

Europe Beyond Aid: Assessing European Commitment to Global Environment

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Abstract

A healthy environment is a necessity for all. While rich countries bear the most responsibility for creating anthropogenic climate change, it is the poor countries for which the impact will be much more damaging. Many global fish stocks are overexploited and demand for fish remains high in Europe. Much of the world's poor depend on healthy ecosystems and biodiversity. Although tropical timber imports have been decreasing in recent years, rich countries need to step up their efforts in biodiversity protection and conservation.

Environment is one of the seven policy areas that are assessed by the Commitment to Development Index (CDI). The environment component contains indicators in three major areas: global climate, fisheries, and biodiversity and global ecosystems. This paper assesses performance of Europe in the environment component. It first analyses the respective indicators and their implications for the world's poorest countries, discusses the underlying policy framework, and draws policy recommendations for European institutions and member countries based on identified strengths and weaknesses. Although Europe as a whole and European countries individually rank better than non-European countries, further efforts are required in order to support developing countries.

Europe Beyond Aid Consultation Report Series

Europe Beyond Aid uses the Commitment to Development Index (CDI) to examine European countries' collective commitment to development on seven cross-border issues: aid, trade, finance, migration, environment, security, and technology.

We calculate a consolidated score for the 21 European countries included in the CDI to track their pursuit of development-friendly policies. In 2014 the Center for Global Development is launching a series of discussion papers for public consultation. Our goal is to press for a broader and more informed

discussion about how European policies can improve. By the end of the year, we will synthesize the expert consensus on the seven themes of the CDI into a comprehensive and specific policy agenda for European countries setting out practical, evidence-based conclusions on how they can improve their policies which affect development and global poverty.

Please, share your comments, suggestions and ideas by email to pkrylova@cgdev.org. We will be looking forward to hearing from you.

1. Qualitative Analysis of Environment Policy in Europe

Environment is one of the seven policy areas that are included into the Commitment to Development Index (CDI). In this area it contains indicators in three major areas: global climate, fisheries and biodiversity and global ecosystems. The areas are assigned respectively 60%, 10% and 30% weight in the environment component (see Table 1 below). The various indicators range from treaty ratifications to greenhouse gas emissions to dollar amounts of subsidies. These are then translated into standardized scores following the same approach as the other sections of the CDI¹. This chapter lays out strengths and weaknesses for the three different areas in Environment for the European countries included in the CDI². Moreover, the underlying EU policy framework relevant for the CDI indicators is described. Finally, the section discusses the impact of European policies on the world's poor.

Table 1: CDI Environment component subcomponents, indicators and weights

subcomponents	indicators	weight
Global climate		60%
	GHG emissions and fuel production per capita (in tons CO2 equivalent)	10%
	% change in GHG emissions/GDP	15%
	Gasoline taxes	15%
	Consumption of ozone-depleting substances	10%
	Kyoto Protocol ratification	10%
Sustainable fisheries		10%
	Fishing subsidies	5%
	Ratification of UN Fisheries Agreement	5%
Biodiversity and global ecosystems		30%
	Biodiversity treaties participation	15%
	Tropical wood imports	15%

Source: CGD 2013

¹ However, the environment component is not averaged to 5 (as other components), due to different scoring of the environment treaties, the average in the base year (2012) was 6.1.

² Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway*, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland* and United Kingdom (* indicates countries not members of the EU, but of the European Economic Area and, hence, also implementing EU policies).

a. *The Contextual Framework and Implications for the World's Poor*

Global Climate

The scientific debate surrounding the existence and cause of climate change is practically settled. An overwhelming scientific consensus asserts that: (1) climate change is taking place; (2) the effects of climate change are already measurable; (3) the effects of climate change will continue into the future; (4) climate change is anthropogenic – that is, caused by human activities; and, (5) human-induced greenhouse gas emissions are the leading contributor to this phenomenon (IPCC 2013). On top of that, recent analyses have suggested that the impacts of climate change on human society could be greater than the projections that had been made by many of the earlier climate impact models (IPCC 2013; IPCC 2007).

Climate change will not impact all countries equally; in fact, it is most likely to have its harshest impacts on developing countries. Much research has suggested that developing countries are generally located in regions that will receive a disproportionate amount of the impacts of climate change, including increased climatic variability, more frequent (and more severe) weather events, sea level rise, and spread of disease (United States Environmental Protection Agency 2013; Bruckner 2012; Mendelsohn, et al. 2006; IPCC 2007).

Africa is already home to some of the planet's most variable climatic regions, with some areas known to have oscillated between floods and droughts within a single year. It is likely that as climate change progresses Africa's weather will become even more erratic, and in addition tropical diseases could spread far beyond the range in which they are currently found (Ludi 2009; United States Environmental Protection Agency 2013; UNFCCC 2007). Latin America is threatened with freshwater scarcity and a steep decline in agricultural productivity (United States Environmental Protection Agency 2013; UNFCCC 2007). South and Southeast Asia, in addition to facing potential losses of freshwater access and crop productivity (United States Environmental Protection Agency 2013), is already home to the greatest number of climate-related diseases (UNFCCC 2007). Furthermore, not only are there tens of millions of people living in areas threatened by sea level rise, but South and Southeast Asia are perhaps under the biggest threat of inland flooding, as climate change is expected to simultaneously increase the amount of ice and snowmelt in the Himalayas and strengthen seasonal monsoons, bringing both more melt water and more rainwater (UNFCCC 2007). Most vulnerable however, are the small island states. They are expected to have greatly reduced access to freshwater through a combination of reduced rainfall and increased salinization of ground water due to rising sea levels (United States Environmental Protection Agency 2013; UNFCCC 2007). This salinization is also expected to have a very negative impact on agricultural production, as saline groundwater leads to saline – and therefore infertile – soils (UNFCCC 2007). Finally, and most severely, some small island countries are actually under threat of having their entire territory inundated by rising sea levels, effectively wiping whole countries off the map (United States Environmental Protection Agency 2013; UNFCCC 2007).

In addition to being the most vulnerable, developing countries are the least able to adapt to changing climatic conditions. There are many concerns that the infrastructure necessary for withstanding an altered climate is not currently in place or will be rendered useless by sea level rise or other impacts of climate change. Furthermore, developing countries are generally impacted more harshly by natural disasters than are developed countries, as they typically lack a robust system of emergency services and property insurance, which facilitate recovery and rebuilding efforts; additionally, due to their smaller economies, natural disasters can have a larger and longer lasting effect on developing countries' economic situation than they tend to in larger economies (Burchette 2013; Buhayar 2013).

While most of the devastating impacts will strike the less resilient countries, developed countries have created the majority of anthropogenic greenhouse gasses, and are therefore much more responsible for climate change – and its impacts – than developing countries. Not only are developed countries currently

producing a significantly larger volume of greenhouse gasses per capita than developing countries (U.S. Energy Information Administration 2013; The World Bank 2013), but it has been estimated that developed countries have been responsible for around three-quarters of all anthropogenic greenhouse gasses (Baumert, Herzog, and Pershing 2005). Industrialized countries, by nature of their more established and diverse economies, also have greater access to the technologies and capital necessary to take actions to mitigate climate change (Adger et al. 2006). However, the differences between the ‘developing’ and ‘developed’ countries are gradual rather than digital. Some larger developing economies may have technology and capital increasingly accessible, which would suggest greater responsibilities in mitigation.

It is important to keep these facts in mind as one assesses various countries’ strategies for addressing climate change. As the United Nations Emissions Gap report points out, a significant gap exists “between political ambition and practical reality,” when the goal is to stay under the 2°C threshold of warming. Significant additional emissions reductions actions are needed (United Nations Environment Programme 2013). Even if European countries have achieved significant GHG emission reductions, more ambitious climate action is required now and beyond 2020.

European climate policy can have a substantial role in determining annual GHG emissions over the forthcoming decades. European climate policy can therefore play an influential role in creating the conditions for societal and economic stability in developing countries. The CDI contains five indicators in the area of climate, with different weightings. These are: GHG emissions and fuel production per capita (in tons CO₂ equivalent), percent change in GHG emissions per unit GDP, Gasoline taxes, Consumption of ozone-depleting substances, and the ratification of the Kyoto Protocol.

Fisheries

For decades the total catch from global fisheries steadily increased. Today many global fish stocks are now classified as overexploited or depleted. According to the Food and Agriculture Organization (FAO) 29.9% of global stocks were overexploited or depleted in 2009, producing lower yields than their biological and ecological potential and in need of strict management plans to restore their full and sustainable productivity (referring to about 500 fish stocks where reliable data exists) (FAO 2012). 57% of global stocks were fully exploited, producing catches that are very close to their maximum sustainable production and have no room for further expansion. Over recent years the situation of the global fish stock exploitation has deteriorated and recovery is only possible if those stocks are fished less intensely. With regard to developing countries, very little is known about the status of fish stocks as many provide catch data alone without any scientific assessment (Beveridge et al. 2013).

Fish has always been essential to people as a basic resource to sustain life, both as food and as a source of income. It is important for human nutrition as it contains high-quality protein and vital nutrients. It is especially important in many developing countries because it is often the only affordable and easily available source of animal protein. Although in the least developed countries, the absolute amount of fish protein is lower than for developed countries, the relative contribution of fish to animal protein supply can be above 20% e.g. in sub-Saharan Africa and South and South-east Asia (FAO 2011). In Sierra Leone 57.7% of animal protein comes from fish consumption. The report by the WorldFish Center (Allison 2011) concludes that the role of fish as an essential source of protein for the poor is somewhat overstated by fishery sector analysts. Most of their consumed protein comes from plant sources, and protein-rich staples and pulses (e.g. beans, peas) are likely to be more important in terms of protein supply than fish. Detailed consumption surveys within those countries are needed to get a detailed picture. However, there are populations within the world’s poor countries that are highly fish-dependent in their diets, especially those living close to wetlands and coasts with limited access to plant-based sources.

Looking at the economic importance of fisheries at the global level, fish production contributes 0.5 – 2.5% of GDP (Bene et al. 2007). In some less developed countries however, fisheries significantly contribute to the country's economy. For example, Mauritania and Vietnam have fisheries making more than 10% of their national GDP (Scholtens and Badjeck 2010). Fishery products are also important products entering international trade, with high relevance for developing countries. Fish trade represents a significant source of foreign currency earnings in addition to the sector's important role as a generator of income, source of employment, and provider of food security and nutrition. Net exports of fish and fish products are particularly important and have grown significantly in recent decades to \$27.7 billion in 2010 (FAO 2012). This is higher than those of several other agricultural commodities such as rice, meat, sugar, coffee and tobacco. The fishery industries of developing countries rely heavily on developed countries, not only as outlets for their exports, but also as suppliers of their imports for local consumption or for their processing industries. In 2010, 67% (in value terms) of the fishery exports of developing countries were directed to developed countries. Fisheries are also important with regard to employment. In 2010, about 54.8 million people were directly engaged, full or part time, in fisheries or aquaculture production (FAO 2012). Moreover, for each person employed directly, about three to four related jobs were generated in secondary activities, resulting in an estimated total 160-210 million jobs in the global fish sector. Based on the assumption that each jobholder provides for three dependants or family members, the fisheries sector supports 660-820 million livelihoods, about 10-12% of the world's population. In 2010 87% of fishers and fish farmers were in Asia, followed by Africa with more than 7 % in (FAO 2012).

Small-scale capture fisheries are mostly occurring in developing countries. These small-scale operations contribute more than half of the world's marine and inland fish catch with most all of their catch destined for direct human consumption and employ more than 90 percent of the world's capture fishers (FAO 2012). Moreover 95% of small-scale fishers and related workers in post-harvest sectors live in developing countries (Allison 2011). The linkages between economic importance, food security and small-scale fisheries is very direct and therefore of special relevance when looking at the impacts of fisheries on the world's poor.

Fishing in international or third-country waters is of high relevance for the EU fishing industry. More than 25% of the fish caught by EU fishing boats are taken outside EU waters. Around 8% of EU catches (2004-06) are made under fishing agreements with countries outside the EU (e.g. African countries), while another 20% are taken on the high seas, mainly in regions under the care of regional fisheries management organizations. With regard to fish imports, the EU is by far the world's biggest importer of fish, seafood and aquaculture products. In the EU, 62% of its own fish consumption is imported (EU Fish Processors and Traders Association 2012).

International and European fisheries management can have a significant effect on food security and the economic situation of developing countries. The CDI contains two indicators in the area of fisheries both assigned 5% weight in the whole environment component. The first indicator is the fisheries subsidies per capita. The second indicator is the ratification of the UN Agreement for the Implementation of the Provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

Biodiversity

An estimated 1.3 billion of the world's poor depend on the conservation of ecosystems and the biodiversity contained within to meet basic subsistence and livelihood needs (CBD Secretariat 2013a). Amongst other services, healthy ecosystems are critical for providing clean water, medicine, fuel, shelter and income as well as protection against impending threats from climate change. In rural Zimbabwe, for example, wild products provide 37% of total household income, and in dryland India, wild products normally provide 14-23% of the rural poorest income, increasing to 42-57% during drought periods (CBD Secretariat 2007). This high degree of dependency places these populations amongst the most vulnerable and least capable of adapting to biodiversity loss and environmental degradation.

Biodiversity is additionally central for maintaining and enhancing food security. A high diversity of genetic resources in combination with the availability of clean water, healthy soil and other ecological processes are necessary for upholding productive, sustainable agricultural systems (CBD Secretariat 2007). Marine and coastal biodiversity are also necessary for meeting food needs and require the protection of wetlands, mangroves and coral reefs, amongst other ecosystems.

The crucial link between development and environmental sustainability objectives highlights the urgent global need to combat biodiversity loss. Amongst the main direct drivers of declines in biodiversity are habitat loss and degradation, climate change, invasive alien species and over-exploitation and unsustainable use (CBD Secretariat 2010). Habitat loss and ecosystem degradation represent the largest single threat, principally stemming from the conversion of natural areas to agriculture. Efforts to reduce these pressures necessitate a deeper look at the indirect drivers which fuel the worldwide demand for natural resources.

While local needs for food, fuel and living space historically represented the main underlying causes of biodiversity decline in developing countries, the progressively more globalized economy and international trade chains currently have far more significant impacts (Lenzen et al. 2012). The developed world's increasing demand for commodities in general, and particularly for those items produced in developing countries is thus a central consideration in biodiversity conservation discussions.

Perhaps no other commodity import from developing countries is associated with as much environmental destruction as tropical wood. The majority of harmful impacts can be accredited to the harvesting and subsequent trading of *illegally* obtained wood and wood products. The illegal harvesting and subsequent trade of (tropical) timber evokes significant environmental destruction and poses additional economic and social concerns. Such activities are intimately linked with the overexploitation of resources, poor forest management, biodiversity loss, greenhouse gas emissions and conflicts over land and resources (Giurca et al. 2013). These consequences often lead to the disempowerment and marginalization of local communities.

Taking account of the transboundary nature and often global scope of the aforementioned drivers of biodiversity loss and considering the example of trade in tropical timber, multilateral environmental agreements (MEA) are the main tool available under international law for countries to cooperate on global environmental issues. Within these frameworks, there is often an obligation for parties to report on their country's progress in reaching the MEA's foreseen objectives. Reporting can additionally be utilized as an assessment tool for countries to monitor their progress in addressing the targeted environmental threats. According to this logic, submitting reports on time and in a complete manner can be used as a proxy for the countries' commitment to the aims of the respective treaties.

As European demand for commodities as well as the degree of actions taken to support biodiversity conservation efforts can have significant impacts on not only the natural environment, but also on the world's poor, the CDI contains two indicators in the area of biodiversity. Both indicators are assigned

15% weight within the environment component. The first indicator is the completeness of reporting on four biodiversity-related multilateral agreements, and the second is the amount of tropical timber imports per capita, both discussed in more detail below.

b. *Environment Strengths and Weaknesses across Europe*

i. CDI Environment Components

Global Climate

Greenhouse gas emissions and fuel production per capita

This criterion measures the specific annual climate impact per person including consumption and extraction of fuels. This method does not take GDP into account, and thus avoids penalizing developing countries for not yet being developed. This criterion also considers the climate change impact made by fossil fuels extracted from a country's territory, under the principle that responsibility for greenhouse gas emissions lies not only with the country that burns fossil fuels, but also with the country that supplies it. This highlights the fact that policy measures on both supply and demand sides of the equation can impact greenhouse gas emissions. However, by counting the emissions both for producers and consumers of the fuel, this analysis unintentionally accounts for fossil fuel-based greenhouse gases twice, while other forms of climate-impacting activities (land use changes chiefly among them) are only counted once.

Box #1: Account for fuel extraction separately in analysis

GHG emissions are double counted within the scope of the CDI analysis, as those countries that extract carbon-intensive fuels take on the burden for emissions associated with them, just as the consumers are held responsible. This accounting is particularly relevant in Europe, where the North Sea provides over 25% of consumed oil (Nakhle 2007). Norway and Germany, for example, may both have the same ton of CO₂ in the CDI emissions per capita calculation, even though Norway mostly extracts and Germany predominantly consumes. If domestic extraction emissions are to be considered, it may be best to analyze them under a separate indicator.

Average annual change in greenhouse gas emissions per unit GDP, 2001-2011

Evaluating the trajectory of greenhouse gas emission-intensity of GDP over an extended period of time can provide insights into the successes of various countries relative to their starting positions and relative to the GDP growth. Countries that start with extremely high emission-intensity levels benefit from efficiently progressing towards the carbon intensity levels of comparable economies. Looking at emissions over time can also measure the efficacy of various policies put into place by national governments. On the other hand, changes in the growth pattern alter directly the GHG-intensity of the economy, depending on the carbon intensity of affected sectors.

Gasoline taxes in PPP dollars per liter

Gasoline tax levels (Premium unleaded (95 RON)), as of 2012, are included in the CDI as a proxy for energy taxes in general. There is a correlation between higher fuel taxes and lower fuel use (Roodman 2013), and therefore increasing taxes in this area could reduce fuel consumption. However, by focusing on gasoline the CDI does not assess the role of the diesel fuel tax, taxes on electricity, or taxes on fuels for heat generation. Furthermore, it leaves out other taxes that influence the cost of vehicle fuel, such as the CO₂ tax in Denmark.

Box #2: Incorporate other fuels and CO₂ taxes into fuel taxation indicator

Since the CDI takes fuel taxation as a proxy indicator for other taxation across the economy, it cannot capture the nuanced taxation differences (or exemptions) on electricity or fuels for heat generation such as coal, natural gas and/or heavy fuel oil. Furthermore, CO₂-taxes, which are applied on top of fuel taxes, need to be considered to give a full picture. In the 2013 CDI, for example, Denmark is rated near the bottom on this indicator while it actually has the 10th highest equivalent tax on petrol for consumers of the analyzed countries. To provide a robust analysis of fuel taxes, these other fuel taxes should be considered in the index methodology.

Consumption of ozone-depleting substances per capita

This criterion measures the per capita consumption of ozone depleting substances in 2009. While stratospheric ozone depletion is a problem, it actually has a global cooling effect (NASA 2013), making its inclusion in the climate section somewhat counterintuitive. Furthermore, as the Vienna Convention (1985) and Montreal Protocol (1987) directly address the phased elimination of ozone depleting substances and these international agreements have been universally ratified and are nearly universally complied with, it is generally believed that correcting stratospheric ozone depletion is now a question of implementing agreements that are currently in place (including amendments made throughout the 1990s). If that happens, experts expect stratospheric ozone to return to pre-1980 levels by the end of this century (The United Nations Ozone Secretariat 2007; Swain 2012). Insofar as signatories uphold their current commitments under these treaties and their amendments, no further policy changes should be necessary.

Ratification of the Kyoto Protocol

The Kyoto Protocol is the most tangible outcome of international climate negotiations to date. In this document, developed countries agreed to a specific percentage reduction in GHG emissions from a predetermined base level year (in most cases 1990) (Haita 2012). 190 states and the EU have all ratified the protocol (UNFCCC 2013), though one country, Canada, has formally withdrawn and denounced it (Kent 2011). Of the ratifying states, some (including EU Member States) are expected to miss their domestic GHG reduction targets of the first commitment period, as defined by the protocol, even if the EU as a whole has achieved its goal (Haita 2012). While political support for the only successful international climate-related agreement is valuable as a sign of climate commitment, ratification of the Kyoto Protocol is not a sufficient indicator of progress in reducing GHG emissions. Some countries are taking action on climate, but are unwilling to commit to legally binding targets in the international context.

Fisheries***Fisheries subsidies per capita***

Within the OECD, the term subsidies refer to 'government financial transfers' (GFT) that are defined as the monetary value of interventions associated with fishery policies, whether they are from central, regional or local governments (Cox and Schmidt 2002). GFTs can be categorized into direct payments, cost-reducing transfers and general services (e.g. research expenditures or infrastructure).

In the EU the primary governing mechanism for fisheries management is the Common Fisheries Policy (CFP). It aims for sustainable fisheries and aquaculture, a healthy marine environment and an economically viable industry. Structural funds are used to support EU structural policies but also change economic sectors, through adaptation and development. For the 2007 to 2013 period the European Fisheries Fund (EFF) was the structural fund for the CFP, with a budget of € 4.30 billion. Under the EFF, subsidies were paid to vessel owners, public bodies and private enterprises which run fishing ports. They were provided for a number of activities, such as vessel construction, vessel modernization, vessel

scrapping, tax breaks to reduce the price of fuel, infrastructure improvement, modernization of processing facilities, investments in fish farming and the promotion of more environmentally sustainable fishing. The EFF was based on the principal of co-financing and required Member States to contribute funding at rates depending on the type of project.

In Norway, not an EU country, but a part of the European Free Trade Association, the fisheries sector was supported by significant subsidies for many decades, which peaked in the early 1980s. Overcapacity that had led to a series of resource crises and poor sector profitability resulted in major improvements to the fisheries management system, substantial reductions in subsidies including phasing out of harmful subsidies. The long process of reforming the subsidies in Norway is therefore seen as a success story of a sustainable subsidies scheme (von Moltke 2011).

The CDI is based on data from the OECD from 2009. From the European countries Austria, Germany, Hungary, Luxembourg, Slovakia and Switzerland score highest (10) because they provide no subsidies to their fishing fleet. The United Kingdom, Portugal, the Netherlands, Poland and Belgium score high as well (scores 9 or higher), providing rather low subsidies to their fishing fleet. Spain, Greece and Norway score the lowest (with scores below zero), providing the highest subsidies in Europe.

It should be noted that Austria, Hungary, Luxembourg, Slovakia and Switzerland do not have marine fleets and therefore do not provide subsidies to their fleet. The CDI gives these countries the highest score for that, although this indicator might not be of relevance for them. To keep the high scores for those countries can also be misleading to the overall performance per country. Germany is the only country with a marine fleet not providing any fisheries subsidies in the data used for the CDI. However, more recent publications show that the German fishing fleet was and still is highly subsidized (OECD 2012).

Spain scored very low in the CDI and looking at the underlying numbers (based on OECD 2009) they show that EU fishery subsidies in 2007 were concentrated in Spain, which received nearly half of the EU fisheries subsidies when looking at the total amount. Greece provides high subsidies as well, but less than half of Spain's subsidies. In the CDI however, Greece received lower scores than Spain because the CDI uses the subsidies per capita for its assessment, which is higher for Greece than for Spain. The same applies to Italy. The total amount of subsidies is higher than for Greece, but because the amount of subsidies per capita is lower Italy receives higher scores. Based on these significant differences between the total amount of subsidies and subsidies per capita and the resulting impact on how countries score in the CDI, its use in the assessment for the CDI should be evaluated.

Norway provides the highest fisheries subsidies per capita in the European comparison and scores lowest. However, it must be noted that the high subsidies provided to the fisheries sector in Norway are not considered capacity enhancing and environmentally harmful, but a successful reform of the subsidies scheme.

Box #3: Update data on fisheries subsidies

The used data on fisheries subsidies is from 2007 and therefore outdated and difficult to relate to recent policy developments. The 2012 OECD Review of Fisheries contains the latest available data on fisheries subsidies for 2010.

According to a study conducted for the European Parliament (Usubiaga et al. 2011) subsidies to the fisheries sector may lead to several negative effects for the fishing industry. These include creating or maintaining overcapacities as well as lowering retail prices which in turn increases additional consumer demand for resources already under pressure. It is estimated that more than two-thirds of the provided subsidies have the possibility of contributing to overfishing and enhancing fishing capacity (Schroerer et al.

2011). Overcapacity means that the size and capacity of the fleet is higher than a sustainable fishing level would allow. For some fisheries the EU fleets capacity is 2 to 3 times above the sustainable level. For example, subsidies may be used to create incentives for unprofitable fleets to increase revenue or they may also encourage these fleets to remain in business or increase fishing efforts (Usubiaga et al. 2011, citing Sumaila and Pauly eds. 2007). With regard to the impact on developing countries, it is argued that this overcapacity results in fleets fishing elsewhere and that the only way with the subsidies provided is it economically possible to fish in far distant waters. The fleets' overcapacity and its related problems are consequently exported together. Therefore, marine resources in international water may be fished unsustainably and developing countries and local communities relying on these stocks for food and the income generated would be harmed. However, the environmental pressures from subsidies on the fish stocks depend on the state of the existing fishing management system, as well as control and enforcement measures (Usubiaga et al. 2011, citing Markus 2010). The UN Agreement for the Implementation of the Provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks is one management measure to create sustainable fisheries for the respective fish stocks.

The latest development in the EU with regard to fisheries policy and subsidies is the reform of the CFP and the supporting subsidies. Based on the European Commission's conclusions in 2011, the CFP had failed so far to meet its sustainable fisheries objectives "*in all its dimensions (environmental, economic and social).*"³ It moreover identified "*Substantial public financial support to fisheries that does not contribute to achieving the objectives of the CFP [...]*" (European Commission 2011a). In 2011, the European Commission presented a proposal for the reform of the CFP. The major points of reform concern the banning of discards, the introduction of multiannual management plans for fisheries and reduction of overcapacity of the fishing fleet. With respect to financial support for fisheries, the Communication accompanying the proposal for the CFP reform states:

"Future EU financial support, while covering the whole range of activities, from primary production to processing and marketing, should be strictly geared to achieving the reformed CFP's objectives. Future public funding for the sector will be thoroughly reformed and simplified, mirroring the objectives of the proposed new CFP. It will be fully aligned with the Europe 2020 objectives."⁴

The European Parliament, Council and Commission reached an agreement on the CFP reform on 30 May 2013 and in October the EU Ministers of agriculture and fisheries unanimously adopted the CFP. The European Parliament formally adopted the reform on December 10, 2013, on time to enter into force on 1 January 2014. In October 2013 the respectively new fisheries structural fund for the period of 2014-2020 was adopted, the European Maritime and Fisheries Fund (EMFF).⁵ The EMFF aims to support the implementation of the reformed CFP, in particular the rebuilding of fish stocks, reducing the impact of fisheries on the marine environment, and the progressive elimination of wasteful discarding practices. Although some positive improvements like rejecting the proposal to subsidize the construction of new vessels were made, some subsidies were approved that are considered capacity-enhancing such as for the replacement of old engines with new models, business start-ups, storage aid and temporary cessations.⁶ The EMFF will also increase EU support to fisheries control programs to ensure that the rules on responsible and sustainable fishing are respected and enforced. The EMFF will be used to co-finance projects, along with national funding of the EU member States. Each Member State will be allocated a share of the total Fund budget, based on the size of its fishing industry. The Member States

³ From: (European Commission 2011a), available online: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011PC0425&from=EN>

⁴ From: (European Commission 2011b), available online: http://ec.europa.eu/fisheries/reform/com_2011_417_en.pdf

⁵ See: http://ec.europa.eu/information_society/newsroom/cf/mare/itemlongdetail.cfm?item_id=12515&lang=en

⁶ See: <http://cfp-reformwatch.eu/2013/10/parliament-rejects-fleet-renewal-but-approves-money-for-new-engines/>

have to develop an operational program first though, that has to be approved by the Commission, before the national authorities can decide which individual project will be funded.

With the implementation of the reform of the CFP and the EMFF, it can be expected that the amount of subsidies to the fisheries sector will decrease and therefore also harmful capacity enhancing subsidies. Consequently, this could have a positive effect on the overexploitation of European fish stocks as well as international fish stocks targeted by the European fleet.

Box #4: Include marine transport fuel tax exemptions in subsidies assessment

In addition to direct subsidies to the European fishing fleet, subsidies in the EU are moreover provided through fuel tax exemption. These include lower rates and rebates with respect to the two main types of consumption taxes of Value added tax (VAT) and Excise taxes directed at specific fuels. In international waters fuel is not taxed at all. These fuel subsidies can also support overcapacity and unsustainable fishing practices, e.g. high fuel-consuming active fishing techniques that lead to continued overfishing of EU and international stocks. The CDI does not include these subsidies, which could give a more complete picture about subsidies in the fisheries sector and therefore its impact on the world's poor.

Ratification of the United Nations Fish Stock Agreement

The second indicator refers to the ratification of the UN agreement for the Implementation of the Provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA). The UNFSA aims to enhance cooperation in the management of fisheries resources that span wide areas, and are of economic and environmental concern to a number of nations. It was initiated as a response to a fisheries management crisis involving transboundary fishery resources. Transboundary species are straddling species and refer to fish stocks that occur in more than one exclusive economic zone (i.e. a marine zone over which a state has special rights over the exploration and use of marine resources). Migratory species (e.g. tuna) have wider geographic distributions than these administrative boundaries and undertake large ocean migrations. The UNFSA therewith builds on the basic principle set out in the UNCLOS, which declares that states should cooperate to ensure conservation and promote sustainable use of fisheries resources both within and beyond the exclusive economic zones. It identifies Regional Fisheries Management Organizations (RFMOs) as the mechanism through which states can fulfill their obligations on cooperating to manage and conserve the stocks. The UNFSA moreover aims to improve international management based on the precautionary approach, where the lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The UNFSA is considered as a comprehensive and detailed legal regime recognizing the special requirements of developing countries in relation to conservation and management of straddling fish stocks and highly migratory fish stocks, whether they occur on the high seas or within national waters of coastal developing states. International cooperation on sustainable use of these resources aims to combat overfishing and ensure sustainable exploitation of these resources by the international community as well as by the respective developing countries. It therefore has a positive impact on those fisheries resources affected by the agreement. However, a significant number of developing countries have not ratified the UNFSA. In a report prepared for the UNFSA Review Conference in 2006, it was stated that lack of ratification by developing countries was owed to the misconception that it addresses conservation and management of stocks on the high seas only (UN Secretary-General 2004). Consequently some states seem to believe that UNFSA does not have any relevance to the conservation and management of fishery resources in their national waters. Some are however member of the RFMOs anyway and therefore involved in cooperative fisheries management.

All European countries received high scores in the CDI because they have ratified the UNFSA, except Switzerland. Switzerland is landlocked but has a civilian high seas fleet of 40 merchant vessels, whose home port is Basel but does not include fishing vessels.⁷ Consequently the UN Fish Stocks Agreement is not relevant for Switzerland to ratify. Other European landlocked countries have ratified the agreement although they do not have a marine fishing fleet as well, such as Hungary, Austria, Luxembourg and Slovakia. This is due to the fact that the EU has an exclusive competence of conservation of marine biological resources under the CFP. With this UN agreement on conservation of fish stocks falling under this exclusive competence of the EU, the Member States have transferred their competence to the EU in this matter so that the EU is able to legislate and adopt binding acts in the field of marine biological resources.

With all relevant European countries ratifying the UNFSA, the European countries support international cooperation on fisheries management of transboundary fish stocks. This has a potential positive impact on coastal developing countries when these species exist in their national waters as healthier fish stocks could be expected.

Box #5: Include Fisheries Partnership Agreement in international agreement assessment

In addition to subsidies to the European fishing fleet, the EU has, for more than twenty years, entered into agreements with developing countries to gain access to their coastal fishing waters in return for financial compensation. Around EUR 150 million was paid to fourteen countries to secure European fishing fleet access in 2009 (Schroeer et al. 2011). Currently there are 15 EU fisheries access agreements with African states, both on the West- and East coast. In October 2013 a new EU-Mauritania fisheries agreement was approved. EU fishing vessels are allowed to catch various species of fish and shellfish in Mauritanian waters in exchange for an EU payment of EUR 70 million a year, of which EUR 3 million is development aid for the local fisheries sector. In principle, the EU will fish only where there is a surplus stock which the local fleet does not have the capacity to catch. Due to a lack of data availability, this surplus is more than difficult to estimate. Moreover, these partnership agreements have been subject to controversy for a long time already. Some researchers and NGOs argue that these agreements lack transparency and have a damaging effect on artisanal fisheries and contribute to the impoverishment of the population (see Gorez 2009, Caneiro 2011, Mundt 2012). It is moreover argued that the annual payment provided by the EU might go directly to the Ministry of Foreign Affairs and thus the general national budget lacks accountability and effectiveness in supporting the local artisanal fisheries. The CDI does not include these fisheries agreements or the financial compensations, which from all EU fisheries policies impact the developing countries the most.

Biodiversity

Reporting on biodiversity related multilateral agreements

A key tool in global biodiversity conservation efforts are multilateral environmental agreements (MEAs). MEAs serve as a framework for collectively and equitably approaching environmental challenges by utilizing policy consensus and the latest science. These agreements take place between states and can be in the form of “soft-law” (non-legally binding principles for parties to respect when acting on a given environmental issue) or “hard-law” (consisting of legally-binding actions aiming at achieving an environmental objective).⁸

While six international conventions focus on biodiversity issues, the following four are included within the CDI: the Convention on Biological Diversity, the Convention on Conservation of Migratory Species, the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the Ramsar Convention on Wetlands. Each aims to implement actions at the national, regional and international levels in order to reach common conservation and sustainable use objectives. A brief summary of the objectives of each convention are outlined below (CBD Secretariat 2013b).

⁷See: <http://www.eda.admin.ch/eda/en/smno/trasea/seashi.html>

⁸ See <http://www.mfe.govt.nz/laws/meas/>

- **Convention on Biological Diversity (CBD)** – aims to achieve the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from commercial and other utilization of genetic resources; the agreement covers all ecosystems, species, and genetic resources.
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** – aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival by applying varying degrees of protection to more than 30,000 plant and animal species.
- **Ramsar Convention on Wetlands of International Importance** - provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources; covers all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities.
- **Convention on Migratory Species (CMS)** - aims to conserve terrestrial, marine and avian migratory species throughout their range by providing strict protection for the most endangered migratory species.

Although the conventions exist as independent entities with unique aims and commitments, they share the overarching aspiration to conserve biodiversity. Each MEA also carries unique implications for developing countries and the world’s poor. The CBD, for example, recognizes the relationship of biodiversity to sustainable development and poverty reduction and states: “conservation and sustainable use of biodiversity is of critical importance for meeting the food, health and other needs of the growing world population, for which purpose access to and sharing of both genetic resources and technologies are essential” (CBD Secretariat 1992). Accordingly, the Nagoya Protocol (CBD Secretariat 2010) was developed in 2010 to ensure that these aims will be realized; Norway is the first developed country to ratify this supplementary CBD agreement.

Box #6: The European Union’s biodiversity commitments

The European Union (EU) itself has been a party to the CBD since 2003 and CMS since 1983 and signed CITES in 1973. As the Ramsar Convention does not allow the contracting of supranational bodies, the EU is not a party. However, the Birds and Habitats Directives (adopted in 1979 and 1992, respectively) serve as the European legislative and policy framework to respond to the issues raised by this Convention and come with obligations for all Member States.

In 2011, the European Union also adopted a new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. The Strategy follows the package of measures adopted by the CBD Convention of the Parties in Nagoya, Japan in 2010 and accordingly aims to “halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020 and restore them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss”. A vision for 2050 is also provided: “by 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity’s intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided”.

The aforementioned legislative items and biodiversity strategy serve as an additional indicator of the EU’s commitment to combat biodiversity loss, extending beyond the ambitions outlined by the four highlighted multilateral agreements.

This indicator – entitled “Reporting on biodiversity related multilateral agreements” - focuses on the completeness and timeliness of reporting under these conventions. National reporting is a crucial part of the MEAs, designed to assess the progress made by the respective parties towards meeting established goals and targets. Amongst other functions, reporting serves to:

1. Provide data and information on the implementation of conventions;
2. Identify achievements, developments, and trends, gaps or obstacles regarding implementation;
3. Highlight lessons learned for developing future actions;
4. Identify emerging issues and challenges facing parties which may require further attention under convention processes; and
5. Hold parties accountable to their obligations under the respective convention (Jacques 2009).

Within the context of this indicator, a lower ranking arises if: (1) countries are not a party or do not submit required reports, or (2) submit incomplete or late reports. As all European countries included in the index are parties to all four of the conventions, lower scores reflect missing, late or incomplete report submission. Given the above objectives of reporting, a country’s score is intended as a proxy for their commitment to the aims of the respective treaties.

Box #7: Reducing the burden of national reporting

It should be noted that while compliance with the reporting requirements of the four MEAs can indeed reflect a country’s commitment to the respective aims, an incomplete or late submission can also be the result of other factors. Countries are often parties to multiple MEAs, each with associated reporting requirements. Consequently, the process of reporting to MEAs can become a burden requiring significant budgetary and personnel resources. Extensive amounts of data and information are also required to compile national reports and may serve as a further constraint for proper submission. These underlying factors should also be considered when evaluating this indicator and in assessing a country’s commitment to the respective MEA aims. Efforts to improve these constraints could increase the capacity of countries to submit reports on time, thus increasing their scores and presenting a more well-rounded impression of their commitment to each MEA’s environmental objectives.

Europe maintains a high average level of completeness of required reporting to the explored biodiversity-related treaties and shows an improving trend. The EU scores for the latest reporting period were the highest since first analyzing this indicator in 2003. More specifically, reporting for the Ramsar and CITES conventions are most complete and on time, while reporting for the UN Convention on Biological Diversity is by far the weakest. No European country successfully submitted full reports for the CBD without errors or delay during the most recent reporting period (2009), necessitating further investigations as to the underlying reasons behind this and potential implications for conservation efforts. Looking on a country level, Slovakia, Denmark, Germany and the Netherlands have the highest rankings amongst all analyzed countries, while Greece, Ireland and Luxembourg have the lowest scores.

Tropical timber imports

Given that the EU accounted for 35% (€37.8 billion) of the world’s primary timber trade in 2011 (European Commission 2013a) and 17% of the global import value (second after China) (Adams 2013), European markets have the potential to significantly influence global logging practices and therewith the livelihoods and environmental health of developing countries. In buying illegal wood – inadvertently or not - companies and consumers support the creation of profitable markets for illegal loggers and weaken sustainable forestry efforts in many wood-exporting countries.

According to a recent study, 50-90% of the total timber production from key producer tropical countries in the Amazon Basin, Central Africa, and Southeast Asia was found to be illegally harvested, representing

15-30% of worldwide production (Nellemann 2012). These practices lead to an estimated €7 billion in lost revenues per year for the often poor producer countries and undermine the profitability of the industry for legitimate operators trying to gain income from sustainable, legal forestry practices (European Commission 2013a).

While imports are not a proxy for policy, the CDI measures the value of tropical timber imports per capita (assigned 15% weight within the environment component). This indicator was chosen under the logic that the majority of tropical timber imports stem from illegal practices and thus have negative global environmental and social impacts. Accordingly, higher import levels are seen to indicate a failure by the importing countries to uphold this responsibility and thus result in a lower score. Due to the variations amongst European countries presumably resulting from the distribution of entry points for timber imports⁹, all scored European nations were assigned the same, averaged score (based on the UN Commodity Trade Statistics Database).

In the EU, the primary legislative item dealing with tropical timber has been the Forest Law Enforcement, Governance and Trade Action Plan (FLEGT Action Plan)¹⁰. Adopted in 2003, the Plan aimed to take steps towards combating the illegal timber trade. Voluntary Partnership Agreements (VPAs) between the EU and countries exporting timber and the EU Timber Regulation¹¹ (EUTR) serve as key items of FLEGT's implementation.

VPAs are established bilaterally and serve to provide the EU with access to legal timber, as well as to facilitate capacity building and technical assistance and secure a strengthened position in the international market for the export country. As of October 2013, Ghana, Cameroon, Republic of Congo, Liberia, the Central African Republic and Indonesia have signed a VPA with the EU; negotiations are on-going with an additional nine countries (European Commission 2013b).

The EU Timber Regulation (EUTR) came into force on 3 March 2013 and prohibits the placing of illegally harvested timber (and products) on the EU market. More specifically, the Regulation imposes three key obligations which are legally binding in all Member States:

1. Prohibiting the placement of illegally harvested timber and products derived from such timber on the EU market for the first time.
2. Exercising 'due diligence' when placing timber products on the EU market for the first time.
3. Maintaining information about suppliers and customers by those who buy or sell timber and timber products already on the market to make timber easily traceable.

Policy mechanisms such as this EU regulation that address the governance surrounding timber production could thus have considerable effects on illegal logging, and in particular the wood sourced from Africa, Southeast Asia, and other regions with high levels of illegality and poor governance in the forest sector (European Commission 2013a). More specifically, it is foreseen that the anti-illegal timber regulation in combination with other efforts to increase the demand for sustainable timber could contribute to the fight against illegal timber, increase the adoption of sustainable forestry practices and boost trade, thereby benefiting both suppliers in the tropical countries and importers.¹² Additionally, compliance with the EUTR is likely to encourage companies to pursue sustainability certification given that a degree of the traceability costs would have already been covered during the legality verification process.¹³

⁹ Imported timber is registered to the country by which it enters the European Union, rather than to the country in which it is ultimately consumed.

¹⁰ See http://www.euflegt.efi.int/portal/home/flegt_intro/flegt_action_plan/

¹¹ Regulation (EU) No 995/2010. See more online: http://ec.europa.eu/environment/forests/timber_regulation.htm

¹² See <http://www.ettf.info/ettf-backs-initiative-boost-eu-sustainable-timber-imports-third>

¹³ See <http://www.ettf.info/ettf-backs-initiative-boost-eu-sustainable-timber-imports-third>

While the EUTR has the potential to contribute to the realization of nature conservation, sustainability and development objectives (Giurca et al. 2013), it also presents noteworthy risks alongside the opportunities. The International Tropical Timber Organization (ITTO) reports that tropical wood sales in Europe have declined by 50% over the past five years (Johnston 2013). This is also reflected in the tropical wood imports per capita, which has had a predominantly downward trend during this time (sinking from \$11.69 per capita in 2009 to \$7.31 per capita in 2013). A number of factors can be responsible for this trend, including economic recession, the implementation of Europe’s legislative items, and changing attitudes towards tropical timber.

The final two aspects have the potential to shift consumption patterns. As the share of illegal logging is difficult to identify within total wood imports and is thus often unknown, a potential consequence of EU policy is that *all* tropical timber could be avoided out of fear that tropical timber purchases could contribute to deforestation or lead to fines (should illegal timber mistakenly be imported). A blanket boycotting of this genre of wood can, however, reduce the economic incentive for sustainably managing tropical forests due to a decline in buyers. An alternative for poor populations is often to reap the short-term gains from converting these areas to agricultural land. According to the UN Food and Agriculture Organization, the majority of the estimated 13 million ha of tropical forests lost each year occurs as a result of conversion to agriculture (FAO 2010).

Furthermore, many EU importers are concerned about a potential shift in sales of (illegally logged) tropical timber products towards Asian markets as a perverse consequence of VPAs given that the EU has no authority to impose legal restrictions on other markets (Chatham House 2013).

Box #8: Future European actions to support sustainable tropical timber

“After good initial progress, sustainable forest management in tropical regions, where good forest management practices are most urgently needed, is lagging behind. There is now a unique momentum for mainstreaming sustainable tropical timber. Both in Europe and in North America legality measures are being introduced that will have large-scale impact on the tropical timber sector. The **European Sustainable Tropical Timber Coalition** (European STTC) aims to increase demand for timber from sustainably managed forests to a mainstream level as key unlocking move for the tropical timber sector. November 2013 marked the international launch of the European Sustainable Tropical Timber Coalition (European STTC). This event brought together the companies, trade organizations, NGO’s, and national and local government representatives from across Europe that are participating in the coalition.”(IDH 2013)

ii. CDI Environment European performance overview

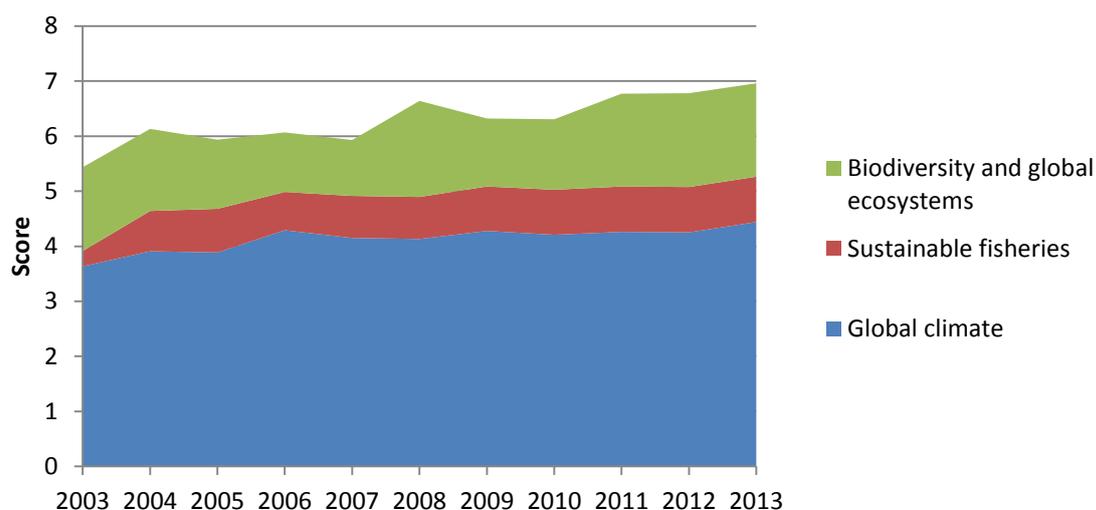
The following section describes the strengths and weaknesses of European countries in terms of the CDI Environment components global climate, fisheries, and biodiversity.

Overall Environment Score

In 2013, the overall consolidated score of Europe for the Environment component was 7¹⁴. Indicators that fall under the area of global climate have the highest influence on the overall score due to the highest weighting of 60% of the total score. Within climate it is the GHG emissions per capita, the annual change in GHG emissions per unit GDP, and the gasoline taxes that show the biggest changes and therefore determine the overall score the most. Graph 1 provides more details on the evolution of the European CDI environment score over time.

¹⁴ Weighted average of European countries in the CDI. Weighted by population and/or GDP where appropriate.

Graph 1: Europe CDI environment score by subcomponents, 2003-2013



Source: CGD 2013

In the European comparison (see Table 2 below) Slovakia and Hungary remain at the top of environment standings with the highest gasoline taxes of CDI countries and greenhouse gas emissions among the lowest. They are followed by Finland and Sweden that have low emissions because they do not produce fossil fuels as well but score worse for gasoline taxes. Moreover both countries provide fisheries subsidies. The following countries Portugal, Poland, Czech Republic, United Kingdom, Belgium, Germany, France, Denmark and the Netherlands differ in the climate indicators GHG emissions per capita, the annual change in GHG emissions per unit GDP and the gasoline taxes and show similar scores for fisheries and biodiversity. They are followed by Italy, which has a very low annual change in GHG per unit GDP and provides higher fisheries subsidies. Ireland's total score is not influenced by the climate indicators but by high fisheries subsidies and a low score on the completeness or required reporting to multilateral treaties relating to biodiversity. Spain's and Greece overall score is very much affected by providing high fisheries subsidies. Austria, Switzerland and Luxembourg show very low scores for the annual change in GHG emissions per unit GDP and the gasoline taxes. Although Norway has low greenhouse gas emissions rate per capita, it produces the largest amount of fossil fuel per person, which results in the lowest rank in the European comparison. It moreover provides the highest fisheries subsidies, which also affects the overall score.

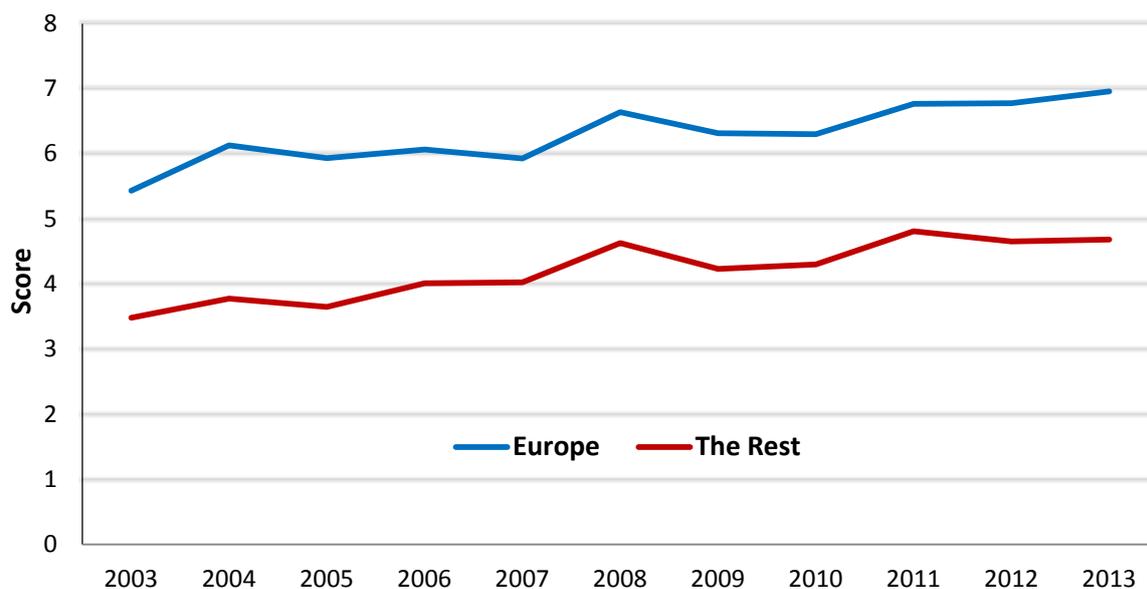
Table 2: CDI Environment score 2013

Country/Region	Overall score
Slovakia	8.6
Hungary	8.0
Sweden	7.8
Finland	7.8
Portugal	7.7
Poland	7.6
Czech Republic	7.5
United Kingdom	7.3
Belgium	7.2
Germany	7.1
France	7.1
Denmark	7.0
Europe	7.0
Netherlands	6.9
Italy	6.9
Ireland	6.7
Spain	6.7
Austria	6.6
Switzerland	6.1
New Zealand	6.0
Greece	5.9
Luxembourg	5.8
The Rest ¹⁵	4.7
South Korea	4.3
United States	4.3
Australia	3.8
Japan	3.8
Norway	2.8
Canada	2.6

Source: CGD 2013

Comparison with other non-European countries shows that European countries are taking the top positions in the environment component. The first non-European country, New Zealand ranks 19th, South Korea, United States, Australia, Japan and Canada, occupy last places, ranking 22nd, 23rd, 24th, 25th, and 27th respectively. Consolidated score for Europe stands above the average, and above the consolidated score for the Rest (the Rest being the consolidated score for all non-European CDI countries).

¹⁵ Consolidated score of non-European CDI countries (Australia, Canada, Japan, New Zealand, South Korea, and United States), weighted by population and/or GDP where appropriate.

Graph 2: CDI Environment score for Europe and The Rest 2003-2013

Source: CGD 2013

Trends over time (Graph 2) show that Europe as well as The Rest have improved their environmental policies (to be discussed in more detail below), however there does not seem to be any convergence of European and non-European countries when their performance is consolidated. Most recently, the gap seems to rather widen again, showing the relevance of promoting improved policies not only in Europe, but beyond.

Global Climate

Strengths

- All of the countries under investigation have significantly reduced their consumption of ozone-depleting substances under the Montreal Protocol in line with their respective targets.
- Every European country analyzed has reduced greenhouse gas (GHG) emissions per unit of gross domestic product (GDP) by at least 1% per year from 2001-2011.
- When compared to other developed economies in the Commitment to Development Index, European nations have high gasoline taxes (Roodman 2013). Higher fuel taxes correlate with reduced fuel usage (Roodman 2013), and therefore reduced GHG emissions.
- GHG emissions per capita have also decreased for all but two European countries analyzed, since the CDI has been released (2003-2013).

Weaknesses

- There is wide variability in the level of gasoline taxation and final gasoline prices in European countries, which serves as an example for the discrepancies between how fuels consumed by different users in different countries are priced through taxes or other carbon pricing tools. The European Commission is currently seeking to overhaul the Energy Taxation Directive (Directive 2003/96/EC), which sets a floor taxation price on fuels (European Commission 2011c). However, there is little progress so far as taxation is an area of EU decision making requiring

unanimity in the EU Council. One outcome is that Luxembourg posts very high GHG emissions domestically, primarily due to foreign consumers (Romero-Jordána et al. 2011).

- While many European nations do not extract high carbon energy carriers such as coal and oil, all of them import combinations of oil, gas, and coal from places such as Russia, the Middle East, the Americas, and other parts of Europe (International Energy Agency 2012). Europe as a whole is an energy importing region. Some countries in Europe (Norway, United Kingdom) produce a significant amount of high carbon fuels. To some extent, governments have the ability to limit production and eliminate subsidies for these industries, but don't always make of their powers.

Fisheries

Strengths

- All European countries have ratified the UN Agreement for the Implementation of the Provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, except Switzerland for which the agreement is not relevant because it does not have a marine fishing fleet.
- UK, Portugal, the Netherlands and Portugal provide low fishing subsidies per capita (Austria, Hungary, Luxembourg, Slovakia and Switzerland provide no subsidies, but they have no marine fleet, so that fisheries subsidies are not relevant).

Weaknesses

- Spain and Greece provide high fishing subsidies per capita which has a harmful effect on the sustainability of the fisheries (Norway provides high subsidies as well, but they are not harmful).

Biodiversity

Strengths

- Europe maintains a high average level of completeness of required reporting to multilateral biodiversity-related treaties, with particularly high scores for the Ramsar and CITES conventions.
- Slovakia, Denmark, Germany and the Netherlands have the highest rankings among all analyzed countries regarding their overall completeness of reporting on the examined biodiversity conventions.

Weaknesses

- While Europe's tropical timber imports have declined overall since 2003, the analysis indicates a gradual increase since 2011. The current average European imports per capita maintain Europe's ranking as fourth of seven, when compared to the six other, non-European CDI countries.
- Greece, Ireland and Luxembourg have the lowest levels of completeness of all analyzed countries regarding reporting on multilateral biodiversity agreements.

Reporting for the UN Convention on Biological Diversity is by far the weakest among the conventions, with no European country having submitting full reports without errors or delay in the most recent reporting period (2009).

2. Policy Recommendations

c. *EU level*

Global Climate

With regard to climate, several European policy recommendations can be made. The first recommendation is that carbon prices should be higher and more homogenous across sectors, countries, and activities. A specific component of this could be a revision of the Energy Taxation Directive (ETD) (2003/96/EC), which may address carbon pricing by:

1. ***Increasing ambition.*** Since current carbon pricing may be insufficient to bring about necessary reductions, setting a higher floor for energy taxes would encourage efficient fuel use and reduce CO₂ emissions.
2. ***Harmonization.*** As an example under the Energy Taxation Directive, diesel fuel is taxed at a lower rate than petrol, demonstrating a discrepancy that taxes currently are not levied based on climate impacts (since emissions of petrol and diesel are roughly equivalent).¹⁶ Motor vehicle fuel taxes in Europe have served other purposes, in addition to climate policy, and so any CO₂ tax revision to the ETD based on CO₂ emissions should continue to incorporate these considerations.¹⁷

The system of fuel taxation and carbon pricing requires further action outside of the transport sector in order to achieve a harmonized, CO₂-oriented tax. Revising the Energy Taxation Directive is one step in a broader, coordinated effort, which may also include shifting taxation revenues from labor to environmental taxes (European Commission 2008).

The EU should also consider more ambitious climate targets. The existing 2020 GHG targets under the second Kyoto commitment period and Europe 2020 strategy are within reach. Recent inventories and projections suggest that the EU will meet its 2020 targets, and already stands below the 2020 Kyoto threshold commitment for annual emissions (European Commission 2013d). One pathway to motivate greater reductions up until 2020 and beyond is an aggressive 2030 European GHG target. This can better facilitate the transition to a low-carbon economy than the current climate targets.

Fisheries

Related to fisheries subsidies the EU has already made a step forward in the reform of the CFP and the accompanying EMFF. But due to the fact that the EMFF still provides some capacity enhancing subsidies, there is still need for improvement. The EMFF was however adopted for the period of 2014-2020 and changes in the subsidies regime could only be realized in the subsequent funding period. The EU Member States have to develop national operational programs for the EMFF. Capacity enhancing subsidies should be eliminated from those programs, such as the replacement of old engines, business start-ups, storage aid and temporary cessations. Norway can serve as a good example of reforming the national subsidies scheme and eliminating harmful capacity enhancing subsidies.

¹⁶ Diesel was chosen as the preferred fuel in the EU in the early 1990s, due to its fuel efficiency (i.e. more kilometers could be driven with a given liter of fuel). Currently, a variety of diesel incentives exist in the EU, both through the Energy Taxation Directive and at the Member State level (Valsecchi et al. 2009). However, it has now been shown that not only does diesel produce more CO₂ per liter (2370 g CO₂ per liter petrol, 2650 g CO₂ per liter diesel), meaning that petrol and diesel fuels are about equivalent in their per kilometer emissions, but it also emits black carbon particulates that cause both adverse health impacts and greater short-term global warming impacts than CO₂ (Jacobson 2005; Office of Transportation and Air Quality 2011; Janssen et al. 2012).

¹⁷ Just as gasoline taxation in CDI is a proxy for fuel taxation, the ETD here is used as an example for broader energy taxation ambition and harmonization.

Biodiversity

The European Union has succeeded in maintaining a high average level of completeness and punctuality in reporting on the Ramsar and CITES conventions. However, low scores on the UN Convention on Biological Diversity and the failure of any European country to submit a full report without error or delay indicates either a lack of commitment to the conventions or perhaps also the need to provide additional support and resources for reversing this trend. In the later case, an assessment of the constraints limiting the ability of individual countries to submit complete reports on time would be necessary. Depending upon the findings, possible actions to address capacity gaps could include providing support to improve data management and ensuring the availability of sufficient financial and personnel resources for monitoring, evaluation and reporting activities. Emphasizing the purpose of national reporting as a tool to support implementation is also important on a European scale.

In addition, the EU should endorse the UN's ongoing efforts to further reduce the burden of national reporting via the harmonization of reporting to biodiversity-related MEAs. Many options on how this could be achieved have been discussed, ranging from one consolidated report for all of the MEAs to joint thematic reports between a limited number of MEAs. While challenging, these efforts should continue and ultimately facilitate improved completeness of reporting and thereby implementation in the party countries.

Regarding timber, while the overall score for tropical imports has improved in Europe since 2003, the analysis indicates a gradual increase in imports since 2011 and highlights the need for further action to reduce the resultant negative environmental and social damages. However, it should be highlighted that – given that the *illegally* harvested portion of tropical timber is predominantly responsible for negative consequences – emphasis should be placed on gaining new momentum in mainstreaming *sustainable* tropical timber rather than simply reducing all imports. This can be supported in part by expanding the number of VPAs under the FLEGT regime. On a policy level, the EUTR is also foreseen to be reviewed in 2015. This will provide a good occasion to involve stakeholders in the improvement process and recognize and alleviate any existing shortcomings to make the legislation more effective.¹⁸

There is also a large opportunity in Europe to augment demand-side intervention to increase sustainable forest management efforts. This can be achieved partially by bundling policy (such as FLEGT and its associated measures) with increased consumer awareness of the environmental and social impacts of purchased products.

d. *Member States*

Several environment policy recommendations are most applicable at the Member State level.

Eliminate subsidies for production and consumption of fossil fuels. Varying fossil fuel production and consumption incentives exist at the state level (OECD 2012). Without fossil fuel subsidies, economies can improve resource allocation, lessen the financial impact on governmental budgets (via increased tax revenues and fewer public expenditures), avoid negative social impacts on human health and household spending, encourage the growth of eco-innovation and associated business sectors, benefit from more efficient resource use across sectors, and reduce GHG emissions by encouraging alternative fuels/resources (Whitley, Shelagh 2013; Withana et al. 2012). The EU and OECD countries have committed to removing or phasing out environmentally harmful subsidies, most recently through the ‘Roadmap for a resource efficient Europe’ and OECD’s ‘Declaration on Green Growth’ (Withana et al. 2012; OECD 2012). Increasing political action at the state level to review inventories and eliminate these

¹⁸ See <http://www.ettf.info/eu-timber-regulation>

subsidies would greatly benefit European societies and lessen the climate impacts on the developing world.

Raising gasoline taxes: The primary benefit of high gasoline taxes is encouraging the use of a substitute fuel or service (OECD 2013). “Fuel tourism” is also a European-specific challenge because of the wide variability of fuel taxes and consumer prices, allowing drivers near national borders to purchase fuel in the jurisdiction where it is cheapest and thereby avoid the price signal that fuel taxes are meant to have. Switzerland and Luxembourg see the effect amplified, thanks to low fuel taxes and many borders. An increase of 10% in Swiss petrol prices, for example, was estimated to increase demand in the bordering areas (DE, FR, IT) by nearly 17.5% (Banfi et al. 2005). Elevating fuel taxes in countries with low fuel prices could disincentivize unnecessary fuel consumption.

e. **Outlook**

Global Climate

Europe’s position on top of the climate section of the environment indicator will likely remain, but this is perhaps more of a reflection of climate policy outside of Europe than it is of ambitious climate policies in Europe. It is expected that Europe will continue to lower its GHG emissions overall and also per capita. As fossil fuel subsidies are phased out, less carbon-intense fuels will be extracted. However, significant differences within Europe will persist. The GHG-intensity of GDP will likely further decline. A strong sign of this is that the economic output of new Member States continues to grow at a greater rate than emissions. Considering the other climate indicators, Europe will continue its efforts to meet the goals of the Montreal Protocol. Additionally, fuel taxation will remain heterogeneous throughout Europe and comparatively high in the global rankings, although enhanced action at the state level can benefit domestic GHG inventories and encourage alternative transport. Thus, the outlook is positive for Europe in the global climate indicators, but as the UN Environment Programme Gap Report suggests, there is great room for further climate ambition, even for Europe.

Fisheries

The European fishing industry is facing an uncertain future. Many European fish stocks are overfished and catches currently remain small compared to historical trends. While demand for fish remains high by European consumers, the EU and its Member States must act to ensure that the fishing industry becomes more economically and environmentally sustainable. With the recent 2013 reform of the EU's CFP, Europe aims to provide new and improved management to the sector and along with it bring economic stability. The CFP will reduce the sector’s dependence on subsidies, therefore it can be expected that European performance in the fisheries section of the environment indicator will gradually improve in the coming years. Though these efforts move in the right direction, the CFP will require long-term commitment from the EU, its Member States, and the fishing industry to ultimately achieve healthy fish stocks and economic sustainability.

Biodiversity

The European position in the biodiversity section of the environment indicator is likely to improve in the coming decades because of the EU Timber Regulation, which may reduce (unsustainable) tropical timber imports per capita in EU Member States. The outlook on reporting for multilateral agreements is less clear. Short of EU (or other high-level) guidance to encourage improved reporting practices, European performance on this indicator may not change. As some of the newer signatory states adjust to the procedures, however, there is the possibility for Member State-level improvement over time.

3. **Bibliography**

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