# Undergraduate Program in Central European Studies

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# Environmental Policy in the Central European Context

Time: Tuesday 4pm
Location: at CERGE-EI, Room # 10

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## 10 Environmental Policy in European context – History and current problems

**Axelrod, R. (2004), Nuclear Power and EU Enlargement: The Case of Temelín. Environmental Politics, 13, 153-172.**

Issue of the nuclear power and its future in Europe

"The controversy over the Temelín nuclear power plant (TNPP) in the Czech Republic was transformed from a domestic issue to an international one by the year 2001. Besides providing an opportunity to examine domestic politics and administrative practices in the Czech Republic, the Temelín case raised questions about the future of nuclear power in Central and Eastern European (CEE) countries – and the rest of Europe. What began as a bureaucratic decision in the 1980s by the communist government of Czechoslovakia to build a nuclear power plant became by the late 1990s a major controversy affecting the enlargement of the EU and a nightmare for the foreign relations of the Czech Republic. "

"The dynamics of energy and environmental policymaking in the case of Temelín provides a unique lens for examining the relationship between candidate states and the EU, as well as issues pertaining to the future of nuclear power in Europe."

## Historical background

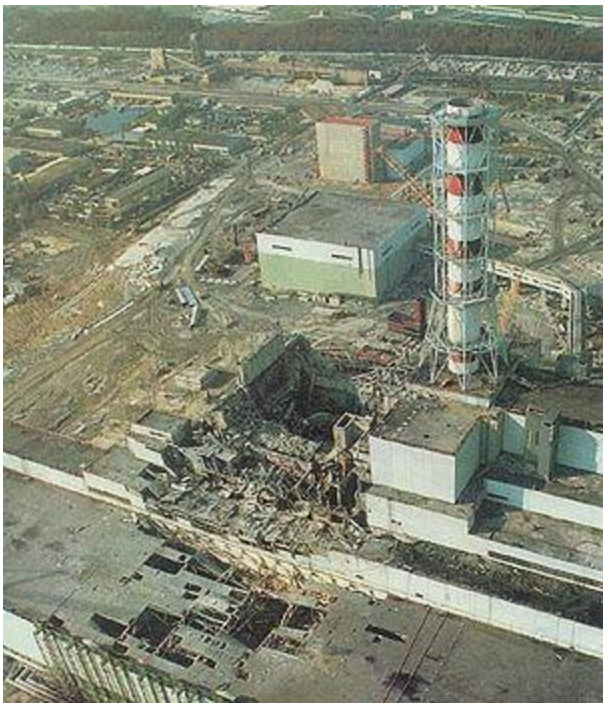
- 1986 Chernobyl disaster => issue of the safety of nuclear power facilities

*The **Chernobyl disaster** was a nuclear accident of catastrophic proportions that occurred on 26 April 1986, at the Chernobyl Nuclear Power Plant in Ukraine (then in the Ukrainian Soviet Socialist Republic, part of the Soviet Union). It is considered the worst nuclear power plant accident in history and is the only level 7 event on the International Nuclear Event Scale.*

*The disaster occurred on 26 April 1986, at reactor number four at the Chernobyl plant, near the town of Pripyat, during an unauthorized systems test. A sudden power output surge took place, and when an attempt was made at an emergency shutdown, a more extreme spike in power output occurred which led to the rupture of a reactor vessel as well as a series of explosions. This event exposed the graphite moderator components of the reactor to air and they ignited; the resulting fire sent a plume of radioactive fallout into the atmosphere and over an extensive area, including Pripyat. The plume drifted over large parts of the western Soviet Union, and much of Europe. As of December 2000, 350,400 people had been evacuated and resettled from the most severely contaminated areas of Belarus, Russia, and Ukraine. According to official post-Soviet data, up to 70% of the fallout landed in Belarus.*

*Despite the accident, Ukraine continued to operate the remaining reactors at Chernobyl for many years. The last reactor at the site was closed down in 2000.*

*Russia, Ukraine, and Belarus have been burdened with the continuing and substantial decontamination and health care costs of the Chernobyl accident. A 2006 report prepared by the Chernobyl Forum, led by the World Health Organization (WHO) states, "Among the 134 emergency workers involved in the immediate mitigation of the Chernobyl accident, severely exposed workers and firemen during the first days, 28 persons died in 1986 due to ARS (Acute Radiation Syndrome), and 19 more persons died in 1987-2004 from different causes. Among the general population affected by Chernobyl radioactive fallout, the much lower exposures meant that ARS cases did not occur". It is estimated that there may ultimately be a total of 4,000 deaths attributable to the accident, due to increased cancer risk.*



- 1992, the G-7 countries (Canada, France, Germany, Italy, Japan, the UK and the US) agreed that Russian-designed nuclear power plants should be closed owing to safety concerns, and that financial assistance would be given to replace nuclear power with renewable and alternative energy sources.
- CEE governments and their nuclear industries wanted to keep plants open to prevent them from losing their investments. => plants upgrades => extended lifetime, rise of the nuclear industry in CEE (equipment, instrumentation and control systems (I&C), nuclear waste storage facilities)
- Western Europe (particularly France and Belgium) had excess electricity to sell and the nuclear industry was anxious to find new markets, particularly in CEE countries and Asia, the policy to upgrade Russian-designed plants established a vast new market benefiting suppliers of nuclear technology, particularly US and European nuclear engineering companies => the ability of Western European and North American governments to achieve closure of Soviet/Russian-designed nuclear power plants across CEE and former Soviet regions proved quite limited

**The Origins of Temelín**

Communist era in Czechoslovakia

⇨ high energy intensity, low energy prices, and inefficient energy production and electricity transmission

⇨ Czech heavy industry and chemical production required a reliable supply of electricity

⇨ nuclear power seemed to be a viable alternative

1978 - the decision for construction was approved (Temelín is located in the southern part of the Czech Republic, cca 80 km from the Austrian border)

1986 - construction began

- after the Chernobyl accident => a review of Temelín's design a halt in construction

1992 - new government to decide about construction => completion of the TNPP2 (no adequate information on electric supply and demand, absence of public debate)

- studies by the International Atomic Energy Agency (IAEA) found flaws in the design of Temelín, and recommended replacement of the I&C (instrument and control) systems. There were also questions regarding the use of Russian fuel as well as the fuel cycle itself, contributing to higher levels of radioactive waste than Western designs.

1993 - after a controversial and questionable bidding process, Westinghouse was awarded a contract to graft Western technology on to the Russian-designed reactors.

**The Austrian position -** is influenced by its proximity to the plant and the fact that it is a non-nuclear state.

early 1990s

when the contract with Westinghouse to upgrade Temelín was being considered => lobbying against the TNPP in the US Congress (similarly, Austria later opposed the completion of the Slovakian Mochovce nuclear power plant in 1998).

By 2000

the Austrian position was complicated because of the nature of its coalition government, difficult to reach a political agreement => widening the scope of conflict to other European states and international NGOs => a campaign against nuclear power in Eastern and Western Europe

September 2000

the Austrian Parliament approved a resolution to block Czech entry into the EU because of Temelín. The problem here was that there exists no EU competency for nuclear power plant regulation, probably because a number of the nuclear states, including France and the United Kingdom (UK), are wary of opening a Pandora's box of regulatory debates. In fact, **EU member states (and publics) remain quite divided on nuclear power issues.** Seven of the 15 member states have nuclear power plants, and eight of the 12 candidate [new members by now] states are nuclear. On the other hand, countries such as Austria have totally banned nuclear power while Sweden and Germany are officially engaged in phasing out their nuclear power facilities => lack of agreement

October 2000

nuclear fuel was activated in the first Temelín reactor and Austria moved to widen the controversy to Brussels. In the autumn of 2000, anti-Temelín forces set up blockades on the borders between the Czech Republic and Austria to increase public attention on the issue. Austria soon changed its strategy from demanding the closure of Temelín, to blocking the closing of the Czech energy chapter in the accession negotiations. This move could have jeopardized the entire accession process, since a veto of any of the 31 chapters by even a single EU member state would prevent accession to the EU. When Czech officials decided to go ahead with the completion of Temelín, they never thought the issue would rise to the level of potentially blocking Czech accession to the EU. The veto of one state could do so, which is what Austrian officials were threatening.

⇨ the EU became an important player mediating between two states with unequal status – a member state and a candidate state

⇨ At the request of the Czech foreign minister, Jan Kavan, the Commission offered to act as mediator at the end of 2000. Both Austria and the Czech Republic agreed to the mediation. The result was **the Melk Agreement**, the result of many hours of tedious negotiation.

- The Czech Republic agreed to an Environmental Impact Assessment with EU participation (The Commission later concluded that the environmental impacts were considered to be insignificant and acceptable)

- Austria said it would cease threatening to block the closing of the energy and environmental chapters and to protect the borders from further blockades.
- As an early warning system for extraordinary events, a hotline was established from Temelín to the Austrian Federal Atom Centre at the Interior Ministry to supply updated studies on breakdowns and uncontrolled release of radioactivity.

⇨ Between February 2001 and July 2001, in a parallel process, there were ongoing discussions (not smooth) between the EU, Czech nuclear experts and Austria.

⇨ Surprisingly, EU Enlargement Commissioner Gunter Verheugen suggested at some point that Temelín would 'probably be the safest nuclear plant in Europe' (*Prague Post*, 29 November 2000).

⇨ **German approach:** In July 2001, the German government formally asked the Czech government to revise its decision to operationalize Temelín. EON, a German power company, said it would cancel contracts with CEZ to import electricity. Meanwhile, Bavarian border towns launched a campaign to stop Temelín with petitions. A difficulty with the boycott strategy was the inability to distinguish between sources of electricity. Other German companies kept the CEZ (Czech energy producer) contracts and purchased electricity indirectly through ENRON. Germany never threatened to block Czech accession over Temelín, although it is committed to close its own nuclear plants within 20 years.

⇨ Difficult role of the EU: Since there are no EU standards, which national standards should apply? German, French and British standards are not the same. Czechs officials argued that the EU could not apply pressure to candidate states about nuclear power because it lacked the competency to do so with existing members. However, the EU position was that it could force an EIA [Energy Information Administration] on non-members even though it was not called for in EU legislation.

⇨ The conclusions of the Melk Process issued on 29 November 2001, defined a follow-up process. The agreement between the Czech Republic, Austria and the EU was 130 pages long. Each state recognized the sovereign right to its own energy policy, but there would be joint monitoring and cooperation to increase energy efficiency.

⇨ but the struggles continued …

⇨ Why did Austria finally abandon a veto of Czech accession? First, Austria lacked support in the EU Council. Second, Chancellor Schussel risked jeopardizing the strength of his coalition in a long, difficult and unpleasant fight. There was, in fact, no legal basis for stopping Temelín.

⇨ At the December 2002 Copenhagen Summit, at which the CEE states were invited to join the EU, Austrian officials wanted to embed a protocol to the accession treaty with the Czech Republic making the Melk Protocol subject to international law and subject to enforcement by the European Court of Justice. Lacking an EU nuclear energy policy and given the influence of the nuclear states, the attempt failed. Nuclear member states may have feared that such a move might put other nuclear power plants under European Court jurisdiction

with possible lawsuits initiated by antinuclear groups. The Melk Agreement remains a bilateral agreement and not subject to international law.

⇨ **Role of Czech NGOs:** Generally, Czech NGOs were never really successful in challenging the government position favoring Temelín, it was the intervention of foreign NGOs and green political parties which forced the public hearings and EIA within the context of the EU accession process.

⇨ and Temelín's technical problems continued

- most of the shutdowns and delays at Temelín were due to technical problems in the non-nuclear system
- Western European Nuclear Regulators Association (the EU's nuclear safety advisory body) reported some safety concerns on the basis of the different safety concepts in Eastern and Western technology, which did, and would, continue to cause technical problems and delays
- through 2001 and 2002, there was number of closures of the plant's operations
- in mid-January 2002, technical malfunctions caused the plant to discontinue testing at 100 % capacity.
- A two-month shutdown occurred prior to June 2002.
- problems continued into 2003 as Unit 1 experienced additional shutdowns
- after Unit 2 was launched in May 2002, it too had technical problems
- although both units have been connected to the grid, by early 2003 they were still not contributing a continuous and reliable energy supply

**Energy Policy in the Czech Republic**

⇨ The Czech Republic has been trying to move closer to EU policy in the energy sector. Over 75% of electricity is generated from fossil fuels, 3% from hydro, 20% from nuclear, and an insignificant amount from renewable resources [this is as of 2004, in 2009 about 5.7% of energy produced was green, of that 3% hydro, 0.4% wind, 0,1% accredited photovoltaic]. Given the pressure to reduce air pollution from coal mining and coal burning, coal is not projected to have a long-term future unless environmental regulations are modified. In the 1990s, the government encouraged the public to switch from coal to electricity by subsidizing the price of electricity. This increased demand was used as a justification for completing Temelín.

⇨ The Czech government has also stated that any new plants built after 2015 will have to use primary sources other than coal. With nuclear power cast as a strategy to comply with the UN Framework Convention on reduction of greenhouse gases, it appears that a nuclear future is part of the country's long-term energy policy. In spring 2003, the Minister of Industry and Trade proposed a draft plan that would double the size of Temelín. It was met with criticism.

⇨ [*Plans to build all four original reactors were reopened in 2005. In 2007 planning was suspended because a new coalition government agreed not to promote nuclear energy as a Green Party was involved in coalition. However, in July 2008 ČEZ requested the Ministry of*

*the Environment conduct an environmental impact assessment for two additional reactors.= In 2009 regional approval was granted for the new build. ČEZ plans to begin construction in 2013, with completion of the first block in 2020.*]

⇨ The Environment Ministry projects that renewable energy, which accounts for 2% of the energy sector, will increase to 4–6% by 2010. The development of this sector is one of the objectives of the 6th Environmental Action Programme of the Commission. The stated goal of the government is, 'creating a well-functioning, non-discriminating, transparent and motivating system of support and power savings, effective use of renewable energy sources, and co-generation of electricity and heat'.

⇨ The mining of uranium has supported the nuclear power industry. Run by the state company Diamo, it employs about 1,000 workers.

⇨ There are plans for energy savings programs by the State Energy Agency. Because they estimate that more funds will be needed than are available, they are looking to the EU and World Bank for support.

⇨ There is also government support for energy audits, efficiency standards, labeling of appliances, and co-generation

**Conclusion**

- The Temelín case illustrates the limits of existing environmental policy not only in the Czech Republic, but among the member states of the EU where the long-term impact of nuclear energy has not been considered fully.
- Similarly, the World Bank has also met with mixed results in its attempts to close Soviet-designed nuclear power plants in Slovakia and Ukraine.
- EU approval of Temelín, while keeping the issue separate from Czech accession, overlooked difficult issues concerning nuclear safety and the desirability of an enhanced nuclear future.
- EU funds for nuclear power compete with commitments to support renewable energy.
- need for an EU-wide debate about the appropriate energy mix necessary for meeting sustainable environmental goals.
    - Bulgaria is considering building a new nuclear plant to compensate for the loss of its Kozloduy plant
    - Finland is considering new nuclear power,
    - Sweden is rethinking closing its plants
    - Germany may be dragging its feet in closing its nuclear power plants.
- Yet, some attempts to set EU-wide minimum safety standards based on those from the International Atomic Energy Association are moving forward, partially as a result of the enlargement process.
- The intense bilateral negotiations over Temelín between the Czech Republic and Austria coincided with, or could be considered to be, the result of the Czech accession process. The Czech position was that if the plant was deemed unsafe by EU standards it could be closed. The Czechs argue that their plant has been scrutinised more than any Western European

one. The problem was that there was no guidance from the EU because it could not agree on a nuclear policy. Standards for high nuclear safety are also lacking. The Austrians threatened to veto both the environment and energy chapters unless a new and comprehensive assessment was made of Temelín. The goal was to close Temelín or delay Czech accession. This was interpreted as extreme pressure or blackmail by most Czechs. Austrian opposition to Temelín was also perceived as outside interference threatening sovereignty

- The Austrians hoped this would be an opportunity for the EU to take a position on the future of nuclear power. Austria's aim was to raise questions, such as, is nuclear power consistent with sustainable development? What of long-term waste disposal and decommissioning? Austria also raised the issue of cross-border environmental impact and sovereignty to public attention. Is a state free to decide how it will produce electricity? Is the answer yes for current member states and no for candidate states?
- On the other hand, EU bodies (when unanimity has existed and when funds for closure were promised and provided) have forced candidate states such as Bulgaria and Lithuania to accelerate the closure of a small number of nuclear power plants deemed quite dangerous. The EU made termination of an unsafe nuclear power plant in Bulgaria a condition to begin EU accession negotiations. Without the spectre of EU membership it would have been much more difficult to close unsafe plants. Even so, Bulgarian officials and nuclear power interests continue to discuss the scheduling closing of a number of reactors in Bulgaria. These debates continue, at least in part, because Bulgaria has electricity export opportunities. The EU could use the accession process to increase transparency in candidate states and support NGO pressure on their governments for information on environmental impacts of energy.

**Vail - Illegal Waste Transport and the Czech Republic: An Environmental Sociological Perspective**

- In late 2005 Czech authorities first began to discover substantial amounts of municipal waste illegally transported from Germany to the Czech Republic.
- the dumping of more than 30 000 tons of German waste in 'black dumps' throughout the Bohemian countryside raised social, economic, and political questions about how to mitigate the negative human health and environmental impacts and prevent dumping in the future. In addition to prompting practical policy questions
- the author presents the history of the Bohemian illegal waste problem and then describes and analyses relevant waste management policies in the Czech Republic, Germany, and the European Union in the light of the ToP theory,(treadmill production theory) which hypothesizes that environmental degradation is caused primarily by institutional political-economic forces, and that the protection of environmental quality can be achieved only through structural reform.
- "Developing nations are attractive to international capital for several obvious reasons. Cheap labor, weak environmental laws, and corrupt business and government can lower the cost of production. In essence, multinational corporations achieve bigger profits by externalizing more of the costs of production."
- the Czech Republic has benefited from globalization: with a relatively low-priced and well-educated work force, the nation has attracted foreign investment; new industries have

provided well-paid skilled jobs and often use techniques that are less polluting than those of communist-era firms.

- But CR is also experiencing some downsides of globalization, and illegal waste shipment is one example.
- In line with the ToP theory, as new strict regulations come into force and waste treatment costs rise in Germany, it is natural for Germans to seek cheaper disposal alternatives. There was strong evidence already in the early 1990s that the shipment of waste to Central and Eastern Europe could have negative social and ecological effects.
- The problem of illegal or 'black' dumps in Bohemia has highlighted the strengths and weaknesses of the current waste policies intended to regulate this trade.

**Illegal waste transport and the Czech Republic**

- In the autumn of 2005 and the winter of 2006, Czech authorities discovered that significant amounts of municipal waste were being illegally transported into Bohemia from Germany.
- Illegal transports continued to be intercepted by police and customs officials throughout 2007.
- The waste was detected primarily through the interception and inspection of trucks headed to black dump sites.
- By the spring of 2006, the Czech Environmental Inspectorate (CEI) determined that much of the waste came from Germany
- Black dumps were found in a variety of locations within the Czech Republic, mostly in North Bohemia near the German border. A total of **26 illegal dumps** were documented in the media as containing waste that appeared to have originated in Germany.
- The sites where waste was dumped illegally included open fields and lots, farm buildings, a vacated military airfield, warehouses, and even legal landfills. In sum, the CEI identified about **30 000 tons** of alleged illegal German waste dumped in Bohemia. Of this amount, about 15 000 tons was ultimately land-filled within the Czech Republic by the summer of 2006, and only about 7000 tonnes was satisfactorily proven to be of German origin.
- In January 2006, Czech authorities discovered what was to become perhaps the most notorious dump, near the village of Libčeves in North Bohemia. There inspectors found around 4000 tonnes of municipal waste from Germany – the equivalent of about 200 tractor-trailer truckloads – stored out in the open and in a barn. Some of the waste was hazardous, and the improper storage attracted pests and threatened to contaminate the soil and water.
- When it was finally agreed that the government of Saxony-Anhalt should repossess the waste, only about 750 tons were taken back to Germany, and the remainder was land-filled in the Czech Republic [ČTK 2006e]. A Czech waste hauler was fined ten million Czech crowns for creating the dump, but avoided payment by declaring bankruptcy
- Czech authorities response
    - regulatory reforms
    - cooperation and confrontation with their German counterparts.

- the government considered banning all waste imports
- a rule broadening the list of wastes requiring permits to enter the country took effect in March 2006 but was almost immediately abandoned as impracticable; plus deemed at variance with EU waste shipment regulations and interfered with the legitimate cross-border waste trade critical to the Czech recycling industry.
- more border checks with higher potential fines for violators (maximum fine for improper waste import was raised from CZK 10 million to 50 million)
- fines were imposed on several companies, numerous suspects were arrested (by late April 2006, 5 Czechs and 1 German had been arrested)
- 4 Czech companies were fined between CZK 0.25 million and 10 million for their participation in the smuggling.
- By June 2006, the CEI announced plans to seek prosecution of up to 20 German companies
- a special German-Czech environmental commission was created and a 'Roadmap for the take back/disposal or recovery of illegally shipped German waste to the Czech Republic' was signed by the environment ministries of both nations in early May 2006. (but Czechs still felt that the German authorities were not particularly forthcoming with assistance in solving the crime and determining responsibility for the clean-up.
- At the international level, the Czech Republic advocated stricter regulation of the waste trade, both in Brussels and in solidarity with its neighbors in the Visegrád group (the Czech Republic, Hungary, Poland, and Slovakia)

- over a period of many years Germany has pressured the EU to adopt stricter waste policies. For example, the Packaging Waste Directive (94/62/EC) is based heavily on German policies for the collection and recycling of packaging.
- At the same time, recent Czech environmental policy reform has been motivated almost entirely by the need to conform to requirements involved with becoming an EU member state in May 2004 => Thus, Czech restrictions on the import and disposal of foreign waste have been driven at least indirectly by German initiatives.

- **main principles of EU regulation of waste management**
  - the **polluter pays principle** (PPP) saying that those who produce pollution are legally and financially responsible for the clean-up of the pollution (the aim is to internalize environmental costs
  - the **proximity principle** states that environmental problems should be dealt with as close to the source of the problem as possible (goal of regional and national self-sufficiency in waste generation, treatment, and disposal).
  - The **waste hierarchy** establishes an order of priority for the treatment of waste, which includes, in order of most preferred to least preferred options: waste prevention and reduction, reuse, recycling, recovery, and disposal

- The overarching policy context for handling the Czech-German waste transport dispute was set by Waste Shipment Regulation (WSR) which classifies wastes by risk, requires prior authorization for the shipment of waste, and stipulates that unauthorized waste must be returned to its source of origin or otherwise properly disposed of => If waste is determined to have been transported illegally, the 'notifier' – the source of the waste – must take responsibility for its return and proper disposal.
- **Germany**
- has an international reputation for strict and innovative waste management practices (e.g., the 'Green Dot' recycling program started was a pathbreaking policy designed to increase recycling rates and reduce waste production, which has become a model for recycling programs throughout Europe, including CR)
- In 2001, a new waste storage ordinance came in force in Germany
    - municipal waste may no longer be land-filled directly
    - rules requiring waste to be incinerated or subjected to mechanical-biological treatment before final disposal came into effect on 1 June 2005.
    - poorly lined landfills are to be gradually closed down by 2009.
- Hempen [2005] - there was 'little data available' to predict the country's waste storage capacity after 1 June 2005, but some evidence suggests a national 'capacity shortfall of at least 2 million tons
- When the rules were applied, 200 of 333 official landfill sites were closed, driving up waste treatment costs
- The German newspaper Freie Presse reported that 'the price for legal storage of 1 ton of domestic waste is about 32 Euro in the Czech Republic, while an incinerator in Saxony, for instance, requires 170 Euro per ton.
- The storage of 1 ton of domestic electronic waste costs 180 Euros in the Czech Republic and 350 Euros in Germany. The prices at illegal dumps are even lower
- The Germans already knew that it was difficult to enforce laws restricting cross-boundary waste movement. In 1997, there were 40 000 cases of reported environmental crimes in Germany, of which nearly 29 600 were cases of unsafe waste management, including 58 cases of illegal trans-frontier waste shipment. The police's success rate at solving environmental crimes in that year was 60%
- weak enforcement/punishment ("in most cases of imprisonment up to two years probation is granted. Usually a criminal ban on a professional activity is imposed in serious cases only, i.e. if there is a danger of recidivism")
- "An examination of the many known cases of illegal German waste export over the last twenty years reveals patterns. Intense pressure within Germany caused by increasing waste generation and decreasing capacity create economic incentives to find quick and easy solutions. As a result, when Germans have sought to export waste, companies or individuals in the receiving nations have conspired to dispose of the waste cheaply, often in questionable ways. The recent appearance of black dumps in Bohemia follows this pattern."

**Conclusions**

- ***Illegal export was a predictable consequence of the 2005 German landfill rules***
    - The OECD explains that when materials are banned or redirected from landfills, which was the aim of the German legislation, 'the hope, of course, is that these products will, as a result, be recycled. But the incentive offered by the tax or ban is not an incentive to recycle, but rather an incentive to not landfill => Illegal dumping, exporting, and incineration are also stimulated'
    - From a ToP point of view, this raises questions about the sincerity of the German government's desire to enforce waste export law – in what may amount to a tacit collaboration between national authorities, municipalities, and/or businesses to reduce operational costs. Such an interpretation is consistent with the ToP hypothesis that governments and business often collaborate as to promote economic activity at the expense of environmental quality (further research needed)
- ***The export of waste shifts environmental risk from Germany to other nations and undermines sustainability principles***
    - Restrictions on export provide incentives for waste reduction or recycling. Unrestricted export means that producers may push waste processing risks on others, undermining EU and German principles of sustainable development. In this case, Germans have benefited at home from strict land-filing laws and Czechs have been made to bear the costs of disposal => German waste export to Bohemia shifts the risk abroad and externalizes the costs of production and consumption.
- ***Policy loopholes – intentional or not – make illegal transport easy and lucrative***
    - it is simplistic to depict Germany as the villain and Bohemia as a purely innocent victim. Indeed, the Czech Environment Minister at the time initially blamed the situation on Czechs who helped Germans bring the waste into the country. 'German businessmen often do not know that they are sending waste to the Czech Republic at variance with law'

- Study of black dumping in Bohemia suggests that the waste transport policies and practices within individual nations and throughout the EU have contributed to the phenomenon of illegal waste shipment, and until loopholes allowing free trade in waste labeled for recycling, coupled with weak enforcement, are remedied, there will continue to be a high probability of successful illegal transport.

**Hey, EU Environmental Policies: A short history of the policy strategies**

Summarizes the development of European Environmental policies and changes in focus (as regards the main environmental concerns as well as various instruments of environmental protection) between 1973 and 2003, reviewing **Six Environmental Action Programs** (EAPs)

- medium term programs and strategic policy documents, often reflect a change in the general political climate of their time
- programs contain lists of <u>planned activities, not binding programs</u> for action

- in general, there has been much more continuity than change over the 30-year period

**1973 – 1976 first EAP, 1977 – 1982 second EAP**

- following the first United Nations Conference on the Environment in Stockholm in 1972 => **growing public and scientific concerns on the limits to growth**,
- EC commits to establish a Community environmental policy
    - "*economic development, prosperity and the protection of environment are mutually independent*"
    - "*the protection of the environment belongs to the essential tasks of the Community*"
    - already contains many of the later ideas behind sustainable development
- in terms of a practical approach the first EAP (and the second EAP, too) advocated quality values for air and water
- number of framework directives, especially for water and waste decided during this period
- a number of directives formulated
- initial enthusiasm declined considerably during the periods of economic recession (1975 – 1978, 1981 – 1983)

**1982 – 1986 third EAP, 1987 – 1992 fourth EAP**

- new focus on benefits and risks of environmental policies and their linkage to the internal market -- the key driver for programming and activities, e.g.
    - environmental emissions standards needed to be harmonized to avoid distortions to industry competitiveness
    - product regulations had to be harmonized
- third EAP made a positive reference to the first global strategy for Sustainable Development
- practice of environmental policies during the eighties was particularly concerned with clean-air policies, noise, and risk management for industrial sites
- 1987: environmental protection received its own chapter in the Treaty …
- **4th EAP** "… a more **integrated approach**
    - *For the first time, environmental protection was not perceived as an additive, but rather as an **integrated activity within the whole production process**. … to reduce energy or material inputs and to close cycles, so that waste streams could be minimized.*
    - *Furthermore, pollution control was to systematically **control all environmental media** (water, air and soil) and involve an **evaluation of the problem causing substances**.*
    - *For the first time, the evaluation of the **new, incentive based instruments**, such as taxes, subsidies or tradable emissions permits was announced."*
- external conditions:

(1) the emergence of global threats such as climate change reached the official agenda; number of international conferences urging for dramatic policy changes

(2) the Community saw chance to become an international "leader", thereby strengthening European integration and the Commission's own role in international politics

(3) old regulatory (command and control) approach had been discredited, new regulatory approach (market mechanism, deregulation and self-regulation) had taken hold in Scandinavian countries, Denmark, Netherlands, and Germany

(4) increasing public concern -> at the end of the 1980s, a mounting wave of environmentalism. Membership of environmental organizations increased considerably. Green parties were popular in several EU countries, and achieved good results at national levels and in the European Parliament

**1992 – 1994 fifth EAP**

- principal aim of sustainable development
    - setting medium and long-term objectives for the reduction of some pollutants
- sectoral approach, i.e. focus on industries that were particular culprits
    - transport
    - energy
    - agriculture …
- new instruments
    - especially market-oriented instruments such as fiscal incentives or voluntary instruments, which strengthen producers' and consumers' own interests in environmental decision-making.
- new consensus-oriented approach -> increasing role of NGOs and local authorities
- unfortunately, a downward cycle of environmental policies - a roll-back 1992 – 1995, triggered probably by
    (1) member states were not willing to follow paradigmatic change pushed by the Commission, demands to re-nationalize
    (2) difficulties in ratifying the Maastricht Treaty contributed to more cautious attitude of European Commission
    (3) The preference structure/focus in Germany changed because of the reunification and the emphasis on economic problems (high unemployment) that came with reunification; same true for countries that later, in 2004 joined EU (e.g., Visegrad 4 etc.)
- at the end of 90ies patchwork of different, often contradictory trends, different policies being promoted simultaneously
- but … sustainability remains on the agenda and is strengthened as Community target in the Amsterdam Treaty from 1997
- further strengthened by Cardiff Process (an initiative for environmental policy integration moved forward by several presidencies

- shift from previous top-down approach and its instrumental focus towards broader and less committed (sectoral Council formations were asked to identify the key problems in their sectors and to define objectives and activities)
- an impressive revival of environmental legislation
    - new complex and holistic framework legislation such as the Ambient Air Quality Directive, the Water Framework Directive, or the ICCP [Integrated Prevention and Pollution Control] Directive
    - "new target oriented legislation, setting maximum national emission ceilings for key pollutants, but leaving member states the freedom to choose how to achieve necessary reductions. ... [later with the 2003 Emission Trading Directive -- another target-oriented policy -- setting nationally differentiated CO2 targets (the so-called burden-sharing agreement) became legally binding]
    - completion, revision or modernization of existing legislative programs
    - introduction of many new environmental policy instruments (such as producer responsibility, environmental impact assessment, emission trading…)
    - new procedural legislation or revision of existing legislation strengthening civil society rights, three Aarhus pillars: freedom to information, participation rights and access to justice.
    - inviting environmental NGOs to play role in committees, expert networks and consultation processes; to counterbalance industrial lobbying
- each of those pieces of legislation had more or less serious shortcomings, however, the ***system of environmental programs, duties, rights and incentives made impressive progress during that phase***

**The starting point of the 6th EAP [or, where do we stand in 2004]:**

- overall political agenda is driven by
    - development concerns of new member states,
    - new wave of deregulation
    - increasing relevance of economic considerations
- new program is reluctant to set targets and to identify key instruments
- starting point is that "so-called persistent environmental problems such as climate change, the loss of biodiversity, or the overconsumption of resource **require a broader approach beyond environmental legislation** … "
- a cautious approach -> formulates a framework of general themes, principles, and objectives,
- the political strategy is to postpone contentious and controversial political decisions to later phases
- strengthening the role of private and public professionals
- EC is changing its key role form and initiator of legislation to a manager of policy processes, policy to become more and more a theme for small specialist expert communities

**Outlook**

- future environmental policies need to become re-focused
- persistent environmental problems are the challenge for the forthcoming phase of policy making and should be prioritized.
- solving persistent environmental problems needs the involvement of other sectors, but environmental policy will have to play a key role
- a great deal of scope for improvement in emissions standards, and restrictions or incentives for further preventative behavior from business and consumers

**Summing-up, the 30 years discussed**

- gradual integration of environmental policies within production process (market impact)
- varying intensity of public interest
- increased use of market based instruments
- developing international cooperation and integration
- growing use of expertise, more focused, local and/or sectoral approach

**Kramer, EU Enlargement and the Environment: Six Challenges**

- written before the enlargement of the EU in 2004 (published in Spring 2004)
- a prospective entrant before admission had to adopt the *acquis communitaire (acquis)* – "'the common body of EU legislation' of which the **environmental acquis** [one of 31 thematic chapters] comprises an integral component.
- In the legal sense …. , 'it means the **complete alignment of national legislation so that it complies 100 percent with the requirements of EU legislation.** And not just on paper but of course also in fact. [Commission 1997b: 3]" (p. 290)
    - transposition (incorporation into national legislation),
    - implementation
    - enforcement [administrative capacity + evaluation]

    ➔ … implementation and enforcement being "'the much more difficult nut to crack'"

- "the challenge is especially acute given the ***candidate countries must rely primarily on their own financial and other resources to meet*** it [they can at most count on about 5 percent of the cost being defrayed by EU contributions, see p. 295] – resources already severely strained in meeting numerous other demands including those entailed in the overall accession process." (p. 290)
- do accession countries meet those challenges? Remains an open question but probably not … "as EU officials themselves candidly admit, ***all of them attach a far lower priority to protecting the environment than their attachment to entering the EU as quickly as possible and in addressing what they consider much more pressing problems of economic revitalization and growth***." (p. 291)
- Some EU officials also worry that member states will offer a *quid pro quo* by "**letting them off" on environmental acquis for being especially tough with them on such politically charged issues such as the free movement of labor and refugees**?

- In any case, acquis makes for good rhetorical argument in the political national discourse, especially for environmental activists …
- notwithstanding these challenges, substantial progress has been made … relying mostly on their own resources….(says Kramer) … the candidate countries have done so in little more than decade; ***after having emerged from communist regime with a legacy of profound neglect and indifference towards environment***
- ad (1) the **fiscal challenge**:
    - EC estimated that it would cost CEE candidate countries cca EUR 80-110bn (in total, see Table 1, p. 293) to comply with EU requirements for **drinking water supply, wastewater management, wate management and large combustion plants**
    - Overall, the EU estimates that candidate countries on average must spend **2-3% of GDP to ensure implementation of the environmental acquis** and majority of this must come from own resources
    - any transition periods have to be justified, only short-term [recall the Czech case of sewage systems] and more likely for fulfillment of investment-intensive regulations
    - important issue: "it seems clear that ***the private sector – both producers and consumers – will shoulder a heavy load in financing EU-related environmental investments.***
    - ➔ it becomes critical that candidate countries vigorously pursue the privatization of environmental services such as water and power supply and waste removal and the concomitant establishment of so-called full-cost recovery pricing – in plain English, the elimination of subsidies and the establishment of market-based prices – for them."
- ad (2) **the administrative challenge**:
    - the "administrative capacity to transpose and, even more importantly, implement and enforce the environmental *acquis* is rapidly emerging as **one of the key challenges** confronting the applicant countries." (p. 297) – enough said (obviously, this is also a question of money, **qualified personnel** – down to availability of copying machines -- but not only, lots of **organizational issues**, and that on the regional and local level)
    - EU will soon require applicant countries to subject all EU preaccession investment project to a rigorous environmental impact assessment before their implementation; including mandatory public participation to mitigate the above concerns
- ad (3) **the environmental challenge:**
    - " .. the ***challenge of promoting sustainable development*** remains a work in progress." (e.g. EU's failure to integrate the principle of sustainable development throughout the assistance programs – e.g. subsidization of agriculture and motorization)
- ad (4) **the 'democratic deficit' challenge**:

  - **role of NGOs insufficient**, many of CEE NGOs in unstable, poor, or very poor financial state; CR: slightly better developed NGO sector but still a 2001 poll showed that 58% of respondents could not name any environmental NGO
  - "In CEE countries, as former President Havel of the Czech Republic has observed, strengthening Vox Populi has been a 'difficult process' with many public officials retaining the communist view of the citizenry as an adversary, not a partner, in the exercise of power. … the EU itself, even if unintentionally, has managed environmental accession in such a way largely to exclude CEE environmentalists from substantial meaningful participation in it. … initiative are underway to mitigate this bleak situation … the EU has established a 'Public Right to Know Project' that works closely with environmental NGOs and private individuals to pressure CEE governments to establish minimum standards for public access to information regarding the environment." (pp. 302 – 3)

- ad (5) **the energy challenge:**
  - energy intensities in CEE countries way too high (compared to old EU countries and US, e.g., five times higher in Bulgaria, and twice as high in Czech and Slovak Republics, in East Germany production and consumption increased yet CO2 emission were reduced by more than half after reunification),
  - legacy of socialism/communism;
  - heavy reliance on nuclear power (and nuclear power plants that are wanting in their quality – a highly controversial point).
- ad (6) **the political challenge:**
  - Jehlicka & Tickle article: "after accession, the status of political will may become more problematic given that … the EU inevitably will have diminished leverage over the former applicant countries and the latter will have more opportunity to set their own agendas and priorities, including those towards the environment."
  - Are the lowest anticipated benefits (134 billion Euro) really upwards of 18 percent greater than the highest estimated costs (110 billion Euro) of fully implementing the environmental *acquis*? (p. 309)
  - in the words of Bedrich Moldan of the Czech Republic, that *"what we are doing is not because we want to satisfy Brussels clerks but because we, of course, want to have a better environment' (CTK, 27 October 1999)."*
  - If this effort is to succeed, it also becomes critical that the EU eschew the mixed messages that it too often sends on the environment – messages that in word typically say all the right things about environment and the need for sustainable development but in deed frequently entail policies such as the stress on large-scale intensive agricultural development that directly conflict with its rhetorical commitment to sustainability [see Beckmann and Dissing, this volume]. Such mixed messages only weaken those environmentalists in CEE countries pressing their polities for a substantive transformation in environmental policy to promote sustainable development in the face of considerable political indifference, at times, even overt opposition, to this end.
- **Conclusion**
- "This author is cautiously optimistic that the EU is evolving in ways – albeit at times hesitantly, erratically, and perhaps overly slowly – that will make it a much more

'environmentally friendly' institution than it is now. The clear thrust of this evolution is towards more openness, transparency, accountability and a greater utilization of market-based solutions to environmental challenges."

**… now focusing on the Czech case….**

**Kruzikova, EU Accession and Legal Change: Accomplishments and Challenges in the Czech Case**

- published spring 2004
- examines the accomplishments of, and the challenges to, the reform of environmental laws in CR as driven by the EU (<= harmonization and implementation efforts)
- an enormous and somewhat rushed efforts to conform to all EU requirements
- EU environmental protection law considered among the most difficult to comply with
- " … many remaining barriers to the effective administration, implementation and enforcement of EU environmental policy are posed by the challenges of merging the existing legal cultures, expectations and practices of EU Law with those of candidate countries."
- three waves of Czech environmental legislation since 1990… while the character of the Community law presents accession states with one set of challenges, the domestic legal cultures, practices and participant expectations present a second set…
    - 1st wave – main body of legislation approved and brought into effect (transforming the communist system to a democratic one)
    - 2nd wave mainly concerning internatonal obligatons of CR to be incorporated into national law
    - 3rd wave – to achieve compliance with EC's law, at the same time EU environmental law continued to develop….
- The Czech Republic was the first candidate country to close negotiations on the Environment chapter, on June 2001. Only two transition periods were agreed by the European Commission for the CR: the first for packaging waste and the second for municipal wastewater. (In comparison, nine for Poland, four for Hungary, seven for Slovakia, and two for Slovenia)
- "In many respects, the Czech Republic has been **quite successful** in the transposition of the major EU environmental directives." … but long way to go on implementation and enforcement (and related assessment measures)
- all in all legal **changes have been positive for CR** (number of acts, such as that on IPPC or some in areas of waste and water management and air protection, would not have been enacted without the need to comply with EU requirements)
- Two sets of implementation challenges

    **1. Implementation challenges stemming from the Community Law**

    - The Community law itself since based on the legal culture of West European democratic countries that has been developing since the end of World War II,

while CEE countries went through a 40-year breach of legal continuity, with different set of principles and mechanisms

- national law is subordinated to Community law and candidate countries are not accustomed to this supremacy
- Community environmental law has not developed systematically and continues changing its nature [the moving target problem], …plus community law provisions not always clear and unambiguous
- certain directives set out new, innovative instruments and approaches, which (as e.g. IPPC) might require coordination and integration of different administrative/permitting procedures

**2. Implementation challenges from within the Czech Republic**

- " … related to attitudes, traditions and practices within the Czech Republic … "
- lack of institutional capacity ensure full and correct implementation,
- lack of clear allocation of competencies and overlapping
- intensive training of civil servants at all levels of public administration, as well as of judges and other lawyers will be necessary"
- " … a number of challenges are engendered by the rapid rush towards implementation. … there has not been enough time or institutional capacity to establish a sufficiently conceptual and systematic approach towards the implementation of environmental law. In many respects. Czech officials have missed opportunities to improve the whole system of environmental law. … In the Czech Republic, there are currently about 40 environmental acts, more than 30 Cabinet regulations and about 90 ministerial decrees – and these numbers change monthly. … The rush towards implementation has left overlapping, and potentially contradictory, legislation and administrative procedures to be carried out under the law. This is likely to result in unclear interpretations of law."

- **The ECJ as a Potential Surprise**

  - When a member state does not comply with the ECJ's judgements, the Court – after another action of the Commission – may impose penalties (this goes back to Treaty of Rome 1956)
  - A second 'surprise' for which candidate country legal systems may be unprepared lies in Article 234 of the Treaty of Rome. Accordingly, the ECJ interprets Community environmental law with **preliminary rulings**, which are initiated by national courts asking for ECJ interpretation, in particular cases, of Community provisions vis-à-vis national rules. Preliminary rulings contribute to the uniformity of interpretation and application of Community environmental law.
  - Yet, in candidate countries such as the Czech Republic, courts lack expertise on the ECJ and its powers. They are not used to asking higher courts for an opinion concerning the interpretation of legal norms.

- The ECJ has historically, through its rulings, contributed to the progressive, participatory democratic nature of environmental law and decision making – some policymaking processes are open to public
- "The Czech Republic and the other candidate countries will have to accept this significant change in domestic legal systems upon EU membership."

**Jehlicka & Tickle, Environmental Implications of Eastern Enlargement: The End of Progressive EU Environmental Policy?**

- the authors ask whether indeed the one-way process of CEE adaptation to EU requirements, and the management of this process by EU institutions, justifies the "Europeanisation" perspective of CEE national environmental policy, or whether indeed this top-down process, especially after accession, is supplemented by a bottom-up process reflecting national preferences.
- [there are incentives for as well as historical evidence of more progressive environmental legislation in member countries; moreover, EC's high degree of influence, insistence on full adoption of environmental acquis and only a limited number of transition periods should lead to relatively high degree of harmonization]
- Method: 29 in-depths interviews with environmental policy experts in Visegrad (V4) countries (in 2000), and five interviews with experts from EU countries (in 2000/2001) [i.e. already in the middle of the negotiations about the environmental acquis]
- Is there a need for an "applicant states-centered approach"?
- **Two sets of questions** were the basis of the questionnaire:
    - What is the domestic base of environmental policy in the V4 states? [any signs indicating passive adaptation contra more proactive approach?]
    - What is the capacity that V4 countries have to shape EU environmental policy?
- CEEs do not have a tradition of string environmental policies
- in the future they migh give economic development priority over stringent environmental policy
- CEEs expected to try to block future stringent new legislation, press for lower standards
- passivity might be disadvantageous b/c than those states would have to pass new legislation over which they had little or no influence
- Homeyer 2001 suggests that there are incentives (e.g. reducing EU-sourced trans-boundary pollutants, geographical and cultural proximity to leader countries) for CEE countries to take pro-active approach
- smaller states
    - often neglected in international relations
    - lack capacity to address all negotiations (lack of staff, expertise, other resources)
- will CEEs be able to take a pro-active approach?
- will CEEs coordinate on common approach?
- how will the enlargement affect EU environmental policy?

**Findings**:

- "Despite **initial evidence of a proactive approach** to international environmental policy in the V4 countries, this model became quickly subsumed by the 'hierarchical imposition' of EU requirements, which since has become the dominant framework for the development of their domestic environmental policy." (p. 92)
- "Owing to the **weak domestic base of environmental policy** [lack of experts with appropriate training and experience, weak role of green parties] as a hegemonic model, it is highly unlikely that V4 states are, in the short run, capable of adopting a proactive approach to environmental policymaking at the EU level when they become full members. …
- We also find that V4 states have not, and **do not seem likely to coordinate their strategies** – either among themselves or with environmentally 'laggard' member states.
- despite their similar history, common environmental problems and shared goal of EU membership, V4 countries have not engaged in systematic cooperation either in the area of global environmental agreements or in he process of approximation with EU
- Instead, it appears that they would rather align themselves with the north-western 'pioneer' member states that have been most active in transferring environmental know-how and have made environmental policy discourse in V4 countries largely compatible with their policy models." (p. 93) -> No danger of watering down of European environmental policy.

# Something on allowances trading in the CR

## Kyoto Protocol

In **1997 Kyoto Protocol** was ratified, mandating that industrial states commit to reduce their 1990 greenhouse gas emissions by 5.2% by 2012, with each state also taking up individual commitments. There are three main instruments (the so-called Flexible Mechanisms) that are intended to help reduce the costs for emission reduction. These include:

- **Clean Development Mechanism** (**CDM)**
  - projects supported by industrialized countries in developing countries, that reduce greenhouse gas emissions.
  - Investors may use the emission reduction achieved in the projects to increase their emission quotas.
  - The emission quotas for the host country that transfers the emission reduction are lowered proportionally.
  - The ways of using CDM include not only technology transfer, but also planting new trees and investment into carbon sinks in general.
  - The utilization of this mechanism is not currently too relevant for the Czech Republic, as CR has enough allowances and will instead act as a "supplier" of emissions allowances.

- **Joint Implementation** (**JI)**

  - analogous to CDM, but the host and the investor countries, which are both industrialised states, exchange emission quotas that affect the total reduction targets.
  - The ME currently lists 134 JI projects; the approved JI projects represent a total emission reduction of 1 million tons of CO2 a year

- **International Emissions Trading** (**IET)**
  - As opposed to the preceding two mechanisms, this mechanism is not tied to any specific project.
  - The commitment is defined in the form of AAU units (Assigned Amount Unit), which will be calculated with the help of national emission inventories. Should a state's emissions exceed its allocation of AAU units, it has the option of covering the necessary balance either by buying them from a state that has a "surplus", or possibly by investing into JI or CDM projects that will cover the excessive emissions.

In order to fulfill the commitments ensuing from the Kyoto Protocol, the EU has set up its own **European Union Emissions Trading Scheme (EU ETS)** pursuant to **Directive 2003/87/EC**. As an EU member state, the Czech Republic has transposed the Directive into **Act No. 695/2004 Coll.**

A specific number of emission allowances is allocated to every company in the steel and iron sectors, cement and lime production, pulp and paper production, manufacture of glass and ceramics, and refineries and thermal power plants that are listed in the **National Allocation Plan**.

- If the emissions from a given company exceed the limit (the number of allowances it owns), it must buy allowances from another business that has some to spare.
- The fulfillment of the obligation is monitored for a pre-defined period, the first of which was between 2005 and 2007; the second period is from 2008 to 2012.
- For each period, a **National Allocation Plan** has been developed that distributes the allowances among the installations' operators. In the Czech Republic, **an average of 97.6 million allowances** was distributed in the initial period and **86.8 million allowances** were distributed in the second period.

**Emissions trading within EU:**

- producers are, within EU Emission trading Scheme, allocated certain amount of EU Allowances (1 Allowance=1 ton of CO2) - EUA
- allocation of allowances according to National Allocation Plans. NAPs have to be approved by European Commission
- trading => new market commodity EUA
- every company that is part of the National Allowance Plan NAP has an account to which its allocated EUAs are automatically credited
- even entities (dealers, brokers, banks…. simply the traders) that are not part of the NAP can trade – they ask NPA for a "personal account" and use it for transactions
- one of the important trading sites is European energy exchange. Data about trades can be found http://www.eex.de/.
- So, how does it work in reality:

- CR joined EU ETS in 2005-2007. Trading started 1. 1. 2008 and the first phase will end in 2012 central registry necessary for trading: ITL (International Transaction Log – international evidence of transactions), administered by **UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE**
- European allowances EUA, valid only in EU are recorded in CITL (Community Independent Transaction Log – independent registry of community transactions), and administered by European commission
- registries on national levels, EU levels and Kyoto levels are interconnected
- in member states, national electronic registries to provide update info on all allowances (re)distribution – not a market just information

more info at:
http://ec.europa.eu/environment/climat/emission/index_en.htm
http://ec.europa.eu/environment/climat/emission/2nd_phase_ep.htm
http://ec.europa.eu/environment/climat/pdf/nap2006/cz_decision_en.pdf
Translations of some environmental legislation:
http://www.env.cz/ris/vis-legcz-en.nsf/

## CZECH REPUBLIC:

More on how does it work specifically in CR at www.povolenky.cz

BASIC TERMS AND FACTS

**Permission** – a decree issued by the Ministry of Environment of CR (MECR) which

1) permits emission of GHG to the extent of allocated allowances
2) sets the conditions for assessment, declaration and verification of emissions

**Allowance** ("povolenka") – asset value equivalent to the right to emit 1 ton of CO2 (or equivalent = for other GHGs amount that has the same GH effect as 1 ton of CO2) to the atmosphere in given calendar year

**Trading periods:**

- 1st trading period – 1.1.2005- 31.12.2007
- further trading periods – 5-year periods, 1.1.2008-31.12.2012, etc…

**Procedure:**

1. Apply for permission
2. Permission issued by the MECR, contains conditions for assessment, specification of methodology and frequency of assessment; conditions for declaration and public disclosure of emissions
3. Administrator of the facility assesses and declares emissions, declaration must be submitted to the MECR by Feb 28 of the next calendar year
4. Administrator of the facility is responsible for verification of emissions by the authorized person (which must be accredited, later on that…); a certificate must be submitted to the

MECR by March 31 (if not, MECR informs the administrator of the national registry for allowances trading who then does not transfer new allowances before certification)

**Trading:**
For each trading period, MECR together with the Ministry of Industry and Trade prepare a proposal of the National Allocation Plan (NAP) in which total number of allowances and also their distribution to individual facilities is specified for given trading period. The proposal is published at public portal where facilities can respond by 30 days, if they don't it means they agree;

Final version of the proposal is approved by the government, then it goes for approval to European Commission and it is also sent to other member states at least 18 months before the relevant trading period starts. If there are any objections, the process repeats.

For each trading period, the administrator of the registry issues and allocates the allowances to individual facilities according to NAP by Feb 28.

In the first trading period, MECR can issue additional allowances to facilities whose increased need is caused by unavoidable event unrelated to operation of the facility, if such practice is approved by EC.Such allowances are then non-transferable. New additional allowances are assigned by the administrator of the registry according to pre-specified rules.

In general, allowances can be traded, in case of death or dissolution the allowances are transferred to the legal successor.

By April 30, every facility is responsible for removing from trading the number of allowances that corresponds to their emissions in the preceding calendar year.

MECR and the Czech inspection of Environment are the governing bodies

MECR is responsible for
- state supervision (to make sure the law is obeyed)
- permission issuance and changes approvals
- certifies persons authorized to verify emissions
- submits NAP proposal
- decides about issuance and assignment of additional allowances
- assigns number of allowances to new facilities (emerging after NAP approval)
- discloses the blacklist of facilities that have not complied with their obligations (to report)
- coordinates adoption and implementation of European law
- deals with offences

Czech inspection of Environment
- controls compliance with obligations and fulfillment of conditions set in permission(s)
- controls compliance with obligations related to certification of authorization to verify emission
- sets corrective measures
- deals with offences such as:
    - operation without permission or in conflict with permission (fine up to CZK 5mln)

- failure to report change of conditions that may require change of permission (fine up to CZK 0.5 mln)
- failure to report change of facility data/background information (fine up to CZK 0.1mln)
- reports the data in conflict with permission or with law (fine up to CZK 2mln)
- failure to remove corresponding number of allowances from trading (fine: in the 1st reporting period EUR 40, in the 2nd rp EUR 100 for each ton of CO2 equivalent not removed)

(fines are collected and enforced by the competent customs office; 70% go to the state environmental fund, 30% to corresponding district)

**Types of facilities involved**
(typically, there is a threshold on production capacity, only those exceeding given threshold are involved)

A. Power industry
    a. combustion plant
    b. mineral oil refinery
    c. Coke oven plants
B. production and processing of metals
    a. processing of iron ore
    b. production of iron and steel
C. processing of minerals
    a. production of cement and lime in rotary ovens
    b. production of glass and glass fiber
    c. ceramic production
D. other – Manufacturing plants producing
    a. cellulose from wood or other materials
    b. paper or cardboard

**Verification of emissions:**

Emission verification is based on the emission report prepared by the facility. Reliability, credibility and precision of the data is checked (data about the activity, measurements, computations, choice of emission factors, used measurement methodology).

Verification is performed by an authorized person (auditor). Full access to the facility and to the data must be allowed. Auditor issues a report about verification for the facility.

Whole process of assessment, declaration and verification of emission is in detail described in corresponding gvmt regulation (procedure, methodology for measurement and computation; precision level, declaration, administration of the data, control mechanisms to ensure quality of the data, methodological directives for the authorized person, etc…)

**Certification of auditors:**

Candidate must get a license/certificate from the Czech institute of accreditation (ČIA – www.cia.cz). CIA's team of referees evaluates auditors' "specialized skills" and methods of verification. They check ex-ante competence and equipment, as well as "on-site" performance (so-called "witness audit"). The certificate is issued for the period of 3 years, with yearly "on-site' checks.

First certificate was issued to “Technické služby ochrany ovzduší Praha” (Prague technical services for air protection).

**National allocation plan of the Czech Republic for period 2008-2012:**

- must be in line with CR’s commitment to reduce emissions based on the Kyoto protocol
- number of allowances must be based on true and on expected progress towards fulfillment of the commitment and must take into account the possibilities (financial, technical, looking at average emissions) of given facility
- cannot discriminate among facilities
- contains full list of facilities and allocated allowances

**Total # of allowances for each calendar year of the current trading period**

| **Celkové množství povolenek, které bude vydáno v každém kalendářním roce obchodovacího období** | |
|---|---|
| Celkové množství povolenek pro stávající zařízení<br>TOTAL # OF ALLOWANCES FOR EXISTING FACILITIES | 85 445 875 |
| Rezerva pro projekty společné realizace<br>RESERVE FOR JOINT IMPLEMENTATION PROJECTS | 99 389 |
| Rezerva pro nová zařízení<br>RESERVE FOR NEW FACILITIES | 1 290 000 |
| **Celkem**<br>TOTAL | **86 835 264** |

**More details from NAP**

- total allocated number of allowances for the period of 2008 - 2012 is 5times the yearly quota set by the European Commission that is 86 835 264 allowances.
- 1 allowance is a right to emit 1 ton of CO2
- all allowances are distributed free of charge except of unused reserve allowances for new facilities, which will be sold in auction at the end of the second trading period. [see Lecture 3 where we discussed why auctioning off might be preferable to free allocations]
- Volume of CO2 emissions in EU ETS allocated to CR for existing facilities corresponds to cca 61,5 % of predicted total emissions in CR in 2010.
- Basic allocation is based on the emissions between 2005 and 2006 that were certified by an independent auditor and on total emissions set for CR by EC
- reserve for new facilities is 1.29mln of allowances per year
- allowances can be transferred to the next year (banking), in fact, they can be used over given trading period, until the limit for given facility is reached

**Assignment of allowances (facility level)**

- there is 394 facilities registered in EU ETS system. 303 of those emitted in 2005-2006 less than 50 thousand tons of CO2 – small facilities. Altogether, small facilities produced 4.6% of total 2005 emissions and 4.4% of total 2006 emissions.
- Remaining 95 facilities produced 95.4% (95.6%) of all emissions in 2004 (2006) – large facilities. It was also shown that between 2005 and 2006 for large emitters the trading is

very efficient tool for reduction; it motivates facilities to search and implement saving measures and increases the use of renewable energy sources.

- small facilities are more complicated, smaller diversity of production (and customers), lower elasticity of energetic efficiency of their production, higher transaction and administration cost together with limited yield from trading, limited capital reserves (to use for modernization); their emissions are more volatile => more difficult to predict
  - ⇨ therefore the classification for the purpose of assignment of allowances is based on size of the facility, not on the field
  - ⇨ For small facilities - average (small) 2005-2006 emissions +7%
  - ⇨ For large facilities - average (large) 2005-2006 emissions +1.279%
  - ⇨ for facilities with large year-on-year deviation (more than 20%) – upwards correction