1. Introduction

The EU FLEGT Action Plan provides a number of measures to exclude illegal timber from markets, to improve the supply of legal timber and to increase the demand for responsible wood products. 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 partner countries. A VPA should help to identify legal timber and timber products in producer countries and license them for export to the EU. For different reasons, up to now, only six VPAs have been signed with exporter countries (Ghana, Cameroon, Republic of Congo, Central African Republic, Indonesia and, recently, Liberia).
Hence, the EU launched in 2010 the Regulation No 995/2010, also known as EU Timber Regulation (EU-TR), which is an additional measure that should help to prevent imports of illegal products from non-VPA countries to the EU.

The EU-TR was approved by the European Parliament and the European Council in October 2010 and is expected to enter into force in March 2013. The EU-TR lays down requirements for different participants in the EU wood supply chain. For example, “operators” are all the organisations introducing timber and timber products in the EU wood supply chain, either through import of rough materials from non-EU countries or from forest operations in a member country (MC). 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 (Figure 1) (Proforest, 2011).

The Regulation will be applicable for most timber products commonly traded in the EU, except for recycled and printing industry products (e.g. printed books, newspapers, pictures and other products included in Chapter 49 of the Combined Nomenclature). These products were surprisingly excluded by the first version of the Regulation, but it has already been agreed that their introduction be considered at the first review of the act.

2. The implementation of the EU-TR: problems and potentials

In order to comply with the Regulation, operators must implement a “due diligence” system, which should ascertain the products they introduce to the EU market, was harvested legally.

The due diligence system consists of three main components:

a) Information: the operators should be in possession or have direct access to information about the product and supplier, the country of origin and on compliance with the applicable forestry legislation in the country of origin.

b) Risk assessment procedure: each operator is required to have a risk assessment procedure which takes into account the information

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Figure 1 – Key elements of supply chains of timber products in the EU.
the ImpLementatIOn of due dIlIgence systeMs through the eu rdP

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collected about the product and also relevant risk criteria indicators (such as prevalence of illegal harvesting in the country of origin or long and complex supply chains), as well as indicators of low risk such as certification or credible verification of legality.

c) Risk mitigation procedures: where the risk assessment indicates a certain level of risk that a product contains illegally harvested timber, risk mitigation procedures must be put in place. These procedures should be adequate and proportionate, and might include requesting additional information from suppliers and other third parties (proForest, 2011).

All these components of a due diligence system have to be implemented autonomously by the operator. Alternatively, an operator may decide to use a due diligence system developed and controlled by a Monitoring Organization (MO), which are third party organizations able to provide a due diligence system to operators. The MOs are expected to have the expertise and capacity to exercise monitoring functions, including the maintenance and evaluation on a regular basis of a due diligence system, verification of the proper use of a due diligence system by operators and implementation of appropriate actions in the event of an improper use of the due diligence system by an operator (EC, 2010). MOs will operate with the official recognition of the European Commission (EC) and under the control of Competent Authorities (CAs) assigned by every Member State (MS). The EC will define detailed guidelines for recognition of MOs. In this respect a task force (formed by the European Forest Institute, Indufor Oy and the University of Padua) had been appointed by the EC to develop a Support Study for the Development of the Non-legislative Acts as Provided for in the EU Timber Regulation. The aim of the study was to provide options and best practices for the use and recognition of third party organisations entrusted with certain responsibilities in the framework of EU-TR legislation, and to find the best options for risk assessment and mitigation procedures in the framework of EU-TR legislation (EFI et al., 2011).

At this early stage of the implementation of the EU-TR it may be worth to address the following questions that can help to foresee potential opportunities and challenges the EU-TR might bear for the forestry sector:

a) Will the EU-TR represent a new non-tariff barrier? And, more specifically, how will the implementation of the EU-TR affect the import of timber and timber products in the EU?

b) Will the EU-TR increase the supply costs for the EU wood producers?

c) Will the EU-TR contribute to establish new professional activities and services in the sector?

d) Which effects may the Regulation have on the development of forest certification?

e) How should Rural Development Plans (RDP) consider and adapt to the EU-TR?

The following paragraphs will try to address these questions on the basis of similar regulative market interventions and most recent sector data.

2.1. Will the EU-TR represent a new non-tariff barrier?

It is expected that the EU-TR will contribute to a decrease of illegal harvesting of timber in developing countries. Despite the great expectations on the effects of the new Regulation, it is always hard to predict how it will actually influence the illegality against which it has been enacted. It is estimated that the share of illegal wood in the overall import of wood-based products into the European Union ranges between 16% and 19% (Hirschberger, 2008). Thus, we may expect that the Regulation will have a relevant effect on reducing the import of illicit timber and also stimulating the legalization of forest production and timber trade along the supply chain (in the EU and abroad).

As it was pointed-out in a recent discussion (UNECE/FAO, 2011), the EU-TR could be

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1 http://www.efi.int/portal/research/projects/?todo=3&projectid=180
also considered as a non-tariff barrier for wood exporters to the EU. Already in the past, different legal instruments regulating the trade flow of timber or other wood products turned to act as non-tariff barriers. For example, in 1990 the European Community adopted a ban on unseasoned softwood lumber imports from certain third countries to avoid the contamination and spread of the Pinewood nematode (*Bursaphelenchus xylophilus*). The complexity and severity of health and safety requirements, and the manner in which they were enforced, had a substantial and dramatic effect on softwood trade (Cohen et al., 2003), as it can be observed in Figure 2, which compares Swedish and Canadian timber-trade performances for the period 1986 to 1999. The dramatic decrease of Canadian exports enabled Sweden to double its export of softwood lumber (from 1.3 to 2.8 M m³ per year) in few years (1990-1994). Taylor (1999) noticed that the restrictions on timber imports strongly contributed to the restructuration of Sweden’s timber industry, which increased the number of larger sawmills and their productivity (Cohen et al., 2003). Even though the EU-TR will mainly affect the import of tropical timber, it will be interesting to observe, whether it will have similar impacts on the organisation and performance of the European timber sector. Much will depend on how “illegality” will be defined in relation to some managerial problems of EU forest enterprises (e.g. respect of health and safety regulations).

2.2. Will the EU-TR increase the supply costs for EU wood producers?

The Regulation will be implemented also for wood and wood products harvested in the EU MS, and could imply increased supply cost for the EU forest owners, with unequal effects in relation to the scale of their activity. For an enterprise the implementation of a due diligence

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3 According to EU definitions, small and medium (SMEs) are defined as enterprises employing less than 250 persons. In the forest and wood industries 99% of all enterprises fall into this group. In a more detailed EU classification, the SMEs are divided into micro (1-9 employees), small (10-49 employees) and medium (50-249 employees) enterprises (Indufor, 2008).
system requires investments in internal organisation, control systems and external consultancy, and can increase management costs and reduce the companies’ competitiveness, in particular in the case of micro and small enterprises (MSE). Again, depending on the definition of “legality” in the secondary legislation developed by the EC (e.g., what kind of applicable laws will have to be consider by MS), forest owners may face different additional costs. For example, if fiscal and health and safety measures linked to logging operations will be considered, it can be expected that a high number of companies (especially in Southern and Eastern Europe) will have to make high investments to comply with the rules. In particular MSEs, which form the major part of the European timber sector, will be unable to implement a due diligence system autonomously. While, on the contrary, most of large national (e.g. the State forest enterprises) and transnational enterprises operating on the timber market already developed or adopted an internal due diligence system (especially if they are involved in a forest certification scheme). This may also represent a potential advantage in comparison with smaller enterprises.

Almost half of European forest area is privately owned and the number of private forest holdings, currently more than 11 million, continues to grow. The average size of a public forest holdings is about 15,000 ha, while it is below 10 ha in the case of private holdings (MCPEF et al., 2007). This strengthens the belief that the extra costs that have to be covered to meet the EU-TR requirements may represent a significant part of the private holdings’ income. Therefore, it is expected that MOs will play a crucial role, in particular for private holdings, to comply with the Regulation: in fact it might be assumed that a small-medium enterprise will not have the internal resources (human and financial) to afford the implementation.

2.3. Will the EU-TR contribute to establish new professional activities and services in the sector?

As a consequence of previous considerations, the Regulation may represent both a problem in relation to the increasing costs for EU forest owners and timber importing companies, but also an opportunity for the establishment of a more advanced wood marketing service organization.

Larger companies may have to invest in internal or external human resources in order to strengthen their own due diligence (risk assessment) systems. On the other hand the establishment of MOs (which, at this stage, may be considered similar to certification bodies or consultant companies) will represent potential new job opportunities for professionals specialized in risk assessment, certification standards definition and auditing or timber import brokerage. A large increase in the Chain of Custody certifications and in all the systems of wood traceability is foreseen.

2.4. Which effects may have the Regulation on the development of forest certification?

Another interesting aspect is related to the effects of the Regulation on the development of forest certification. Even though forest certification is considered among the most suitable risk mitigation tools (PROFOREST, 2011), some paradoxical effect may occur. For example, if a forest management certification implemented at regional level (and not to a specific forest management unit) will be considered equivalent to a due diligence control system managed by a MO, we may assume that the demand by forest owners for such certification system will be heavily affected. The contradictory result is that a voluntary market tool could be marginalized by a more traditional command and control system; a change that is opposite to the objectives declared by policy makers.

Despite the lack of specific data for the EU, the estimated industrial roundwood supply from certified forest has been constantly increasing in the last years, representing a significant share of the global wood market. At the global level the wood from certified forests amount to 472 M m³ in the period May 2009 - May 2010. This represents a 10% increase over the previous period (Table 1). Certified forests are estimated to account for
26.4% of the world’s industrial round wood supply (UNECE/FAO, 2010). But if the forest owners will perceive that forest management certification is “undervalued” by consumers comparing with EU-TR license, we may expect that a large part of certified forest areas will not renew their label in the coming years (Figure 3).

2.5. How the RDP should introduce new measures in consequence of the EU-TR?

The EU Rural Development Policy (EC, 2008) for the programming period 2007-2013 has introduced some measures concerning the responsibility and marketing initiatives in forest management (i.e. supporting the application of forest certification) as a tool to improve the competitiveness of the forestry sector, (Axis 1 - Objective 1.4 - Measure 123).

Considering management costs and needed investments for the implementation of the EU-TR, it can be expected that the next EU RDP for the period 2014 to 2020 will introduce measures that can help forest owners and other operators within the timber value chain to adopt measures to fulfill the requirements of the EU-TR. Amongst such measures we could expect, support for creation of MOs, implementation of

Table 1 – Global supply of industrial round wood from certified resources, 2008-2010.

<table>
<thead>
<tr>
<th>Region</th>
<th>Total forest area (million ha)</th>
<th>Certified forest area (million ha)</th>
<th>Forest area certified (%)</th>
<th>Estimated volume of industrial roundwood for certified forest areas (million m³)</th>
<th>Estimated proportion of global roundwood production from certified (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>613.2</td>
<td>181.7</td>
<td>38.6</td>
<td>232.5</td>
<td>14.6</td>
</tr>
<tr>
<td>Western Europe</td>
<td>166.2</td>
<td>84.2</td>
<td>54.1</td>
<td>173.4</td>
<td>10.9</td>
</tr>
<tr>
<td>CIS</td>
<td>835.3</td>
<td>24.6</td>
<td>2.7</td>
<td>4.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Oceania</td>
<td>206.3</td>
<td>9.4</td>
<td>4.8</td>
<td>2.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Africa</td>
<td>635.4</td>
<td>3.0</td>
<td>0.5</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Latin America</td>
<td>924.2</td>
<td>15.0</td>
<td>1.6</td>
<td>2.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Asia</td>
<td>571.4</td>
<td>2.0</td>
<td>0.4</td>
<td>0.8</td>
<td>0.1</td>
</tr>
<tr>
<td>World total</td>
<td>3952.0</td>
<td>319.9</td>
<td>8.3</td>
<td>416.4</td>
<td>26.2</td>
</tr>
</tbody>
</table>


Notes: Data cover all FSC- and PEFC-certified forest land together with land certified under the following large national certification systems: Malaysian Timber Certification System (MTCS), American Tree Farm System (ATFS), Sustainable Forest Initiative (SFI) and Canadian Standards Association (CSA). Data for national systems subsequently endorsed by PEFC (MTCS, ATFS, SFI, CSA) are amalgamated into the PEFC data and not shown separately after the date of endorsement.
training programmes, financing of consultancy services for risk assessment and mitigation procedures, establishment and maintenance of CAs at MS level.

3. Other non-European legislative examples to control illegal wood commerce

Outside Europe, some large importer countries have developed specific regulations in order to tackle and limit the illegal commerce of wood and wood products. With the 2008 Farm Bill (i.e. the Food, Conservation, and Energy Act of 2008) the Government of the United States (US) enforced an amendment to a 100-year-old statute named the Lacey Act (LA) (USDA, 2008). Due to this amendment the LA extended its protection to a broader range of plants and plant products. For example, it declares as illegal to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any plant, with some limited exceptions, taken, possessed, transported or sold in violation of the laws of the United State, or any foreign law that protects plants or that regulates certain plant related offenses (EFI et al., 2011). The LA defines as a plant any part or derivative product of any wild member of the plant kingdom, including trees harvested from plantations. Thus, majority of wood (and wood-based) products are covered by the regulation. The LA also makes it illegal to make or submit any false record, account or label for, or any false identification of, any plant covered by the Act. Illegality is defined with reference to plants that are taken, harvested, possessed, transported, sold or exported in violation of an underlying law in any foreign country or the US. This means the LA applies to both international (imports/exports) and domestic (interstate) commerce. The underlying laws are limited to those protecting plants or regulating issues such as theft of plants, removing plants from an officially protected area (e.g., park, reserve) or other types of “officially designated areas” recognized by a country’s legislation, taking plants without (or contrary to) the required authorization, failure to pay appropriate taxes or fees associated with the plant’s harvest or commerce, laws governing export or trans-shipment, such as a log-export bans.

With regard to domestic sourced plants, illegality deals with violation of Federal, State or Tribal law, including State forest practice acts. Concerning imported wood, it is the responsibility of the importer to be aware of any foreign laws that may pertain to their merchandise prior to its importation into the U.S. The Act requires an import declaration (electronic or paper form4) for plants or plant products that includes the scientific name of any plant, a description of the value, quantity, and the name of the country from where the plant was taken. Currently, the declaration requirements are enforced only for all formal entries, i.e. most commercial shipments, while informal entries (most personal shipments), such as personal importations, or mail, transportation and exportation entries, in-transit movements, carniet importations (i.e. merchandise or equipment that will be re-exported within a year), and foreign trade zone and warehouse entries (goods entering the US under bond to temporarily store goods in a warehouse without paying duties and/or taxes) do not need to fulfil the requirements. The government is expected to review the implementation of the declaration requirements after two years from the entry into force.

The number of products covered by the LA has been increasing in four phases so that on 1st of April 2010 the coverage of the Act reached its current level, covering eight chapters5 of the Harmonized Tariff Schedule (HTS) and relative sub-chapters. In case components of the product would require declaration but the complete product is not listed in the law, the declaration is not required.

Different bodies are in charge for collecting

and checking declarations. Electronic declarations are collected by the Customs and Border Protection, Department of Homeland Security, while paper declarations are collected by the Animal and Plant Health Inspection Service, United States Department of Agriculture (APHIS) that also play the primary role in processing declarations. APHIS shares responsibility for investigating illegal plant cases with the US Department of the Interior’s Fish and Wildlife Service (FWS). If federal inspectors uncover or receive evidence of criminal activity, further investigation will occur. If there is sufficient evidence that the product is illegal, the shipment can be seized. At this point, the case may be referred to the Department of Justice and/or forfeiture proceedings may be initiated.

LA civil and criminal penalties vary according to how much the company or individual knew about the crime, as well as the value of the goods or shipment in question. If a person or a company knowingly participates in the trade of illegally sourced wood, or feeds false information on an import declaration, the following sanctions may be fines, possible prison, and/or forfeiture of goods. For those operators who have unknowingly committed to abovementioned actions, the sufficiency of “due care” determines the severity of sanctions that follow. Due care is the legal term for exercising the level of appropriate action that would be taken by a reasonably prudent person under the same circumstances to minimize the risk of purchasing plant products that were harvested or traded illegally. As a result, it is applied differently to different categories of persons with varying degrees of knowledge and responsibility.

3.1. Practical experiences of the Lacey Act

Implementation of the LA has focused on the phase-in of the declaration requirements. The amendments were passed in May 2008 and it was viewed as ambitious to have full implementation of the declaration by the end of 2008. A Federal Register process was introduced to gather comments from the public, and stakeholder dialogues were held with importers, brokers and retailers, resulting in recommendations. Voluntary declarations were introduced in December 2008, with the requirement becoming mandatory in May 2009. There is a phase-in schedule with six-month intervals, theoretically taking into consideration the risk and an importer’s ability to accurately identify a plant or plant product and the country of origin.

There is growing consciousness of the Act in the private sector. The general awareness among importers is high, although the understanding of the specifics is probably still low. However, there is a consensus that market opportunities for low-risk products exist. Discussions in relation to the LA have been going on concerning a number of issues, such as:
- composite products, such as MDF and fibreboard, for which it is difficult to identify the origin;
- if there should be a ‘blanket’ declaration system for major importers bringing in repeated identical shipments;
- the creation of genus-level categories where products may contain timber of many different species;
- how to declare hybrid species or recycled wood (recycled paper fibre has to be declared only by percentage);
- if ‘common food crops’ and ‘common cultivars’ should be subjected to the Act (currently they are exempted).

3.2. EU-TR and Lacey Act at a glance

The main difference between the EU-TR and the LA consists in the process the operator is asked to follow. Under the LA, individual companies have to develop their own due care. There are not any clear guidelines or processes that should be followed, and it is left to an individual or enterprise to find the best methods for the particular business. The EU-TR has a prescriptive approach with a developing process that needs to be met by the individual in order to comply with the requirements of the legislation (Butler and Grant, 2011). In Table 2 the main characteristics of the two regulations are compared.
Table 2 – Comparison among the requirements of EU-TR and US Lacey Act.

<table>
<thead>
<tr>
<th>EU Timber Regulation (EU-TR)</th>
<th>U.S. Lacey Act (LA)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>Prohibition to place on the market (i.e. to &quot;supply by any means&quot;) illegally harvested timber or products derived from such timber</td>
</tr>
<tr>
<td><strong>Illegality definition</strong></td>
<td>Focus on &quot;illegally harvested&quot; timber, i.e. timber harvested in contravention of the applicable legislation in the country of harvest.</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Timber and timber products being placed for the first time on the EU market independently whether they have been harvested from EU forests or imported from outside EU.</td>
</tr>
<tr>
<td><strong>In terms of products</strong>:</td>
<td>Timber and timber products as classified in the Combined Nomenclature set out in Annex I to the Regulation. Printed products to be included in the next amendment.</td>
</tr>
<tr>
<td><strong>Effective date(s)</strong></td>
<td>Regulation entered into force on 2nd December 2010 Secondary legislation expected in March-June 2012 Applicable from 03rd March 2013</td>
</tr>
<tr>
<td><strong>Approach</strong></td>
<td>System based (and prescriptive) approach</td>
</tr>
<tr>
<td><strong>Point of control and traceability</strong></td>
<td>Legality verification is done just at “first placing” stage. Basic traceability requirements for traders on the EU market.</td>
</tr>
<tr>
<td><strong>Tools</strong></td>
<td>Operators: exercise of DD, including information access, risk assessment, and risk mitigation through use of a system They can be supported by MOs. Traders: identification throughout all the supply chain</td>
</tr>
<tr>
<td><strong>Penalties</strong></td>
<td>To be defined by Member States. They must be effective, proportionate and dissuasive, and may include fines, seizure of the timber or suspension of trading authorisation.</td>
</tr>
<tr>
<td><strong>Green lanes</strong></td>
<td>Timber or timber products with valid FLEGT licenses or CITES permits are considered in compliance with the Regulation</td>
</tr>
<tr>
<td><strong>Exemptions</strong></td>
<td>Timber or timber products that have completed their lifecycle and would otherwise be disposed of as waste, as defined in Article 3(1) of Directive 2008/98/EC of the European Parliamen and of the Council of 19 November 2008 on waste</td>
</tr>
</tbody>
</table>

4. CONCLUSIONS

The forthcoming implementation of the EU-TR is expected to have a positive effect on the decrease of illegal harvested wood introduced in the EU market. However, at the same time it could be seen as the implementation of a non-tariff barrier that will impose restrictions on wood imports from non-EU countries. This could have a positive impact on the restructuring of the EU timber industry, but at the same time it is uncertain how it might influence timber prices. Furthermore, the implementation of the EU-TR will require additional investments of timber producers to introduce due diligence systems. In particular in the case of small private holdings this could have a significant impact on their economic competitiveness. The EU RDP for the next period could be an important tool to facilitate the implementation of different aspects of the EU-TR and to reduce the adaptation costs of the EU forest enterprises. Effects on their increased production costs, on incomes and timber prices on the EU market will deserve attention. However, it is expected that the EU-TR will offer some opportunities for establishing new service activities within the forest sector, in particular in the field of MOs.

Finally, when implementing the EU-TR lessons learned in non-EU countries, such as the Lacey Act in US, should be taken in consideration in order to find a decent compromise between the need to reduce illegality in the forestry sector, and to keep fair and balanced conditions of competitiveness in the wood market.

RIASSUNTO

Come favorire l’applicazione dei sistemi di Due Diligence (previsti dalla Timber Regulation) attraverso il Programma di Sviluppo Rurale Europeo: problemi e potenzialità

La Timber Regulation dell’Unione Europea è un nuovo strumento legislativo approvato dal Parlamento e del Consiglio Europeo nell’Ottobre 2010 che entrerà in vigore nel marzo del 2013. Tale Regolamento definisce gli obblighi che devono essere rispettati dagli operatori che commercializzano legno e prodotti legnosi nel mercato dell’Unione Europea, con lo scopo di contrastare la vendita di legname ottenuto da raccolta illegale nel Paese

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