proposal has allowed the development of pilot project-based activities under the broader set of initiatives projected by the United Nations REDD Programme and the World Bank Forest Carbon Partnership Facility. The possibility of developing sub-national activities, either at provincial or federal state level, has been called the “hybrid or nested” approach (Pedroni et al., 2008) and is likely to heavily involve local institutions. In the short term fast track actions are financed through bilateral and multi-lateral agreements.

Parallel to the policy discussion on the “compliance” or “regulated” market (i.e., the market connected with the implementation of the Kyoto Protocol), REDD proj-

ects are already reaching the end of the pipeline in the voluntary carbon market. In the future, single project interventions are likely to play an important role in both markets, regulated and voluntary.

Despite the intense and sometimes passionate international political debate, the field implementation of REDD projects has been rather limited up until now: apart from the traditional difficulties for project developers to demonstrate additionality, ensure permanence, no leakage effects and correct baseline estimation connected to the delay in the approval of REDD methodologies (Hamilton et al., 2009), there are critical organizational aspects related to governance, such as dealing with stakeholders’ participation (e.g., governments and forest dependent communities), tenure of land and carbon credits, transparency and accountability in the decision-making process, etc. (Lawlor et al., 2010).

In fact, a good governance system, based on a clear regulatory framework, effective law enforcement and transparent and participatory decision-making, is often claimed as an essential element for the successful implementation of REDD projects (Saunders and Reeve, 2010; Forsyth, 2009). Funds provided to countries with poor governance systems are likely not to be used in an efficient and effective way unless they are invested, at least to some extent, in improving the governance system.

Finally it is worthwhile to note that the distinction between “compulsory and “voluntary” instruments is not always so clear: some tools can start to be used on voluntary ground and later become an obligation for some private or public organisations, like in the case of “green” public procurement policies or, maybe in the near future, the REDD projects.

Conclusions

As we have mentioned, in political and social sciences literature there is an ongoing debate about a shift from government to participatory governance in policy for-

mulation and related decision-making procedures which is taking place at global level, characterized by State transformation, privatization processes, shared public and private authority, cooperative partnerships, increasing role of voluntary-based instruments and soft laws, and stakeholders involvement (Shannon, 2006). As a matter of fact, the forest sector is considered one of the most advanced arenas for finding examples of this new type of governance, with several non-State market-driven governance systems already in place and consolidated, like, for example, those launched by forest certification initiatives (Cashore, 2002; Gulbrandsen, 2004; Chan and Pattberg, 2008) or through PES schemes. However, looking at the development of international programs to fight against deforestation and forest degradation some contrasting trends seems to be emerging.

Often, before State and intergovernmental organisations assumed official responsibilities for dealing with forest degradation, non-governmental organisations and close-knit networks of local groups have already established efficient ways of collecting, sharing, and presenting information to make the public and policy-makers aware of these problems. Public institutions' initiatives are in many cases a (rather delayed) reaction to a growing concern by the civil society. No proactive interventions are implemented by public institutions and the time lag between the four steps – “problem raising”, “public perception”, “planning of action by public institutions” and “concrete actions” – is growing. This is a problem mainly connected to the financial crisis (that now tends to be considered also a political crisis) and to the lack of funding for long-term programs of environmental protection (or – on the policy side – on concrete actions to stimulate the green-economy, notwithstanding all the rhetoric statements made by policy makers).

Finally, considering how the public sector is reacting to the emerging problem of forest degradation, it is interesting to note a contradiction between general principles that inspire the policy action and opera-

tional decisions. In theory, modern policy action should focus on developing “soft tools”, while, if we examine the development of public institutions' action, we see the emerging role of “hard” tools like the compulsory Due Diligence system, the VPA-based licences and the Legally Binding Forest Agreement (now in advanced state of approval by the Inter-Ministerial Conference on the Forest Protection in Europe)². Some voluntary instruments can be marginalised by the development of new systems of command and control: why tropical wood importers should be interested to get a voluntary certification of properly managed forest when they are constrained to get the VPA-licence and have a Due Diligence systems in place, under the periodical control of some external authorities?

Moreover, various national agencies are now dealing with the implementation of the above-mentioned public initiatives, and this increasing number of activities related to international regulations is creating inter-agency coordination problems. Information on costs and effectiveness of these new forms of bureaucratic control are not always very easy to collect and evaluate.

The process of forest degradation is a multi-faceted and multi-agent process and no single best solution or means can be found to tackle the problem. The development of a wide range of instruments that can be implemented at different scales and by different actors is required to deal with the diverse features of illegality in the forestry sector, but more attention should be given to those instruments that are based on the direct, active, and voluntary involvement of companies and civil society.

Notes

- 1 “Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ.”
- 2 See the documents reported in the Forest Europe's web site: www.foresteurope.org/eng/What_we_work_for/Legally_Binding_Agreement/

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