

No1/2012

ENVIRONMENTAL  
LAW NETWORK  
INTERNATIONAL

RÉSEAU  
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## REVIEW

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European investment projects in the third countries:  
LEGALLY GREEN?

*Daria Ratsiborinskaya*

Market-based Mechanisms as Climate Policies:  
Insights for Brazil

*Natascha Trennepohl*

Public participation in decisions on specific activities  
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## Editorial

This issue of *elni Review* deals with the interdependence between European law and environmental law in non-European countries. On the one hand environmental law developments in a number of countries are initiated by adaptation processes as they seek to implement the European model into their national context. But there are also on the other hand further driving forces like investment policies.

The current issue of *elni Review* contains several contributions by legal scholars and practitioners that highlight different aspects of the interdependence between European law and environmental law.

In her article "European investment projects in the third countries: LEGALLY GREEN?" *Daria Ratsiborinskaya* analyses how European environmental standards are applied outside of Europe in the case of foreign direct investments.

"Market-based Mechanisms as Climate Policies: Insights for Brazil" is the title of *Natascha Trennepohl's* contribution, which highlights the basic elements of a trading scheme by focussing on the model of the European Union Emissions Trading Scheme and the development of the carbon market in Brazil.

The adoption of the European *acquis* in Croatia is discussed by *Lana Ofak* in her article "Public participation in decisions on specific activities in environmental matters in Croatia". The article provides a general overview of the legal framework for public participation in decisions on specific activities in Croatia and highlights specific problems in exercising the right to participate in environmental impact assessment procedures.

*Brahim Zyani* gives a valuable overview of the current environmental law situation in Morocco by tracing the developments in recent decades in his article "Nouveautés constitutionnelles, juridiques et de politique générale relatives au Droit de l'Environnement et du Développement Durable dans le Royaume du Maroc". Since the article is written in French a summary is provided in English.

Additionally, the current issue of *elni Review* makes available new information about recent developments, e.g. the revision of the Brazilian Forest Code, which has received critical press in recent media; and the environmental regulatory developments after the 'Arab Spring' in Tunisia. The relevant article is also written in French and briefly summarized in English.

We hope you enjoy this issue! The next issue of *elni Review* will focus on water. Please send contributions on this topic as well as other interesting articles to the editors by mid-September 2012.

*Nicolas Below/Gerhard Roller*  
May 2012

### International conference on the European Habitats Directive

**from 12-13 December 2012  
in Antwerp, The Netherlands**

#### ***"20 years of Habitats Directive: European Wildlife's Best Hope?"***

The conference aims at assessing the strengths and weaknesses of the Habitats Directive in the light of the European 'no net loss' approach. In this respect focus will not only rest on the existing threats to biodiversity (e.g. nitrogen deposit) but also on new challenges, such as climate change and invasive alien species. Is the Habitats Directive robust enough to tackle these new and existing threats or do we need other or better legal instruments?

Although the conference will mainly be dedicated to legal issues, it will not lose sight of the broader, more multidisciplinary ecological context.

This conference is co-organised by the Université Catholique de Louvain (Séminaire de droit de l'urbanisme et de l'environnement (SERES) and Biodiversity Research Centre (BDIV)), Ghent University (Centrum voor Milieuen Energierecht (CMR) of the Department of Public Law and the Department of Public International Law), Facultés Universitaires Saint-Louis (Centre d'Etude du Droit de l'Environnement (CEDRE)), The Flemish Environmental Law Association (VVOR) and ARGUS-het milieupunt van KBC en CERA.

More information and application:  
[www.omgevingsrecht.be](http://www.omgevingsrecht.be)

## Market-based Mechanisms as Climate Policies: Insights for Brazil

Natascha Trennepohl

### 1 Introduction

The use of market-based mechanisms as environmental policies to achieve greenhouse gas emissions reduction has been in place for some years and remains an attractive option in the international climate regime. This article intends to highlight basic elements of a trading scheme that should be considered and might influence decision-makers when setting similar systems. In this context, the focus will be on the European Union Emissions Trading Scheme and the development of the carbon market in Brazil.

There are still many open questions about the future of the international climate regime. Last year in Durban, the seventh Conference of the Parties (COP 17) of the United Nations Framework Convention on Climate Change (UNFCCC) brought some clarity to key points in the negotiations, such as the start of a second commitment period of the Kyoto Protocol (KP) and the continued use of market-based mechanisms to achieve greenhouse gas (GHG) reduction targets.<sup>1</sup> In fact, the future of the existing flexible mechanisms and the development of new market mechanisms have been under discussion since COP 15 in Copenhagen. In Durban, the Outcome of the Ad Hoc Working Group under the Kyoto Protocol (AWG-KP) took note of proposed amendments to the Protocol, one of which referred to the use by Annex I Parties of "units generated from market-based mechanisms"<sup>2</sup> and the Outcome of the AWG-LCA referred to new market-based mechanisms.<sup>3</sup> In 2011, Parties to the UNFCCC submitted their views on the elaboration of new market-based mechanisms.<sup>4</sup> However, it is not clear yet how exactly they will work. The European Union (EU) supports the implementation of two new market-based mechanisms<sup>5</sup> and in its final submissions to the UNFCCC Secretariat, the EU underlined the

willingness to strengthen cooperation with developing countries in order to improve carbon market readiness.<sup>6</sup>

Despite the uncertainties in the international climate regime, the European Union Emissions Trading Scheme (EU ETS) is the heart of the EU climate policy<sup>7</sup> and can certainly serve as an example for other countries that choose to use this instrument to reduce GHG emissions.<sup>8</sup> In fact, the future climate regime can be built on the Kyoto Protocol and its mechanisms<sup>9</sup> and the EU ETS might grow and link with other systems.<sup>10</sup>

In this context, it is worthwhile analysing which elements of this system should be considered by decision-makers when setting new schemes in order to ensure ecological integrity and comparability. This article intends to highlight basic elements of setting up an emission trading scheme and the corresponding framework in place in Brazil, considering that the country has signaled its intention to encourage the development of the Brazilian Emissions Reduction Market (MBRE). Hence, the structure of the article will be as follows: Initially, basic design elements of an emissions trading scheme will be described. Following this, a general overview of the national policy on climate change in Brazil will be presented, followed by references to the Brazilian Emissions Reduction Market (Mercado Brasileiro de Redução de Emissões - MBRE) and the recently established Standard for the Voluntary Carbon Market.

<sup>1</sup> According to the Decision 1/CMP.7, the second commitment period shall begin on 1 January 2013 and end either in 2017 or 2020 (to be decided by the AWG-KP at COP-18). Decision 1/CMP.7, Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) at its sixteenth session, Durban, December 2011.

<sup>2</sup> Decision 1/CMP.7, supra note 1.

<sup>3</sup> Decision 2/CP.17, Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) at its sixteenth session, Durban, December 2011.

<sup>4</sup> FCCC/AWGLCA/2011/MISC.2, 21 March 2011.

<sup>5</sup> For a detailed explanation of the EU proposal on sectoral crediting and sectoral trading see: FCCC/AWGLCA/2011/MISC.2, 21 March 2011. EU-Submission of 15 February 2011, pp. 48-57.

<sup>6</sup> See FCCC/AWGLCA/2011/MISC.2/Add.4, EU-Submission of 20 September 2011 at 4. Market readiness has a close relation to capacity building.

<sup>7</sup> According to Egenhofer, the EU ETS is "the backbone of the global carbon market" due to its volume. Egenhofer, 'Perspectives on the EU Carbon Market'. In *Progressing Towards Post-2012 Carbon Markets*. (UNEP Risø Centre, Denmark, 2011) p. 25.

<sup>8</sup> However, it is important to mention that some authors question the effectiveness of the emissions trading in reducing GHG emissions. For a critical view on the EU ETS see Gerd Winter. 'The Climate is No Commodity: Taking Stock of the Emissions Trading System'. In *Journal of Environmental Law*, Vol 22, Issue 1, 2010, pp. 1-25.

<sup>9</sup> According to Nicole Wilke. 'Wie geht es weiter mit dem Kyoto-Protokoll? Das Klimaschutzregime nach 2012'. In Müller et al. (eds.). *Der UN-Weltklimareport: Bericht über eine aufhaltsame Katastrophe* (Kiepenheuer & Witsch, Köln, 2007), p. 368.

<sup>10</sup> Directive 2009/29/EC clearly refers to the linking of emissions trading systems and the Coalition Agreement in Germany argues that emissions trading "should expand in the future into a global carbon market". See Coalition Agreement between the CDU, CSU and FDP for the 17th legislative period, p. 33.

## 2 Basic elements of a trading scheme<sup>11</sup>

There are basic elements that an emissions trading system must have in order to work and reduce GHG emissions. Some of these basic elements include a cap that limits GHG emissions, a difference in the abatement costs to motivate participants to trade, a reliable monitoring system to ensure environmental integrity, a structure to promote enforcement<sup>12</sup>, and the discussion with interested sectors.

In Europe, there are directives regulating the carbon market, such as Directive 2003/87/EC<sup>13</sup>, which established the initial guidelines of the European Union Emissions Trading Scheme, and Directive 2004/101/EC, which dealt with the use of CERs to achieve the internal target of each Member State. According to the preamble 7 of the EU ETS Directive (Directive 2003/87/EC), this scheme was established to avoid distortions of competition and to preserve the integrity of internal markets.

The EU ETS Directive, however, provides only the basic framework for trading. Important details, such as contractual and tax law are to be defined by Member States.<sup>14</sup> At the European level, Member States publish National Allocation Plans (NAP) indicating how many allowances will be issued in a certain period and how they will be distributed amongst installations. Therefore, National Allocation Plans played a central role in understanding how and to whom the allowances were allocated in the first (from 2005 to 2007) and in the second phase (2008–2012) of the EU ETS.<sup>15</sup> Of the EU members, some elements of the German National Allocation Plan will be pointed out.

Concerning the structure of the first German NAP, the Plan was divided into a Macroplan with the national emissions budget and the amount of allowances to be allocated and a Microplan with the

methods and rules of allocation.<sup>16</sup> The NAP I divided the reduction target per sector and listed in a separate annex the installations under the cap.

The allocation of allowances is a key element when setting up an emission trading scheme, bearing in mind that *'it ensures the effectiveness of emissions trading as an environmental policy instrument'*.<sup>17</sup> Therefore, an accurate inventory or data collection of emissions is essential. The next step is to define how the allowances will be allocated: if they are to be auctioned or given for free. When the allowances are allocated through auctioning, the revenues can be used to support mitigation and adaptation measures. However, during the first trading period of the EU ETS, the German NAP, like many other allocation plans in the EU, allocated 100 per cent of its allowances for free.<sup>18</sup>

In the third phase of the EU ETS (2013–2020), however, there will be a major shift from free allocation to auctioning. According to Directive 2009/29/EC, Member States have to auction all allowances which are not allocated free of charge under articles 10a and 10c.<sup>19</sup>

The major change in the next phase of the EU ETS is the centralisation of the system. The scheme started decentralised with Member States allocating allowances through their National Allocation Plans. Nonetheless, from 2013 onwards all operations will be centralised in a registry operated by the European Commission.<sup>20</sup> There will be a single EU cap, calculated taking into account the EU target to reduce 20% of its GHG emissions considering 1990 levels.<sup>21</sup>

Regarding another central element, the difference in abatement costs, one of the main arguments in favour of emissions trading is that emissions will be reduced where most cost-effective. In other words, when the cap is set, the installations receive a quota of emissions. These installations can either choose to reduce their own emissions or buy additional credits to comply with the cap in case their internal reduc-

<sup>11</sup> Some parts of this session were previously mentioned in: Natascha Trennepohl, 'Brazil's National Policy on Climate Change and the Carbon Market', in Couzens and Honkonen (eds.) *International Environmental Law-making and Diplomacy Review 2010*, University of Eastern Finland - UNEP, Finland 2011, pp. 178–181.

<sup>12</sup> UNEP and UNCTAD, 'An Emerging Market for the Environment: A Guide to Emissions Trading', available at <<http://www.unep.fr/energy/information/publications/risoe/pdf/EmissionsTrading-Feb03.pdf>> (last accessed 28 February 2011).

<sup>13</sup> Amended by Directive 2004/101/EC of 27 October 2004, Directive 2008/101/EC of 19 November 2008, Regulation (EC) No 219/2009 of 11 March 2009, and Directive 2009/29/EC of April 2009.

<sup>14</sup> Matthieu Wemaere and Charlotte Streck, 'Legal Ownership and Nature of Kyoto Units and EU Allowances', in Freestone and Streck (eds.), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms* (Oxford University Press, 2005) pp. 35–53 (p. 49).

<sup>15</sup> The first phase of the EU ETS is also referred as the 'learning phase' and the second phase corresponds to the first commitment period of the KP. For further information on the EU ETS, see the European Commission at <<http://ec.europa.eu>>.

<sup>16</sup> See BMU, 'National Allocation Plan for the Federal Republic of Germany (2005–2007)', available at <<http://www.bmu.de>> (visited 22 October 2010).

<sup>17</sup> Simon Marr, 'Implementing the European Emissions Trading Directive in Germany', in Freestone and Streck (eds.), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms* (Oxford University Press, 2005) pp. 431–444 (p. 435).

<sup>18</sup> See supra note 16.

<sup>19</sup> See article 10 of Directive 2003/87/EC amended by Directive 2009/29/EC of 23 April 2009.

<sup>20</sup> For more information see Registries, available at <[http://ec.europa.eu/clima/policies/ets/registries/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/registries/index_en.htm)> (visited 04 April 2012).

<sup>21</sup> Jon Birger Skjoerseth and Jørgen Wettestad, 'The EU Emissions Trading System Revised (Directive 2009/29/EC)', in Sebastian Oberthür, Marc Pallemmaerts (eds.), *The New Climate Policies of the European Union* (VUBPress, 2010) pp. 65–91 (p. 75).

tion costs are higher than the price of carbon credits in the market.<sup>22</sup>

Other key factors of a trading scheme are reliable estimation and monitoring systems. The importance of having accurate estimations of GHG emissions becomes evident when the price crash of carbon units at the end of 2007 is considered: due to an over-allocation of allowances, the price of the European Union Allowances (EUAs) went from a peak of over € 30 in April 2006 to under € 1 in early 2007.<sup>23</sup> However, another crash is unlikely to happen, even after the economic downturn, considering the banking system between periods.<sup>24</sup> If emissions are not correctly estimated and there is an over-allocation of units in the market, the environmental integrity of the scheme can be questioned. Additionally, establishing guidelines for the reporting and monitoring of GHG emissions is also fundamental to ensure that the reduction of one tonne of CO<sub>2</sub> means the same in all systems.

In terms of enforcement, according to the German NAP, a fine must be paid for each tonne of CO<sub>2</sub> that was emitted above that which is permitted. The fine was set to discourage transgressions, especially because its value was higher than the price of a carbon unit (ton of CO<sub>2</sub>) in the market. For example, the NAP I set a fine of €40 per ton of CO<sub>2</sub> emitted beyond the permitted in the first phase and a fine of €100 per ton of CO<sub>2</sub> in the second phase. Besides the payment of this fine, the installation that emitted more than allowed would also have to reduce in the next year the amount of emissions that were exceeded.<sup>25</sup>

Finally, an element that should be considered during the analysis of setting a cap-and-trade system as a policy instrument is the dialogue with different sectors, bringing together interested groups, such as environmental organisations, policy-makers, researchers, and business groups to discuss the challenges and possible paths.

### 3 The Carbon Market in Brazil's Policy on Climate Change

#### 3.1 General overview

Before analysing the existent carbon market in Brazil, it is important to have a general overview of the voluntary commitment made by the country at the COP 15, as well as of the mitigation measures and sectoral approach mentioned at the National Policy on Climate Change.

During COP 15 in Copenhagen, Brazil announced its voluntary commitment to reduce 36%<sup>26</sup> of its projected GHG emissions by 2020. In the sequence, Law 12.187 of December 2009 expressly mentioned this voluntary commitment and established principles, objectives, guidelines, and instruments of the Brazilian National Policy on Climate Change.

Aiming to show how the country would achieve its voluntary commitment, Brazil's submission under the Copenhagen Accord listed domestic actions to be implemented, such as the reduction of deforestation in the Amazon and in the Cerrado, the increase of the hydroelectricity supply, and the use of biofuels.

The next regulatory step was the edition of Decree 7.390 of December 2010, which quantified Brazil's projected GHG emissions for the year 2020 as 3.2 GtonCO<sub>2</sub>eq. This projection took into account projected emissions from land use change (1.4 GtonCO<sub>2</sub>eq), energy (868 million tonCO<sub>2</sub>eq), agriculture and ranching (730 million tonCO<sub>2</sub>eq), and industrial processes and waste treatment (234 million tonCO<sub>2</sub>eq).

According to Decree 7.390/10, in order to achieve its commitment, Brazil needs to reduce its GHG emissions by between 1.1 and 1.2 GtonCO<sub>2</sub>eq. Some of the domestic actions listed in Brazil's submission were detailed in Article 6 of the above-mentioned decree, mainly:

- I. a 80% reduction of the annual deforestation rate in the Legal Amazon<sup>27</sup> in relation to the average rate reported between 1996 and 2005;
- II. a 40% reduction of the annual deforestation rate in the Cerrado<sup>28</sup> in relation to the average rates between 1999 and 2008;
- III. an increase on hydroelectric supply, use of alternative renewable sources (especially wind farms, small hydropower plants and bioelectricity), biofuels, and energy efficiency;

<sup>22</sup> It is worth adding that it can be profitable for other companies to reduce their CO<sub>2</sub> emissions and sell the credits at a higher price in the market. See Henry Dannenberg, Wilfried Ehrenfeld, 'A Model for the Valuation of Carbon Price Risk', in Antes et al. (eds.), *Emissions Trading: Institutional Design, Decision Making and Corporate Strategies* (Springer, 2011) pp. 141-162 (p. 145).

<sup>23</sup> See Capoor and Ambrosi, 'State and Trends of the Carbon Market 2007' (World Bank, 2007), available at <<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21319781~pagePK:64257043~piPK:437376~theSitePK:4607,00.html>> (visited 11 March 2011), p. 12.

<sup>24</sup> Markus Pohlmann, 'The European Union Emissions Trading Scheme', in Freestone and Streck (eds.), *Legal Aspects of Carbon Trading* (Oxford University Press, 2009) pp. 337-366 (p. 354).

<sup>25</sup> See supra note 16.

<sup>26</sup> Brazil's voluntary commitment is to reduce between 36.1% to 38.9% of its projected emissions by 2020 (Art. 12 of Law 12.187/09).

<sup>27</sup> According to Law 4.771/65, the states of Pará, Amapá, Rondônia, Roraima, Acre, Amazonas, Mato Grosso, and parts of Maranhão and Tocantins compose the Brazilian Legal Amazon.

<sup>28</sup> The Cerrado is a tropical savanna ecosystem that occurs in the Central Plateau and in the States of Goiás, Tocantins, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Bahia e Distrito Federal.

- IV. a 15 million hectares recovery of degraded pasture;
- V. a 3 million hectare increase on forest plantation; and so on.

The National Policy also lists economic instruments that might be used to achieve the commitment, such as tax measures to stimulate the reduction of GHG emissions, including different rates, exemptions, and incentives; as well as the use of financial mechanisms within the UNFCCC and the KP framework (Art. 6 of Law 12.187/09). Notwithstanding the mention of the use of tax measures, a carbon tax or something similar does not seem to be a priority in the government agenda (as of February 2012).

In terms of governance, the implementation of these actions will be monitored by different actors through the Brazilian Forum on Climate Change<sup>29</sup> (Art. 8 of Decree 7.390/10), which is composed of ministers, politicians, members of non-governmental organisations (NGOs), researchers, and the private sector. The Forum seeks to promote the dialogue between government and society through public consultations, State Forums on Climate Change, and working groups on environmental-related topics.

In addition to the aforementioned measures to reduce anthropogenic greenhouse gas emissions, it is expressly provided in Article 4, VIII of Law 12.187/09 that the National Policy shall encourage the development of the Brazilian Emissions Reduction Market (MBRE).

### 3.2 *The Brazilian Emissions Reduction Market (MBRE) and the Standard for the Voluntary Carbon Market*

The reference to the development of the carbon market in Article 4 is not the only reference to the Brazilian Emissions Reduction Market (MBRE) in the national policy. According to Article 9, the MBRE shall be operated in commodities, futures and stock exchanges, and in over-the-counter trading companies.

Actually, the Brazilian Emissions Reduction Market has been operational since 2004 through a platform in the Brazilian Stock Exchange (BM&F Bovespa). This platform aims to facilitate the commerce of Certified Emission Reductions (CERs) from CDM projects hosted by Brazil. The MBRE has a database of registered projects which foreign investors can either search for projects or disclose their intentions of purchase on the database; they are notified when a new project that fits their expectations is registered. The credits can also be acquired through online

auctions held by BM&F Bovespa.<sup>30</sup> The first online auction of carbon credits held in 2007 sold 808 tons of CERs, raising approximately 13 million Euros (€16.20 per tonne)<sup>31</sup>, followed by a second auction in 2008, which sold 713 tons of CERs with a winning bid that reached the amount of €19.20 per tonne.<sup>32</sup>

There is no doubt that Brazil is a key player in the trade of CERs, ranking third in the number of registered project activities by host party<sup>33</sup> with 5 per cent of the current CDM registered projects in the Executive Board.<sup>34</sup> In spite of its participation in the international carbon market through the selling of CERs, the Brazilian legislation does not provide a detailed description of the institutional framework of the Brazilian Emissions Reduction Market in a future national carbon market. It is true, however, that a sectoral approach through the elaboration of sectoral plans has been chosen by the National Policy as means of achieving Brazil's voluntary commitment and of encouraging the development of a low carbon economy in the country.<sup>35</sup> It could be argued that Decree 7.390 of 2010 outlines the possible establishment of a market-based system in the future by providing that the sectoral targets might be used as parameters for the Brazilian Emissions Reduction Market.<sup>36</sup> However, it is not clear yet which sectors or installations could be included in a future national scheme and how it would interact with other mitigation measures described in the sectoral plans.

At the state level, the carbon market is also mentioned in some state laws, for instance the ones that established policies on climate change in the States of Amazonas, Tocantins, Rio de Janeiro, and Espírito Santo. Law 3.135 of 2007 of the State of Amazonas and Law 1.917 of 2008 of the State of Tocantins have similar provisions. Regarding the carbon market, both laws provide that these States might sell carbon credits in the MBRE or in other

<sup>29</sup> See Forum Brasileiro de Mudanças Climáticas at <<http://www.forumclima.org.br>>.

<sup>30</sup> See BM&F Bovespa at <[www.bmfbovespa.com.br](http://www.bmfbovespa.com.br)> (visited 18 February 2011).

<sup>31</sup> Ricardo Leopoldo. 'Banco holandês paga R\$ 34 milhões de reais por crédito de carbono'. *Estadão*, São Paulo, 26 September, 2007.

<sup>32</sup> Plantão. 'Leilão de créditos de carbono rende R\$ 37 milhões para Prefeitura'. *O Globo*, São Paulo, 25 September, 2008.

<sup>33</sup> As of 2 March 2012, Brazil has 201 projects. Of the 3,889 registered project activities, China has 1,837 projects (47%), followed by India with 791 projects (20%). Available at <<http://cdm.unfccc.int>> (visited 4 March 2012).

<sup>34</sup> According to a study from the former GTZ, Brazilian CERs have a good 'reputation' in the market and are in general more expensive when compared to Indian and Chinese CERs. GTZ, CDM/JI Initiative – Country Study Brazil: A CDM Market Overview (Deutsche Gesellschaft für Technische Zusammenarbeit - GTZ, 2008) at 3.

<sup>35</sup> Some of the sectoral plans are being elaborated by the government and shall be widely discussed with interested sectors through public consultation meetings. The first five sectoral plans relate to deforestation in the Amazon and in the Cerrado, energy expansion, agriculture and steel.

<sup>36</sup> See Articles 3, 4(1) and 4(3) of Decree 7.390 of 2010.

national or international scheme. The credits could be from projects under the UNFCCC, from avoided emissions in natural forests, and from other mechanisms and market regimes. It is interesting to note that both laws have the promotion and creation of market instruments that allow the development of projects to reduce GHG emissions within the Kyoto Protocol (through the Clean Development Mechanism) or outside its framework as part of their objectives. Adding to that, both state policies provide for the creation of a State Program on Environmental Monitoring with the aim of monitoring forest carbon stocks for the purpose of sustainable forest management and a possible use of the information in a future carbon market.<sup>37</sup>

Law 5.690 of 2010 of the State of Rio de Janeiro and Law 9.531 of 2010 of the State of Espírito Santo also refer to the carbon market. The former refers to the market in a general way by providing that the *"State will promote the development of the carbon market, stimulating the creation and implementation of projects that generate CERs and other carbon credits"*.<sup>38</sup> The latter, on the other hand, provides for the creation of a Public Registry of Emissions, which would set guidelines and monitor mitigation measures, which experience could be used in case the State decides to establish a regional carbon market in line with the Brazilian Emissions Reduction Market (Articles 12 and 13 of Law 9.531 of 2010).

In addition to these legislative initiatives and driven by the potential development of the carbon market in the future, the Brazilian Standardization Forum (ABNT<sup>39</sup>) established a study committee to create a standard for the voluntary carbon market in the country. The committee was composed of government representatives, members of non-governmental organizations, scholars, and representatives of the private sector. Due to the little regulation of the market, this standard is an important attempt to reduce market uncertainty, presenting guidelines to strengthen the credibility of the voluntary market and ensure integrity of transactions. Moreover, lessons learned with the use of this standard can also be useful in case a mandatory scheme is established.

Finally, as it can be seen, there are already a few initiatives, which could increase Brazil's participation in the carbon market, not only by selling CERs

within the scope of the EU ETS, but also by developing a national platform to respond to the voluntary commitment expressed in Law 12.187/09.

#### 4 Conclusions

It is true that the future of the international climate regime still has many open questions. However, the use of market-based mechanisms to achieve GHG emission reduction targets remains a popular and attractive option for many countries. In this scenario, the European Union Emissions Trading Scheme is the largest and most successful system in place, from which lessons can be certainly learned and used by other countries that choose to use this environmental policy instrument.

As can be concluded by the analysis of the European Directives that regulate the EU ETS, some basic elements must be in place when setting up a trading scheme in order to ensure environmental integrity and avoid distortions of competition. Some examples of these elements are the stringency of the cap, a reliable monitoring system, enforcement provisions, and so forth.

Considering the carbon market in Brazil, the country already plays an important role on the development of Clean Development Mechanism projects and the generation of Certified Emission Reductions. In addition to that, Brazil established, through its National Policy on Climate Change, a voluntary commitment to reduce its projected GHG emissions by 2020 and is currently working on sectoral plans to describe how to fulfill this commitment. A possible pathway is the expansion of the Brazilian Emissions Reduction Market (MBRE) and its use not only as a platform for the trading of CERs, but also as a national carbon market. However, it is important to stress that most of the legislative references to the Brazilian Emissions Reduction Market are still mainly connected to the trading of CERs. Nevertheless, there is already reference to the use of sectoral targets as parameters for the MBRE and the development of market mechanisms outside the framework of the Kyoto Protocol.

In short, there are already initiatives of the private sector and lawmakers that signalise the possible development of the carbon market in the country. For this reason, the experiences gathered during the implementation of other trading schemes can be extremely valuable for decision-makers who are considering using market-based mechanisms as part of environmental policies.

<sup>37</sup> See Articles 24, 2 II, and 5 III of Law 3.135/07 and Articles 19, 2 II, and 5 III of Law 1.917/08, respectively.

<sup>38</sup> Author's free translation from the original in Portuguese. See Article 8 of Law 5.690/10.

<sup>39</sup> ABNT stands for Associação Brasileira de Normas Técnicas. It represents in Brazil the following international organizations: ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission). ABNT is also the Brazilian representative of regional standardization bodies, such as COPANT (Pan American Standards Commission) and AMN (MERCOSUR Standardization Association). For more info see [www.abnt.org.br](http://www.abnt.org.br).

## Imprint

*Editors: Regine Barth, Nicola Below, Claudia Fricke, Martin Führ, Gerhard Roller, Julian Schenten, Silvia Schütte*

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The Editors would like to thank **Vanessa Cook** (Öko-Institut) for proofreading the *elni Review*.

We invite authors to submit manuscripts to the Editors as files by email using an IBM-compatible word processing system.

The *elni Review* is the double-blind peer reviewed journal of the Environmental Law Network International. It is distributed twice a year at the following prices: commercial users (consultants, law firms, government administrations): € 52; private users, students, libraries: € 30. Non-members can order single issues at a fee of € 20 incl. packaging. The Environmental Law Network International also welcomes an exchange of articles as a way of payment.

The *elni Review* is published with financial and organisational support from Öko-Institut e.V., and the Universities of Applied Sciences in Darmstadt and Bingen.

*The views expressed in the articles are those of the authors and do not necessarily reflect those of elni.*

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**elni membership**

If you want to join the Environmental Law Network International, please use the membership form on our website: <http://www.elni.org> or send this form to the **elni Coordinating Bureau**, c/o IESAR, FH Bingen, Berlinstr. 109, 55411 Bingen, Germany, fax: +49-6721-409 110, mail: [Roller@fh-bingen.de](mailto:Roller@fh-bingen.de).

The membership fee is € 52 per year for commercial users (consultants, law firms, government administration) and € 21 per year for private users and libraries. The fee includes the bi-annual elni Review. Reduced membership fees will be considered on request.

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The Öko-Institut (Institut für angewandte Ökologie - Institute for Applied Ecology, a registered non-profit-association) was founded in 1977. Its founding was closely connected to the conflict over the building of the nuclear power plant in Wyhl (on the Rhine near the city of Freiburg, the seat of the Institute). The objective of the Institute was and is environmental research independent of government and industry, for the benefit of society. The results of our research are made available of the public.

The institute's mission is to analyse and evaluate current and future environmental problems, to point out risks, and to develop and implement problem-solving strategies and measures. In doing so, the Öko-Institut follows the guiding principle of sustainable development.

The institute's activities are organized in Divisions - Chemistry, Energy & Climate Protection, Genetic Engineering, Sustainable Products & Material Flows, Nuclear Engineering & Plant Safety, and Environmental Law.

#### The Environmental Law Division of the Öko-Institut:

The Environmental Law Division covers a broad spectrum of environmental law elaborating scientific studies for public and private clients, consulting governments and public authorities, participating in law drafting processes and mediating stakeholder dialogues. Lawyers of the Division work on international, EU and national environmental law, concentrating on waste management, emission control, energy and climate protection, nuclear, aviation and planning law.

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The University of Applied Sciences in Bingen was founded in 1897. It is a practiceorientated academic institution and runs courses in electrical engineering, computer science for engineering, mechanical engineering, business management for engineering, process engineering, biotechnology, agriculture, international agricultural trade and in environmental engineering.

The *Institute for Environmental Studies and Applied Research* (I.E.S.A.R.) was founded in 2003 as an integrated institution of the University of Applied Sciences of Bingen. I.E.S.A.R carries out applied research projects and advisory services mainly in the areas of environmental law and economy, environmental management and international cooperation for development at the University of Applied Sciences and presents itself as an interdisciplinary institution.

The Institute fulfils its assignments particularly by:

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- **Environmental advice in developing countries**
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  - Environmental management
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The Society for Institutional Analysis was established in 1998. It is located at the University of Applied Sciences in Darmstadt and the University of Göttingen, both Germany.

The sofia research group aims to support regulatory choice at every level of public legislative bodies (EC, national or regional). It also analyses and improves the strategy of public and private organizations.

The sofia team is multidisciplinary: Lawyers and economists are collaborating with engineers as well as social and natural scientists. The theoretical basis is the interdisciplinary behaviour model of homo oeconomicus institutionalis, considering the formal (e.g. laws and contracts) and informal (e.g. rules of fairness) institutional context of individual behaviour.

The areas of research cover

- Product policy/REACH
- Land use strategies
- Role of standardization bodies
- Biodiversity and nature conservation
- Water and energy management
- Electronic public participation
- Economic opportunities deriving from environmental legislation
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## elni

*In many countries lawyers are working on aspects of environmental law, often as part of environmental initiatives and organisations or as legislators. However, they generally have limited contact with other lawyers abroad, in spite of the fact that such contact and communication is vital for the successful and effective implementation of environmental law.*

*Therefore, a group of lawyers from various countries decided to initiate the Environmental Law Network International (elni) in 1990 to promote international communication and cooperation worldwide. elni is a registered non-profit association under German Law.*

*elni coordinates a number of different activities in order to facilitate the communication and connections of those interested in environmental law around the world.*

### Coordinating Bureau

Three organisations currently share the organisational work of the network: Öko-Institut, IESAR at the University of Applied Sciences in Bingen and sofia, the Society for Institutional Analysis, located at the University of Darmstadt. The person of contact is Prof. Dr. Roller at IESAR, Bingen.

### elni Review

The elni Review is a bi-annual, English language law review. It publishes articles on environmental law, focusing on European and international environmental law as well as recent developments in the EU Member States. elni encourages its members to submit articles to the elni Review in order to support and further the exchange and sharing of experiences with other members.

The first issue of the elni Review was published in 2001. It replaced the elni Newsletter, which was released in 1995 for the first time.

The elni Review is published by Öko-Institut (the Institute for Applied Ecology), IESAR (the Institute for Environmental Studies and Applied Research, hosted by the University of Applied Sciences in Bingen) and sofia (the Society for Institutional Analysis, located at the University of Darmstadt).

### elni Conferences and Fora

elni conferences and fora are a core element of the network. They provide scientific input and the possibility for discussion on a relevant subject of environmental law and policy for international experts. The aim is to gather together scientists, policy makers and young researchers, providing them with the opportunity to exchange views and information as well as to develop new perspectives.

The aim of the elni fora initiative is to bring together, on a convivial basis and in a seminar-sized group, environmental lawyers living or working in the Brussels area, who are interested in sharing and discussing views on specific topics related to environmental law and policies.

### Publications series

elni publishes a series of books entitled "Publications of the Environmental Law Network International". Each volume contains papers by various authors on a particular theme in environmental law and in some cases is based on the proceedings of the annual conference.

### elni Website: elni.org

The elni website [www.elni.org](http://www.elni.org) contains news about the network. The members have the opportunity to submit information on interesting events and recent studies on environmental law issues. An index of articles provides an overview of the elni Review publications. Past issues are downloadable online free of charge.

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