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accompanying the

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

**determining the obligations of operators who make timber and timber products
available on the market**

Impact Assessment

Report on additional options to combat illegal logging

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EXECUTIVE SUMMARY

This report presents possible options with respect to further policy or legislative options for measures to address the introduction of timber and timber products to the EU market originating from illegal logging.

The European Community policy regarding illegal logging and related trade was set out in the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan which includes a number of measures to ensure that timber and wood products imported into the EU have been legally harvested or manufactured from legally harvested timber.

One of the key measures proposed by the Action Plan is a licensing scheme for the prevention of illegal logging and related trade coming into the European Union (EU). The licensing scheme would be implemented as part of the Voluntary Partnership Agreements (VPAs), which are being negotiated with a number of countries.

The VPA approach is considered promising but it is recognized that it may have limitations. The EU FLEGT Action Plan therefore makes provisions for an analysis of additional measures, which could enhance the EU's efforts to eliminate imports of illegally harvested timber and timber products to the EU market. A total of five options have been identified, compared to the "baseline" scenario (continuation present FLEGT VPA approach).

- (1) Expansion of the FLEGT VPA approach
- (2) Voluntary measures by the private sector further developed
- (3) Border measures to prevent the importation of illegally harvested timber
- (4) Prohibition on the placing on the EU market of illegally harvested timber
- (5) Sub-option 4A: Legislation which prohibits the trading and possession of timber and timber products harvested in breach of the laws of the country of origin (i.e. where trees harvested)
- (6) Sub-option 4B: Legislation which requires that only legally harvested timber and timber products be placed on the market
- (7) Legislation which requires due diligence by all timber traders to ensure that they trade in legally harvested timber

The report defines the problem of illegal logging and the important economic (loss of revenues for third countries or unfair competition to the industry), social and environmental damage (loss of forests and biodiversity, other environmental impacts). It furthermore gives an overview of the production of timber and timber products globally and within the EU as well trade figures globally and imports into the EU. Estimates have been made on the proportion of illegally harvested timber (being not harvested in accordance with the applicable legislation) and the associated trade.

The impact of all policy options on the reduction in illegal logging in the EU and non-EU countries have been assessed as well as the economic impacts (in particular regulatory costs involved for the government sector), costs for the private sector and trade impacts in both EU and non-EU countries) and social (employment, other social factors) and environmental impacts.

The largest impact on a reduction in illegal logging, assuming that the measures are implemented effectively, can be found in options 4A, 4B and 5. The unit costs of legality control (in Euro/m³) are rather low in all options, the differences are attributable to the variation in implementation arrangements (e.g. third-party verification may be included or excluded). Option 4b prohibiting the placing of illegal timber on the EU market involves in particular high costs for the private sector, while the regulatory costs are the highest in option 3.

The report indicates that the latest option 5 "due diligence", developed by combining the positive elements of option 2 (voluntary measures by the private sector) and option 4B (enforceability through the need for burden of proof) would be most effective of the options assessed. It would result in a reduction in illegal logging without the introduction of a high cost systematic control system and considerable enforcement problems which might be expected under several other options (in particular options 4A and 4B). A separate cost assessment was made for option five and is contained in Annex II. The main findings are that the costs to the EU private sector of the proposed due diligence approach appear limited and are expected to shift demand from high-risk to low-risk timber.

It will serve as well as an incentive for sourcing of timber from countries with FLEGT Voluntary Partnership Agreements or for timber covered by valid CITES (Convention on International Trade in Endangered Species) permits, since this would provide a high degree of certainty for operators and exporting countries involved.

PROCEDURAL ISSUES

1.1. Overview

The EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT) adopted by the Commission in May 2003, sets out a process and a package of measures by which the European Commission proposes to address the growing problem of illegal logging and related trade.

One of the key measures proposed is a licensing scheme for the prevention of illegal logging and related trade coming EU. The licensing scheme would be implemented as part of the Voluntary Partnership Agreements (VPAs), which are being negotiated with a number of countries. The VPA approach is considered promising but it is recognized that it may have limitations.

The EU FLEGT Action Plan therefore makes provision for an analysis of additional measures, which could enhance the EU's efforts to eliminate imports of illegally harvested timber and timber products to the EU market.

Following on from that commitment the Commission has explored a number of options including options for legislative measures addressing the importation or marketing of timber products derived from illegally harvested timber.

The proposal with additional measures and this impact assessment are part of the Commission agenda planning 2007/ENV+/023.

1.2. Inter-Service Steering Group

A Commission Inter-Service Steering Group on the Impact Assessment was established. The Group was led by DG Environment with the participation of the following Commission Directorate Generals and Services: Agriculture and Rural Development, Enterprise, Development, Trade, and Taxation & Customs Union. Other services were also invited to join but did not respond to the call. Following the last stakeholder meeting that took place in Brussels the group met to discuss the draft final study carried out by a consultancy firm (section 2.7). A second meeting took place to discuss options in light of the findings of the impact assessment process. Members of the group were also consulted on an ad hoc basis to provide input on particular items.

1.3. Public consultation

As part of the impact assessment process the Commission held a web-based public consultation in early 2007. The consultation sought views on the need for, appropriateness and feasibility of EU policy measures to address the problem of illegal timber and timber products being introduced to the European market. The substantive response (93 contributions) was not large in terms of numbers. In terms of contents and variety of perspectives provided it however met the Commission's expectations. Most responses came from within the EU. Forty respondents were individuals, thirty one (31) from the private sector, nigh teen (19) from NGOs and three from national authorities in EU Member States. In addition, 7.161 e-mails were received through the 'Ban illegal timber' campaign launched by Greenpeace.

Most of the respondents felt that the bilateral FLEGT approach was insufficient to address the problem of illegal logging. They also felt that further private sector voluntary schemes could only play a complimentary role to a robust binding framework. However some respondents felt that combining these approaches could allow targeting of those areas with highest risk of illegal logging. A significant proportion of the respondents firmly expressed a wish for the EU to put an end to 'business as usual' and in particular address possible loopholes in the system under FLEGT VPAs. In general these responses favoured *a legislative approach*. Often the positions expressed did not clearly favour a specific option, or supported more than one option.

Many respondents considered an import ban on illegally harvested timber to be the most problematic of the options and were concerned that in designing legally binding measures it would be hard to overcome discriminatory impacts of such a measure. The option which would require that only legally harvested timber and timber products are placed on the EU market attracted a lot of positive attention. However respondents, whether in favour or not, did not seem to understand fully the distinction between the sub-options included in the broader framework – an option that would 'prohibit the trading and possession of timber and timber products harvested in breach of the laws of the country of origin' or one that would 'require that only legally harvested timber and timber products be placed on the market'. These were generally treated as equivalent in terms of effectiveness and the impact on the forest sector -inside and outside the EU- and on the governance problems.

Many respondents considered that development cooperation and capacity-building are an essential element for halting illegal logging and felt that this had not been adequately addressed in the consultation. There were widely differing views on the need for, and practicability, of a common definition of legality in the context of the timber trade, highlighting the fact that illegal logging has deep-rooted and complex causes, thus halting illegal logging requires a full understanding of the root causes. To be effective any measures should also contribute to addressing the root causes and not just the symptoms.

The synthesis report of the results of the consultation can be consulted in http://www.cc.cec/dgintranet/env/i/e2/doc/pdf_docs/forests/AddlOptionsSynthFinal.pdf

1.4. Ad hoc consultations

Stakeholders were consulted in workshops and through interviews of individual stakeholders¹. The consultations were conducted both in EU Member States as well as in non-EU countries that would potentially be involved in the implementation of additional options or be indirectly affected by them. The consultation was based on a questionnaire but stakeholders could express their views verbally during the workshops or in writing.

The participants were asked to rank the additional options from best to worst. At that time though, only 4 options were available. Option 5 was developed on the basis of the findings of the impact assessment. The way in which the question was put caused some ambiguity in the identification of the best option; the results can be interpreted in two ways. On one hand, the most preferred option or combination of options across the EU are options 1 and 4b, and option 4b followed by option 1+2 and option 2. Another possible ranking was done based on how many times each option was indicated either as the best option or was included in the favourite combination of options. Ranked in this manner, option 1 was referred to by 37 respondents or about half of all respondents. The second most frequently mentioned option was option 2 with 31 references. Option 4b ranked third with 24 indications and options 3 and 4 were mentioned by 13 respondents each.

1.5. National Studies

In its conclusions the Council called on the Member States to supply the Commission with “relevant information” over the extent to which existing national legislation can be used to stop the trade in illegally produced and traded wood. In response to that request several MS including the Netherlands, the UK, Spain, Estonia, Italy and Germany carried out that analysis.

1.6. Consultations with third countries

Consultations were held with several international partners. High level meetings were held with other major timber importers e.g. China, Japan and USA. Meetings were organised with FLEGT VPA countries (e.g. Malaysia, Indonesia, Ghana, and Cameroon) as well as certain other timber exporting countries (Russia, Brazil) and countries that have shown interest in discussing VPAs with the EU.

¹ Assessment of the Impact of potential further measures to prevent the importation or placing on the market of illegally harvested timber or derived products, Technical Report 3 Stakeholder Report Indufor, Finland, 2007.

1.7. Study

In the context of the impact assessment process the Commission contracted a consultancy firm to conduct an impact assessment study. The study provided an assessment of the environmental, economic and social impacts of the different policy options identified at that stage, within and outside the EU, as set out in the terms of reference².

1.8. Impact Assessment Board

The draft Impact Assessment was submitted to the Board on the 11th of March 2008 and discussed at the Board meeting of the 2nd of April 2008. The Board issued its final opinion on 7 April 2008. It included a number of recommendations for the improvement of the impact assessment report, which were largely taken into account prior to the submission of the Commission proposal.

The key amendments made to the impact assessment following the issuing of the Board opinion are:

- Further clarification how the additional measures fit in the current political context and commitments and link to ongoing policy developments (FLEGT action plan being implemented), including international agreements.
- Including more focused objectives and indicating more clearly and earlier in the report which options had been discarded on feasibility grounds, although the full set of options and the assessment have been retained in the report for comparison purpose.
- Further clarification how the preferred option combines the positive elements of a self-regulatory and enforcement approach by explaining further the pros and cons of this options.
- Strengthened assessment by inclusion of further details with regard to market developments and trade impacts of the different options and their risks with regard to these aspects (regulatory costs, compliance effectiveness and trade diversion)

PROBLEM DEFINITION

1.9. Problems of illegal logging

Illegal logging activities include the harvest, transportation, purchase or sale of timber in violation of national laws. The harvesting procedure itself may be illegal, including using corrupt means to gain access to forests; extraction without permission or from a protected area; the cutting of protected species; or the extraction of timber in excess of agreed limits. Illegalities may also occur during transport, such as illegal processing and export; fraudulent declaration to customs; and the avoidance of taxes and other charges. The impacts of illegal logging are multiple³.

² Assessment of the Impact of potential further measures to prevent the importation or placing on the market of illegally harvested timber or products derived from such timber, Indufor, Finland, 2007.

³ As reflected in Extended Impact Assessment concerning the establishment of a voluntary FLEGT licensing scheme for imports of timber into the European Community (SEC(2004)977)

The clandestine nature of illegal logging makes its scale and value difficult to estimate in relation to the global trade in forest products (estimated by the OECD to be worth over €150bn per year), but strong evidence suggests that it is a substantial and growing problem. In many countries, illegal logging is similar in size to legal production or it exceeds legal logging by a substantial margin (see also chapter 3.2). It has been also indicated that more than half of all logging activities in particularly vulnerable regions – the Amazon Basin, Central Africa, Southeast Asia, the Russian Federation and some of the Baltic states – is illegal.

The illegal exploitation of natural resources, including forests, is closely associated with corruption and organised crime. In some forest-rich countries, the corruption fuelled by profits from illegal logging has grown to such an extent that it is undermining the rule of law, principles of democratic governance and respect for human rights. In some cases the illegal exploitation of forests is also associated with violent conflict. Profits from the illegal exploitation of forests (and of other natural resources) are often used to fund and prolong these conflicts.

Illegal logging and associated trade undermines the competitiveness of legitimate forest industry operations in both exporting and importing countries. In so doing, this limits the ability of these industries to conduct operations that foster sustainable forest management and sustainable development generally. Illegal logging also costs governments vast sums of money. Estimates suggest that illegal logging costs timber-producing countries €10-15 billion per year in lost revenues, which could otherwise be spent on the provision of better healthcare, education and other public services, as well as the implementation of sustainable forest management.

The social impact of illegal logging is less well acknowledged. However, serious human rights abuses have been documented, particularly where local communities or concerned citizens have attempted to stand up to powerful logging interests. Illegal logging also provokes conflict over land and access to resources; and where laws are unjust, local people using forest resources to meet their basic needs are forced into illegal behaviour through a lack of alternative means to earn a living. Illegal logging does also provide rural employment, which has a positive social impact, but this employment is often short-term in nature as the resource is not managed on a sustainable basis. Illegal logging also causes enormous environmental damage and loss of biodiversity, for instance through logging of national parks, and can facilitate the illegal exploitation of wildlife. It can be a contributory factor to the process of deforestation, and can increase the vulnerability of forests to fires – both of which have climate change implications. It undermines sustainable forest management and has a long term negative impact on the livelihoods of forest-dependent people, many of whom are amongst the world's poorest and most marginalised people.

Underlying motives and forces

Corruption is considered the most important and deep-rooted cause of forest degradation. Corruption in forestry has many manifestations, ranging from give-away logging concessions, log smuggling, and illegal logging operations, to fraud and tax evasion schemes. Such corruption reflects the lack of accountability of corporations, governments, and other actors involved in the forestry sector. Corruption undermines the rule of law and renders most regulations and control mechanisms worthless. These factors in developing and emerging

market countries compounded by strong international demand for timber provide incentives for illegal behaviour and logging at large scales.

Who is affected by illegal logging?

A range of actors are affected by illegal logging. Governments in afflicted countries lose large potential revenues; citizens lose a valuable productive resource. Citizens of the EU are affected through the impact illegal logging has on global public goods, such as lost biodiversity and the long term impact of forest loss on climate change. The EU is also affected by illegal logging in a more direct way, since EU donors contribute aid to badly affected countries, while at the same time a valuable productive resource is looted and the profits generated are lost to the state. High-level scandals relating to imports of illegal timber into the EU have shaken the consumer's confidence in EU timber purchasing policies. Illegal logging also undermines many essential elements of the EC's development objectives: public sector financing for development targeted at the poor, peace, security, good governance, the fight against corruption, and sustainable environmental management.

1.10. Production and trade in timber

The estimated global production of industrial roundwood in 2005 was 1 709 million m³. This is divided in production from countries/regions with a high or moderate risk for illegal logging of 615 million m³; from countries/regions with low-risk for illegal logging of ca. 726 million m³ and internal EU production of ca. 370 million m³ (table 3.1 and figure 7.1).

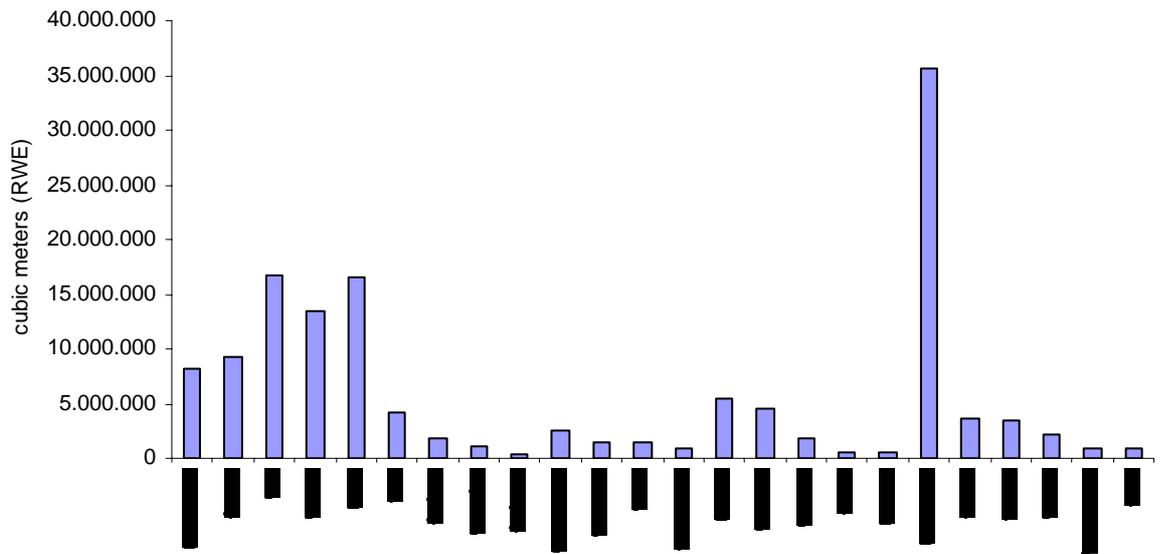
The available estimates on the extent of production, imports and exports of illegal timber are also indicated in table 3.1. It has to be realised however that the figures are highly indicative due to the very nature of illegal activities and are to be considered more than indications of their order of magnitude. The main production of illegal timber stems from countries/regions with a high or moderate risk for illegal logging and is estimated at 139 million m³ in 2005. There are four broad regions where the risk of illegal logging was considered high or at least moderate. Among them, the proportion of illegal production is estimated to be highest in Africa (excl. South Africa) and Asia (excl. Japan), around 30 %. In Latin America, the estimated share of illegal production is 15 % and the average for Russia, former Union of Soviet Socialist Republics (USSR) countries and the Balkans is put at 17 % of the total. Illegal logging is not a real problem within the EU and other low risk countries. The risk is considered as low, although according to some statistic information in the study, it does exist and is estimated at around 3 million m³ in the EU in 2005.

All imports of wood products to the EU in 2005 were about 142 million m³ (Figure 3.2). Roundwood, sawnwood, plywood and veneer accounted for 50 % of the total. Boards and panels, manufactured wood, and wood furniture accounted for 1, 3 and 4 %, respectively. Imports of wood pulp contributed to 26 % and those of paper and 16 % to the total imports of wood products to the EU in 2005. Exports from the EU comprised 107 million m³. In 2005, the principal EU Member States in terms of importing wood and wood products (RWE) were Italy, Germany, the UK and Finland, which together accounted for more than one half. Other significant importers include France, Spain, Belgium and the Netherlands.

Table 3.1 Estimated roundwood production and illegal production in 2005

Region	Production of industrial roundwood	Estimated production of illegal industrial roundwood	
	million m ³ /y	million m ³ /y	% of total
High or moderate risk countries/regions			
Africa excl. South Africa	45	14	30
Asia excluding Japan	221	66	30
Latin America	187	28	15
Russia, Former USSR & Balkans	162	28	17
<i>Sub-total</i>	<i>615</i>	<i>136</i>	<i>22</i>
Low risk countries/regions			
Norway and Switzerland	13	-	-
South Africa	18	-	-
Japan	16	-	-
USA and Canada	632	-	-
Australia and New Zealand	46	-	-
<i>Sub-total</i>	<i>726</i>	<i>-</i>	<i>0</i>
EU27			
EU-27	368	3	1
<i>Sub-total</i>	<i>368</i>	<i>3</i>	<i>1</i>
Total World	1 709	139	8

Figure 3.2 Imports of all wood products to the EU by country of origin in 2005 (RWE)



Considering only the imports of roundwood, sawnwood, plywood and veneer, the estimated imports of illegal products from high/moderate risk countries was 14 million m³ (RWE) in 2005. If all wood products except pulp and paper were considered, the amount in 2005 would have been 16 million m³ (RWE)

In 2005, the total volume of timber placed on the EU market reached 512 million m³ consisting of imports, 142 million m³ (RWE), and EU roundwood production, 370 million m³. Imports of illegal timber amounting to 16 million m³ (excluding pulp & paper products) accounted for about 3 % of the total.

1.11. Perspectives (International policy and EU policy addressing illegal timber trade)

International Options

The EU and its Member States have put a great effort in reaching international arrangements with regard to sustainable forest policies and control of legality of timber in international trade.

While a number of countries have been fairly open to discuss the control of illegal logging in the international forest policy arena, negotiations on a multilateral framework, which started more than 20 years ago (FAO and following UN forest panels and forest fora), have only known very limited progress. The United Nations Forum on Forests (UNFF) has recently (2007) however made progress towards a non-legally binding instrument on forests, but it is

unlikely that in this forum a multilateral agreement on trade in forest products could be established in the foreseeable future. Many governments, including some key forest rich countries like Brazil continue to oppose such an idea. They in particular insist that legislation and law enforcement are issues of national sovereignty.

While progress on multilateral forest policy level has been very limited, the European Community has invested heavily into discussing illegal timber trade with other main timber importers (USA, Japan, China) in order to seek a common approach in Forest Law Enforcement and Governance policies. Discussions with those countries are ongoing in order to share experience and combine efforts, where appropriate.

At the international /multilateral level, the Convention on International Trade in Endangered Species of Wild Fauna & Flora (CITES) is a relevant instrument and implemented in the Community by the EU Wildlife trade regulations. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival and it has proved to be effective international agreement. Since CITES sets both legality and sustainability conditions, shipments covered by CITES permits do not require additional FLEGT licenses under the Community legislation. The CITES scope in timber is so far however limited to a few tree species although the Convention allows also for exporting countries to voluntarily list species which are protected by national law in order to control the trade internationally. With the species specific approach however, it is not realistic to suggest that CITES could be used to control all timber trade, although further listings of certain priority species on the CITES Appendices will contribute to the regulation of legal and sustainable trade which is supported by the Community.

Despite its high profile, illegal logging has not been specifically addressed in the international legal frameworks concerning the fight against crime.

Community Legislation

The EU FLEGT Action Plan, adopted in 2003 by the European Commission sets out a package of measures to address the problem of illegal logging and related trade. The European Parliament and the Council have adopted formal resolutions and conclusions. The centre-piece of the EU FLEGT Action Plan was the FLEGT licensing scheme, under which exports of timber from participating countries to the EU would be covered by a (FLEGT) licence attesting that the timber has been harvested in conformity with relevant national legislation. The licensing scheme would be implemented through the development of Voluntary Partnership Agreements (FLEGT VPAs). In parallel, the Council adopted in 2005 the FLEGT Regulation which establishes the legal framework for the imports of timber originating in partner countries into the EU.

There is however currently no overall Community legislation dealing with the import and marketing of timber and timber products produced illegally.

National Legislation

In the Action Plan the Commission invited the Member States to identify relevant national legislation which could be applied to address the illegal logging issue (Section 6). In response to that call, studies carried out by some Member State have concluded that there is some potential in addressing illegal logging through national legislation such as that concerning

theft and trafficking of stolen goods, money-laundering or smuggling. However, in practice it is very difficult to establish a link between an alleged illegal activity and a specific piece or shipment of timber.

Possible evolution of the problem

The FLEGT VPAs are considered by most stakeholders as the most effective way to tackle illegal logging as they put particular emphasis on governance and combine trade requirements with capacity building. Although, it seems logical that VPAs should be allowed to prove its effectiveness and efficiency before considering taking further steps, certain limitations have outweighed that argument. To this day only four countries have formally engaged in that process, with some others having also expressed an interest, although not amongst the major timber-producing countries. Furthermore, the negotiations towards concluding a VPA are for a variety of reasons proceeding more slowly than initially envisaged. In the meantime, countries have been raising in the VPA negotiations the circumvention risk and its ramifications for the FLEGT-licensed timber.

The circumvention risk was already identified in the FLEGT Action Plan. The Commission thus, committed to 'review options for, and the impact of, further measures, including in the absence of multilateral progress, the feasibility of legislation to control imports of illegally harvested timber into the EU' (Section 4.2.4). The Council and the European Parliament have recalled that commitment.

The strong international demand for timber has provided a strong incentive for illegal logging. Although the EU is not a huge market, it is an important player in the international arena and putting forward requirements for trading in timber would send a clear signal regarding its commitment to support the fight against illegal logging. In a statement issued in 2006 several companies including IKEA, B&Q and Carrefour have called on the Commission to set common rules in timber trade to ensure fair competition and sustainable markets ⁴.

Under a “no policy change” scenario illegally harvested timber will continue to enter the EU market and illegal logging would thus continue unchecked, exacerbating the impacts identified in chapter 3.1. It is therefore evident that other complementary measures at the Community level would be required if fast progress is to be made at eliminating the access of illegally harvested timber and timber products to the EU market.

1.12. Subsidiarity/necessity test

There is a clear need for Community-level action to address the demand-side of illegal logging and associated trade, since all the proposed policy instruments fall under the competences of the Community. As regards the regulatory approach described under options 3, 4 and 5 Articles 133 or 95 of the Treaty would provide the appropriate legal basis as the primary objective of the instrument would be the functioning either of the common commercial policy or of the internal market.

The subsidiarity principle applies insofar as the proposal does not fall under the exclusive competence of the Community, as in the case of option 3.

⁴ <http://www.greenpeace.org/raw/content/international/press/reports/FLEGTIndustry.pdf>

At the core of the Community action under options 4A, 4B and 5 lies the establishment of common rules for the placing on the Community market of timber products. Experience has shown that the smooth functioning of the internal market is best safeguarded through harmonised action across the EU Member States. As regards the marketing of timber products it is considered that action at the EU level would deliver better results than a series of individual actions by Member States. A harmonised approach would simplify the requirements for the operators and therefore stimulate competitiveness, while consumers would be better informed on the applicable standards. The system would also provide the legal certainty and clarity, necessary for the proper functioning of the market. In the absence of a harmonised approach, measures restricting internal trade would be taken by several Member States, hence disrupting the functioning of the internal market. This would have a serious impact on the functioning of the EU market, jeopardize the ability of European Operators to source timber products necessary for their economic activities as well as jeopardizing the credibility of EU measures.

The clandestine nature of illegal logging globally makes its scale and value difficult to estimate but strong evidence suggests that it is a substantial and growing problem which causes enormous environmental damage and loss of biodiversity, undermines the competitiveness of legitimate forest industry operations while is closely associated with corruption, organised crime and violent conflict. Despite the limited occurrence of illegal logging incidents within the EU this proposal puts forward internal market measures with a view to address the problem in a holistic manner and to avoid constraints posed by the international trade rules. Given that the release for free circulation into the community confers on imported products the status of Community goods, rules governing the placing on the market also applies on imported products. It has been argued that measures affecting imports of timber products would only shift trade to non-demanding markets. However, the EU is a major player in the international arena and with such an initiative it would send a clear signal on its commitment in the combat against illegal logging and possibly provoke similar reactions from other major consuming countries. The potential impact on the placing on the market of manufactured timber products would also greatly enhance its impact, as not only primary producers would be affected.

The proposal aims at closing the EU market to timber and timber products harvested illegally through a set of rules governing the placing on the market of timber and timber products. While setting clearly the principles to be taken into account when ascertaining legality, operators will be allowed to choose the mechanisms to deliver the required result.

In light of these elements, EU action is justified as it is clear that Member States can not achieve this satisfactorily and that the EU can do it better and more efficiently.

OBJECTIVES

The aim of this proposal is in line with the Commissions' strategic objectives and better regulation principles notably to provide effective and efficient measures, ensure a high level of legal certainty across the EU, enable operators to be more dynamic without increasing the burden and thus help to strengthen the Community's credibility in the eyes of its citizens. The objectives have been also considered within the context of the Sustainable Development strategy agreed by the European Council in June 2006 via its focus on the protection of natural resources. They are also in line with the Community's overall policy objective in the forest sector, which is to achieve sustainable forest management.

Although legality and sustainability are distinct and different concepts, in many countries forest legislation is based on the premise of sustainable forest management, and so better law enforcement will in general lead to more sustainable forest management. Better forest governance is therefore an important step on the path to sustainable development, and the Action Plan should thus be placed in the context of the overall efforts of the European Community to achieve sustainable forest management⁵.

The main overarching objectives of this proposal are to:

- Support the international fight against illegal logging and related trade
- Address the weaknesses entailed in the current framework i.e. circumvention, laundering, rerouting etc. due to its bilateral, voluntary and geographically limited nature without nevertheless compromising its implementation
- Reinforce EU consumers' confidence in timber
- Improve forest governance and law enforcement in timber-producing countries

Taking these objectives into account the following specific objectives have been established:

- Close the EU market to illegally harvested timber
- Ensure consistency and legal clarity in terms of the requirements for placing timber and timber products in the EU market
- Avoid trade disputes and reciprocal measures that will devalue the measures
- Reward existing good practices for timber purchasing policies
- Avoid creating a burdensome and expensive system
- Establish a level playing field and foster a pro-competitive market environment
- Facilitate smooth functioning of the internal market
- Avoid impeding trade with low-risk countries

By means of:

- Laying down concrete rules for placing timber and timber products in the EU market
- Endorsing existing schemes that comply with specific requirements in terms of demonstrating legality
- Introducing a risk-sensitive approach

MAJOR POLICY OPTIONS

⁵ As reflected in Extended Impact Assessment concerning the establishment of a voluntary FLEGT licensing scheme for imports of timber into the European Community (SEC(2004)977), section 3.2.

To address the problems identified and described under chapter 3, different policy options have been considered and were the subject of this impact assessment. As regards the multilateral option the situation has not evolved much since the adoption of the EU Action Plan and the FLEGT Regulation. As stated in the Impact Assessment carried out for the purposes of the latter, *'given the pattern of trade in wood products, a multilateral framework to regulate the international trade in timber would be the most comprehensive way to tackle the issue. Progress in the international dialogue on forest policy has been slow, however, and there is clearly little prospect of arriving at a multilateral agreement to address the trade in illegal timber'*. A solution based on voluntary co-operation with other major consuming markets offers better prospects was identified as the best option to combat illegal logging and associated trade and in line with the FLEGT Action Plan's objectives. As regards unilateral measures, the Impact Assessment concluded that the Community could introduce such legislation which would have the advantage of being a strong and direct response to the problem, and would address an intuitive shortcoming in the legislative framework⁶.

The options were assessed against their relevance in respect of achieving the objectives identified in section 4.

Baseline "no additional EU action"

The baseline scenario for comparing the impacts of the different option is that VPAs' are concluded between the EU and six timber producing countries where negotiations are currently underway or expected to start in the near future (Indonesia, Malaysia, Ghana, Cameroon, Gabon and Congo Brazzaville). This option relies on the willingness of these third countries to conclude such VPAs. It's assumed for this report that this baseline option will be implemented and all following "additional options" are measures in addition ("top on") to the baseline.

Additional Option 1: Expanded coverage of the bilateral approach through FLEGT Voluntary Partnership Agreements.

This option is an expansion of the baseline option. In terms of geographical coverage, the Voluntary Partnership Agreements are expanded with 6 additional countries (Brazil, China, Vietnam, Russia, Belarus and Ukraine) which have been selected for illustrative purposes only. No formal discussions regarding potential Voluntary Partnership Agreements are yet underway with these countries and this would rely as well on the willingness of third countries to conclude such VPAs.

Under this option, the Community instead of launching new initiatives which could just undermine the current approach would give priority to reinforce the implementation of the current framework designed to address the root causes of illegal logging through a collaborative approach and use all existing means to this end.

Additional Option 2: Voluntary measures by the private sector further developed

The key element of this option is to support the development of private sector measures such as codes of conduct as well as forest certification schemes. Codes of conduct have been introduced by timber trade federations and bodies who develop and advice their members on

⁶ As reflected in Extended Impact Assessment concerning the establishment of a voluntary FLEGT licensing scheme for imports of timber into the European Community (SEC(2004)977), section 4.3.

responsible purchasing policies. Private certification schemes have been set up to set forest management standards and accredit forests, products and or managers against those standards. Although these initiatives have merits including their flexibility, powerful motivation and good cost/efficiency balance, their voluntary nature, lack of policing over implementation and lack of sanctions for non-compliance challenged over the years their credibility and sustainability.

Under this option, the Community would encourage the strengthening of such codes of conduct and private certification schemes in terms of their performance, reliability and enforceability by e.g. recognising them in the FLEGT VPAs, making membership in the federations mandatory and by supporting measures such as consistent public and private timber procurement policies and financial or regulatory incentives.

Additional Option 3: Border measures to prevent the importation of illegally harvested timber

This option would consist in declaring illegal under Community law the importation of timber products stemming from illegal logging and making imports of timber into the Community conditional upon proving legality. The prohibition and the requirement would apply to all countries regardless of the level of risk in trading in illegally harvested timber. The compliance check would take place at the border on the basis of documentation ascertaining the legality of the timber.

Under this option, the Community would rely on the assumption that illegal logging occurs only outside the EU and therefore trade measures have an important role to play in the combat against illegal logging. Despite the concerns and difficulties in terms of the WTO-compatibility and its proportionality this option has been retained for consideration for transparency purposes and because it attracted a lot of attention by several NGOs.

Additional Option 4: Prohibition on the placing on the EU market of illegally harvested timber

Under this option new community legislation will be developed making it illegal to place on the EU market illegally harvested timber or products derived from such timber. The option would apply both to imported forest products and to those produced in the EU. It appreciates the international aspect of illegal logging and accepts that an efficient strategy should aim at improving internal market standards and avoid implications as regards the international trade rules.

Two alternative approaches could be followed:

- Additional Option 4A: Legislation which prohibits the trading and possession of timber and timber products harvested in breach of the laws of the country of origin.

This option would make it be unlawful to place on the EU market illegally harvested timber. The key feature of such legislation is that the one who claims illegality should prove that claim. Effectively what should be proven is both the underlying –harvesting in breach of the laws of the country of origin- and the overlying violation –trading in and possession although the actions need not be carried out by the same person. Illegality would be determined on the basis of the legal framework of the country concerned. An investigation would be triggered

through information provided from within the administration or by NGOs, companies, foreign governments, the news media or private individuals.

Under this option, operators would be compelled to ensure that they are dealing in legal products but only when proven otherwise would they be asked to demonstrate compliance with this requirement. The focus of this option would effectively be on high-risk cases and it would thus provide operators with an incentive to source timber with adequate guarantees regarding its legality.

This option is similar to the US Lacey Act which makes it unlawful to trade in fish or wildlife harvested in violation of any foreign law. Despite the implementation challenges and the legal constraints detected from the start the option has been retained for consideration in light of the current discussions in the US legislature to expand the scope of the Lacey Act to timber.

- **Additional Option 4B:** Legislation which requires that only legally harvested timber and timber products be placed on the market.

To a certain extent this option would rely on an approach similar to the one described under option 3. Operators would be required to provide proof of legality of the timber they place on the EU market, regardless of the origin. Such proof would be provided either on request or systematically and for enforcement purposes it should take the form of documentation ascertaining legality. Failure to deliver would result in refusing the marketing of the timber in question while falsification of the documentation constitutes a self-standing offence under national laws and would thus be treated accordingly.

Additional Option 5: Legislation which requires due diligence by all timber traders to ensure that they trade in legally harvested timber

This option requires operators placing timber on the Community market to act in due diligence that enables reasonable assurance that the timber they trade in have been legally harvesting. Operators would thus employ systems and procedures to ensure the legality of the products and bring to light facts that would speak against the marketing of certain products.

Legality should be determined on the basis of the laws and regulations of the country of origin and should be ensured throughout the supply chain. Recognising that the risk of timber harvested in breach of the applicable legislation entering the EU market is not the same in all cases, the due diligence procedure would rely on a risk-based approach to measure, monitor and control the risks in trading in illegal products. Under this option failing would constitute an offence.

This option has common denominators with the self-regulatory approach in option 2 (voluntary measures by the private sector) and enforcement approach in options 4A and 4B (prohibition of placing on the EU market illegally harvested timber). It relies on the fundamental principle that an efficient strategy should address the need to implement robust systems to eliminate illegally harvested timber from the supply chain rather than requesting legality to be demonstrated for individual products.

Existing private sector schemes (option 2) is a highly useful intervention but it is more of a complementary measure rather than a stand-alone approach. Their voluntary nature, lack of sanctions for non-compliance, incoherence between standards/schemes combined with enforcement problems challenges the credibility and sustainability of those initiatives. The

lack of control over the content of the codes undermines initiatives such as the FLEGT licensing scheme. Option 5 appreciates that private sectors' schemes are a valuable instrument that will facilitate implementation and ensure uniformity in terms of the concepts and standards and thus provides for their recognition on the basis of a system that will assess them against concrete criteria.

Option 4A implicitly imposes a requirement for due care on importers but in fact it condemns the latter for violations falling outside his control or intent. In addition, the compliance mechanism is triggered upon challenge while both the underlying and the overlying violation would have to be proven to secure condemnation. Option 5 is building on the due care element but it effectively imposes it on all traders while tying condemnation to the failure to ensure that illegally harvested timber does not enter their supply chain.

Option 4B applies the requirement for certification of legality to all market operations for timber products. The absence of an internationally agreed definition of legality and the issue of what would constitute a credible proof of it would represent a considerable challenge for the design of such an approach as we would run the risk of accepting “legality” documents from countries with serious credibility issues such as human rights abuses. Furthermore, the cost of the establishment and operation of the necessary legality assurance systems was estimated as at least a hundred million (100M) Euros per annum within the EU. Option 5 maintains the principle that the burden of proof should lie with the trader but rather than condemning him for specific shipments of illegal timber it induces systemic changes in the timber market and makes traders falling within their control.

ANALYSIS OF IMPACTS

1.13. General remarks

This Impact Assessment combines quantitative and qualitative approaches to ensure that adequate consideration is given to a broad range of direct and indirect economic, social and environmental impacts. The analysis is based on the results of the consultations, including data supplied in the study and provided by third countries competent authorities, industries, NGOs and other stakeholders affected. A comparative table of the impacts of all options is included in Annex I.

1.13.1. Impacts and data limitations and difficulties encountered

In order to compare the different options in the impact assessment study, the product range in the study was limited to roundwood, sawnwood, plywood and veneer as presently are the items covered by the FLEGT Regulation and VPA negotiations. Costs and impacts were furthermore estimated assuming a broad definition of legality incorporating a fairly comprehensive range of core legislation to be covered (e.g. forestry, environment, labour, land, fiscal, etc.).

1.13.2. Economic and costs impacts

For the economic and cost impacts the following elements were considered and assumptions were made for the assessments:

- Legality control system – the costs of the legality control system (where applicable under the different options) were assessed through a theoretical country case examining the costs

of the licensing system under the VPA in the baseline countries. It estimates the average costs of legally control in the entire sector (incl. cost incurred by the private sector and government (referred to as "regulatory costs") in a situation where the supply chain consists of three stages, including roundwood harvesting, sawmill processing and further processing. Furthermore two possible systems are considered: consignment-based or operator-based.

Illegal logging is not easy to be monitored and even more reported and accounted for. The information presented in this report is the best available one and due to the issue treated, the Standard Cost model has not been followed closely, as reported information and costs are not available. The regulatory and private sector costs in the timber supply chain are analyzed as reported back by stakeholders (companies, NGOs and administrations) as these are the experts from providing the information.

- Trade impact: The potential shifts of trade flows from one region to another and the impact on prices of wood and wood products were analyzed using the EFI-GTM (European Forest Institute - Global Forest Sector Model) model and assumptions have been made with regard to reduced trade flows of illegally harvested timber under the different options. This trade model is a regional global partial equilibrium model for forestry and forest industries, covering production and trade between 60 world regions⁷. A central feature of the model is that it stimulates the market mechanism under the assumption of perfect markets. Changes in demand and supply, as well as economic factors such as production and transport costs, are the key variables. Factors such as price premiums for FLEGT licensed timber, impact of substitute products etc could not be considered because of poor data and the absence of existing models.

The model was used to assess the overall trade impacts of the options based on the assumptions that illegal harvested timber entering the EU market is effectively restricted in accordance with the measures under the various options. The trade model has furthermore some limitations which should be taken into consideration when interpreting the results, in particular that products made from tropical and non-tropical tree species are not distinguished in trade routes and that it does not differentiate between prices for legal and illegal timber. However, a qualitative assessment suggests that in most cases the price for legal wood increases while the prices of illegal ones decreases.

- Market development: The key market developments and mechanisms behind them have been assessed based on the most salient features related to supply and demand.

1.13.3. Impact on illegal logging

The impact on illegal logging is considered to be proportionate to the volume of exports of illegal timber to the EU or, where applicable under the options, derived illegally within the EU. The introduction of additional options will cause an initial decline in roundwood harvesting in countries exporting to the EU as illegal products no longer enter the EU market. However, this decline will eventually recovered as

⁷ Assessment of the Impact of potential further measures to prevent the importation or placing on the market of illegally harvested timber or products derived from such timber, Indufor, Finland, 2007; Kallio, A.M.I.O., A. Moiseyes & B Solber, 2004. The global forest model EFI-GTM – the model structure. Technical report 15, European Forest Institute, Joensuu, Finland. Kallio, A.M.I.O., A. Moiseyes & B Solber, 2006. Economic impacts of increased forest conservation in Europa: a forest sector analysis. Env. Science and Policy 491:9-18.

exporters and their suppliers adjust to the new situation and increase their supply of legal good to the EU market. The actual reduction of illegal logging depends on the adjustment strategies adopted by the various market players for which the following optional scenarios could take place:

- Increased supply of legal roundwood becomes available from resources that were unused either because of low demand or because low-cost illegal timber made their utilization uneconomical
- Suppliers evading the payment of royalty fees and/or taxes choose compliance to maintain access to the EU market; exports of illegal timber are "transformed" into exports of legal timber.
- Trade flows are re-shuffled so that legal goods are shipped to the EU and illegal good to other, less discerning markets which would reduce the effect on illegal logging (please note that a few countries for which VPA negotiations are underway have expressed that VPA licensing scheme might be applied to all their exports).

In assessing the options, the probability of these scenarios materializing is difficult to evaluate in quantitative terms, but some indicative projections are given based on a qualitative assessment.

1.13.4. Environmental impacts

The change in the volume of illegal logging is also the key variable determining the environmental impact. With the reduction in illegal logging, the negative impacts on the forest resource base are also reduced (and subsequent pressure on remaining intact forests). It will result in a reduction in erosion, degradation of land and water resources and negative impacts on climate change. It will also reduce the conversion of forest areas into agricultural lands by rural populations and illegal wildlife trade following the construction of (illegal) new roads. Impacts depend however on the definition of legality to be agreed in the VPAs' (where applicable under the options). In general terms, a broader definition (ensuring more elements of sustainability in forest management) has a stronger positive impact. This is in particularly relevant for the options with VPA's where partner countries have expressed that the VPA licensing scheme might be applied to all their exports and therefore reduce both illegal logging and the negative environmental impacts without a risk that trade flows of illegal goods are simply re-shuffled to other parts of the world (as identified as risks for some other additional options without VPS's).

1.13.5. Social impacts

The social impacts in the timber exporting countries/regions depend on the extent to which social provisions have been incorporated in the definition of legality under the different options. A broader definition of legality would often have a major positive impact, however, legal compliance can seldom be considered to guarantee the social sustainability of forest management but better observance of existing provisions would nevertheless result in several positive impacts. For instance compliance with existing laws in the six VPA countries involved would in many cases result in better security of tenure and access to land for indigenous communities, increased income

to the poor, improved working conditions for forest workers, respect for human rights etc. although in some cases the legal frameworks can be considered flawed and could actually work against the poor (e.g. by excluding local people from access to forest resources in existing forest laws in some countries)

The projected changes for employment in forest industries and other social impacts (in exporting countries and EU) will be identified under the relevant options (where applicable).

It is considered that social aspects relating to equal opportunities, private life and access to social welfare systems will not be affected by the implementation of any of the options so these aspects are not considered separately during the analysis of each of the policy issues.

1.14. Baseline scenario

1.14.1. Impact on illegal logging

With VPAs concluded between the EU and the six countries for which negotiations are underway or expected to start in the near future, the maximum reduction of illegal logging in those 6 countries would be 2.4 million m³. It's assumed in this case that the licensing scheme from the timber exporting country only applies to exports going to the EU.

Accordingly, the elimination of exports of illegal timber to the EU would curb up to 11 per cent of the total estimated production of illegal timber, or 4 per cent of the total production of industrial roundwood in the countries involved. Compared to the estimated global volume of illegal industrial roundwood production, 139 million m³ in 2005, the maximum reduction of illegal logging in the baseline countries would represent about 2 per cent of the global total.

The actual impact depends however on how market players respond to the new requirements. The reduction of illegal logging would be significant in the four African VPA countries (since domestic markets are small and the EU is the main export market) but in Indonesia (through the large number of actors and reshuffling of trade flows to other markets) and Malaysia (low exports to EU and share of illegal timber also limited) the impact could be substantially less than the estimated maximum.

Under the VPAs, the countries will be supported by the EU in their efforts to improve law enforcement and remove the root causes of illegal logging. This impact will be significant, considering that the VPA approach benefits from the implementation of the licensing scheme which provides strong support to more conventional law enforcement. If all exports (to EU and non-EU) of illegal timber were eliminated from the six countries, the only alternative outlet for illegal timber would be the domestic market, which is small in nearly all baseline countries. Accordingly, a very strong reduction of illegal logging could be achieved fairly quickly in the countries concerned.

1.14.2. Environmental impacts

The VPA licensing scheme is expected to lead to a reduced volume of illegal logging in the six countries involved. This will have positive environmental impacts as outlined in chapter 6.1.4. The environmental impact in EU Member States is expected to be limited.

1.14.3. Social impacts

The general social impacts as indicated in chapter 6.1.5 applies. The establishment of VPA's with the six VPA countries will have positive social impacts, depending on the extent to which social provisions have been incorporated in the definition of legality.

The introduction of VPA is projected to result in a reduction in the production of forest industries and employment in the six countries involved. The decline is still moderate in the period 2009-2015 but will accelerate between 2016-2020, as law enforcement takes effect reducing the supply of illegal timber. In other regions, the changes are expected to be marginal. In the EU the projected changes for employment in forest industries are very small.

1.14.4. Economic impacts

Costs

Introducing systems in order to check the legality of timber on the market will lead to costs for governments and the private sector in the exporting countries in particular. The licensing system under the VPA is built on existing systems combining manual work phases and limited use of information technology. The costs of the system assuring legality consist of (i) control of forest operations, (ii) control of wood supply chain, (iii) verification of forest operations and wood supply chain, (iv) licensing and (v) third-party monitoring of the whole Legality Assurance System (LAS). The costs are assessed for the following options:

- Consignment-based system
- Operator-based system

The verifications of forest operations and wood supply chain under the consignment-based system will largely be run by government agencies, whereas in the operator based system, verification relies on the private sector's own management systems and external checks. In both systems, however, private and public sector participation is needed.

The regulatory cost consists mainly of expenses related to verification and licensing as well as independent monitoring. Table 6.1 presents the LAS costs for the EU exports under both consignment-based and operator-based systems, assuming that there is no significant variation in the unit costs between the baseline countries. The private sector costs are expected to be of the same order of magnitude irrespective of the country or product to be monitored.

Table 6.1 Estimated regulatory (government) costs and private sector costs for all 6 VPA countries

Countries	Exports to the EU	Cost of consignment based system		Cost of operator based system	
	Million m3/y	EUR/m3	Total MEUR/y	EUR/m3	Total MEUR/y
Regulatory costs	7.0 m3/y	0.17	1.2	0.09	0.6
Private sector costs	7.0 m3/y	0.05	0.4	0.25	1.8

In the consignment-based system, the government covers the system implementation costs, including purchase of hardware and software. The lower government costs are due to the fact that the companies take responsibility for demonstrating the legal compliance and respective expenses. The cost of the LAS for the private sector will be ca. EUR 0.05-0.25/m³ (up to 1.6 m³ for state-of-the-art advanced information systems in certain high risk countries), which is a minor factor and not considered a constraint for legal trade. Compared to the price of tropical logs, which habitually reach levels beyond EUR 75/m³ at the mill gate, the additional cost is insignificant. The introduction of the licensing scheme in the baseline countries would eliminate the unfair advantage enjoyed by illegal operators within the country.

SMEs' in developing countries

The small and medium-scale forest enterprises⁸ represent the clear majority of forest enterprises in developing countries, but it's unclear to which extent they are involved in timber exports and would participate in the VPA licensing system. Timber exports tend to be the domain of large enterprises, but smaller enterprises are often suppliers to larger ones thus becoming subject to obligations of the licensing scheme.

Since the scale of operations by enterprises affects the costs for the legality assurance systems (LAS), the smallest enterprises may have difficulties in shouldering the cost of the initial investment in the LAS. Regarding operator-based systems, the annual cost increases sharply below an annual processing of 25.000 m³ of roundwood. While the smallest enterprises have never been major contributors to export trade, the risk is that the introduction of the LAS, especially operator based systems, reinforces the pattern or that it encourages to co-operation between SMEs' in order to share the investment costs.

Market development

The VPA's in the baseline option will as an immediate impact lead to a decline in demand and prices for wood products in the six VPA countries. As illegal wood products are barred entry into the EU market, the total demand for wood products in all non-EU countries declines which lead to falling prices and reduced harvesting and processing of wood products. A part of the illegal supply is re-directed to non-EU markets. At the same time, the total supply on

⁸ In the context of the study and this Impact Assessment Report, SMEs' in developing countries are meant to be interpreted as forest based enterprises which employ limited numbers of workers (typically less than 100), are locally owned and managed, rely on financing from ownership, have limited influence over the marketplace and lack scale efficiencies.

the EU market declines, as illegal wood products are no longer entering the markets which will lead to higher prices. However, after adjustments on the market following the effective implementation of the measures, in non-EU countries production bounces back as the export of legal wood products to the EU increases due to the higher prices on the market as well as higher prices for legal good on the domestic market in those countries. On the EU market, the production of wood products and prices of wood products stay above the level assumed in the "business as usual" scenario without VPA's, because of the declining supply from the six VPA countries. Supply from "low risk" forest product exporters could to some extent replace the declining supply from the "high risk" baseline-countries.

It is expected that the VPA's in the baseline scenario will lead to a declining value added in the forestry and forest industry sector compared to a "business as usual" scenario without VPA's. Improved law enforcement is expected to gradually eliminate all illegal logging. Lower supply of roundwood, as well as diminished industrial processing, bring value added below the level projected in a "business as usual" scenario. The change in value in baseline countries is expected to be -6,5% (2009-2015), but the projected decline in production volume is, to a large extent, compensated with higher prices (annex I). Other countries with high and moderate risk of illegal logging are expected to increase their value added by 2,5% in the period 2016-2020, mainly caused by higher prices on the market. The impacts on the EU and the low risk countries is very modest or negligible.

1.14.5. Risks

Key risks for the VPA in the baseline option are:

- Delays in the establishment of the licensing system hindering legal exports to the EU.
- Efficient implementation and sustainability of the system require capacity building and technical assistance in the least developed countries.
- In the case that the government in partner countries wish to implement the LAS using advanced information technology, funding the initial investment may become a bottleneck in the least developed countries.
- Uncertain market demand for FLEGT timber.
- Ultimately the success is determined by the government's capacity to tackle the root causes of illegal logging such as ineffective governance, poverty, and excessive timber processing capacity.

1.15. OPTION 1 Expansion of the FLEGT VPA approach

1.15.1. Impact on illegal logging

The maximum volume of illegal logging that could be eliminated in the 6 additional VPA countries is estimated at 9 million m³. Elimination of exports of illegal timber to the EU could curb up to 13 per cent of the estimated production of illegal timber, or 13 percent of the total production of industrial roundwood in the involved countries. Compared to the estimated global volume of illegal industrial roundwood production, 139 million m³ in 2005, the maximum reduction of illegal logging in the involved countries would represent about 7 percent of the global total.

The reduction of illegal logging would be significant in Russia, and possibly also in Belarus and Ukraine. The EU is the main export market and traders in illegal timber have limited options due to lack of local processing capacity and high cost of transport to alternative markets. In Russia, however, the rapidly developing domestic market could eventually provide an outlet for illegal timber and enable a reshuffle of trade flows. In Brazil (where the domestic market would be able to absorb a large portion of the illegal) and China (diversion to other markets and increased outlet on domestic market) the impact would probably be less than the estimated maximum. The impact in Vietnam is negligible due to the very small export volume of roundwood, sawnwood, plywood and veneer.

Regarding the impact of capacity building supported by the EU, the assessment made in chapter 6.2.1 with respect to the six baseline countries applies.

1.15.2. Environmental impacts

The assessments made in chapter 6.1 on environmental impacts through the decline in illegal logging applies as well in these 6 additional VPA countries. The environmental impact in the EU Member States is expected to remain limited, even though the harvesting volumes in the EU are expected to increase more than with the baseline scenario. Increasing harvesting volumes would increase the pressure on the environment but the change will be moderate since the regulatory systems in the EU Member States are generally robust and able to contain the potential threat to the environment.

1.15.3. Social impacts

As in the baseline scenario, this option 1 is projected to result in reduced production of forest industries and employment. The change in the additional six VPA countries is however more moderate than in the six baseline scenario countries. The reason is that the level of illegal logging in the additional six VPA countries is lower and the countries are less dependant on exports to the EU.

Furthermore the assessment with regard to the impact of the legality definition and the risks of applying existing legislation on social impacts in the additional six VPA countries apply as outlined in chapter 6.1.5.

1.15.4. Economic impacts

Costs

In the six countries included in this option 2 with geographically expanded VPA, the regulatory costs of the Legality Assurance System per unit are largely similar to those in the six baseline countries. Since their export quantities to the EU are more than fivefold compared to the baseline countries, the cost effect in absolute terms is manifold (Table 6.2).

Table 6.2: Estimated regulatory (government) costs and private sector costs for all six expanded VPA countries

Countries	Exports to the EU	Cost of consignment based system		Cost of operator based system	
	Million m3/y	EUR/m3	Total	EUR/m3	Total

			MEUR/y		MEUR/y
Regulatory costs	43.8	0.17	7.4	0.09	4.0
Private sector costs	43.8	0.05	2.2	0.19	8.4

As in the baseline scenario (chapter 6.2.4) the cost of the LAS for the private sector was estimated at EUR 0.05-0.25/m³ (up to 1.6 m³ for state-of-the-art advanced information systems in certain high risk countries), which is a minor factor and not considered a constraint for legal trade. Compared to the price of tropical logs, which habitually reach levels beyond EUR 75/m³ at the mill gate, the additional cost is insignificant. The introduction of the licensing scheme in expanded six VPA countries would eliminate the unfair advantage enjoyed by illegal operators within the country.

For imports from Russia, the paper-based approach under the Legality Assessment System would cost an additional EUR 0.2 – 0.4/ m³ which is not significant even for pulpwood, compared to prices ranging from EUR 40-65/m³. The cost of an advanced LAS is estimated at EUR 1.2-1.6 m³ could affect the trade of low cost pulpwood.

SMEs' in developing countries

The observations in chapter 6.2.4 apply. The role of SMEs' is important in Russia where about 20 000 SMEs' operate in the forest sector, many of them engaged in the export trade.

Market development

Similar type of impacts (prices / added value in forest sector) are expected as reflected in the baseline scenario in chapter 6.2.4, including the adjustments to the new market situation with replacement, to some extent, of timber supply from "high-risk" countries by "low risk" countries. The introduction of VPA's in the additional six VPA countries in this option is expected to cause a decline in the generation of value added in those countries as well, compared to the "business as usual" scenario, but the change is less significant than in the six baseline countries because illegal logging in the "new" VPA countries is less widespread than in the baseline countries.

Similarly to the previous option (Chapter 6.2.4; annex I) other high/moderate countries stand to gain from the reduced production in the VPA countries (with 5,8% increase in added value in 2016-2020). The impact on the EU is positive but still very modest.

1.15.5. Risks

It is very doubtful, as expressed by many stakeholders, that the countries included in this analysis as potential VPA Partner Countries (e.g. China, Brazil etc) would actually enter into the VPAs. Political and technical constraints were cited as possible reasons for the countries' reluctance to join the scheme. It was also pointed out that the negotiation process would inevitably be quite lengthy. A number of other countries in Central Africa (e.g. Cote d'Ivoire, Congo Democratic Republic) and the Andean region in Latin America (e.g. Ecuador, Bolivia) were identified as more willing potential candidates to engage in VPAs. However, if this would materialize, the impacts of the geographically expanded VPA would be insignificant

compared to those identified in the present assessment, especially with respect to the impacts on the EU. Some effects would be felt in the Central African countries but timber trade between the EU and the Andean countries is so limited that the impacts attributable to the licensing scheme would be negligible.

1.16. OPTION 2: Voluntary measures by the private sector further developed

1.16.1. Impact on illegal logging

The expansion of the voluntary private sector schemes with respect to exports to the EU will gradually reduce the space for illegal enterprises operating and supplying illegal timber to the market. It is also possible that companies with multiple export destinations expand the good practice to exports going to other destinations than the EU. However, full elimination of illegal logging is challenging when relying only on private sector schemes. As long as there is demand for illegal wood products in the EU markets, and there are no effective instruments to prevent their entry to the EU market, suppliers of illegal products will have a niche. Convincing them to give up illegal practices will be much harder.

Governance

To the extent that the expansion of voluntary private sector schemes encourages illegal suppliers to comply with regulations concerning tax and royalty payments, government revenue will increase, potentially enabling investments in improved governance. The expansion of the legal supply would also reduce opportunities for corruption.

The present concept for the development of voluntary private sector schemes does not include EU-supported capacity building.

1.16.2. Environmental impacts

To the extent that the private sector schemes reduce illegal logging and increase legal supply, the assessment made in chapter 6.1 applies.

1.16.3. Social impacts

The assessment made in chapter 6.1.5 applies. The social impacts outside the six VPA countries will depend on the extent to which social provisions have been incorporated in the definition of legality in the private sector schemes.

1.16.4. Economic impacts

Costs

The development of private sector schemes would focus on countries with high or moderate risk of illegal logging. To enable cost comparisons with other options, it is assumed that full coverage can be achieved.

Option 2 is not considered to bring about costs for the government of the exporting country. The additional costs for the private sector depend on the share of EU exports covered by the control systems and the quality of these systems (fully adequate systems and systems in need of improvement, or no system). The estimate on the cost of legality control is based on the

theoretical assumption that full coverage would be reached in countries with high or moderate risk of illegal logging. Table 6.3 summarizes the estimated costs effects by countries with high or moderate risks of illegal logging.

Table 6.3 Cost of private sector control systems for countries with high or moderate risks of illegal logging

Countries	Exports to the EU	Cost of control system	
	Million m3/y	EUR/m3	Total MEUR/y
Private sector costs	61.2	0.27	16.5
All high and moderate risk countries			

SMEs'

The development of private sector schemes is likely to concentrate in larger companies. SMEs' do not have the incentives to develop voluntary schemes and they may also be disadvantaged in terms of costs.

Market development

The impacts of the voluntary private sector measures could not be assessed using the trade models. The price and added value of products will depend further on the demand and the potential market for these products.

1.16.5. Risks

Imports from other countries are covered only to a very limited extent by voluntary schemes, and reaching full coverage does not appear possible in the short or even medium terms, despite the fact that in some countries the trade sector has ambitious plans. On the whole, however, stakeholder consultations with importing companies and trade federations suggest that the expansion of the voluntary private sector schemes will take place at a moderate rate.

The future expansion of the voluntary private sector schemes may be hindered by the fact that their development is demand driven and the potential market for verified legal products may be small and even reaching saturation.

Furthermore, the varying degree of rigor and effectiveness in the voluntary private sector schemes poses a risk to their credibility. Without a general and harmonized framework incorporating an independent assessment of the effectiveness of the voluntary schemes, there is a risk that the schemes are abused to serve mainly commercial purposes. There are attempts to move towards the harmonization of various voluntary frameworks, but reaching full transparency is challenging. The Confederation of European Paper Industries (CEPI) has developed a mandatory code of conduct for its members. The CEPI code of conduct does not entail third party verification but there is a sanction mechanism for non-complying companies. The effectiveness of this arrangement could not be assessed as it is still under development.

1.17. OPTION 3: Border measures to prevent the importation of illegally harvested timber

The border measures constitute an import ban for illegal timber. The responsibility for providing evidence on legality rests with the authorities in the exporting country. The proposed legality control system for governmental agencies draws on low-tech information technology. The system covers the following elements:

- Field verification of forest operations and supply chain
- Data management (e.g. transmission of data between the private sector and the state authorities, reconciliation of quantities in the prior and subsequent stages in the supply chain)
- Issuance of a legality certificate

For assessing the impacts (costs, effectiveness), it is assumed that the competent authorities of the EU Member States check the legality of ca. 1% of the imported consignments systematically. The check is based on the control of documents and communication to the authorities in producer countries.

1.17.1. Impact on illegal logging

In 2005, illegal wood and wood product exports to the EU from countries where the risk of illegal logging is high or moderate were about 14 million m³. Provided that the implementation of border measures is effective, the scheme would curtail up to 10 % of the estimated production of illegal timber or 2 % of the total production of industrial roundwood in these countries. Compared to the estimated global volume of illegal industrial roundwood production, 139 million m³ in 2005, the maximum reduction of illegal logging would represent about 10 % of the global total.

Significant reduction of illegal logging is expected to take place in Central and Western Africa and Russia. In other major countries exporting wood products to the EU, the reduction of illegal logging is likely to be less than the estimated maximum. Effectively implemented border measures (option 3) prevent circumvention, i.e. shipping illegal timber to the EU through third countries from the countries of origin, which is an important intervention in terms of levelling the playing field in the enterprise sector. It should be noted, however, that it does not necessarily have a major impact on illegal logging in the countries of origin, unless the opportunities to divert trade to other markets is eliminated. If the illegal timber shipped countries such as China is barred entry to the EU market, there are a large number of other markets including the Chinese domestic market where the illegal goods can be placed.

1.17.2. Environmental impacts

The observations made in chapter 6.1 concerning the overall environmental impact of illegal logging apply to all countries with high or moderate risk of illegal logging. It is expected that there will initially be a slight decline in the overall timber price in the baseline countries. This would increase the relative profitability of other land uses and could lead to increased forest conversion, especially in tropical countries. This, in turn, could have negative environmental consequences. Another factor is that lax law enforcement in exporting countries might continue as no special measures have been taken to improve it, as envisaged under the VPA's.

Illegal harvested timber might therefore be diverted to other markets which will reduce the overall effect on the reduction of illegal logging and the negative environmental impacts.

1.17.3. Social impacts

This option is expected to have only a modest impact on employment. The reason is that changes in production volume of forest industries are expected to be very modest. There is almost no impact on the employment in forest industries in the EU.

The general observations made in chapter 6.1.5 apply. If the definition of legality does not include (or is narrowed down to exclude) social considerations, there could potentially be negative impacts on forest-dependent people, forest workers and other socially vulnerable groups.

1.17.4. Economic impacts

Costs

Based on the assumption that government in the producer countries controls and provide evidence on legality before exports take place (and issue a certificate of legality) the government on the producer countries shoulder these costs. These concern both high and moderate risk countries as well as low-risk countries. The estimated regulatory costs in the countries of export total about 16.0 MEUR annually (table 6.4). In addition, the legality checks to be conducted by the competent authorities in the EU are estimated to cost less than EUR 0.01/m³ assuming that 1% of the imported consignments are checked systematically (documents and communication to the authorities in producer countries).

There are no costs for the private sector in this option (but indirect costs as slowness of procedures, issuance of documents or new opportunities for corruption might be a risk). If implemented effectively, the border measures would eliminate the possibility of circumvention as well as the cost advantage enjoyed by illegal goods on the market.

Table 6.4 Cost of border control measures preventing importation of illegally harvested timber.

Countries	Exports to the EU	Cost of control system	
	Million m ³ /y	EUR/m ³	Total MEUR/y
Regulatory costs All non-EU countries	72.9	0.22	16.0
Regulatory costs EU	72,9	< 0.01	<0.7

SMEs'

The impact is neutral because the costs are borne by the government sector.

Market development

As in the baseline scenario and option 1, the immediate impact on the timber market in non-EU countries will be a decline in demand and prices for wood products as illegal wood is barred entry in the EU. At the same time, the price in the EU will increase.

After adjustment of the markets to the new situation however, the production in non-EU countries bounces back as the export of legal wood products to the EU increases encouraged by higher prices on the EU market. Because legal goods are in higher demand on the domestic market, they benefit from a price increase, while the price of illegal goods declines due to weaker demand. On the EU market itself, with the gradual recovery of supply from non-EU countries, the production and prices of wood products start falling back towards the levels in a "business as usual" scenario.

Based on these market developments, the implementation of this option is projected to modestly reduce value added in all high and moderate risk countries. The difference to the baseline scenario and option 1, where the decline was substantial in the VPA countries concerned, is that the playing field is levelled for all countries exporting to the EU. Another factor is that lax law enforcement might continue, as no special measures (as envisaged under the VPA's) have been taken to improve it. As a result, illegal logging might recover from the decline in exports to the EU as illegal traders find other markets for illegal timber.

The impact on the generation of value added in the EU is modest but positive. The increase in value added is expected to be around one percent in relation to the business as usual scenario.

1.17.5. Risks

In order to implement this option, the EU will impose border measures unilaterally which might lead to trade disputes in the context of the WTO since it's unclear whether forests fall under the exemption of 'exhaustible natural resources' of Article XX (g) of the GATT Agreement. . It may however lead to problems in the establishment of common standards and procedures in a situation where the cooperation with the authorities in the country of origin is limited, for instance in the application of a common definition of legality. In order to find common ground with as many governments as possible, it might be necessary to adopt a rather narrow definition of legality which could in turn put the social and environmental benefits at risk.

Furthermore the type of assurance on legality control that can be considered sufficient may vary from one country to another and it's unclear whether it would be possible for the EU separate imports from different exporting countries for legal and practical reasons. Government agencies are not usually subject to independent auditing either and without independent control there is a risk that the credibility of the system is undermined.

The establishment of border measures could also bring other non-EU countries to impose similar requirements on EU exports which could lead to high costs for control on exports by EU countries (EU exports of 36 million m³ with total cost estimated at about EUR 11 million/y; if all wood products including pulp and paper were considered the cost would nearly triple).

The practical arrangement to verify legality could become an obstacle for exports to the EU. In practice, it would be necessary to decide prior to each harvesting operation whether the

logs to be harvested or products made thereof are destined for EU exports. If this is not known at the time of harvesting and no checks are done, the EU market would be excluded as an export destination for the logs harvested.

With regard to enforcement in the EU, Custom offices would control the legality documentation. Since several other products are controlled in a similar manner, the scheme seems feasible if verification is based on documentation and the procedures are incorporated in to the existing computerized systems. However, concerns have been expressed by Custom officers that resources are limited and they have no capacity or authority for follow up investigations in the country of origin.

1.18. OPTION 4A Legislation which prohibits the trading and possession of timber and timber products harvested in breach of the laws of the country of origin

1.18.1. Impact on illegal logging

In 2005, illegal wood and wood product exports to the EU from all non-EU countries were estimated at 14 million m³. The volume of illegal logging in EU Member States was estimated at 3 million m³. In total, the maximum reduction of illegal logging would be 17 million m³/y. Provided that the elimination of exports of illegal timber to the EU and illegal roundwood production in the EU are effective, these measures would curb up to 12% of estimated production of illegal timber or 1 percent of all global production of industrial roundwood.

As for option 3 (chapter 6.5.1) significant reduction of illegal logging is expected to take place in Central and Western Africa, and Russia. In other major countries exporting wood products to the EU the reduction of illegal logging is likely to be less than the estimated maximum. The extent to which illegal logging in EU Member States will be eliminated depends on the effectiveness of criminal investigations.

Effectively implemented this option prevents circumvention, i.e. shipping illegal timber to the EU through third countries from the countries of origin. It should be noted, however, that it does not necessarily have a major impact on illegal logging in the countries of origin, unless the opportunities to divert trade to other markets is eliminated. If the illegal timber shipped countries such as China is barred entry to the EU market, there are a large number of other markets including the Chinese domestic market where the illegal goods can be placed.

1.18.2. Environmental impacts

The assessment made in chapter 6.1 and 6.5.2 (option 3) concerning the environmental impact applies. In addition, the positive impacts of eliminating illegal logging extend to those EU Member States where illegal logging occurs.

1.18.3. Social impacts

The impact on employment is projected to be very modest. The reason is that changes in production volume of forest industries are expected to be very limited. Similarly the changes in EU employment are very small.

The general observations made in chapter 6.1.5 apply. If the definition of legality in the laws of the country of origin excludes social considerations, there will be no positive effects on forest-dependent people, forest workers and other socially vulnerable groups.

1.18.4. Economic impacts

Costs

There are costs involved related to investigations conducted by the EU police force or other enforcement authorities. However, the total costs for such investigations are difficult to assess and depend on the number of cases identified and ultimately prosecuted (depending on compliance level by the sector as well), co-operation with the exporting country, priorities set by enforcement agencies etc. Since criminal investigations are also part of the regular work routine of enforcement agencies, only a pro memorie (p.m.) post has been included in the overall cost table. There are no other additional regulatory costs foreseen.

As the prohibition to trade or possess illegal timber does not oblige private companies to make investments in tracking systems, there is no direct impact on them. However, enterprises operating in countries where illegal logging is a common problem may choose to establish necessary systems to protect themselves against unwarranted claims. The costs and impacts of such voluntary schemes are assessed in chapter 6.4.4. (Maximum 0,27 EUR/m³ or 16,5 MEUR total). Some of the private sector representatives interviewed expressed concern over the potentially high cost of litigation which companies may be obliged to shoulder even if they are cleared of criminal allegations. If the prohibition of trade and possession of illegal timber could be implemented effectively, it would eliminate the possibility of circumvention and unfair competition by illegal operators in EU and non-EU countries.

SMEs'

The impact is neutral.

Market development

The impacts (prices and added value in forestry sector and forest industries) are very similar to option 3. The impact is quite neutral because all exporters are in a similar position with respect to exports to the EU. There is modest but positive impact on the generation of valued added in the EU. The projected increase is more than one percent in relation to business as usual scenario.

1.18.5. Risks

There is a major risk that enforcement will not be effective. This option requires that illegality is proven, regardless of the fact that the violation of law could have taken place outside the EU. Enforcement agencies would have to conduct investigations to obtain evidence of the (il) legality of timber products being placed on the EU market. This would be difficult in case of complex supply chains or where part or all of the research would have to be carried out in a foreign country. Investigations would be time consuming as each case would have to be tackled separately. Law enforcement agencies will also have limitations to their capacity to deal with illegal timber as tackling it is not considered a priority. Finally, European courts would be empowered to adjudicate on the basis of foreign laws on violations falling outside

the territorial scope of Community or MS law. Given the general reluctance of European states to accommodate an extraterritorial legislative and judicial jurisdiction it should be expected that legislation which is founded on extra-jurisdictional empowerment would not be easy to implement. In the interest of ensuring equal treatment and consistency in jurisprudence the scope of legality should be defined. However, a definition needs to be interpreted in the country context as the legal frameworks in non-EU countries can vary technically as well as with respect to their scope. To ensure a coherent approach, it might be necessary to identify the relevant laws separately for each country however the national governments may consider it an infringement of their sovereignty, if the identification is done by a foreign government in an official context.

1.19. OPTION 4B: Legislation which requires that only legally harvested timber and timber products be placed on the market

1.19.1. Impact on illegal logging

A similar impact on illegal logging is expected as in option 4A (chapter 6.6.1).

1.19.2. Environmental impacts

Similar impacts expected as described in chapter 6.6.2 for option 4A.

1.19.3. Social impacts

Similar impacts expected as described in chapter 6.6.3 for option 4A.

1.19.4. Economic impacts

Costs

It is assumed that the suppliers are responsible for the costs of internal control systems and third-party certification. The governments of the EU Member States fund the inspections of consignments held by timber buyers/parties placing timber on the market. The control procedure is based on a low-tech "paper system".

The regulatory costs relate to sample checking of timber consignments that have been imported or originate from EU Member States. The unit cost of inspection is assumed to be the same irrespective of the origin of the consignment. However, in terms of total cost, the control of EU roundwood production requires much larger resources than the control of imports. The total regulatory cost for the EU Member States is estimated at approximately EUR 2.2 million/y.

The additional costs for the private sector depend on how much of the timber supply to the EU market is covered by control systems and the quality of these systems (fully adequate systems, systems in need of improvements and no system). The cost in non-EU countries is assumed to be the same as when developing voluntary private sector schemes (Option 2, ref. Chapter 6.5). Table 6.5 presents the estimated costs in selected countries outside and within the EU.

Table 6.5: Estimated regulatory and private sector costs

Countries	Imports (non-EU)		EU roundwood production (EU)		Total costs
	Volume	Costs MEUR/y	Million m3/y	Costs MEUR/y	Total MEUR/y
Regulatory costs	72.9	0.36	370.2	1.85	2.2
Private sector costs	72.9	20.4	370.2	96.7	117.1

The cost of legality control is estimated to be approximately the same as the cost of legal assurance in baseline countries and the countries selected for the geographically expanded VPA in option 2. Therefore, the assessments made in chapters 6.2.4 and 6.3.4 apply. On average, the cost of legality verification using a low tech approach is considered a minor factor in legal trade. However, the impact on SMEs in the EU may be more significant.

The cost of high tech solutions is substantially higher and it could affect trade in some Member States where the demand for pulpwood is low (e.g. in selected Member States in the eastern part of the EU). Furthermore, the systematic legality control systems might place an additional burden on trade flows and slow the timber business.

If the requirement to place only legally harvested timber and timber products on the market could be implemented effectively, it would eliminate the possibility of circumvention and unfair competition by illegal operators in EU and non-EU countries. The cost advantage can be significant.

SMEs'

In the EU, SMEs are defined as enterprises employing less than 250 persons. In the forest and wood industries 99.0-99.5 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.

The annual volume of roundwood processed by a forest enterprise has been established at 75 000 m3/y. It is estimated that this amount corresponds roughly to the annual volume of roundwood processed by “small” SMEs. With the scale of operations affecting the costs, the study reveals that costs start gradually rising as the volume of annually processed roundwood goes below 75 000 m3. The cost of legality control could therefore be significant for the “micro” SMEs at the lower end of the scale.

Market development

The impacts (prices and added value in forestry sector and forest industries) are very similar to option 3 and 4A.

1.19.5. Risks

The requirement of traceability increases the potential for detecting illegal activities. The risks related to the implementation of this option relate mainly to law enforcement and the authorities' capacity to produce evidence on criminal cases.

The assessment of the cost of legality control is based on the assumption on that a third party certificate is required. However, it should be noted that a certificate is merely an indication of the overall quality of the management system, it does not attest to the legality of individual consignments. Therefore, if irregularities surface, the certifying party cannot be considered legally liable. The legal responsibility rests always with the party placing goods on the market. This notion has the implication that in criminal investigations the supply chain would have to be traced back to the point where the alleged criminal act took place. Obviously, investigations can be quite complex, especially, if the crime took place in non-EU countries. Besides the probability of detection and conviction, deterrence is determined by the penalty regime. This is subject to interpretation by courts in various Member States and there may be variation among them.

Many stakeholders in the EU questioned the appropriateness of the principle that it is necessary to prove the legality of goods. It was considered to be in conflict with basic legal principles in that it implies that goods are illegal unless proven legal. Using third party auditors to verify legality may be in conflict with the mandate that national governments traditionally are responsible for. If the national governments opt for an approach where national institutions issue legality certificates, the risks that are associated with the introduction of border measures (option 3) become relevant. In particular, the credibility of the certificates could easily be put in doubt if the national arrangements for legality control are not subject to independent audits.

1.20. OPTION 5: Legislation requiring companies placing timber on the market to exercise due diligence in ascertaining that the products are legal

1.20.1. Impact on illegal logging

A similar impact on illegal logging is expected as in option 4A and 4B (chapter 6.6.1). In total, the maximum reduction of illegal logging would be 17 million m³/a (14 million from non-EU countries and 3 million from illegal logging in EU Member States), provided that the measures are implemented effectively.

As for option 3 and 4A and 4B (chapter 6.5.1) significant reduction of illegal logging is expected to take place in Central and Western Africa, and Russia. In other major countries exporting wood products to the EU the reduction of illegal logging is likely to be less than the estimated maximum. The effect on illegal logging in EU Member States depends on the effectiveness of the risk management tools.

Like in option 3, 4A and 4B effective implementation of option 5 prevents circumvention, i.e. shipping illegal timber to the EU through third countries from the countries of origin, which is an important intervention in terms of levelling the playing field in the enterprise sector. It should be noted, however, that it does not necessarily have a major impact on illegal logging in the countries of origin, unless the opportunities to divert trade to other markets is eliminated.

1.20.2. Environmental impacts

Similar impacts expected as described in chapter 6.6.2 for option 4A and 4B.

1.20.3. Social impacts

Similar impacts expected as described in chapter 6.6.3 for option 4A and 4B.

1.20.4. Economic impacts

Costs

The regulatory costs will be considerable lower compared with the "control activities" by government authorities under option 4B. The focus of compliance and enforcement is not directed at sample checking of timber consignments, but merely on verification whether effective systems have been put in place by operators for ascertaining that the products are legal. The regulatory costs in the EU are therefore estimated at 1 MEuro (Table 6.6).

The additional costs for the private sector are considerable, although not as high compared to option 4B. Due diligence procedures will be adapted to risk levels with regard to importation of illegal timber. Therefore the cost of control systems in high and moderate risk countries will be comparable with the cost level in option 4B but less stringent for lower risk countries including the EU Member States. Therefore the costs for non-EU countries are estimated at 14 MEuro and ca. 2 MEuro in the EU. The costs are therefore comparable with the private sector costs in option 2 for all high and medium risk countries (Table 6.6).

Table 6.6: Estimated regulatory and private sector costs

Countries	Imports (non-EU)		EU roundwood production (EU)		Total costs
	Volume	Costs million EUR/y	Million m ³ /a	Costs million EURya	Total million EUR/y
Regulatory costs	72.9	0.9	370	0.1	1
Private sector costs	72.9	14	370	2	16

SMEs

SMEs in the EU placing timber on the market will be obliged to put "due diligence" systems in place. This will concern a high number of operators in the EU and might give a considerable impact. However it is expected that in a chain of custody assurance will be requested from suppliers in order to be assured of obtaining products from legal origin only. In order to develop common risk management tools, traders in the chain of custody might develop common systems to reduce implementation costs and creating common standards. The costs and effect of the systems could therefore be significant for smaller SMEs' but can be reduced considerably by co-operating in the development of common risk management systems.

Market development

The impacts (prices and added value in forestry sector and forest industries) are expected to be comparable with the impacts in option 3, 4A and 4B.

1.20.5. Risks

The risks related to the implementation of this option relate mainly to the challenges for individual operators to have the required measures and procedures in place and that government authorities can ensure compliance with these provisions.

Risk management tools have gained considerably in significance in several and some are already being employed by some European timber federations reducing the risk of illegal timber in their supply chains. A number of factors are considered in assessing the risk including, inter alia, the country of origin, business relationship, and type of product and size of transaction. This option therefore focuses on a shift of attitude by the timber operators.

The development of such schemes can therefore be based on such experience of federations. It is furthermore expected that in a chain of custody operators will seek assurance from suppliers for obtaining products from legal origin only and will therefore develop common risk management tools and create common standards. This will reduce the administrative burden for individual operators considerably with less disturbances of regular trade flows and contribute to more transparency in the chain of custody.

Government authorities will have to enforce the regulation by performing checks and investigations at the operators. The development of common standards by operators will also serve as an effective instrument to proof compliance with the regulations.

The approach under this option will create the highest degree of certainty for operators, based on their systems being put in place (compared to options 4). It will furthermore address imports and trade of wood products from other third countries ("transformation" countries), where timber originating from other source countries have been processed before being exported to the EU. The requirement for 'due diligence' systems will furthermore be an incentive for traders and exporting countries to establish VPA arrangements and/or list appropriate species on the appendices of the CITES Convention, since FLEGT and/or CITES permits will serve as a recognised instruments in reducing the risks of obtaining illegal timber in the supply chains.

2. COMPARING THE OPTIONS

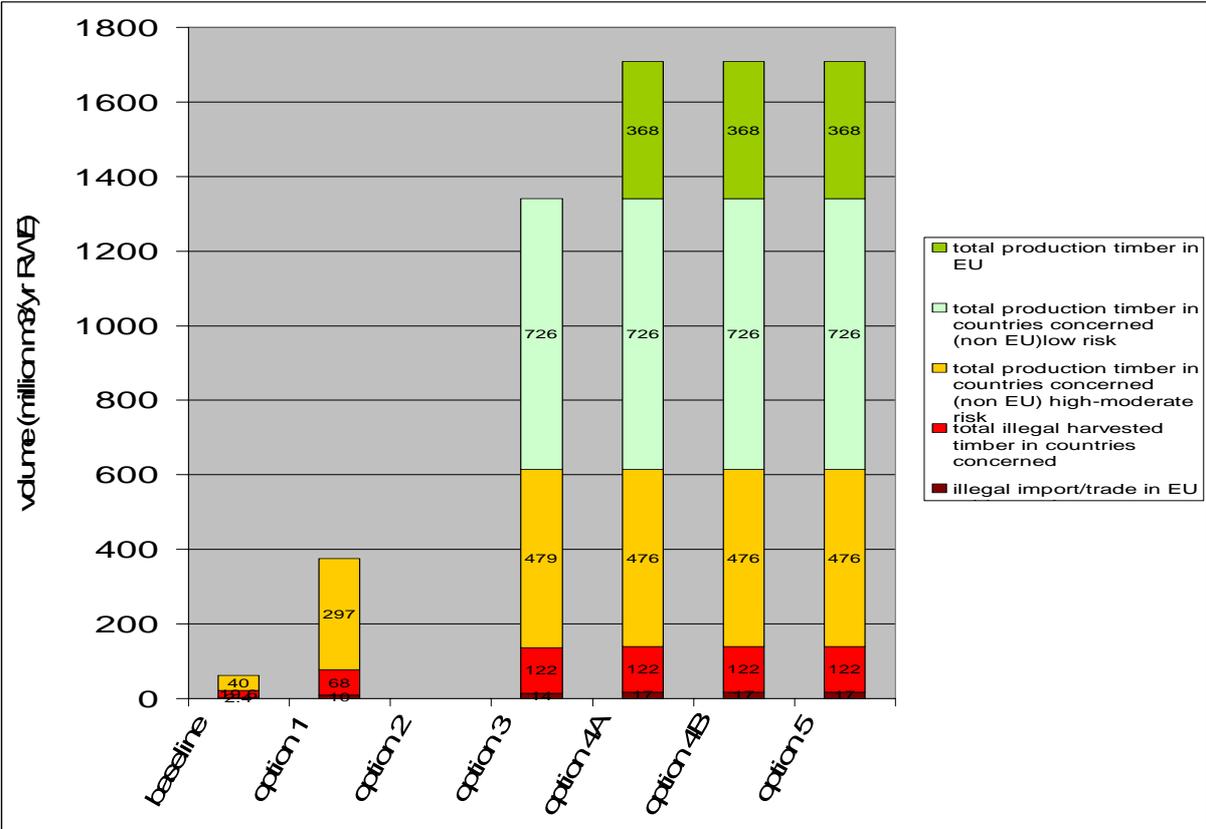
2.1. Illegal logging

The largest impact on illegal logging, assuming that the measures are implemented effectively, are found in options 4A, 4B and 5 (potentially 17 million m³; figure 7.1, table 7.2 and annex I with overview of all impacts), since these options cover all imports of timber (or placing on the market) in the EU. Option 1, the geographically expanded VPA has a considerable impact as well with its focus on high risk countries where most illegal logging takes place. All these options have a considerable higher impact in comparison with the baseline option. The impact on illegal logging in option 2 is unsure.

Option 1, a geographically expanded VPA, would have a significant impact (potentially 10 million m³), if all countries selected for the theoretical analysis would actually join the scheme. However, this is highly uncertain since governments in many of these countries have indicated their objections or reservations. The potential effectiveness of this option is quite significant, but the likelihood of achieving sufficient coverage very uncertain.

Option 4A prohibiting the trade and possession of illegal timber would be difficult to implement because of the difficulty to prove that a timber shipment was linked to an illegal act, possibly in a country thousands of kilometres away. The principal intervention is the introduction of an improved legislative framework but it is doubtful whether this is sufficient to secure the effectiveness of law enforcement and actually reduces the illegal logging.

Figure 7.1: Volume of trade (in million. m³ RWE) covered by the policy options



In general terms, most additional options attempt to discourage illegal logging through trade-related measures. Accordingly the impact of these measures is proportionate to the volume of imports to the EU from the involved countries. It is estimated that, globally, the additional options have the potential to curtail illegal logging by up to 12 % (17 million m³ compared with a total of ca. 139 million m³ of estimated illegal logging globally). If traders take advantage of various loopholes the impact could be less but it is likely that there would be a significant impact in selected countries of Africa as well as in northwest Russia, which is the main source of imports to the EU. The impact on illegal logging could be substantially higher in countries entering into VPAs (option 1) when the VPA licensing system were extended to all exports from those countries.

One of the main risks is that traders divert illegal timber to other markets than the EU. The risk is present with all options and in all regions perhaps with the exception of northwest Russia where the availability of alternative markets is restricted due to high transportation costs and the limited absorption capacity of the domestic market.

2.2. Environmental impact

The main environmental impacts are the benefits resulting from reduced illegal logging and improved adherence to environmental regulations. The impact is dependent on how effectively the various additional options are able to contribute to these objectives, as indicated in 7.1 (and annex I).

2.3. Social impact

All additional options are expected to have a minor impact on the employment in the forest industries in the EU Member States. In non-EU countries, where illegal logging occurs on a significant scale, the social benefits depend on whether social provisions have been included in the legality definition and whether they are adequately taken into consideration when implementing the additional options.

2.4. Economic impacts

The unit costs of legality control are rather low in all options, the differences are attributable to the variation in implementation arrangements (e.g. third-party verification may be included or excluded). Assuming a low-tech approach to data management is considered, the total costs range between EUR 0.22-0.34/m³ which represents only a fraction of the log prices ranging from EUR 40/m³ to more than EUR 100/m³ at the mill gate (table 7.2).

Option 4B prohibiting the placing of illegal timber on the EU market including requiring control of all timber sourced from within the EU could cause significant additional costs as well as considerable burden for small and medium-sized enterprises in the EU.

The main difference between the additional options is how costs are distributed between the private sector and the government administration. The regulatory costs are the highest in option 3, where border measures are implemented to prevent the entry of illegal timber into the EU. A consignment-based approach to legal assurance under the VPA (baseline and option 1) also carries rather high regulatory costs. The regulatory costs are lowest and, conversely, the private sector costs are highest in the approach where it is prohibited to place illegal goods on the EU market (option 4B) and, to some extent, where operators have to prove "due diligence" (option 5). At the same time, these are the only options causing regulatory costs in the EU.

In absolute terms, the most significant cost, altogether EUR 117 million/y, would be shouldered by the private sector under option 4B prohibiting the placing of illegal timber on the EU market (option 4B). Differing from the other options, it includes the obligation to provide evidence on the legality of all timber materials placed on the EU market including those sourced from the EU.

Provided that the additional options are implemented effectively and they substantially reduce the imports of illegally harvested timber, there would be a moderate increase in the price and production of timber and timber products in relation to the business as usual scenario.

Under option 1 the production and prices of timber products on the EU market stay above the level assumed in the business as usual scenario because of the declining supply from non-EU countries. Supply from “low risk” forest product exporters could to some extent replace the declining supply from the “high risk” baseline countries. Under options 3, 4A, 4B and 5, with the gradual recovery of supply from non-EU countries, the production and prices of wood products would start falling back towards the level assumed in the business as usual scenario. In relative terms, roundwood prices remain higher above the business as usual scenario than the prices for processed forest products due to the way in which the market mechanism works.

As regards the coverage of the reported costs for the governments of the Member States there should not be any financial implications for the EU budget.

Table 7.2: comparison of costs for legality control and impact on illegal logging in policy options

	Baseline VPA		Option 1 Geographically expanded VPA		Option 2 Voluntary private sector schemes	Option 3 Border measures	Option 4a Prohibition to possess and trade illegal timber	Option 4b Prohibition to place illegal timber on the market	Option 5 Due diligence
Regions covered	6 countries		In the 6 extra countries		All high/moderate risk countries	All non-EU	All non-EU + EU	All non-EU + EU	All non-EU + EU
Legality Control									
Average annual cost (EUR million)	consignment	operator	consignment	operator					
<i>Private sector</i>									
- Non-EU timber	0.4	1.8	2.2	8.4	16.5	-	Max 16.5	20.4	14
- EU timber					-	-		96,7	2
<i>Government</i>									
- Non-EU -gov	1.2	0.6	7.4	4.0	-	16.0		-	
- EU -gov	-	-	-	-	-	<0.7	p.m (enforcement investigations)	2.2	1
Impact on Illegal Logging									
- Volume (million m ³)	2.4 - 22		10 - 78		Some	14	17	17	17
- In region (%)	11 - 100		13 - 100		Some	10	12	12	12
- Globally (%)	2 - 16		7 - 56		Some	10	12	12	12

2.5. Overall comparison of options

In light of the findings of the impact assessment process for the proposed options certain conclusions can be drawn in terms of their effectiveness, efficiency (both as regards the entailed costs and the implementation), proportionality and consistency with the principles of simplification and better regulation. Another key issue is whether they can compliment effectively the existing framework (FLEGT VPAs).

Option 1

The key benefit of continuing with the VPA approach is that it offers broad context-specific solutions at country level and is thus compatible with the EU Development Policy applicable to the developing countries.

This approach however, would have a significant impact only if all major producing, transit and processing countries that present high risks of illegal logging would enter into FLEGT VPAs or if this would evolve into a multilateral initiative. The former is widely considered to be an impossible task while the latter appears highly unlikely (e.g. Brazil has clearly stated its opposition to VPA).

Option 2

Industry self-regulation can be a valuable, complementary measure, which could inspire and underpin a robust legally binding framework. It cannot though, be a self-standing option due to its voluntary nature and related weakness of enforcement as well as wide variations in the rigour of the controls and implementation.

Option 3

While being conceptually simple, this option has important political and practical downsides and hurdles against effective implementation. It would be extremely difficult to introduce such a measure and at the same time comply with international trade rules. It has been argued that an import ban adopted under the exception stipulated in Article XX (g) of the GATT Agreement—relating to the conservation of exhaustible natural resources— could be successfully defended on the basis that forests are accepted as an 'exhaustible natural resources'. It is an open question whether this is a valid assumption and whether application of such an exemption would comply with the chapeau requirements of Article XX. A ban on imports could not only provoke trade disputes but reciprocal measures by countries importing timber from the EU. If trading partners introduced reciprocal measures the forest sector within the EU would probably have to face additional implementation costs. Another key issue is whether such measures would go beyond what is necessary to achieve the ultimate objective.

Option 4A

Option 4A being similar to the US Lacey Act -which outlaws trade in fish or wildlife harvested, taken or produced illegally- has attracted a lot of attention. It is easily understood and would give a visible signal to the market. However, it is based upon rather unclear principles and administrative procedures and would have significant difficulties in its implementation. Defining illegality might not be necessary; however the scope of legislation

would need to be identified. Demonstrating the underlying illegality would not be a straightforward task particularly in the absence of cooperation of foreign enforcement agencies, the general lack of availability of foreign law materials and experts opinion. Timber products have complicated supply chains, stretching through several countries which would also complicate the detection and demonstration of illegality. Apart from the practical difficulties in its implementation it also would probably not provide the legal certainty necessary for the proper functioning of the market.

Option 4B

Option 4B would set clearer compliance standards. This model would be based upon the FLEGT-licence idea but apply certification of legality to all market operations for timber products in Europe, regardless of their origin. It risks creating a burdensome, expensive and trade disruptive system. It would in particular create additional burden for low-risk countries while creating difficulties for the forest sector of many developing countries, which are vulnerable to market access requirements. Bearing in mind that illegal logging essentially happens outside the EU we should expect significant resistance from the downstream European forest sector. This approach goes against the principles of simplification and better regulation while it also risks being disproportionate. The absence of an internationally agreed definition and the issue of what would constitute credible proof of legality would complicate further the design of the policy. Furthermore, it could provoke reciprocal policy responses by countries importing EU timber.

Option 5

Those conclusions have led us to reflect on the possibility of combining elements of Options 2, 4A and 4B in a way that would address the objectives pursued and work with, rather than try to change current practices in the timber trade. This approach would require operators placing timber on the market to exercise due diligence in ascertaining that the products are legal. The due diligence procedure would include a risk-based approach to measure, monitor and control the risks in trading in illegal products.

A balance has to be sought between the provision of sufficient detail in the legislation concerning the requirements to be met - thereby providing legal certainty - and the need to give operators flexibility in implementing systems to ensure they are sourcing legal timber. The legislation would not directly address placing on the market of individual illegal timber shipments but rather the failure to implement systems to avoid such timber entering the supply chain.

A 'due diligence' approach would avoid the introduction of a high cost, systematic control system and would allow a greater focus to be put on areas that present a clear risk. By building on existing mechanisms in the timber trade it facilitates implementation while addressing a key weakness of many private sector schemes – their enforceability. Simplified systems or exemptions are taken for small businesses. A major benefit is that it would tend to favour sourcing from countries with FLEGT Voluntary Partnership Agreements, since the FLEGT licence would provide a high degree of certainty for operators.

Conclusion

Option 5 builds on the positive elements of options 2, 4A and 4B while avoiding their key weaknesses and thus supports the most efficient strategy for the future Community policy

against illegal logging and related trade. Although not exempt from risk this approach would bring a sufficient and proportionate reply to the vulnerability of the Community market against illegally harvested timber. As regards the legal instrument ‘Regulation’ is considered the most appropriate because it is necessary to ensure the highest level of harmonization to avoid the coexistence of different standards between Member States which would undermine the fundamental principle of free movement of goods embedded in the Treaties.

3. MONITORING AND EVALUATION

Monitoring

The Commission shall ensure that the Member States will implement efficiently the requirements of the proposed legislation. The monitoring would be done by the Commission and Member States. Reporting obligations will be foreseen that will enable the evaluation of the extent to which the measures have been adopted and implemented. The Commission will inform the European Parliament and Council regularly on the implementation of the new initiative.

Benchmarks/indicators for assessing efficiency of the system (comparison before and after implementation of the additional measures):

- Estimation of level of illegal logging occurring within and outside Community
- Variation of trade flows of timber and timber products from third countries
- Number of FLEGT VPAs concluded compared to the number before the adoption of the measures
- Development opportunities in timber-producing countries
- Working and living conditions of the forest-dependant communities
- Adoption of measures against illegal logging and related trade by other consuming countries
- Number of Member States with adequate policy and means for an effective enforcement of Community rules and sanctioning non-compliance
- Number of sanctions pronounced by MS further to serious infringements
- Use of immediate enforcement measures (where/if available)
- The economic situation of the Community forest-based industry

Evaluation

The Commission should undertake an intermediate evaluation of its new initiative within six years of its adoption assessing the extent to which its results are consistent with the objectives set. The evaluation results will be used for decision-making needs on the future of and

amendments to the regulatory framework if appropriate. The Commission will communicate the evaluation results to the European Parliament and the Council.

Annex I: Full table with key impacts of additional options

(NB! Impacts are projected assuming effective implementation; risks of failure are assessed separately;

*estimates for option 5 only partially available or based on comparable impacts in other options)

	Baseline VPA		Option 1 Geographically expanded VPA		Option 2 Voluntary private sector schemes	Option 3 Border measures	Option 4 Prohibition possess and trade illegal timber
Regions covered	6 countries		6 countries		All high/moderate risk countries	All non-EU	All non-EU -
Legality Control							
Unit cost (EUR/m³)	Consign-ment	Opera-tor	Consign-ment	Opera-tor			
<i>Private sector</i>							
- Non-EU	0.05	0.25	0.05	0.25	0.27	-	
- EU	-	-	-	-	-	-	-
<i>Government</i>							
- Non-EU	0.17	0.09	0.17	0.09	-	0.22	-
- EU	-	-	-	-	-	-	
Average annual cost (EUR million)							
<i>Private sector</i>							
- Non-EU	0.4	1.8	2.2	8.4	16.5	-	Max 16.5
- EU					-	-	-
<i>Government (regulatory costs)</i>							
- Non-EU	1.2	0.6	7.4	4.0	-	16.0	-
- EU	-	-	-	-	-	<0.7	p.m (enforce investigation)
Trade impact							
Change in forest sector value added 2009-2015 (%)							
- Baseline countries	- 6.5		- 6.8		-	0.1	0.0
- Countries in expanded VPA	0.3		-1.7			- 0.8	- 0.8

	Baseline VPA	Option 1 Geographically expanded VPA	Option 2 Voluntary private sector schemes	Option 3 Border measures	Option 4 Prohibition possess an trade illeg timber
- All high and moderate risk countries	0.5	1.3		- 0.2	- 0.9

	Baseline VPA	Option 1 Geographically expanded VPA	Option 2 Voluntary private sector schemes	Option 3 Border measures	Option 4 Prohibition on possession and trade in illegal timber
- EU-27	0.2	1.1		1,1	1.3
- MS Nordic	0.4	- 0.1		0.1	0.2
- MS Central/West	0.1	1.4		1.4	1.6
- Other MS	0.2	2.3		2.4	2.5
- USA	0.1	0.9		0.4	0.4
<i>Impact on Illegal Logging</i>					
Maximum decline of illegal logging	<u>Lower bound:</u> potential impact of licensing scheme <u>Upper bound:</u> potential impact of law enforcement	<u>Lower bound:</u> potential impact of licensing scheme <u>Upper bound:</u> potential impact of law enforcement			
- Volume (million m ³)	2.4 - 22	10 - 78	Some	14	17
- In region (%)	11 - 100	13 - 100	Some	10	12
- Globally (%)	2 - 16	7 - 56	Some	10	12
- Area of strong impact, if implementation is effective	Initially Central & West Africa, later all involved countries	Initially Russia, later all involved countries	-	Central and West Africa, Russia	Central and West Africa, Russia, EU
- Level of risk/main causes	Moderate - Trade Diversion - Circumvention - Law Enforcement	High - Lacking Interest to Join the Scheme - Law Enforcement - Trade Diversion	High - Non-binding Measure	High - Credibility - Trade Diversion	High - Law Enforcement - Trade Diversion
<i>Environmental Impact</i>					
- Non-EU	Benefits from reduced illegal logging + improved legal compliance	See baseline	See baseline	See baseline	See baseline
- EU	-	-	-	-	Benefits from reduced illegal logging + improved legal compliance

	Baseline VPA	Option 1 Geographically expanded VPA	Option 2 Voluntary private sector schemes	Option 3 Border measures	Option 4 Prohibition possess and trade illegal timber
<i>Social Impact</i>					
Change in employment 2009-2016 (%)					
- Baseline countries	-2.0	-2.4		0.2	0.1
- Countries in expanded VPA	0.2	-0.8		-0.4	-0.4
- All high and moderate risk countries	-0.1	0.5		-0.4	-0.4
EU 27	0.0	0.0		0.0	0.0
- MS Nordic	0.1	- 0.1		0.0	0.3
- MS Central/West	0.3	0.0		0.0	- 0.1
- Other MS	0.0	0.3		0.2	0.2
Other	Benefits from improved adherence to social provisions in legal frameworks	see baseline	See baseline	Risk of applying narrow definitions of legality	See baseline

ANNEX II

Cost Impacts of the Commission proposal for a Regulation determining the obligations of operators who make timber and timber products available on the Market

1. Introduction

The proposal for a *Regulation determining the obligations of operators who make timber and timber products available on the Market* has been further refined following the approval of the impact assessment. In light of a number of changes in the proposal since then, ENV reviewed the available data on the cost impact of the proposed approach and reviewed the available literature.

Following an outline of the proposal in cost terms, this annex provides a cost estimate of the proposed regulation on a per cubic metre basis. A separate box provides information on the UK Timber Trade Federation which is operating such a system as a mandatory requirement for membership. In addition, it provides an overview of the impacts of combating the trade in illegally harvested timber on the production of EU timber as indicated by the modelling work done by the American Forest Products Association.

1.1 Outline of the proposal

The proposed regulation puts in place a system designed to prevent illegally harvested timber and derived products from being traded on the Community Market. The proposal relies on the due diligence principle and requires EU traders in timber products to exercise sufficient care in order to provide reasonable assurance that they only place products derived from legally harvested timber on the market. Legality is defined on the basis of the applicable legislation in the country of harvesting.

In costs terms the most important elements to be taken on board are:

- The proposed regulation requires all EU timber traders to have in place basic due diligence systems that ensure the legality of the traded timber products;
- The proposed regulation covers the placing on the Community market of almost all timber products, including pulp and paper and furniture.
- A key element of the due diligence system is the ability to trace timber through the supply chain back to the country of harvesting.
- Traders are required to ascertain that the timber was produced in accordance with the prevailing legislation in the country of production.
- In ascertaining legality traders are invited to use a risk-management approach, i.e. to intensify controls in high-risk environments while using lighter controls in situations with strong institutional oversight.

- The exact shape and stringency of these controls is subject to a Comitology procedure. As a result the associated costs can only be estimated on the basis of a number of assumptions.

1.2 An example: the costs of due diligence by the UK Timber Trade Federation

Due diligence in the timber trade is not a new concept. The UK Timber Trade Federation (TTF) has for a number of years advised its members to voluntarily implement a responsible purchasing policy which aims to reduce that risk that TTF member trade in illegally harvested timber. From this year onwards implementing a due diligence system has been made pre-condition for TTF membership. The TTF due diligence system ultimately acts as an improvement of similar systems such as the ISO 9000 system in that it provides for a set of procedures that reduce the risk of trading in timber from high risk sources. The system itself, like the proposed due diligence regulation does not provide a guarantee of product integrity/legality.

Key requirements for companies operating the TTF due diligence system are:

- To designate a person responsible for due diligence;
- To put in place a stock control system that records information on purchases and sales;
- To have a procedure to review suppliers and products at least annually in order to assess the risk of trading in illegally sourced products;
- To record the changes in purchasing policy in order to chart the improvement in timber supplies in an annual management report;
- To communicate on due diligence requirements with suppliers and customers.

According to the TTF the costs associated with the system fall apart in two categories:

1) Development Costs borne by the Federation, mainly associated with having one full-time staff member developing the system, administrating the system and supporting the members in its implementation;

2) Implementing Costs which are borne by the company in the form of staff time and which can be highly variable as they depend on a) the size of the company; b) the extent to which chain of custody, IT stock control systems and/or ISO systems are already in place; c) the number of product lines and suppliers and d) the level of risk associated with these products and their sources. (Personal communication Mrs Rachel Butler)

2. The Costs of the Proposed Regulation

2.1 Basic data for assessing the private sector costs of the proposed regulation

The four options assessed in the Indufor impact assessment focused on the imports of a subset of four timber products covered by FLEGT regulation (round wood, sawn wood, veneer and panels). The proposed regulation, however, covers trade in *all* timber products including pulp and paper. In addition the regulation covers both EU imports and EU production.

In this light the following trade data from the Indufor constitute the basis for this cost assessment:

- (1) In 2005, the total volume of timber products including pulp and paper placed on the EU market was 512 million m³. This figure consisted of 142 million m³ (RWE) of imports into the EU and an EU wood production of 370 million m³ (RWE).⁹
- (2) Of the 142 million m³ (RWE) of imports 95 million (RWE) is derived from non-EU countries with a moderate to high risk profile. 47 million is imported from non-EU low-risk countries (Indufor report table 6.3 page 17).

With the proposed regulation taking a risk-management approach especially high-risk timber is the target of the 'due diligence' approach.

A distinction needs to be made between the costs imposed on the private sector in producer countries and the costs imposed on the EU private sector.

As the brunt of controls will need to be implemented in high-risk environments where production takes place the highest per unit costs associated with these controls will be borne by the private sector and governments of VPA partner countries. The FLEGT action plan provides both for technical assistance to put control systems in place in VPA partner countries and the development of incentives to enable FLEGT partners to benefit from the trade in legally harvested timber with the EU.

3. Private sector costs

Direct costs of the due diligence approach to the private sector fall apart in four broad categories:

- (1) Costs to operators trading timber products from moderate to high-risk non-EU environments;
- (2) Costs to operators trading timber products from low-risk non-EU environments;
- (3) Costs to EU operators trading in imported timber products; and
- (4) Costs to EU operators trading in EU-produced timber.

These categories of the timber trade have differential trade volumes and unit costs and need to be calculated separately.

3.1 Costs to the private sector in moderate to high risk non- EU environments

Under option 2 Indufor estimates the costs of private sector legality verification in moderate to high risk environments at €0.27 m³/annum for logs, roundwood, veneer and plywood. (Indufor report table 10.1).¹⁰ This estimate is likely to be on the higher end of the scale for several reasons:

⁹ These import volumes exclude wooden furniture which is not captured under a separate HS code and which was not part of the TOR provided for the INDUFOR impact assessment. The proposed regulation however, intends to cover the placing of wooden furniture on the EU market.

¹⁰ This is based on the use of low-tech tracking and tracing system. The Indufor report suggests that high-tech systems may cost up to five times as much (Indufor page 44 and annex 1). Helveta, a private company specializing in COC systems suggests that operating a fully GPS based mapping, barcode-based tracking and tracing and computerised data reconciliation system can be operated for about €0.80 per m³ (personal communication 16 June 2008).

- (1) Indufor based its cost estimate on the VPA sub-set of timber products. Total EU imports consist for 42% of pulpwood and paper which as bulk goods have much lower per unit verification costs (Indufor figure 6.1). That said, legality verification of composite products such as furniture may have higher per unit costs.
- (2) Exporters from FLEGT partner countries currently regarded as high risk and thus facing high costs, will see their per unit verification costs drop to about €0,05 per m³ (Indufor table 9.2 page 37) when their Governments start operating the legality assurance scheme established under its Voluntary Partnership Agreement with the EU.
- (3) Where traders already export timber of well-known certification and legality verification schemes they will not be required to make additional verification costs.

The costs associated with 'due diligence' are largely associated with establishing a closed chain of custody within a weak institutional environment. These costs may vary widely. The Indufor data appear not too far out of line with World Bank and SGS estimates from Indonesia which depending on logistics, the scale of operations and the level of throughput suggest COC costs of between €0,18 and €0,78 per m³ (Bennett 1997). Similarly a study by ITTO into the costs of certification notes that ' the costs of Chain of Custody certification are generally only a *fraction* of the costs of forest management'. In its five certification case studies it shows that the costs of *full sustainability certification* range from US\$ 0.04 to US\$ 10 per m³ (ITTO 2004).

3.2 Costs to the private sector in low-risk non-EU environments

Indufor does not provide cost estimates for verifying legality in low-risk non-EU environments with a well established regulatory framework. These are provisionally estimated at a third of the costs of assessing legality in a high risk environment and set at €0.9 per m³/annum. Controls are likely to largely consist of establishing a paper trail with regard to the timber products imported and the production unit of origin.

3.3 Costs to EU operators trading in timber and timber products

The costs of meeting due diligence requirements within the EU fall apart in two categories: Controls on imported timber and controls on timber produced in the EU.

The controls on imported timber are likely to be light given that they largely dependent on the chain of custody established in the country of origin. Additional costs are set at a level of € 0,05 per m³/annum which is equivalent to the estimate made by Indufor for the private sector costs associated with importing VPA timber. This cost is applied to all timber products imported into the EU.

For the purposes of controlling EU produced timber, which includes an assessment of the legality of the production process the same level of costs as estimated for low risk environments was used, setting it at €0,09 per m³. This cost is applied to all timber products produced in the EU.

4. Conclusions on Costs

The available data, based on estimates for per unit costs per category of timber are separated out between costs to the non-EU and the EU private sector and presented below.

Table 1: Estimated costs of for the non-EU private sector of ' due diligence' option 5

Category of timber	Volume (millions of m3 RWE)	Unit cost (€/m3 RWE)	Total cost (€ millions per annum)
Imports from moderate-high risk environments	95	0,27	25,7
Imports from low risk non-EU environments	47	0,09	4,2
Total costs to the non-EU private sector	142	0,21*	29,9

* weighted average unit cost for the non-EU private sector

This table allows for the conclusion that the weighted unit costs of the proposed regulation lie around an average of €0.21 per m³ to the private sector of non-EU environments. At the current level of imports total costs to the non-EU timber industry stands at €29.9 million annually.

Table 2: Estimated costs for the EU private sector of ' due diligence' option 5

Category of timber	Volume (millions of m3 RWE)	Unit cost (€/m3 RWE)	Total cost (€ millions per annum)
Control on imports by EU private sector	142	0,05	7,1
Control on EU production by EU traders	370	0,09	33,3
Total costs to the EU private sector	512	0,08*	40,4

* weighted average unit cost for the EU private sector

Costs amounting to the EU private sector fall apart in control costs on imports and control costs on EU timber production and amount to €40,4 million annually at a unit cost of €0.08 per m³.

Important to note is that the sum of all costs of €70,3 million on the EU and non-EU timber trade is *not* the same as the *additional* cost imposed by the proposed regulation. Many high-volume timber product importers and producers such as Stora Enso, Carrefour, IKEA, UPM Kymmene, the pulp and paper sector, but also tropical timber traders organised in member state trade federations have due diligence requirements and systems in place and are already carrying out the checks and supply chain controls that the proposed regulation aims to make mandatory (see box on UK Timber Trade Federation).

Also important to note is that the level of controls required on the part of EU importers and producers under the proposed regulation is relatively light when compared to other options investigated in the Indufor impact assessment. The proposed regulation broadly resembles a combination of Option 2 (voluntary private sector schemes) and Option 4B (legislation that requires that only legally harvested timber is placed on the EU market).

When the INDUFOR figures for total private sector costs are recalculated for the trade in *all* EU timber imports and production at 512 million m³ the following results are achieved: Option 2 will cost € 71.6 million per annum, which is very close to the due diligence proposal, while the costs of implementing Option 4B will stand at an estimated €136 million per annum.

5. The economic benefits to the EU of addressing illegal logging

No study has been conducted on the impact of illegal logging on the competitiveness of the EU forest sector. However in the US the American Forest Products Association commissioned a comprehensive study on this topic in 2004 ¹¹. The conclusions can, to a large degree, be applied to the EU.

The study includes Russia as a “high risk” country and estimates that between 12 – 17% of timber entering international trade is “suspicious”. The proportion is greater for hardwoods than softwoods (conifers). Using global forest trade models it estimated that illegal logging depresses world prices by 7% to 16%, depending on product categories.

Table 11 of page 24 from the report reproduced below shows the estimates of production increase or decrease if illegal logging were to be eliminated. It can be seen that for the EU an increase in domestic production of roundwood of 5% would occur.

The increased volume of roundwood produced in the EU would amount to 16 million cubic metres. Average prices per cubic metre of roundwood (logs) of softwoods and hardwoods respectively are about €70 and €200 respectively. Assuming two thirds of timber used is softwood and one third hardwood an average price would be €13. The increased EU production would therefore be worth €1.8 billion. The increased production would not threaten the sustainability of EU harvesting as only about 70% of tree growth is currently harvested.

Table 3: Summary of Simulated Effects of Eliminating Suspicious Roundwood Production

	% Change			Volume Change (000 m ³)		
	Roundwood	Sawnwood	Panels	Roundwood	Sawnwood	Panels
Change in: average world prices	19%	7%	16%			
Production:						
EU-15	5%	5%	0%	16,673	4,679	162
Japan	13%	7%	2%	4,042	988	103
U.S.	1%	1%	2%	5,386	911	874
Malaysia	8%	-2%	1%	2,060	-110	48
Brazil	-2%	-2%	-2%	-2,069	-482	-143
China	-23%	-10%	-9%	-18,455	-818	-3185
W/C Africa	-23%	-28%	2%	-6,362	-1,353	23
Indonesia	-33%	-31%	-32%	-24,356	-2,490	-5,162

¹¹ Illegal logging and global wood markets: the competitiveness impacts on the US wood products industry. Seneca Creek Associates and Wood Resources International, Nov 2004

Russia	-16%	-32%	5%	-25,102	-7,685	294
Exports:						
U.S.	0%	49%	35%	0	1,332	777
EU-15	4%	12%	5%	919	5,164	1,456
Brazil	0%	-1%	4%	0	-27	98
Malaysia	48%	-1%	5%	1,809	-27	390
W/C Africa	-39%	-51%	10%	-2,492	-1,063	64
Indonesia	-44%	-55%	-51%	-318	-1,451	-4,199
Russia	-19%	-57%	30%	-11,867	-7,097	488
Imports:						
EU-15	-9%	0%	0%	-5,704	30	-61

There are a number of assumptions behind these figures e.g. they assume that illegal logging is completely eliminated. Furthermore the actions of consumer nations can only have an effect proportional to their trade with “high risk” environments. Nevertheless they provide an estimate for the order of magnitude of the impact of illegal logging on global forest trade and how it undermines the competitiveness of EU forest industry.

6. Summary of expected impacts on the due diligence regulation

While Option 4B of placing the full burden of proof on the trader is thought to be too burdensome for the EU industry and especially small and medium enterprises, Option 2 has the problem that it remains voluntary. The proposed due diligence regulation strikes a balance between these two considerations with as its main impacts that it will:

- 1) Require *all* EU traders to meet basic due diligence requirements with regard to timber legality. This creates a level playing field between those companies that are trying to address illegality and those that are currently undercutting the market by selling cheaper illegally-harvested timber products;
- 2) Provide an incentive to traders to buy and sell low-risk timber rather than high-risk timber, thereby reducing the use of illegally harvested timber by EU consumers.
- 3) Provide an incentive to producer countries to conclude FLEGT Voluntary Partnership Agreements with the EU as well as to exporters in non-VPA countries to put in place timber tracking and legality verification schemes.