Environmental legislation in the European Union with special interest to the Kyoto Protocol

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Abstract

The aim of the thesis is to give an overview about the legal background of a business-friendly environmental protection. The Kyoto Protocol established the three flexible mechanisms; Joint implementation, Clean Development Mechanism and Emission Trading. The Protocol initiated a chain of actions; one of them is the establishment of the biggest emission trading system, the European Union Emission Trading Scheme.

After the short presentation of the main pillars of the Kyoto Protocol I will analyze the Directive creating the EU ETS. I will also present the so called Linking Directive which tides the Kyoto mechanism with the European emission trading. I will present the important European Court of Justice cases to identify the main discrepancies in the current emission scheme.

I will present the US Acid Rain Program and with identifying its main characteristics I will show what elements made the Program successful.

The purpose of my thesis is to identify the elements of a legal environment which are necessary to make the Emission Trading Scheme successful and profitable for the participating stakeholders.

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Introduction

Global warming is one of the most important and challenging problems mankind faces in the 21st century. It requires the constant search for innovative and new methods in fighting against its threat. This applies for technological and legal innovations, too. Legislators have vital role to create legal environment where individuals and business actors are attracted to take active part in environmental protection.

The climate is under constant change but scientists have shown in the 1970's that the current consistency of the atmosphere is the result of industrialization, namely the emission of greenhouse gases (GHG) which led to the phenomenon known as global climate change. According to the United Nations Framework Convention on Climate Change (UNFCCC), climate change is defined as "change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods."[1]

The consequences of global warming vary from the increase of temperature, increase of sea levels, flood, and migration to famine.

Since the establishment of the International Panel on Climate Change (IPCC) in 1988, many discussions, debates, conferences and experts' studies opened the wide publicity

[1] United Nation Framework Convention on Climate Change-preamble

surrounding the environmental protection. IPCC is an intergovernmental scientific body which provides objective information about climate change based on scientific evidence.[2]It publishes its' reports of regular intervals and these have a worldwide credibility among experts, policymakers and those who are interested in climate related issues. The last IPCC report of 2007 projects that without proper action it is likely that the global average surface temperature will increase by 1.8-4 °C this century. In the worst case scenario the increase can be up to 6.4 °C on average.[3] The aim of the recent climate change legislations is to stop this increase at an acceptable level.

The change of the global temperature is universal problem and it is impossible to solve it at local level. Emitting one ton of CO2 in Hungary has the same impact as emitting the same amount in Brazil. That is why international cooperation is needed in tackling the global warming. The outcome of many negotiations was the United Nations Framework Convention on Climate Change adopted on the third Earth Summit in Rio de Janeiro in 1992. The UNFCCC is as its name suggests, only a framework for international efforts to reduce the GHG concentration in the atmosphere. Its objective is "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"[4] and this in a way which enables economic development to proceed in a *sustainable* manner. Sustainability has become one of the basic principles in modern economic efficient environmental protection.

[2] http://www.ipcc.ch/about/index.htm
[3] IPPC Forth Assessment Report (Spain, 2007), available at: http://www.ipcc.ch/ipccreports/ar4-syr.htm
[4] See supra note 1-Article 2

The UNFCCC does not provide for concrete actions to be taken. The task was left to the Kyoto Protocol which has become the backbone of a completely new, economically efficient approach in environmental protection and this, on truly worldwide level. Until 14 January 2009, 184 countries have signed and ratified the document. [5]

The UNFCCC explicitly acknowledges that developed and developing countries have been contributing to the current situation in different amount and the developed countries should take the major role in solving the problem. In developing countries per capita emission is still relatively low and it will grow by its development and social needs.[6] This view has been reaffirmed in the Kyoto Protocol too, where only developed countries have been made obligated to respect emission targets. The Protocol established three flexible mechanisms to help the developed countries to reduce their emission in a cost-effective way. Based on these mechanisms, the European Union established the European Union Emission Trading Scheme what will be the main topic in this thesis.

Environmental law does not have long tradition as other segments of jurisdiction in Europe, especially in Central-Eastern part of the continent. This is the reason cost-effective environmental protection has not yet received adequate attention from legal scholars in this area. This is a new field which will rapidly grow in its importance in the future simultaneously with the increase of the human caused damages to the Planet.

[5] http://unfccc.int/files/kyoto_protocol/status_of_ratification/application/pdf/kp_ratification.pdf
[6] See supra note 1

The European Commission annually issues reports regarding the implementation of Kyoto mechanisms. The international scientific world also pays attention to the European attempt to create an efficient carbon market.

In view of Sharon Tomkins et al "putting price on an activity that previously was free will inevitably cause conflicts and disagreements."[7] Opposition is most likely will come from the affected business sectors.

That is why we have to analyze the law creating the carbon market and to draw an outline of legal environment of successful business-friendly environment protection

In my thesis I will present the concept of Kyoto Protocol as the general inspiration of the EU Directive 2003/87/EC.[8] Then I will analyze the law creating the European Union Emission Trading Scheme and the possible legal difficulties in its implementation. Also important role plays the so-called Linking Directive[9] which will tide the other two Kyoto flexible mechanisms to the EU market based environmental protection which will be also covered in my thesis.

The purpose of my thesis is to identify the elements of a legal environment which are necessary to make the Emission Trading Scheme successful and profitable for the

[7] Sharon Tomkins, Lisa Wing Stone, Melissa Onken: Litigating Global Warming: Likely legal challenges to emerging greenhouse gas cap-and-trade programs in the United States

[8] Directive 2003/87/EC

[9] Directive 2004/101/EC

participating stakeholders. This could serve as a proposal for Amendment of the Directive and to the operation of the new phase starting in 2013.

In the first chapter I will introduce the Kyoto Protocol and the operation of the three flexible mechanisms. The Emission Trading mechanism of the Protocol served as the legal background for the establishment of the European Union Emission Trading Scheme (EU ETS).

In the second chapter I will analyze the EU ETS Directive and the economic considerations in its operation. I will cover the current Amendments to the Directive, too.

The third chapter will compare the European and the US Acid Rain cap-and-trade programs. The Acid Rain Program was the first cap-and-trade method in environmental protection in the World.

The final chapter concludes.

CHAPTER 1 - Kyoto Protocol-the basis of a new approach in environmental protection

I will shortly present the basic concept of Kyoto Protocol because it creates the basis for the European Emission Trading Scheme and with adapting the Linking Directive, the two other flexible mechanisms' applicability are also significant in the EU. Before analyzing the core mechanisms of the Kyoto-system, I will draw an overall picture of the background of creating a new mechanism in environmental protection.

1.1 Cap-and-trade and the baseline and credit methods

Two basic policy methods are the most frequent in business-friendly environmental protection which are both incorporated into the Protocol. These are the cap-and-trade and the baseline and credit approaches.

In the Kyoto Protocol, Emission Trading represents the cap-and-trade method. First, a cap on total emission is established, and then allowances are distributed to the emission sources. The allowances are tradable and a participant who succeeds to emit less can sell the excess allowances. At the end of each period, the emitters have to surrender allowances equal to the amount they released in the concerned period. There are sanctions for those who are unable to do so. The firms to avoid the sanction can buy additional allowances from other participants of the cap-and-trade program. The allocation may be based on two methods. Allowances may be allocated free of charge,

based on emissions data during some historical period before the program's commencement. The other method is allocation through auctions.[10]

It is up to the firms to decide whether to invest into green technology and in this way to reduce its emission or to keep continuing emitting as it used to do and to spend part of its profit to cover the costs of over emissions. The reasoning behind this model is its cost-effectiveness. Companies, which can apply the green production method at the lowest cost, will reduce the most greenhouse gas emissions. Market operations play important role in this method. This is the method the European Union Emission Trading Scheme follows, too.

Baseline and credit is an "emissions trading system that involves setting a benchmark or baseline level of emissions for each party (source) within the trading system, with reductions below that level being credited to the source and available for trading. Emissions over that level must be covered by purchasing additional credits."[11] The baseline is claimed to be less effective and these programs yield few cost savings.[12]

The Joint Implementation and the Clean Development Mechanism represent baseline and credit method.

The difference between the two is in the level of determining the quantity of GHG which is allowed to emit. At the cap and trade, the cap is established for a wide range of participants, for the whole country or industrial sector. At the second case, the "cap" is

[10] David Harrison Jr. et al: Using emissions trading to combat climate change: programs and key issues (Environmental Law Institute, June 2008.)
[11] http://environment.alberta.ca/ETG_Definition.aspx?Term=7
[12] See supra note 10

set for each emitting actor individually. In both methods market volatility dictates the amount of money participating companies can gain, but this is more apparent in cap-and-trade as at benchmarking.

1.2 Kyoto Protocol[13]

The Kyoto Protocol (KP) is a cornerstone in international environmental protection. The reason behind such an importance is the introduction of market mechanism into the process where countries to the Protocol meet their reduction commitments.

According to the traditional approach to environmental protection, companies are penalised if they break environmental norms. However, this has its limitations: if the penalties are too high, they can harm the domestic economy; if they are too low, companies rather pay them than comply with the norms. Therefore a new approach was needed to be adopted.

The Kyoto Protocol created a mechanism where participating companies are interested to reduce their emission in order to make profit .According to Protocol, the Annex I[14] parties shall, "individually or jointly" reduce the emission of greenhouse gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.[15] It is explicitly stated that the developed countries should take the leading role in tackling climate

[13] Kyoto Protocol to the United Nations Framework Convention on Climate Change
[14] Developed countries with binding emission targets within the framework of the Protocol (Annex B countries in the UNFCCC)-developing countries do not have binding targets within the Protocol
[15] Art 3(1) supra note 13

change. The explanation behind this is that the current gas concentration in the atmosphere is contributed by developed countries during industrialization. The developing countries claim that it would be unfair not to allow them to make their development out of the cheap but damaging fuel consuming energy production.

Based on the wording of *individually or jointly*, the Protocol created three flexible mechanisms: Joint Implementation (JI), Clean Development Mechanism (CDM) which are "joint" projects and Emission Trading (ET) as the "individual" model. The countries with definite emission limit can participate in the Emission Trading and in Joint Implementation models; the developing countries can take part only in the much complex Clean Development Mechanism.

The "purpose of these three mechanisms is to maximize the cost-effectiveness of climate change mitigation by providing an opportunity to reduce greenhouse gas (GHG) emissions abroad at lower cost.[16]

Cost-effectiveness is achieved by reducing the GHG emission in a country where it is cheaper to do so. Since the location of the emission reduction is irrelevant, any reduction

any place in the World contributes to the improvement of the quality of the atmosphere and thus, to combat climate change.

[16]Maria Netto and Kai-Uwe Barani Schmidt: CDM Project Cycle and the Role of the UNFCCC Secretariat in see supra note 16 –p 175

The Kyoto Protocol created Assigned Amounts Units (AAUs) which are the basic "currencies" and represents the amount of CO2 expressed in tons that a country can emit during certain period of time. This is the reference unit of the Protocol and the flexible mechanisms' units are referred to this unit. Assigned Amounts Units are converted into Emission Reduction Units (ERUs) in JI, into Certified Emission Units (CERs) in CDM. In Emission Trading mechanism all these units can be traded.

1.3 The flexible mechanisms

In the following section I will introduce the three flexible mechanisms one by one and present their operation

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All three have identical rules what we can find in Article 3 (3) and in 4 (2) (a) (d) of the UNFCCC.[17]

Article 3(3) recognizes the need for cost-effective measures and the possibility of cooperative actions addressing climate change by interested parties. Article 4(2) (a) states that "developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions [and] these parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention " [18]

[17] Charlotte Streck: Joint Implementation: History, Requirements, and Challenges in id
[18] Art 4 (2) (a) see supra note 1

Article 4 (2) (d) authorises the Conference of Parties (COP) with decision-making regarding the implementation of the mechanisms. Applying this authorization the COP7, Marrakesh Accords contain number of guidelines on the mechanisms' implementation which precise the operation of the whole system. .

The common origin is the reason that these mechanisms have several identical rules in their operation. For example the eligibility requirements are identical for all three mechanisms.

1.3.1 Article 6- Joint Implementation (JI)

The Joint Implementation is regulated in Article 6 of Kyoto Protocol and represents the baseline and credit approach.

It is a project based, jointly operating flexible mechanism. Jointly means that there are two participating Annex I[19] countries, the host and the investing party. The essence of the project is that it "allows country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO2, which can be counted towards meeting its Kyoto target."[20]This way the host Party benefits from the foreign investment and from the technology transfer and the investing country meets its targets in more flexible and cheaper way.

[19] These are basically the developed countries. The UNFCCC and the Kyoto Protocol does not use the same term. Annex I in UNFCCC and Annex B in Kyoto Protocol cover identical list of countries.
[20] http://unfccc.int/kyoto_protocol/mechanisms/joint_implementation/items/1674.php

Since both parties are countries with binding targets, it is not a risk that a rich country would transfer its highest emitting industrial sector to another country. The mechanism will contribute to net GHG reduction and this at the lowest cost.

Although, there are operating JI projects from 2000 onwards, ERUs can be issued only from 2008. This is relevant in context of European Emission Trading Scheme, where ERUs can be linked to it only from 2008.

The JI project operation method is similar to all other projects and it has similar phases and steps to be taken for its successful completion.

It starts with the "approval"[21] act by both Parties, by the host country and by the investor country, too. It can be done in two "track" ways. In Track I the host country may approve and issue the ERUs if the host country meets all the eligibility requirements. The Track II involves a neutral body, the Joint Implementation Supervisory Committee (JISC). Its supervision is mandatory when the host country meets only limited number of the eligibility requirements. [22]

The eligibility requirements are the following:

(a) Both Parties are member to the Kyoto Protocol

(b) Its assigned amount pursuant has been calculated and recorded in accordance with relevant guidelines and decision

[21] Article 6 (1)(a) supra note 13

[22] The JISC's assistance may be optional too, if the hosting country prefers its help in Track 1.

(c) It has in place a national system for the estimation of emissions

(d) It has in place a national registry

(e) It has submitted annually the most recent required inventory, in accordance with the relevant paragraphs

(f) It submits the supplementary information on assigned amount in accordance with the relevant paragraphs.[23]

The eligibility requirements are identical for all three mechanisms, which makes their operation simpler because the State has to comply with the requirement only once.
From the list we can conclude that there are many State based tasks to be provided, like to provide adequate registries and national system. Without these the companies do not even have objective opportunity to take advantage of the project. The deep involvement of the national governments is apparent through the whole Protocol, which makes the private sector dependent on the public authority and can vary from State to State.

The Article 6 (1) (b) regulates the so-called additionality principle. Its aim is to make sure that the emission reductions are additional to what would have occurred in the absence of the project. In other words, business-as-usual projects that would have been implemented anyway can not earn emission reductions. For example, a technology improvement regularly tends to reduce the emission but if it is part of the regular business activity, it can not earn ERUs. The same principle applies to the Clean Development Mechanism.

[23] FCCC/KP/CMP/2005/8/Add.2, 30 March 2006

The State "may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition"[24] of emission units. In this way private sector is encouraged to take active part in business friendly environment. In practice legal entities are those who emit greenhouse gases and they should be the key actors in projects aimed at reducing the level of their pollution. The State will still remain responsible for the acts of the companies. The aim of this provision is not to undermine the aim of the Protocol by sole business interests. Unfortunately, the method of "authorisation" has not been regulated in KP, neither in Marrakesh Accords.

JI generated ERUs are involved into the EU Emission Trading Scheme by adapting the Linking Directive, what I will analyze in Section 2.2 in this paper. In this context it is probable that the wealthier West countries will invest in projects in less wealthier part of Europe which will create a "win-win" situation[25].

1.3.2 Article 12-Clean Development Mechanism (CDM)

Clean Development Mechanism was incorporated to the Kyoto Protocol in the last minute; the Brazilian delegate suggested it on the last day of negotiations.

The purpose of the CDM is to assist the developing countries (non-Annex I Parties) achieving sustainable development while developed countries (Annex I Parties) can easier meet their Kyoto targets. Basically, the CDM enables developed countries to increase their cap by financing projects in developing countries, thus to earn emission

[24] Article 6 (3) see supra note 13
[25] Peter Davis: Trading in greenhouse gas emission: The European Community's endorsement of emission trading-International Energy Law and Taxation Review-2006

credits in a geographical area where it is much cheaper to do so. But the text of the Protocol provides that CDM projects should deliver reductions which are "additional to any that would occur in the absence of the certified project activity."[26]This principle ensures that the CDM will contribute to net emission reductions.

The principal goal of the CDM is the sustainable development with special importance in the developing countries. Article 12(2) explicitly states that "the purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development".[27]

By introducing CDM, for developing countries without binding targets is beneficial to participate in business-oriented environmental protection. If we take Kyoto Protocol as only the first step on a long way toward energy-efficient production, CDM can play the introductory part to the global South. On a long-term basis it is beneficial if these countries start to take part in environmental protection aimed projects even if they are not entirely effective. We can consider it as an educational phase, forming the private sectors' attitude, the publicity and the general evaluation of environmental issues.

Emission credits in CDM are called Certified Emission Credits (CERs) which is equal to one tone of CO2.

[26] See supra note 13 Art 12 (5) (c)
[27] See supra note 13 Art. 12 (2)

Any project reduction has to be certified by an operational entity on the basis of "real, measurable, and long-term benefits related to the mitigation of climate change".[28]

Article 12 proposes that the "authority and guidance" of the project should be provided by the Conference of the Parties (COP) serving as the meeting of the Parties to the Protocol and be "supervised by an executive board".[29] In Marrakesh the COP agreed that an Executive Board should be established. The Executive Board has 10 Members and 10 Alternate members.[30]

As till now 1460 project has been registered and the number of issued CERs is 265,933,302.[31] These CERs can be traded and sold and used to meet the developed countries Kyoto target.

The Protocol stipulates that private and public entities may participate in CDM projects[32], but the State remains responsible for its obligations under the Kyoto Protocol.

The CDM can be criticized because it allows the rich countries to by-pass their Kyoto target and to emit more then their cap in countries which are not tied to commitments at this stage. It does not contribute to the global GHG reduction; the emission reduced in a developing country at the same time increases the emission level in a developed country. Its effect can be positive only in a way that it involves the non-Annex countries into global environmental programs and profound an active cooperation which will be beneficial in the future.

[28] See supra note 13Art 12 (5) (b)
[29] Id Art 12 (4)
[30] http://cdm.unfccc.int/EB/Members/index.html
[31] http://cdm.unfccc.int/Statistics/index.html
[32] See supra note 13 Art 12 (9)

1.3.3 Article 17-Emission Trading

Many experts claim and "experience indicates that an emissions trading program, if designed and implemented effectively, can achieve environmental goals faster and at lower costs than traditional command-and-control alternatives."[33]

It represents the model of cap and trade method. This mechanism is the most important in context of our analysis because the EU ETS was created based on Article 17 Emission Trading.

Emissions trading schemes may be established as climate policy instruments at the national level (e.g. in the United Kingdom) and the regional level (e.g. in the European Union). Under such schemes, governments set emissions obligations to be reached by the participating entities. The EU ETS is a "mixed" scheme, because it establishes national markets but it ties to a regional system.

The Kyoto Protocol introduced the Emission Trading, where emission rights are tradable. Emission right is a "right to emit a certain quantity of specified substance during a defined period of time."[34]

[33] A. Denny Ellerman et al: Emissions Trading in the U.S., Experience, Lessons, and Considerations for Greenhouse Gases (May 2003) available at http://www.pewclimate.org/docUploads/emissions_trading.pdf
[34] Rutger de Witt Wijnen :Emission Trading under Article 17 of the Kyoto Protocol in see supra note 16 p 403

Each country with binding emission obligation will receive an allocation of AAUs. Parties that emit less than their Assigned Amount would be allowed to sell the surplus to other Parties that need them to cover emissions above their own Assigned Amount. Emission trading would generate a market and a price for Assigned Amount Units, equate the marginal cost of reducing GHG emissions among participants and reduce the overall cost of GHG reductions.

This way the Parties are able to sell emissions permitted them but not "used", they are able to sell the excess capacity to countries that have over emitted their targets.

This method is not completely new; it was already introduced in USA in the Clean Air Act and in the Acid Rain trading program. The concept is not new but this is the biggest attempt to involve cost-effective method into achieving environmental goals.

The Article 17 does not detail how this method should be operating. The whole paragraph is short and vague, leaving the task to clarify and to “define the relevant principles, modalities, rules and guidelines” for the Conference of the Parties.

The Protocol explicitly states that only Annex B Parties may participate in emission trading in order to fulfil their commitment. This is logical outcome of the cap and trade method because only these Parties establish cap on their emitting activity.

The Article 17 requires that any such trading should be “supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments.”

Although, the Protocol does not mention what units are tradable within the emission trading market, the Paragraph 2 of Annex to Decision 18/CP.7 states that also ERUs, CERs and RMUs are subject of the Article 17.[35]

Removal Units (RMUs) are issued in relation to a carbon sink on the basis of land use, land-use change and forestry activities under Articles 3.3 and 3.4 of the Kyoto Protocol."

This way the Kyoto Protocol's flexible mechanism is pulled together into one mechanism, where they can be traded under identical rules.

Only Annex B countries can participate in the trading (explicitly stated in Article 17) under the condition that they fulfill the eligibility requirements. The COP defined the list of the eligibility requirements, which are the same as to the JI and CDM.

The Article 17, unlike Article 6 for JI and Article 12 for CDM, does not make reference to the legal entities This was remedied in the Paragraph 5 of Decision 18/CP.7 in an indirect way, where is stated that Party that authorizes legal entities to transfer and/or acquire under Article 17 shall remain responsible for the fulfillment of its obligations. The State shall maintain a public up-to-date list about the legal entities owning authorization to be active in the emission trading.

According to the same Paragraph a legal entity is able to transfer and/or acquire transferable units only during a period while the Party meets the eligibility requirements or those are not suspended.

The rule makes the business entities dependent on the State which creates uncertainty in business life.

[35] FCCC/CP/2001/13/Add.2

During the COP meetings one risk appeared to be addressed. Namely, that the Parties could "oversell" units, and subsequently be unable to meet their own emissions targets. In order to overcome this risk, each Party is required to hold a minimum level of ERUs, CERs, AAUs and RMUs in its national registry. This is known as the "commitment period reserve."

Parties shall keep AAUs amounting to either – (a) – 90% of their assigned amount or (b) –5 times their latest reviewed inventory, whichever is the lowest."[36]

A Party would be authorized to trade all units above its reserve as soon as it is eligible to participate in emission trading

Again, one could criticize this rule because for legal entities this is an obstacle they have no influence on. Even they have sufficient Kyoto Units to transfer, the agreement could be frustrated because of the Commitment Reserve which is under the control of the State authority and depends on the transaction of other legal entities in the same jurisdiction.

1.4 Conclusion

Kyoto Protocol alone will not solve the global warming problem. But its importance can not be denied. It established the framework for international cooperation and provided the legal basis for the flexible mechanisms' regional implementation. Its existence has initiated a chain of actions which scope still has to widen and its operation has to improve

[36] Id

by the time. Certain positive results have been achieved. One of them is the establishment of the European Union Emission Trading Scheme for which the Kyoto Protocol served as the initiating background. There are also regional emission trading systems; the Norwegian Emission Trading and the Regional Greenhouse Gas Initiative (RGGI)[37] in USA. RGGI was established by 10 States' voluntarily action in North-America.

Beside the successes there are still several parts of the Protocol which should be improved.

The smooth operation of the mechanisms often depends on the action of the public sector. Its influence should have been mitigated by establishment of an independent and permanent body with decision making power. The main decision body of the Protocol is the Conference of the Parties. It is not permanent institution and it is political rather expert authority. With this body, the national governments' role would be weakened and the various lobby interests' influence would be reduced to the lowest level. Of course, for this we will need the States' consensus and great commitment to climate change mitigation.

We can notice the lack of penalty system in the Kyoto Protocol. Adding penalty to the system would certainly undermine the willingness to ratify the Protocol. By the other hand, the penalty would contribute to the Protocol's efficiency.

In the current system, some countries argue that other countries non-compliance attitude puts them into disadvantageous position. By penalizing the non-complying parties this disadvantage would be considerably reduced. The most effective would be the money

[37] http://rggi.org/home

based fine system. All Annex I parties have an individual reduction target expressed in percentage. By adding certain amount of money for each non-complied percentage, the fine would be easily determined.

Other fallback is that the developing countries are not obligated to reduce their emission level. This might create a paradox situation, where the aim of the Kyoto Protocol could be abolished. Companies with high emitting activity could simply choose to transfer part or the whole of their production unit into a country where they can freely continue to emit without any limitation.[38] This would not only harm the environment but also the domestic economy. While U.S as the biggest emitter in the World does not ratify the Protocol, it is certainly hopeless that developing countries will. The U.S. commitment would put the developed countries into more advantageous position while negotiating with developing countries.

The current Kyoto Protocol will expire in 2012 and the negotiations to adapt the successor have started. The United Nations Climate Change Conference will take place.

According to the Bali roadmap[39], the new Protocol should be adapted there.

It is clear for the Parties that without global cooperation climate change are an unstoppable problem for the World. The big question is not whether they will agree and adapt a new Protocol but whether they will reach an agreement on more efficient and ambitious commitment then the current Kyoto Protocol.

[38] Phenomenon known as Kyoto leakage
[39] United Nations Conference on Climate Change, Indonesia, Bali, 207

CHAPTER 2 - Environmental legislation in the European Union

The European Union would like to take leading role in greenhouse gas (GHG) emission trading. The reason behind this ambition is that EU's traditional political role and its importance on the world's political screen has weakened in the past years. Pioneering in environmental protection could be the one of the issues which could put it back to his traditional leading role. The idea is that the green investments could become the motor of future business life; it could generate the development from the current financial crisis. This view has been expressed by more and more financial, social, political actors.[40]The first who takes action in this newly emerging field will gain the technological and technical advantage in competition with other States. That is why it is economically vital for EU to build up an efficient emission trading scheme and in parallel, to insist on further international commitments in carbon reduction.

2.1 European Union and the Kyoto Protocol

Although the EU is responsible for only 14% of the global GHG emission[41], it has committed itself to great efforts to gain leading role in environmental protection. During

[40] George Soros: Comment on the Global Financial Crisis, Public Lecture, CEU, Budapest, November 11 2008

[41] Heather D.-The Economic effects of the European Union Carbon Dioxide emission quota on the new Member States of the European Union: Can they become equal economic partners of the European Union while complying with the 2008-2012 Quota?-Penn State Environmental Law Review-Fall 2008

the Kyoto negotiations EU was one of the advocates of concluding an international treaty between the developed countries.

The Kyoto Protocol was approved by European Council Decision 2002/358/EC[42] of April 25, 2002.

While the average Kyoto reduction commitment is 5%, the European Union's initial 15 Member States committed itself to reduce its emission by an average of 8% between 2008 and 2012.[43]

Both, the old 15 Member States and the newly joined members are Parties to the Kyoto Protocol. This situation creates "double" commitment criteria for the EU countries. For the 15 initial Members[44] "this has resulted in the so-called burden sharing principle, according to which they jointly have to contribute to a European-wide emissions reduction target of 8%."[45] For the 12[46] new joiners the emission target is that individually defined for each States stated in the Kyoto Protocol which ranges from 6 to 8 percent.[47]

[42] 2002/358/EC
[43] see supra note 13 Annex B,
[44] Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom
[45] Jan H. Jans at al: European Environmental Law (Europa Law Publishing, Groningen 2008) p 384
[46] The 10 Member States joined the EU in 2004 and the 2 Member States joined January 1. 2008
[47] Malta and Cyprus have no targets in Kyoto Protocol.

2.1.1. Burden sharing agreement

The Kyoto Protocol acknowledges that Annex I countries may by joint[48] efforts meet their obligations. This principle is re-affirmed in the burden-sharing agreement.

The EC approved the Protocol by Decision 2002/358 which created a legal obligation to reduce its emission by 8%. The approval act contains the so-called burden sharing agreement, which means that the Members jointly have to reach the 8 % emission target. It resulted in a situation where some Member States are allowed to increase their emission while others have to reduce its emission levels. For example Denmark is obliged to reduce by 21% while Portugal is allowed to increase by 27% its emission level. In this approach the Member States are required to take common actions with common responsibility to meet the Kyoto target.

Decision 2002/358 states that "the Community and the Member States are jointly responsible" [and] "Member States individually and collectively have the obligation to take all appropriate measures, whether general or particular, to ensure fulfillment"[49] of the Community's emission reduction commitment.

To address the fulfillment of their joint obligation, the Emission Trading Scheme was created.

[48] Art 3 (1) see supra note 13: *The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts…*

[49] Paragraph 10 of the Preamble

2.2 2003/87/EC-European Union Emission Trading Scheme (EU ETS)[50]

Initially the EU faced difficulties with implementing the Kyoto Protocol and that is why the European Climate Change Program (ECCP) was established in 2000. The Program's objective was to identify and develop all the elements "that are necessary for the implementation of the Kyoto Protocol."[51]

Based on the ECCP strategy plan, the Council approved on 22 July 2003 the Directive which enables to create an EU-wide trading scheme at company level. This is the most important instrument for EU in realizing the Kyoto goals, namely to slow down the climate warming to an acceptable level. It creates the first and biggest regional emission trading scheme in the World.

2.2.1 Legal Basis

The Treaty of Rome did not mention environmental policy as a community principle. When the European Economic Community was established in 1957 environmental problems were not in today's extent apparent. The scientific community started to deal with environmental challenges in the 1970's which led to the legislatures' response in the field, too.

[50] See supra note 7

[51] Communication from the Commission to the Council and the European Parliament on EU policies and measures to reduce greenhouse gas emissions: towards a European Climate Change Programme (ECCP)

The breakthrough came with the Single European Act from 1986 which included several articles on environmental protection and created the legal basis for subsequent legislation addressing environmental issues.[52]

The Treaty of Maastricht amended by Treaty of Amsterdam in 1999 and by Treaty of Nice in 2001 further expanded the scope of common environmental policy. Article 2, among the EU's main objectives mentions"high level of protection and improvement of the quality of the environment"[53].

Article 2 objectives are further specified in Article 174.

The objectives that the European Union shall pursue in relation with the environmental protection are the following:

- " preserving, protecting and improving the quality of the environment,
- protecting human health,
- prudent and rational utilization of natural resources,
- promoting measures at international level to deal with regional or worldwide environmental problems."[54]

Climate change as such is still not directly addressed in the EC Treaty. The legal basis for addressing climate change depends on the nature of the measure. When it is connection with agriculture Article 37 applies, with taxation Article 93 applies, with trade Article 133 applies."[55]

[52] Zoltán Horváth: Handbook on the European Union (hvgorac, Budapest 2005) p498
[53] Art 2 EC Treaty
[54] Id Article 174
[55] Ludwig Kramer, EC Environmental Law (Sweet & Maxwell, 2003) p 300

The EU ETS Directive is legally based on EC Treaty Article 175 (1), which further refers to Article 251 of the Treaty, to the co-decision procedure. The outcome of the two inter-linked articles is that, measures aiming at realization of the Art. 174 objectives shall be adopted in co-decision procedure. Compared to the 175 (2) where unanimity is needed for adapting certain environmental related regulations,[56] it is significant easement in the required procedure.

The Council had to pay attention to respect the subsidiarity principle. In accordance with the subsidiarity principle of Article 5 of the EC Treaty the Council needed to justify its intervention. The explanation for EU-level action, as formulated in Preamble 7 of the Directive, was the necessity to ensure the integrity of the internal market and the need to avoid distortion of competition.[57]

2.2.2. Directive and legal nature of allowance

Two legal solutions are interesting in the context of EU ETS; the directive as legal act and the legal nature of allowance. Both have essential influence on the efficiency of the trading.

Matthieu Wemaere and Charlotte Streck[58] have offered an extensive study on these questions.

[56] Example (tax regulations)
[57] Matthieu Wemaere and Charlotte Streck: Legal Ownership and Nature of Kyoto Units and EU
[58] Matthieu Wemare and Carlotte Strek: *Legal Ownership and Nature of Kyoto Units and EU Allowances* in see supra note 16

Choosing Directive as a legislative instrument was criticised mainly by the private sector. The Directive is a so-called soft law, establishing the goals the Union is aiming to achieve, but leaving certain freedom for the Member States to establish the way and method how to implement these goals into the national legislation. Choosing regulation would have created more certainty and would have had direct applicability without any further act on the side of the Member State's authorities. Instead, the Commission opted for adapting a Directive and in this way to create 27 emission trading scheme, instead of establishing one EU-wide scheme.

The one and most important explanation in choosing this approach lies in the national legal system's particularities in the legal definition of allowances. The Directive itself is silent on the legal nature of the allowances. It only provides the definition of allowances but not its legal nature. Allowance is defined as "an allowance to emit one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of this Directive and shall be transferable in accordance with the provisions of this Directive"[59]

From this definition we can conclude that an allowance carries two basic elements; it is an authorization to emit certain amount of CO2 equivalent substance, and this authorization embodies the right to be sold and transferred.

According to Matthieu Wemaere at al in addition to the two basic elements, the Directive prescribes the following characteristics in an allowance:

[59] See supra note 8 Art 3(a)

- According to Art 19 (2), any person may hold allowances. It can be natural or legal person, national of EU or of foreign country.

-According to Art. 12 (1), allowances can be transferred between persons in the EU and between persons in third countries where allowances are recognized

- It can be used for compliance with the permit (Article 12 (3))

- It can be 'destroyed' through cancellation (Article 12 (4))[60]

The Directive lists number of characteristics but not the legal nature what will be open for the domestic legal systems to define.

There are number of possibilities to define their legal nature; they could be treated as goods, as financial instruments, as administrative authorization, or as security. Some experts have suggested that they constitute sui generis category.

Preserving the subsidiarity principle, the Commission left the question to be answered by the national legal systems. The Council considered that the determination of allowances would go beyond what is necessary and would jeopardize the Article 5 EC Treaty principle.

The task was left to the Member States. They approached the problem in different manners. There are countries which do not define the nature of the allowances in the implementation act. One of them is Slovakia; it simply translated the Directive definition and did not refine the meaning of allowance. It provides that "quota is one ton of

[60] See supra note 58

emission to be released during a certain period; in case of emission of greenhouse gases one ton of equivalent of CO2".[61]

There are countries which explicitly determine the legal nature of the allowance but the definition varies in various countries. Hungary defines allowance as "transferable property right"[62] The French transposing act defines allowances as unit of account representative of the mission of one tonne of carbon dioxide equivalent.[63]

Finally, a layer of complexity is granted by the Market on Financial Instruments Directive[64]. It regulates the financial instruments and among these emission allowances are also listed.[65]

We can see from the variety of approaches that there are different legal treatments of allowances in the European Union. Each Member States' approach can also vary.

The problem will have impact among others on taxation, financial services, accounting, state aid and it is likely that it will be regulated in different way in different countries creating uncertainty for business actors. Among the unwanted effects, we can mention the appearance of "forum shopping"[66] too. The transactions will move to domestic systems

[61] Law no. 572/2004 Col. l. on emission trading Art 2 (a)
[62] 2005. évi XV. Törvény az üvegházhatású gázok kibocsátási egységeinek kereskedelméről 3 (c) forgalomképes vagyoni értékű jog
[63] Art. L. 229-7 of Ordinance No. 2004-330 in Implementation in France of the Greenhouse Gas Allowance Trading Scheme available at http://www.gide.com/front/EN/actualites/PDF/GLN_nwsl_ICM_21may2004.pdf
[64] 2004/39
[65] Id- Annex I Section C (10)
[66] Christel Bourbon-Seclet: Legal aspects of climate change in Europe: Is the European Union Emission Trading Scheme greater than the sum of the parts? p art I (Journal of International Banking Law and Regulation 2008)

where the allowances are treated most favorably from the investors' point of view. This will lead to distortion of the market.

2.2.3 The scope of the Directive

The EU ETS started operating on January 1 2005 and is divided into two periods. The first period was a "learning while doing" time and lasted till December 31. 2007. The second period is currently in operation and will end at the end of 2012. The second period is operating simultaneously with the Kyoto period and both will end at the same time. The EU ETS third period will be longer, it will be operating from 2013-2020, while the future of the Kyoto Protocol is uncertain at this time.

The Directive "establishes a scheme for greenhouse gas emission allowance trading within the Community in order to promote reduction of greenhouse gas emission in a cost effective and economically efficient manner"[67]

Instead of establishment of a universal EU-wide emission trading mechanism, the EU has established 27 independent emission schemes. The Directive serves as a common root for all these schemes, but certain freedom is left for the governments to shape their own schemes. In the conclusion we will examine whether this was the right decision from the scheme's efficiency's point of view.

[67] See supra note 8 Art 1.

In the Preamble the Directive recognizes that the Community is committed to reduce its emission by 8% till 2012 comparing to 1990 level "and that, in the longer-term, global emissions of greenhouse gases will need to be reduced by approximately 70 % compared to 1990 levels."[68] This latter 70 percent is a very significant ambition and indicates that the EU considers the climate change as a serious matter. Although, the Preamble provision does not constitute legal obligation on Member States but its importance appears to be significant. The main body of the Directive ought to be interpreted in light of the Preamble. In the present context, it suggests that the Member States have to implement the Directive in a way to be able to achieve the long-term goal, too.

The Directive gives a number of definitions in Article 3 of the Directive.

The installation means a 'stationary technical unit where one or more activities listed in Annex I are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution;"[69] The installation is the Directive terminology for firms, companies emitting GHG in its production process.

It covers around 12 000 installation representing about 46 per cent carbon dioxide emission in the EU.

According to the same Article emission means the release of greenhouse gases (Annex II) into the atmosphere originating from installations.

[68] Id Preamble (2)
[69] Id Article 3

The Directive does not apply to all emission sources and does not include all greenhouse gases. Annex I and Annex II are relevant parts of the directive in determining the scope of the activities and greenhouse gases covered.

Annex II gases are the following:

-Carbon Dioxide (CO2)

-Methane (CH4)

-Nitrous Oxide (N2O)

-Hydrofluorocarbons (HFCs)

-Perfluorocarbons (PFCs)

-Sulphur Hexafluoride (SF6)

In the first phase from 2005 till end of 2007, the scheme covered only CO2 and the list of the gases expanded from the beginning of the second period. Further expansion of the range of greenhouse gases is possible. According to Art 30 of the Directive the Commission based on the gained experience may suggest to include further gases into the scheme.

In the 2003/87/EC, Annex I only four sectors are covered. These are the energy sector, the processing and production of ferrous metals, minerals and production of pulp and paper. The Commission may further expand the range of covered activities in accordance with its Art 30.

The Commission decision to restrict the number of sectors is controversial. It might seem as discrimination and unequal treatment of certain sectors while others can keep to emit free of charge without any restriction. The Directive validity was challenged at European Court of Justice in Arcelor Atlantique case. The challenge was based on the equal treatment principle.

2.2.3.1 Société Arcelor Atlantique et Lorraine and Others[70]

In this case the French Conseil d'Éta (State Council) asked the European Court of Justice for preliminary ruling concerning the validity of 2003/87 Directive.

The applicants in the main proceeding were undertakings in the steel sector, covered by the emission trading scheme. They challenged the principle of equal treatment as the result of different treatment of different sectors in comparable situations. The principal question was "whether Directive 2003/87 valid in the light of the principle of equal treatment, in so far as it makes the allowance trading scheme applicable to installations in the steel sector without including in its scope the aluminum and plastics industries?" [71]

The Court first determined that the principle of equal treatment requires that comparable situations must not be treated differently and different situations must not be treated in the same way unless there is objectively justified explanation for that.

[70] Case C-127/07,
[71] Point 22

The court determined that steel, plastics and aluminum sectors are in comparable situation. Afterwards, it had to assess whether the different treatment of these similar situations was justified.

The Court held that the Community legislature has broad discreation where its action involves political, economic and social choices and "where it is called on to undertake complex assessments and evaluation." In these complex situations, the legislature may take a step-by step approach and to further proceed in the light of the experience gained. The legislature must exercise its discretion within the principle of proportionality, the different treatment must be objective and must fully take into account all the interests involved.

The ECJ referred to the fact that the emission trading scheme was a new and complex system and because of its manageability, the legislature chose to build it up step by step. The step by step approach was explicitly upheld by paragraph 15 of Preamble and by Article 30 of the Directive.

"The inclusion of additional installations in the Community scheme should be in accordance with the provisions laid down in this Directive, and the coverage of the Community scheme may thereby be extended to emissions of greenhouse gases other than carbon dioxide, inter alia from aluminum and chemicals activities."[72]

Article 30 refers for possible further extension of the system, especially extension of the scope and sectors covered by Directive.

[72] See supra 48 Preamble 15

The Court held that the proper functioning of the scheme could have been "disturbed by the involvement of too great a number of participants, and, second, that the original definition of the scope of the directive was dictated by the objective of attaining the critical mass of participants necessary for the scheme to be set up."[73]

The existing scheme covers approximately 12000 installations. The Court examined the statistical date submitted by the parties and concluded that the inclusion of another sector, particularly the chemical sector, would mean additional 34 000 installations. In the view of the Court the inclusion of that sector would have made "the management of the allowance trading scheme more difficult and increased the administrative burden". [74]

Accordingly, the Court held that the Community legislation did not infringe the equal treatment principle by treating comparable situations differently ad by exclusion of the chemical and non-ferrous sectors from the Directive's scope.

The case should not be underestimated because it is signaling the possible legal and practical discrepancies in the present emission trading scheme.

"The ECJ reaffirmed the wide margin of discretion of the Community legislator in this area." [75]

[73] Para 60
[74] Para 65
[75] Wouter Geldhof and Herbert Delahaije: ECJ inactivated Arcelor bomb under EU-ETS available at http://www.stibbe.be/assets/publications/newsletters/utilities%20e-bulletin_2009-01_website.htm

In comlex and novel situations the community legislature may take a step-by-step approach but it is *obliged* "to review the measures adopted, inter alia as regards the sectors covered by Directive 2003/87, at reasonable intervals".[76]

The ECJ showed support for the European Union's climate policy what is substantial for the further improvement of climate change related legislation. However, in my view it erred in reasoning that the critical mass of participants would have disturbed the proper functioning of the scheme. The EU ETS covers approximately 120000 installations in 27 Member States. It is 444 installations for each country. If the Court would have explicitly ruled that the EU ETS has to include other sectors in line with the equality principle, the number of installations in that case would still not cause administrative burden. Member States have to build up registry and monitoring system irrespective of the number of installations. The benefit would be that the Commission would have been explicitly obliged to extend the number of sectors to aluminum and chemical industry.

The case is important because it reflects one of the issues the Commission has to deal with and has to improve in the future.

2.2.4 Emission permit

One of the basic elements of the system is the requirement of holding an emission permit.The concept of the scheme is that from 2005 only installations which operator

[76] Para 62

holds an emission permit can emit greenhouse gas. Every installation shall have an operator. It is also possible that one operator is responsible for more than one installation.

The Member States shall ensure that an installation pursuing activity covered by the Directive and emitting the greenhouse gases listed in the Annex II will not operate without an official permit.
In order to acquire the required permit, the operator of the installation shall apply for the permit to the competent authority.

The application shall be in accordance with number of directive requirements listed in Article 5 and shall contain description of:

- the installation and its activities including the technology used and its non-technical summary,

-the raw and auxiliary materials, the use of which is likely to lead to emissions of gases,

- the measures planned to monitor and report emissions.

-the sources of emission in the installation.[77]

Installations which is obliged to hold an emission permit is listed in the National Allocation Plan.

[77] See supra note 8 Art 5

2.2.5 National Allocation Plan (NAP)

The NAPs play central role and they are the key to a successful emission reduction. The NAP's purpose is to affirm the subsidiarity principle in the EU. Through the NAP system, many of the allocation related decisions are taken at national level. The national governments decide how much allowances to distribute, in what way and to whom.

The emission trading represents "cap-and-trade" strategy tool in environmental protection. First the scheme sets a maximum limit, a "cap" on all emissions. Then the emission sources receive emission allowances what represents the amount each of them is allowed to emit.

The EU ETS is basically "double" cap-and-trade system. First, Member States decide on the cap of the State's whole industry (the industry which is covered by the Directive). Secondly, that "bigger" cap is distributed between the installations, leaving the companies to design their method how to reduce their emission and to meet their"smaller" cap.

In the EU ETS the National Allocation Plan (NAP) plays the role of setting each Member State's cap. Member States are required to design their plan, identifying the quantity of allowances it intends to allocate and the method how it intends to do that.[78]

[78] See supra note 8 Article 9 (1)

Member States in the drafting process first have to determine which of the two basic allocation processes will the State follow; the benchmarking or the grandfathering approach.

Grandfathering is a method where the State takes a historical emission level of a year or range of period as reference data. Grandfathering was the main approach in phase I, but its number decreased in the phase II.[79]

In the benchmarking system no historical reference emission level is available or it is not sufficiently representative. Benchmarking is a method of calculation "on the basis of the mathematical product of the projected average annual production volume for [certain period] the installations' forecast emissions per unit of output and the number of calendar years during which the installation is to be operated during the allocation period."[80]

The Member States have to respect number of deadlines and requirements in drafting their NAP.

From the second period starting on January 1 2008 and for each subsequent period, the NAPs have to be submitted to the Commission 18 months before the beginning of the relevant period. The Commission has 6 months to review and to approve it. If the Commission intends to reject the NAP, it is required to do so within three months.[81]It can reject it in whole or part of it "on the basis that it is incompatible with the criteria listed in

[79] Dr. Felix Chr. Mattes: Allocation based on benchmarks under the EU ETS available at http://209.85.129.132/search?q=cache:cKKADh8PkWIJ:www.iges.or.jp/jp/cdm/pdf/20090312et/Matthes.pdf+Allocation+based+on+benchmarks+under+the+EU+ETS&cd=1&hl=hu&ct=clnk&gl=hu
[80] T-374/04 Germany v. Commission
[81] See supra note 8 Art 9 (2)

Annex III or with Article 10."[82] The reason of rejection shall be supplemented and a specialized Committee should assist to the Commission in evaluation of the submitted proposals.

The Commission can reject the Member State's National Allocation Plan if it is incompatible with the Directive's criteria. The problem is that the Annex III criteria are vague and does not provide sufficient orientation for the Member States how to design their plan.

In drawing up the NAP, Member States are bound by Article 9 and 10, and by Annex III criteria. Latter were further detailed in Commission Decision 2004/156/EC.

Annex III criteria among others include the following:

-Kyoto commitments: The total quantity of allowances to be allocated for the relevant period shall be consistent with the Member State's obligation to limit its emission according to the Member State's Kyoto target set in Decision 2002/358/EC. This is particularly difficult for the Member States. It means that the sates have to decide how much of the Kyoto burden will be covered by ETS-sectors and how much by non-ETS sectors. When this is decided, it has to be further distributed between the ETS-sectors.

- Quantities of allowances to be allocated shall be consistent with the potential, including the technological potential, of activities covered by this scheme to reduce emissions.

- The plan shall be consistent with other Community legislative and policy instruments

[82] Id Article 9 (3)

- The plan shall not discriminate between companies or sectors in such a way as to unduly favor certain undertakings or activities in accordance with the requirements of the Treaty, in particular Articles 87 and 88 thereof. These articles regulate the state aid policy in the EU, the subsidies a country may in certain circumstances favor to its industry. The Competition Commission is competent to evaluate whether the NAP infringe the sate aid provisions. This aspect of the NAP is very important because violations could lead to competitive advantage of an industry in a particular State.[83]

- The plan shall contain information on the manner in which new entrants will be able to begin participating in the Community scheme. The state might create a special reserve for the new entrants which will be distributed free or through auction.

- The plan shall contain information on the manner in which clean technology, including energy efficient technologies, are taken into account. This requirement is important for those installations who had invested into green technology or into any aspects of production chain in order to reduce the pollution level. These installations due to their early environment-conscious attitude, without this requirement would have been in disadvantageous position. The system would favor the high emitters with old technology.

- The plan shall contain a list of the installations covered by this Directive with the quantity of allowances intended to be allocated to each.[84]

[83] Joseph Kruger and William Pizer: The EU Emission Directive: opportunities ad potential pitfalls (April 2004) available at: http://www.rff.org/documents/RFF-DP-04-24.pdf

[84] Annex III also requires information on public involvement, competition with entities from outside of the Union

According to Article 10, for the five-year period beginning 1 January 2008, Member States shall allocate at least 90 % of the allowances free of charge. The remaining up to 100 per cent shall be auctioned.

Many of the installation will also require IPPC permit, Article 8 provides for coordination with the IPPC Directive. This way a single permit issued complies with the EU ETS and with IPPC requirements too.

2.2.5.1. Economic aspects of NAP-more

The purpose of the scheme is to achieve sustainable economic development in a cost-effective method. That is why economic considerations play essential role in shaping the EU ETS's operation.

After the allocation of allowances, the actual trading can take place. The idea behind the whole system is that the Commission will gradually reduce the allowed emission ceiling and in this way the price will increase. In parallel with these actions, the companies will find it more and more profitable to invest into new technology mechanism and to find a way to reduce its emission. If it can save extra allowances it can sell it on the market, covering the cost of innovation and thus gaining extra profit. "Because the allowances

can be traded, the emissions reductions take place most efficiently, i.e. by the company that can reduce emission at the lowest cost."[85]

The success of the EU ETS very much depends on designing efficient NAPs.

From an economic perspective, it has great impact on supply and demand within the market and indirectly on the price of the ERUs. The price of the EU allowances was nearing 30 euro but it crashed within couple of days after press announcement that some countries had overestimated the allowances it distributed to their industries. The fact that the Member State's authority distributes the allowance can create discrepancies in the system's smooth operation. The State can favor certain industry sectors, or even certain companies due to successful lobby activity from the side of the industry. This is a big problem which is hard to control or regulate.

Till now according to Article 10, for the five-year period beginning 1 January 2008, Member States shall allocate at least 90 % of the allowances free of charge. The remaining up to 100 per cent shall be auctioned.

Recently the Commission has proposed that from the third period the 100 % of the allowances should be distributed thru auctioning. This way the unlawful favoring of certain industries would be circumvented.

If the revenue from auctioning would be re-distributed to the economy or to the States with lower GDP, high efficiency could be achieved.

[85] See supra 43 p 387

2.2.5.2 European Court of Justice cases relating to the NAPs

The Commission did not approve the NAPs submitted by the majority of new Member States for Phase II. The Commission in none of the cases rejected the plan in their full extent, only parts of it.

The Commission has experienced opposition from the side of countries. Most of the new joiners of the EU have initiated court proceeding at the European Court of Justice.

Among those who applied to the ECJ are: Hungary (T-221/07), Slovakia (T-32/07), Czech Republic (T-194/07), Poland (T-183/07), Estonia (T-263/07), Lithuania (T-36/07), Latvia (T-369/07), Bulgaria (T-500/07) and Romania (T-483/07, T-484/07).

If we take into account that Malta and Cyprus does not participate in emission trading the only new joiner missing from this list is Slovenia. All other has experienced problems with their NAP.

The applicants in all cases sought annulment of the Commission decision. All the countries based their claim on the same argument with slight differences. They argue that the Commission decisions are discriminatory and will unduly harm their growing economy.[86] They also claim that the Commission did not use correct data while evaluating the submitted NAPs or the Commission did sufficiently reasoned the rejection.

[86] Emily Shilling: European Countries Challenge Denial of 163 Million Emission Allowances, available at http://climateintel.com/2008/01/17/european-countries-challenge-denial-of-163-million-emissions-allowances/#more-67

The cases are pending at European Court of First Instance and meantime the States have to comply with the Commission decision. There was one request from the side of Poland[87] for expediting review but it was rejected by the ECJ.

The European Court of Justice has very controversial problem to decide. The challenges show the discrepancies in the system but it would be very risky to leave the States without Commission control.

In light of these problems the Commission recently proposed to amend the current rules. It proposes to set an EU-wide cap which will abolish the need for individual NAPs.

2.2.6 Penalties

One might ask what happens to those who do not comply with the reduction obligation laid down in the National Allocation Plan. What are the legal and practical consequences of over emitting the determined cap for the participating parties?

The drafters of the Directive realized that these questions must be answered and in Article 16 formulated the basic principles of penalties applicable in the case of infringement the rules of the Directive.

Article 16 (1) states that the Member States are responsible to lay down "the rules on penalties applicable to infringements of the national provisions adopted pursuant to this

[87] T-183/07 R

Directive" This national sanction must be "effective, proportionate and dissuasive."[88] It will depend on the national legal environment whether violation of Directive will constitute crime, tort or civil wrong.

Publicity as a deterrent factor is also amongst the sanctioning methods. Names of operators who are in breach of surrendering sufficient number of allowances shall be made public. [89]

Very important feature of the penalty system is the so-called "excess emissions penalty". That means that any operator who, due to over emitting their cap, is unable to surrender sufficient amount of allowances by 30 of April each year, is obliged to pay a penalty. The amount of the penalty is expressed in Euros and it is determined in 100 EUR for each excess emitted tonne of carbon dioxide during the second period, 2008-2012.[90]

The excess emissions penalty does not work as a compensation for damaging the environment. It does not mean that the operator can choose to emit and to pay or not to emit and trade. "Payment of the excess emissions penalty shall not release the operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year."[91]In addition to the payment, the operator has to surrender the sufficient amount of allowances in the subsequent year.

It is an open question whom the penalty is paid; it is not regulated in the Directive.

[88] See supra note 8 Art16 (1)
[89] Id Art 16 (2)
[90] During the first period, ended in 2007, the excess emission penalty was 40 EUR
[91] See supra note 8 Art16 (3)

2.2.7 Banking and borrowing

To meet the commitment for one company within one year is made more flexible by including the possibility of banking and borrowing into the scheme.[92]

Banking is when a company saves some of this year's allowance for use it in next year and borrowing means to use some of next year's allowances now and not have them available next year.

The Commission allowed banking from the first to the second period, only if it does not lead to an allocation beyond the total allocation approved by the Commission for the second trading period. Therefore, for each allowance allowed to be banked, an allowance must be deducted from the total quantity issued for the second trading period.[93]

The banking and borrowing issue is controversial in the Directive. There is no clear rule on this problem. Banking between the first two commitments period is allowed. Member State may decide how to implement this provision into their law. In view of Joseph Kruger et al banking is a must from the second period (2008–2012) and thereafter to any subsequent period.[94]

[92] See supra note 62
[93] http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/1650
[94] See supra 83

2.2.8 Pooling

Article 28 "provides for the possibility for the operators of installations carrying out the same activity to pool their emission allowances"[95] within one period. The operators shall appoint a trustee who will receive the total amount of allowances equal to the total emissions from member[96] installations. He will be responsible for surrendering allowances equal to the total emissions from installations in the pool and will be restricted from making further transfers in the event that an operator's report has not been verified as satisfactory.

Upon receiving the application for pooling, the competent authority shall send it to the Commission, who will finally approve or reject it within three months. The Commission has indicated that it will not approve pooling groups which are too large because it would cause distortion in the scheme and competition.

The trustee shall be subject to the penalties applicable for breaches of requirements to surrender sufficient allowances to cover the total emissions from installations in the pool. The sanction includes publication of the trustee's name (Article 16(2)), and payment of penalty (Article 16 (3) (4)).

If the trustee fails to comply with the penalties, the responsibility is transferred to the operators. Each operator of an installation in the pool shall be held responsible in respect of emissions from its own installation.[97]

[95] See supra 62
[96] See supra 48 Art 28 (5)
[97] Id Art 28 (6)

2.2.9 Monitoring, reporting and verification of emissions

"Fair monitoring, reporting and verification of the emissions are also fundamental for the accuracy and reliability of the system."[98]

Monitoring and reporting requirements are in direct connection with issuance of emissions permit. According to Article 6 the competent authority shall issue the emission permit if the operator of an installation "is capable of monitoring and reporting emissions".[99]

Each operator of an installation is obligated to report the emissions from that installation to the competent authority after the end of that year.[100]

The Directive in Annex IV provides the basics principles how to monitor and report the emissions. It states that the "emissions shall be monitored either by calculation or on the basis of measurement."[101] Except for some provisions, the Annex IV provisions are not sufficient help for the operators to satisfy their monitoring and reporting obligation. That is why further specification was needed.

Based on its competence[102] the Commission adopted on 29 January 2004 the Commission Decision establishing guidelines for the monitoring and reporting of greenhouse gas

[98] See supra note 62
[99] See supra note Art 6 (1)
[100] Id Art 14 (3)
[101] Id Annex IV
[102] See supra note 8 Art 14 (3)

emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council.[103]

Article 14 (3) requires Member States to ensure that emissions are monitored in accordance with these guidelines, which are legally binding.

The reports made pursuant with the monitoring requirements have to be verified. The verification process's objective is to "address the reliability, credibility and accuracy of monitoring systems".[104]

The verification shall be provided by independent body which is accredited in the domestic system for this purpose. The verifier is obliged to prepare report, including data relevant for the verification process and to inform the competent authority.

An "operator whose report has not been verified as satisfactory in accordance with the criteria set out in Annex V by 31 March each year for emissions during the preceding year cannot make further transfers of allowances until a report from that operator has been verified as satisfactory."[105]

[103] 2004/156/EC
[104] See supra note 48 Annex V (II)
[105] Id Art 15

2.2.10 Reporting of Member States to the Commission

The Commission has number of responsibilities in smooth operation of the EU ETS and has a power to review the further expansion of the emission trading. To be able to fulfill this obligation, the Commission has to have excess to all relevant information and experiences the Member State may gain during the implementation and operation period. According to Article 21, each year, Member States shall submit a report about the operation of emission trading scheme. The report shall include information on "the arrangements for the allocation of allowances, the operation of registries, the application of the monitoring and reporting guidelines, verification and issues relating to compliance with the Directive and on the fiscal treatment of allowances, if any."[106]

To harmonize the reports' form and to ease the Member State's duty, the Commission is obliged to provide questionnaire for this purpose. The questionnaire shall be available to the Member States at least six months before the deadline of submission the first report. The reports aim is to inform the Commission but also the other EU members. The Commission shall publish a summation of these reports within three months of receiving the reports.

2.2.11 Registries

Essential element of ETS' operation is the integrated system of registries.

[106] Id Art 21 (a)

Member States are obliged to set up domestic registries which will ensure the "accurate accounting of the issue, holding, transfer and cancellation of allowances."[107] The States may choose to establish consolidated registry in cooperation with another Members. In this way States may establish the registry system in cheaper way, what can be vital for countries with small carbon markets.

The electronic system's purpose is to track in electronic form the ownership and the trading of allowances. The registry shall be accessible to the public and any person, legal and natural, may hold an account.

According to Article 20 (3) the Commission was obligated to adapt a Commission Regulation which aim was to further specify the ETS Directive registry requirements. Accordingly, the Commission adapted on 21 December 2004 a Commission Regulation of 2216/2004.

The EU ETS transaction log has to comply with the Kyoto based registry requirements.

A central monitoring body shall be set up by the Commission. Its responsibility is to "maintain an independent transaction log recording the issue, transfer and cancellation of allowances."[108]

The Central Administrator's duty is to check each transaction in "registries through the independent transaction log to ensure there are no irregularities in the issue, transfer and cancellation of allowances."[109]

[107] Id Art 19 (1)
[108] Id Art 20 (1)

If irregularities are identified, the Central Administrator shall inform the Member States concerned. After the notification, the Member States shall not register the transaction in question or any further activity relating to the concerned allowance till the irregularity have been resolved.

2.2.12 Opt-in clause

Article 24 lists a unilateral opportunity for the Member States to include activities, installations and gases which are not covered by the Directive. The aim of the opt-in clause is to widen the scope of the Directive where the Member State is willing to do so.

According to Art 24 (1) as of 2008 "Member States may apply emission allowance trading in accordance with this Directive to activities, installations and greenhouse gases which are not listed in" the Directive. This inclusion has to be approved by the Commission in accordance with the Article 23 (2) procedure. Article 23 (2) refers to the Council Decision of laying down the procedures for the exercise of implementing powers conferred on the Commission.[110] In the opt-in clause the relevant rule is that the Commission shall be assisted by a Committee.

The Commission in pursuance of the approval procedure shall take account of "all relevant criteria, in particular effects on the internal market, potential distortions of

[109] Id Art 20 (2)
[110] 1999/468/EC

competition, the environmental integrity of the scheme and reliability of the planned monitoring and reporting system."[111]

Member States have to specify these included activities in the NAP.

Upon such measure are included, the Commission has the power to consider whether Annex I should be amended in a way to include these activities. In this sense, the opt-in clause works as a trial phase before such an amendment.

2.2.13 Force Majeure

Force majeure exception was applicable only in the first phase till end of 2007.

According to Article 29 Member States could apply for the Commission "for certain installations to be issued with additional allowances in cases of force majeure."[112] The Commission has discretional power to decide whether force majeure event was present. The additional allowances were not transferable; its sole purpose was to meet the installation's target and to avoid the penalty obligation in case of unexpected event.

The Commission is responsible to draw guidance on what is treated as force majeure.

According to Commission Guidance on Allocation and Force Majeure[113], force majeure is any circumstance beyond the control of the operator and the Member State. It could be

[111] See supra note 8 Art 24 (1)
[112] Id Art.29 (1)
[113] Peter Zapfel: Commission Guidance on Allocation and Force Majeure, DG Environment

natural disaster, war, threats of war, terrorist acts, revolution, sabotage or acts of vandalism which occurrence substantially increases the annual emissions.

Although, the force majeure clause is not available in the current phase, the Commission can review the possibility to include this provision into the future phases.

2.3. Linking opportunities in the Emission Trading

The purpose of linkage techniques is the flexibility. It is important for the EU ETS to make the commitment easier for the participating stakeholders. The extension of ways how to meet the obligation will reduce the business sector's opposition to comply with the new requirements.

Emission trading provides three types of "linkage" challenges. Jürgen Lefevere provides an extent study on these options.[114]

According to his analysis, we can consider EU ETS itself as a linking exercise. Instead of creating universal EU wide emission trading scheme, the Directive requires all Member States to set up their individual carbon market. These domestic schemes have identical roots based on the Directive, but certain freedom is left to the governments to shape their own emission trading scheme. For example the EU ETS Directive mentions the

[114] Jurgen Lefevere: Linking Emision Trading Schemes: The EU ETS and the Linking Directive in se supra note 16 p511

competent authority, but does not specify whether this authority should be each State's Environmental Ministry or a separate institution should be set up for this purpose.

Other question is whether to allow linking with other trading schemes from outside of the Union? There are trading schemes in the continent too, which linkage may be beneficial for Europe. These are Norwegian and Swiss markets.

The EU ETS is the biggest emission trading scheme in the World, but its reach is limited to the European region. The Directive provides the legal framework for linking with other programs.

The relevant rules are Article 25 of ETS Directive and Article 300 of the EC Treaty. Article 25(1) provides that "agreements should be concluded with third countries listed in Annex B to the Kyoto Protocol which have ratified the Protocol to provide for the mutual recognition of allowances between the Community scheme and other greenhouse gas emissions trading schemes in accordance with the rules set out in Article 300 of the Treaty."[115] The world "*should*" suggests the importance the Commission gave to this cooperation. The same paragraph states that the agreement shall be concluded in the procedure formulated in Article 300 EC Treaty. The Article requires the Commission to make recommendations to the Council, which authorizes the Commission to open these negotiations. During the negotiation the Commission is obligated to consult with Council committees, known as the comitology procedure. The final agreement is approved by the Council by qualified majority.

[115] See supra note 48 Art 25 (1)

In our context the most important challenge is the linkage of EU ETS with the Kyoto flexible mechanisms. In this attempt the credits generated in the mechanisms help in achieving compliance under the ETS. This way the participating installations enjoy more flexibility in their obligation.

2.3.1 2004/101/EC-Linking Directive[116]

European Union opted for linking the Kyoto mechanisms with the EU ETS but did not regulate them together in a same legal act with the emission trading provisions. The reason for drafting a separate Directive was the uncertainty around the Kyoto Protocol's entry into force at that time. Commission did not want to undermine the complexity of the Directive. The Linking Directive has a form of amending the Emission Trading Directive and they should be read together.

The EU ETS Directive itself provides for the possibility of linking to project mechanisms, stating that "the use of credits from project mechanisms"[117] is considered as a possibility in the future.

In addition, the Preamble of the Directive states that:

Project-based mechanisms including Joint Implementation (JI) and the Clean Development Mechanism (CDM) are important to achieve the goals of both reducing global greenhouse gas emissions and increasing the cost-effective functioning of the Community scheme. In accordance with the relevant provisions of the Kyoto Protocol

[116] See supra note 9
[117] Supra note 8 Art 30 (d)

and Marrakech Accords, the use of the mechanisms should be supplemental to domestic action and domestic action will thus constitute a significant element of the effort made.[118]

2.3.1.1. The Linking Directive's main specifics

The operators are allowed to use Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs) to meet their ETS targets. The use of CERs is eligible from 2005 and the use of ERUs is allowed only from 2008. Joint Implementation projects started to operate in 2008 and that is why EU separated the two units.

It is important to know how much of these units can be used by each installation to meet their NAP based targets. In the preparation of the Directive there were proposals to explicitly limit this amount at 6 % or 8% but was not included into the final version. There is no explicit limitation specified in the Directive. There is only an amendment to Annex III specifying a new criterion for drafting the National Allocation Plan:

> The plan shall specify the maximum amount of CERs and ERUs which may be used by operators in the Community scheme as a percentage of the allocation of the allowances to each installation. The percentage shall be consistent with the Member State's supplementarity obligations under the Kyoto Protocol and decisions.[119]

It means that national governments are obliged to take into account the percentage of Kyoto units eligible to meet their target while drafting their NAPs. This limit must be in line with the Kyoto Protocol and Marrakesh Accords, which both require that "the

[118] Id Preamble (19)
[119] See supra note 9 Art 1 (12)

acquisition of CERs and ERUs shall be supplemental to domestic actions for the purposes of meeting commitments".[120]

This limitation is formulated in vague manner and does not provide any certain measurement for the drafters of the NAPs. The governments can certainly easier by-pass this requirement than it had been a clear percentage of limitation.

The Directive allows the direct use of CERs and ERUs in the Community; one allowance is equivalent to one CER or one ERU. Preamble states that "use will take place through the issue and immediate surrender of one allowance in exchange for one CER or ERU."[121]

Double counting

According to Article 1 paragraph (3) the general rule is that all CERs and ERUs issued in accordance with the Kyoto Protocol may be used in the Community scheme. This clause is continuing with an exception clause which excludes the units generated form nuclear facilities during the first 3-year and first 5-year period. The future consideration of nuclear facilities is unclear and the time limit of their inclusion suggests that the Commission wanted to leave open the possibility to include them from the subsequent periods.

Reduction units generated by land use, land use change and forestry activities[122] are also excluded from the linking Directive because their impact is scientifically not proved.

[120] See supra note 13 Article 6.1 (d)
[121] See supra note 9 Preamble (5)
[122] In Kyoto terminology these activities are referred as sink, which includes any activity which removes greenhouse gases from the atmosphere

We can criticize the linkage because it can undermine the effectiveness of the emission trading. The unlimited inclusion of project generated units will affect the price of the EU allowances which will have negative impact on the "normal" ETS trading. This problem would be less apparent if the Commission defined the percentage of allowed CERs and ERUs for each year.

By the other hand, the Linking Directive carries certain benefits, too. The transfer of environmental friendly technology in CDM and JI projects to both developed and developing countries will be certainly encouraged in these circumstances. [123]

2.4. 2008/101/EC-Amandement and the further developments

There are number of legal references which suggest that the currently existing emission trading scheme is a temporary phase in order to finalize a more integrated and wider scheme in the future.

The drafters of the Directive provided the fundamental legal background for the further development. The Preamble of the Directive lists number of future aspects of the scheme and Article 30 explicitly empower the Commission to review the further development opportunities in light of the gained experience.

Article 30 states that the Commission shall draw a report on the basis of experience on the application of the Directive. The report shall with special interest consider "how and

[123] See supra note 25

whether Annex I should be amended to include other relevant sectors, inter alia the chemicals, aluminium and transport sectors, activities and emissions of other greenhouse gases listed in Annex II, with a view to further improving the economic efficiency of the scheme"[124]

Based on this authorization, the Commission recommended involving the aviation sector into the scheme. Recommendation was followed by action and the Council and the Parliament adapted the Directive 2008/101/EC[125] to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community.

The objective of the Amendment is " to reduce the climate change impact attributable to aviation by including emissions from aviation activities in the Community scheme."[126]

The most controversial part of the Directive is that it covers all flights arriving at and departing from Community aerodromes. It means that it will cover aircraft operators outside of the territory of EU, too. The international response for this solution was very strong. They claim that the EU does not have the power to adapt regulation which would influence business activity outside of its borders. The scheme will have negative competitive impact on the domestic airlines too. United States have already expressed that it will challenge the validity of EU measure whether it is consistent with World Trade Organization rules. In light of the existing environmental related cases[127], it will be

[124] See supra note 8Art 30 (2) (a)
[125] Directive 2008/101/EC
[126] Id Preamble 19
[127] Tuna-Dolphin (1991), Shrimp-Turtle (1999)

interesting to see how the WTO will proceed in this issue. WTO has been reluctant in these cases to support Article XX exceptions which affect international trade and services. The inclusion of aviation will certainly affect the international trade flow and that is why the EU's unilateral act's validity highly controversial at the moment.

In addition to the aviation amendment, the Commission on 23 January 2009 adapted a proposal[128] amending the current EU ETS Directive in the light of gained experience. The proposal is currently being discussed in the co-decision procedure.

The main Amendments include extension of the scope of the EU ETS, an EU-wide cap instead of 27 caps, greater extent of auctioning. Allowances issued from 1 January 2013 onwards will be held in the Community registry instead of in national registries.

The proposal basically covers all of those controversial issues what was addressed in the Court proceedings. The inclusion of one EU-wide cap is a good solution because it will ease the tasks of the Member States and it will create more certainty among the business actors. Most Member State's practice to favor their economy will be abolished by this method.

The proposal is currently being discusses in the co-decision procedure. If the Council and the Parliament adapt the proposal the emission trading will be more harmonized and centralized in the European Union. It will be easier to the installations to meet their emission target in an integral market.

[128] Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community

CHAPTER 3 - Acid Rain Program

Due to the fact that both EU ETS and Acid Raid Program[129] are the variants of cap-and-trade environmental policy, it is worth to compare the two. The Acid Rain Program's importance is significant because it is claimed to be the first cap-and-trade program in the World and its' model has been followed by the Kyoto Protocol itself.[130]

Congress amended the Clean Air Act in 1990 and set a limit on sulfur-dioxide (SO_2) emissions and established an allowance trading program. The goal of the program is to reduce annual SO_2 emission by 10 million tons below 1980 level.[131] The program covered only large fossil fuel-fired power plants and its operation was divided into two phases. Phase I began in 1995 and affected 445 units and emissions at these units nationwide were reduced by almost 40 percent below their required level.[132]

Phase II began in 2000 and its' scope was extended to cover smaller, cleaner plants fired by coal, oil, and gas, encompassing over 2,000 units in all.[133]

The program also reduces nitrogen-oxide emissions (NOx) by 2 million tons by the year 2000. But this program is closer to a more traditional rate-based regulatory system[134] and

[129] Title IV Clean Air Act
[130] Ved P. Nanda: The European Union's multinational carbon trading program (Denver University Law Review, 2008)
[131] http://www.epa.gov/airmarkets/progsregs/arp/basic.html
[132] Id.
[133] Id.
[134] Acid Rain Program 2005 Progress Report, available at: http://www.epa.gov/airmarkt/progress/docs/2005report.pdf

that is why I will concentrate on SO_2 reduction thereinafter.

The SO_2 program is implemented at federal level by Environmental Protection Agency which is responsible for the operation process. EPA runs electronic allowance and emissions registries and is responsible for verification of emissions data.[135]

The Acid Rain Program is considered very successful based on 11 years experience. According to the report of Environmental Protection Agency, the ARP has proven to be an effective and efficient means of meeting emission reduction goals. The EPA study from 2005 estimated the program's benefits at $122 billion annually in 2010, while cost estimates are around $3 billion annually.[136]

Both, EU ETS and ARP represent cap-and-trade model in environmental protection but there are significant structural differences in their functioning.

The EU ETS structure is more decentralized, operating in 27 different legal settings, while the U.S trading program is controlled at federal level.[137] The decentralization "problem" is the most apparent in the allocation process. In EU ETS the Member States individually are responsible to draft their NAP and to decide how to distribute the emission allowances. The Commission has power of control over the submitted NAPs but we have seen the opposition from the Member States in the number of initiated Court cases.

[135] See supra note 78
[136] See supra note 108
[137] See supra note 109

The timing of allocation process is different in the two programs, too. In U.S the decisions about allocations to firms comes *after* a cap has been established. For the SO2 trading program, the U.S. Congress set the sector cap first and later decided about the distribution between the sectors and sector firms. In the National Allocation Plan the decision about the overall cap and about the further sector distribution is more or less done simultaneously.[138]

There is slight difference between the allocation methods. While U.S used exclusively the free of charge distribution, EU has introduced the possibility to allocate through auction. The auction's scope is limited to only 10% in the II phase but according to the Commission proposal this amount will significantly grow from the next phase.

Both systems require reliable monitoring, reporting, and verification system to be established. The EU's proposed guidelines are less stringent and give more flexibility to installations and to Member States to develop their monitoring system.[139] The flexibility of guidelines may be the result of the fact that the EU ETS covers more sectors and more greenhouse gases as the ACR. This scope most likely will be broadening in the future.

All Member States may have their own registry system, although they can join to set up a common registry. The separate registry systems will be tided thru independent, Commission controlled transaction log.[140] This solution is far more complicated and more expensive then to have one, centralized registry system.

[138] Id.
[139] Id.
[140] Id.

Matthieu Wemaere et al [141] analyzed the nature of allowances in the U.S system. Unlike the EU approach, the Clean Air Act explicitly defines the nature of allowances as a" limited authorization to emit" [and]" such allowance does not constitute a property right".[142] The U.S. law explicitly says that the allowance does not constitute property right, but "it seems that, between the contracting parties, all normal property rights (usus, fructus, and abusus) are available.[143]

The Acid Rain Program has proved to be successful and served as example for the EU ETS, too. The main difference comes from the centralized and decentralized supervision. EPA is more powerful as the Commission and in this way the operation is made simpler and more reliable.

With the problems with NAPs and US success, the Commission should try to influence the nap drafting.

[141] See supra note 56
[142] See supra 124, 403. para 7651 (b)
[143] See supra note 56

Conclusion

The aim of this thesis was to determine the main elements what are necessary to make the business-friendly environmental protection successful. Although the topic chosen is so broad that absolute completeness could not be achieved, certain point could still be identified based on this paper.

The year 2009 is crucial in the future destiny of the Kyoto Protocol. Twelve years after its conclusion (although only 4 years after its entry into force) the successor of the current treaty should address several points. In light of the gained experience, the lack of penalty system is apparent. The lack of sanction measure can harm the flexible mechanism's effectiveness. Some States argue that other parties' non-compliance puts them into disadvantageous competitive position. This situation could be cured if a money based penalty system would be introduced.

Developing countries do not have any biding targets. In the current circumstances, the developed countries can avoid their obligation and transfer their highly polluting industry to the developing World. That would negatively affect the domestic economy of the developed countries and the environment, too. It would be important to include the developing countries into the binding commitments. That will be a great challenge of Copenhagen Negotiations in December 2009. The new U.S Administration will have vital role in this attempt.

The Kyoto Protocol has certain weaknesses but its positive impacts can not be denied. It established the business-friendly approach in environmental protection and provided the legal framework for establishment of the World's biggest Emission Trading Scheme.

The EU ETS has been in operation for only 4 years. During this short period many functional discrepancies have been revealed in the system.

The effective trading in the market largely depends on the reliability of the legal framework constituting this market. The legal definition of emission allowances influences this reliability. Different legal treatment might cause competitive disadvantage to the States, which threat the allowances less favorably than others. The success of the Acid Rain Program suggests that clear definition is important for the business actors. The Commission's ambition is to build out an EU-wide emission trading market. To realize this plan the legal nature of allowances has to be addressed in some time in the future. This is even more important in trading agreements with parties outside of the EU.

Many of the Member States tend to favor their economy. This attitude is in great extend apparent in the drafting of National Allocation Plan. The NAPs play central role because they determine the supply of the allowances in the market and this has direct impact on the price changes of the allowances. This is the reason the over-allocation is very sensitive issue and may cause the collapse of EU ETS. It is important to avoid this happening and the centralized EU-wide cap would be better solution for the market.

The distribution of allowances is also very influential in the market. Free of charge distribution may cause unlawful competition situation due to strong lobby power from the

side of large industries. In this context, auctioning would be the better way to distribute allowances but only with clear and good designed legal framework. The revenue from auctions should serve the development of the EU ETS and should be reinvested to the "green" economy.

There is an enormous job before the Commission. To transform the current EU ETS into a well- functioning emission platform it will need to create reliable and transparent legal framework. Following the sample of U.S Acid Rain program, more centralization will be needed and very powerful body, whether this will be the Commission or not.

Abbreviations

AAUs-Assigned Amount Units

ARP- Acid Rain Program

CDM-Clean Development Mechanism

CERs- Certified Emission Reductions

CH4- Methane

CO2- Carbon Dioxide

ECCP-European Climate Change Program

ECJ-European Court of Justice

EPA-Environmental Protection Agency

ERUs-Emission Reduction Units

ET-Emission Trading

EU-European Union

EU ETS-European Union Emission Trading Scheme

GHG-Greenhouse Gas

HFCs-Hydrofluorocarbons

IPPC- International Panel on Climate Change

JI-Joint Implementation

JISC-Join Implementation Supervisory Committee

KP-Kyoto Protocol

NAP-National Allocation Plan

N2O-Nitrous Oxide

PFCs-Perfluorocarbons

RMUs-Removal Units

UNFCCC- United Nations Framework Convention on Climate Change

US-United Sates

WTO-World Trade Organization

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