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Item 7 of the provisional agenda
Capacity-building

Additional information on the effectiveness of capacity-building activities in countries with economies in transition

Submissions from Parties

1. The Subsidiary Body for Implementation, at its twentieth session, invited Parties, in particular Parties with economies in transition, to submit, to the secretariat, by 15 August 2004, additional information on the effectiveness of capacity-building activities in countries with economies in transition, being guided by paragraph 5 of decision 9/CP.9 (FCCC/SBI/2004/10, para. 60 (c)).

2. The secretariat has received five such submissions. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced[*] in the language in which they were received and without formal editing.

[*] These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

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PAPER NO. 1: BULGARIA

Submission of Bulgaria

on Effectiveness of Capacity Building Activities in EIT Countries

Republic of Bulgaria welcomes the opportunity to provide additional information on effectiveness of capacity building activities in countries with economies in transition (EIT), based on implementation of decision 3/CP.7, conclusions of SBI 20 contained in document FCCC/SBI/2004/10 and following the guide questions of the Secretariat.

Bulgaria has already developed certain capacity to meet its numerous commitments under the UNFCCC and expected entry into force of the Kyoto Protocol. It fulfils its commitments for providing the National Communications and inventories. The National Action Plan on Climate Change is now being updated, including specific policies and measures for greenhouse gas emissions mitigation. Bulgaria participates in Joint Implementation (JI). The country is also planning to participate in international emissions trading (IET).

The main capacity building activities of Bulgaria were undertaken in the period 1994 – 1997 under the framework of the Bulgaria Country Study to Address Climate Change. The study was part of the US Country Study Programme (US CSP) and the US Support for National Action Plans (SNAP). Through these programmes, a considerable number of experts were trained in the field of methodology of GHG inventory processing, vulnerability and adaptation assessments, policies and measures, emission forecast and assessment of the policies and measures. The programmes also led to the development of the first GHG inventory of Bulgaria, the first national communication, and the first National Climate Change Action Plan. However, the capacities built were not sustained due to financial restrictions in the country. From the 60 trained experts less than 10 experts continue to work in the field of the climate change. The main part of the team is now at the Energy Institute (during the US CSP it was in the former Energoproekt). They continue to work on GHG inventories, National Inventory Reports, National Communications, update of the National Action Plan and other studies and documents required by the Convention and the Protocol. The Ministry of Environment and Water (MoEW) is responsible for developing, coordinating and implementing Bulgaria's obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. It is coordinating the national climate change strategy and is representing the country and the government in the international negotiations. It is also responsible for the development and reporting of the annual inventories of GHG emissions and the national communications. Within the Ministry of Environment and Water (MoEW) there are only 3 experts dealing full time with climate change – the National Focal Point and two JI experts.

The country has undertaken a drastic reform for transition from central planned to market economy during the last 15 years. The economy has been restructured leading to a reduction of GHG emissions to the level of 45% of the base year. The GDP level is still below the base year level, too. During this period, climate change has not been a high priority for the Bulgarian government and therefore the funds made available for meeting the requirements under the UNFCCC and Kyoto Protocol are limited.

The National Strategy for the Environment and Action Plan 2006-2014 has been updated recently and this process still is on going. The accession to the European Union as well as the implementation of the commitments under UNFCCC will be prioritised in the national environmental strategy. For the first time, climate change issues have been pointed out as one of the priority issues in the draft plan. The importance of the implementation of the European Union Emission Trading Scheme (EU ETS) in Bulgaria is also underlined in the national environmental strategy.

The country is presently facing difficulties to meet its numerous commitments under the UNFCCC. The expected entry into force of the Kyoto Protocol will require additional actions to fulfil the commitments.

A new start in the international negotiations concerning a new commitment period is expected. Bulgaria lacks the capacity to develop its negotiation strategy, although the national capacity is gradually improving.

Lack of capacity has been identified as a factor that could impede the implementation of Kyoto Protocol requirements by the country. These conclusions were confirmed by studies such as the survey conducted in 2000 within the project of the Regional Environmental Center for Central and Eastern Europe (REC) and the World Resources Institute "Capacity for Climate Protection in CEE Countries" and the ongoing GEF funded project "Bulgarian National Capacity Self-Assessment for Global Environmental Management".

Therefore, we consider the capacity building activities as activities of high priority.

Bulgaria highly appreciates the support provided so far for capacity building activities by the UNFCCC Secretariat, some Annex II Parties, multilateral and bilateral agencies, although meeting the capacity building needs of the country has to be primarily a national responsibility.

Below are the answers to the guiding questions, prepared by the Secretariat, to help the preparation of the EIT submission. The answers provide information and an assessment on the capacity issues from the perspective of the National Focal Point. They are based mainly on the outcomes of the ongoing GEF funded project "Bulgarian National Capacity Self-Assessment for Global Environmental Management"/NCSA/.

1. What are the capacity-building activities being implemented in your country based on the initial priority needs identified in decision 3/CP.7?

The development and status of the capacity building by sections is described below:

a) National greenhouse gas (GHG) inventories;

Compliant to its commitments to the UNFCCC, Bulgaria submits annual inventories of GHG emissions by sources and removals by sinks. Inventories have been prepared and submitted to the UNFCCC Secretariat until now. All the inventories followed the IPCC Guidelines on National GHG Emissions by Source and Removals by Sinks.

The main capacity for the National GHG inventories was created during the period 1994 – 1996. It is situated in the Energy Institute where all the inventories for the period 1988 – 2002 were processed.

During the last years the quality of the inventories has increased considerably and yet the "good practices" have already applied. The improvement of the quality is due to the self-perfection of the team which elaborates the inventories, as well as the UNFCCC Review team, which in 2003 carried out the in-country review of the National Inventory and the Report.

Two Bulgarian Inventory experts have gained experience during the Reviewers' training and during the centralized and in-country reviews.

The general responsibility for the National Inventories (as well as the National System and Registry) was assigned to the Executive Environmental Protection Agency to the Ministry of Environment and Water. Two experts in the problems of GHG inventories, National System and Registry have been appointed. They are responsible for finding solutions of the administrative and financial problems that could be raised from their elaboration and functioning. Quality control and information archiving is done by the Agency.

The Agency is gaining experience during the performance of the work but additional training should be considered. There still exist considerable organizational, methodological and technical problems.

The National GHG inventories and the National systems for estimation of GHG emissions (National Inventory System - NIS) should be considered one and the same element of the capacity building framework. Priority should be given to capacity building for the NIS as a sustainable approach to improve National GHG inventories.

The inventories are prepared only in English language; they are not available in Bulgarian language and are not printed and disseminated. A complete set of the inventories can be read at the MoEW Information Centre and on the web site of the MoEW. Considering the character of the inventories, the production of diversity of easy to understand products for dissemination of the information in them is very important. However such products are not produced in the country, because of the lack of financial resources, but also because of underestimation of their importance. No materials for the press and other media are produced as well.

The capacity gaps identified in the inventory system are given in the answers to question 11.

b) Projections of GHG emissions;

Within the last years there were no capacity building activities in the field of GHG emission projections. The methodology and approach that were adopted during the US CSP are still applying.

Due to the fact that the privatization of the industry and services is almost entirely finalized, the state experts from the relevant ministries are not already concerned with the report, control and planning of the enterprises' activities and they are not in the capacity of giving forecasts for the development of the industry and services. This situation makes considerably difficult the work of the team of the Energy Institute which elaborates the projections for GHG emissions. In the forecast is applied the methodology based on the GDP and population growth forecasts, elasticity of the production volume and energy demand to the GDP and population.

Emission forecast by sectors is elaborated based on the production volumes, energy demand and energy sector construction plans. ENPEP software package is used.

It is necessary a considerable improvement of the capacity in all ministries and creation of units for projection for the development of the economic sectors.

More detailed description of the necessary capacity building is given in question 11.

c) Policies and measures, and the estimation of their effects;

Significant improvement of the capacity for development and assessment of the effects of the policies and measures was achieved during the updating of the National Climate Change Action Plan. Dutch consultants have supported the measures' selection and assessment. An optional approach was transferred to the Bulgarian experts and utilized during the project. Further improvement of the capacities of the Ministries to select and assess the political instruments that would make the measures happen is required (see q. 11).

d) Impact assessment and adaptation;

Impact assessment and adaptation capacity building activities were mostly focused at international research grants and workshops for the academic community.

Further improvement of the capacity for researches in the field of sea level rise and other impacts is necessary.

The capacity of the National Forestry Administration in the field of adaptation has increased significantly and adaptation measures are under way.

e) Research and systematic observation;

The capacity building activities in the field are concentrated in the National Institute for Meteorology and Hydrology under the WMO activities.

f) Education, training and public awareness;

The Climate change issues still are not included in the schools' and universities' curriculum. During that period there were no activities in the field of capacity building in the education system.

There is no department or person in the ministries or public agency working on education on climate change (e.g. development of education materials, guidelines, or recommendations for curricula, and training materials for teachers)

The governmental staff of the Ministries and Agencies responsible for climate change has not been trained on the access and the participation rights of the public and also the staff responsible for disclosure of information has not been trained on climate change issues.

A step forward has been made by:

- Appointing a focal point on Article 6 UNFCCC (Education, training and public awareness) who is an expert on Aarhus convention issues – access to information, public participation and access to justice on environmental matters, thus combining the efforts and capacity of those two conventions. (Today left!!!)

- MoEW is taking part in a "Green Pack" project on the communication strategy of the Bulgarian Government, which is an educational interactive tool. One of the themes of the Pack is dedicated to global challenges and in particular to climate change. This tool can be used in all the levels of the school education and is expected to be disseminated in the whole country till the end of 2004.

- This year National Climate change day has been celebrated on 3rd June, during the national campaign for the celebration of the Green week, underlining global Climate change issues and their connection with the Green week and International environmental day (5th June). On the day there was a presentation on Climate change issues and the UNFCCC, and an Internet discussion with the experts of the MoEW, academia, NGOs and general public. On the other hand an interactive game on the webpage was published thus trying to involve and raise the awareness of young people on the subject of climate change.

There is a limited number of NGOs working on climate change and on raising public awareness by organizing seminars, publications and implementation of demonstration projects. The researches and reports of the NGOs are used to support the work of the independent experts and government officials.

The media do not provide enough and meaningful information on the topic, even during important climate change events. The best information source is Internet, but the information on climate change there is mainly in other languages, not in Bulgarian. It is just lately that the MoEW posts climate change information in its website. The information on the webpage is diverse and is being regularly updated. On the other hand, the Internet access is still limited for the larger part of Bulgarian population. The webpage of the MoEW and the web portal of environmental NGOs are interlinked and there is a direct link between their sections, dedicated to climate change.

In our view, priority gaps to be addressed in education, training and public awareness are:

- Limited public awareness generally on CC related issues, as the CC is not among the priorities of the society;
- Lack of information on issues related to JI and emission trading;
- Lack of support for participation of experts from EIT in international workshops;
- Limited international workshops in EIT countries;
- Lack of financial support for training and certificate programs
- The National Communications and Inventories are not printed and disseminated in national language, and although they are available on web site of MOEW (only in English), the access to them can be assessed as limited.

- No efforts has been made to produce a diversity of user friendly products based on the National Communications and Inventories to reach and support the understanding of different audiences and to involve the mass media.
- Lack of capacity of the public for meaningful participation in climate-change-related decision

g) Transfer of environmentally sound technologies;

There are no activities in the field of the environmentally sound technologies transfer under the Protocol in the country.

h) National communications and national climate action plans;

Bulgaria has published three **National Communications** (1996, 1998 and 2002). There is no legal mandate for the preparation of communications, except for the obligations under the Convention.

The National Communications are prepared according to the UNFCCC guidelines. They include data on the main greenhouse gases and a number of scenarios based on different projections for their future levels. The Communications evaluate and propose various policies and measures to mitigate climate change in different sectors and at the central, regional and local levels. The In Depth Review Reports on Bulgarian First, Second and Third National Communications indicate high quality level of the work completed.

The National Communications have been worked out by the Energy Institute team. Representatives of different institutions - the MOEW, the State Energy and Energy Resources Agency (now a ministry), the State Energy Efficiency Agency, the Ministry of Finance, the Ministry of Agriculture and Forests, the Ministry of Transport, the Ministry of Regional Development and Public Works, the Bulgarian Academy of Sciences (the Institute on Hydrology and Meteorology, the Institute on Forests), NGOs and independent experts were involved in the process of elaboration and public discussions.

In a contrast to these achievements in the quality, timeliness, and wide participation in the development process, the public access to the information in the National Communications is very limited. Only the first Communication was printed in national language, but at the same time the number of copies was very limited and there were no copies available. Lack of financial resources was the reason for not translating to Bulgarian the Second and the Third National Communications and not publishing them.

The mass media has not been reached by any information about the National Communications and the reporting process as a whole.

The First **National Climate Change Action Plan** was developed in the period 1996-1997. During the development of the plan an Inter-ministerial Committee on Climate Change (IMCCC) was established. The Plan was the most important Governmental document on climate change. Its implementation was facilitated by the IMCCC members. The capacity of the IMCCC members was created during the Plan development. A kind of “on job training”, or “learning by doing” approach was implemented. The Plan is under implementation from 1997.

The Bulgarian Government approved the NAPCC in July 2000 and with it the IMCCC was given the power to monitor and co-ordinate the activities of ministries and agencies related to the implementation of the plan.

At meetings of the Inter-ministerial Climate Change Committee in 2002 it was decided that the plan needs update and extension due to changed circumstances and newly introduced policies.

Updating of the Plan started in 2003. Dutch consortium is guiding and advising the Ministry of Environment and the Energy Institute in the updating process: The Energy Institute is the main performer of the works. It coordinates the participation of experts from the relevant ministries and NGOs in the development and assessment of the political instruments and measures.

Significant contribution of the Governmental experts and NGOs to the development of the Plan of the Plan was given during a series of workshops and IMCCC meetings. The work on the plan and the workshops has improved the capacity of all stakeholders.

The draft updated plan was distributed for public discussion. Now, after the results of the discussion were considered. The updated plan is under a procedure of formal approval by the Government.

i) National systems for estimation of GHG emissions;

There is no significant capacity building activities in the National System for estimation of GHG emissions. The activities were concerned in the inventory processing (see item 1.a above), including the information collection, processing and archiving, ensuring transparency, comparability, completeness and accuracy of the inventory, uncertain assessment, QA/QC, key sources, decision trees and recalculations.

The first steps in the assessment of the National System extent are done. Pre-feasibility study will be initiated in the country to assess the volume of works to be preformed. A twinning project under the EU twinning program is scheduled to support the study.

Financing through PHARE program of the EU is requested by the country to perform the works on the establishment of the system up to the end of 2006.

Institutional capacity for the system is to be created. The administration of the system is situated in the Executive Environmental Protection Agency to the MoEW.

The core of the system will be based on the Energy Institute capacity and on the information capacities in the Governmental institutions like National Statistical Institute, Ministry of Agriculture and Forestry, Ministry of Interior and others and some academic institutions.

The information on the 1998-2002 inventories is updated and the quality of the time series and emission factors has improved. The 2005 Inventory submission will contain relevant information and recalculations for the base year and the entire time series.

The necessary further capacity developments are assessed in the q. 11.

j) Modalities for accounting relating to targets, timetables and national registries;

The national registry, as an element of the national system for the implementation of the Kyoto Protocol, providing information for entity and national compliance assessment, and tracking government and entity transactions, is very important but still missing. The country plans to build a national registry system, as part of its efforts to answer the requirements of the UN FCCC, but no real studies have been carried out to assess the national circumstances for a registry system and no practical plans have been elaborated. Respectively, there is no estimation about the associated costs and the budget needed to build the system. National registry centre is not yet assigned.

The main reason for not undertaking any activities to develop a national registry until now is the lack of final decisions on registries on the international scene, similar to the lack of final decisions on the mechanisms themselves.

Another reason is that the need for a registry has still not appeared. The experience of the Bulgarian government with Activities Implemented Jointly is very limited (only one project was implemented under this mechanism in Bulgaria). The Joint Implementation initiatives undertaken lately were also very limited. Bulgarian government is still not ready to introduce a domestic trading system for GHG emissions.

A difficulty that is expected to show up when a national registry is to be established and maintained is seen mainly in the lack of experience with such a specific registry. There are some existing registries for other environmental purposes in the country (e.g. air quality control, emissions of some harmful

substances). Additional knowledge and training will be needed. International assistance on this issue will be very important.

Certain developments of the problem are expected to be done within the projects for development of the capacity for participation in the European Emission Allowances Trading Scheme.

The administrative responsibility for the registry is assigned to the Executive Environmental Agency to Current register of the JI transactions is kept in the JI unit to the Ministry of Environment and Water.

High implementation and operation cost of the registry is expected and the financing is critical.

k) Reporting obligations;

There is no legal mandate for the reporting, except for the obligations under the Convention.

Reports from greenhouse gas inventories are submitted to the Convention Secretariat in timely manner, with acceptable delay of about one month in electronic and printed forms. The inventory is processed in accordance with the 1996 Revised IPCC Guidelines and the "good practice" developed by IPCC. Given financial problems, in 2001-2003 the greenhouse gas emission inventory for 2001 was not submitted.

The three national communications to the Conference of the Parties have been submitted without significant delays.

l) Joint implementation projects and emissions trading;

Joint Implementation Mechanism

The experience of Bulgaria in the pilot phase of Joint Implementation (Activities Implemented Jointly) was rather modest. There was only one AIJ project implemented. The project was in the field of Energy Efficiency with the Netherlands.

The use of Joint Implementation mechanism in Bulgaria was initiated in 2000 with the signing of Memorandum of Understanding between the Republic of Bulgaria and the Kingdom of the Netherlands for cooperation in reducing emissions of greenhouse gases under Article 6 of the Kyoto Protocol. A **Joint Implementation Unit** (JI Unit) was established the same year as an independent structure, hosted by the State Energy Efficiency Agency and under the direct supervision of the Ministry of Environment and Water. The JI Unit consisted of two persons and was financed by the Dutch government for period of two years. The main task of the Unit was to identify and facilitate the development of project proposals submitted to the Dutch partner, and advise the decisions of the Bulgarian Ministry of Environment and Water. A significant part of JI-Unit's responsibility was the promotion of the Dutch JI scheme (ERU-PT) and creation of awareness on Joint Implementation in general.
In 2002 the activities related to JI, including the JI Unit, were transferred to the Ministry of environment and water, being the Focal point for Climate Change in Bulgaria. The responsibilities of the Unit broadened significantly, covering all JI related activities in the country. Since then Bulgaria gained substantial experience with JI projects development and approval, but still the Unit consists just of two persons.

The government of Bulgaria has signed three Memorandums of Understanding and two Agreements regarding Article 6 of the Kyoto Protocol:

- ⇒ Memorandum of Understanding on Cooperation between the Republic of Bulgaria and the **Kingdom of Netherlands** in Reducing Emissions of Greenhouse Gases under Article 6 of the Kyoto Protocol (10.04.2000)
- ⇒ Memorandum of Understanding Regarding Bilateral Cooperation for the Realization of Joint Implementation Projects between the Republic of Bulgaria and the **Republic of Austria** (02.09.2002)

⇒ **Prototype Carbon Fund** Host Country Umbrella Agreement by and between the Republic of Bulgaria and International Bank for Reconstruction and Development, in its Individual Capacity and as Trustee of the Prototype Carbon Fund (14.11.2002)

⇒ Agreement on Climate Change Mitigation Projects under Article 6 of the Kyoto Protocol between the Government of the Republic of Bulgaria and the **Government of Switzerland** (17.06.2003)

⇒ Memorandum of Understanding between the Government of the Republic of Bulgaria and the Government of the **Kingdom of Denmark** on Cooperation under Article 6 of the Kyoto Protocol to the UN Framework Convention on Climate Change (24.07.2003)

An increasing number of investing countries and project developers are interested in developing JI projects in Bulgaria. Currently Bulgaria is in a process of signing a Memorandum with Germany. Japanese companies show strong interest as well.
With the establishment of the JI Unit in Bulgaria a Steering Committee (SC) for evaluation of JI projects was set up. The Committee was established with an ordinance of the Minister of Environment, and consists of 12 members – representatives of different ministries and relevant institutions. The SC assesses every proposed project and gives advice to the Minister to issue or not approval for the project. The assessment is based on preliminary developed criteria, which were elaborated in relation to the Dutch JI tender in 2000. For this reason the criteria are not fully applicable to all JI projects. Certain procedures for approval and implementation of JI projects are established, but not officially approved. Until now from all proposed projects (appx. 25) one is in operation, five are under implementation, and five are approved.

Bulgaria has based its JI Policy on the following principles and assumptions:

- The potential for JI projects in Bulgaria is substantial, however the majority of potential is in small-scale projects, which face disadvantages in JI.
- Energy efficiency and renewable energy projects have priority in JI.
- Early crediting (the emission reductions achieved by JI projects before 2008) can be rewarded in the forms of AAUs only by using a national scheme for management of AAUs ("Green Investment Scheme").
- Accession to the EU will reduce the additionality of a large share of potential JI projects.

As a result, Bulgaria sees Joint Implementation in its current form as a temporary instrument for the promotion of emission reduction projects. At a later stage, a Green Investment Scheme is regarded as a potentially more effective instrument, because of the larger flexibility in the condition for supporting GHG reduction projects.
JI will continue to be implemented in Bulgaria in the coming years. Consequently, there is still a need to further elaborate the national system and guidelines on JI to increase the number of experts and their training.

International Emission Trading (IET) and "Green Investment Scheme"

Article 17 of the Kyoto Protocol allows the trading of AAUs among Parties - International Emission Trading (IET). The Bulgarian Government is currently investigating the possibilities of allocating the revenues of IET to promote green investment in Bulgaria. The revenues will go directly to support emission reduction projects (i.e. AAUs are matched by quantifiable emission reduction), through so-called "Green Investment Scheme (GIS)". In addition, revenues could also be used to support green policies and programmes, which lead indirectly to emission reductions, as well as capacity building.

A study "Options for designing a Green Investment Scheme for Bulgaria" has been recently prepared by the World Bank. A decision of the Government of Bulgaria is expected to be taken on the GIS till the end of 2004.

m) Others –

Implementation of the EU Emission Trading Directive

The Directive on the European Union Emission Trading Scheme (EU ETS) was adopted 2003 (COM (2003) 403). It establishes an entity-based domestic cap-and-trade system for GHG gases, starting with CO2, governed by Community Law. Implementation of the EU ETS requires the following components:

1. Allocation plan approved by EC.
2. Monitoring guidelines.
3. Legal framework.
4. Institutional arrangements for implementation.
5. Setting up an emission registry.

Start of implementation in Bulgaria

The upcoming accession to the EU mandates the implementation of the EU Directive on Emission Trading in Bulgaria by January 1st, 2007. Starting on 1.1.2007 during the first phase would allow Bulgaria to gain experience as soon as possible. A delay to 1.1.2008, on the other hand, would allow Bulgaria to have more time for preparation and avoid having to develop an allocation plan for one year only (2007). It is expected, however, that if preparation for the ETS could effectively start per 1.1.2005, two years will be sufficient time for preparation for a starting date of 1.1.2007, especially considering that Bulgaria could benefit from the experiences in other new EU Member States, which have implemented the ETS from 1.1.2005.

From the beginning of 2005 will start a project "Development of a National Allocation Plan for the EU Emissions Trading Scheme in Bulgaria", financed by the Dutch PSO Pre-accession program (PPA). The timeframe of the project is two years and aims at assisting Bulgaria in the implementation of Directive 2003/87/EC on establishing a scheme for greenhouse gas emissions within the Community

The market developments and the demand for allowances are difficult to predict at the time of development of the NAPCC. EU Member States' Allocation plans are being prepared and will be subject to the evaluation of the Commission. Results are expected in autumn 2004. The Bulgarian Government will, therefore, before starting the preparation for implementation of the EU ETS, carefully evaluate the market developments and experiences in the new EU Member States, which have joined the EU ETS in 2005.

2. What are the key outcomes and impacts achieved of the completed or on-going capacity-building activities in your country?

   – The preparation of the Updated National Climate Change Action Plan a programme for the reduction of greenhouse gas emissions by economic sectors.

   – The preparation of a draft for favourable mechanism for financing investment projects in the reduction of greenhouse gas emissions Green Investment Scheme and its relation to the International Emission Trading

   – The training of a team for preparation of National Communications and GHG emission projections - within the structure of the Energy Institute

   – The training of a team for processing the inventories of greenhouse gases and preparation of National Inventory Reports – the within the structure of the Energy Institute.

- The establishment of a Joint Implementation unit and Steering Committee - within the structure of the MoEW.
- The establishment of a Inter-ministerial committee on climate change for facilitating the Action Plan implementation
- The hiring of experts within the structure of the Executive Environmental Protection Agency for administration of the inventories of greenhouse gases and registries
- Initiated process of a dialogue with the public by the government institutions by posting the draft strategic documents in the Internet for public discussion and comments.
- Increased commitment and interest of NGOs n preparing reviews or in initiating discussions on policies, plans, and strategies developed by the government.

3. What types of capacity-building activities have proven most successful in yielding results, and why?

Over the last seven years a number of international and bilateral project addressing climate change and JI issues have been initiated in Bulgaria. Are they most successful? Why?

- As of December 2002 Bulgaria is implementing the GEF funded project Bulgarian National Capacity Self-Assessment (NCSA). It will conclude at the end of 2004 with a report assessing Bulgaria's capacity building needs for the implementation of UNFCCC, UNCBD and UNCCD and a strategic action plan to overcome them. The Report will also list the UNFCCC specific capacity building needs to be incorporated into the Climate Change National Action Plan. This project has been very successful due to the following reasons:

  - it is based on wide stakeholder participation from its earliest stage
  - it started with the development of full list of requirements under UNFCCC and the related capacity needed
  - it collected extensive data on the available capacity
  - it identified gaps between the capacity needed for the implementation of the UNFCCC and the available capacity in the country
  - it identified the opportunities and threats to building the needed capacity
  - it identified the common capacity building needs with the other two UN Conventions and thus increased the chances for the action plan to be adopted by the Council of Ministers
  - the project financing was directed to the Bulgarian team that performs the study without expensive foreign consultants.

- The in-country reviews of the Inventory and the National communications organized by the UN FCCC Secretariat contribute significantly to the local capacity building.
- Participation of Bulgarian experts in the Review teams of the Inventory and the National communications of the other countries contributes significantly to the local capacity building.
- The training of the inventory reviewers that has been organized by the Secretariat is very useful and should be extended.

- The "on job training" and "learning by doing" approach to the development of local studies and documents, guided by foreign experts through bilateral support programs funded by Annex II countries contributes to the capacity building. Unfortunately the share of funds that is allocated to the Bulgarian counterparts is very small and is constantly decreasing. Almost all the financial support is spent for the experts of the contributing country.

- The Dutch support for establishment of a JI Unit, training the experts and successful transfer of those 2 experts under the MoEW. Being still under IMF for Bulgaria is difficult to extend the staff, and through

the project the two trained expert were kept. The same scheme now is been replicating by project with Denmark.

4. What are, in your country's view, the best practices in implementing capacity-building activities?
   - long term projects financing (more than 1 year long)
   - "on job training" and "learning by doing" approach
   - international training (groups of 4-5 countries, 5-6 experts from country) on specific problems for 10 to 15 days.
   - delivery of appropriate software tools.
5. What are the key challenges to the effectiveness of capacity-building activities in your country?
   - The development and implementation of a legal framework on all the climate change activities.
   - Adoption of the climate change as one of the strategic governmental priorities.
   - The provision of staff in all the relevant ministries and agencies to deal with climate change issues.
   - Incorporation of climate change issues in the highest education system (universities) curricula.
   - Including specific measures and scenarios for greenhouse gas emission mitigation in the long-term strategies for economic sectors.
6. What would you define as the key elements/strategies required ensuring the sustainability of the capacity-building activities in your country?
   - increased awareness of the high level politics and decision makers
   - ensuring stable long term financing of the activities
   - Creation of additional sources of financing the climate change activities out of the state budget (taxes on JI, ET, GIS and others)
   - Establishment of relevant institutions and trained experts .
7. Based on the elements defined above, how sustainable in the long-term are your current capacity-building projects?

Low level of sustainability.

The Bulgarian National Capacity Self-Assessment Project has defined capacity building needs and is developing a Strategic Action Plan. The Strategic Action Plan will be submitted for adoption to the Council of Ministers at the end of 2004. Its adoption as an official Governmental document could improve the situation.

8. What types of stakeholders are usually involved in your country's capacity-building activities (see list below) and what are their levels of involvement?

- Local communities

There are 262 municipalities in Bulgaria. Municipal budgets rely to a large extent on the Ministry of Finance and the subsidies from the state budget for implementation of their activities. Under the conditions currently prevailing in Bulgaria, the municipality has at its disposal relatively limited economic, and hence political competence, despite the existence of democratically elected local authorities - a directly elected Mayor and a Municipal Council elected under the proportionate system.

Municipalities possess also a limited range of management tools for implementation of a goal-oriented policy in the field of mitigation of climate change. They do not have the right to impose environmental taxes and charges in response to the will of the local community upon their approval by the Municipal Council. The legislation applied is alone the national legislation which contains no differentiation in terms of spatial location of the administrative units.

When determining the policy and measures at the local level it is necessary to focus our efforts on identifying the best practices for achievement of reduction of GHG emissions through the implementation of municipal activities in the framework of local authorities' competence as laid down in the legislation. The Energy and Energy Efficiency Act grants relatively limited number of rights to local authorities. The Law does not define the sources of financing of these actions. There are no funds envisaged for them in the state budget, nor in the municipal budgets, so their implementation will depend to a large extent on the capacity of any individual municipality to procure funding.

The competence of the local governments, delivered by the environmental legislation is also limited. Municipal authorities can develop and pass local environmental protection programs (Environmental Protection Act) and programs for emission mitigation (Clean Air Act), which would be compulsory for all legal entities in the municipality.

- NGOs

In 1998 Bulgaria signed the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, the so called Aarhus Convention. This influenced the processed changes in the environmental legislation of the country, as well as it is progressively influencing the practice of the Ministry of Environment. The number of NGOs working in the climate change field is limited. One of the less NGOs is the **Energy Efficiency Center EnEffect** was established in 1992 to supports the efforts of the Government and the municipalities for sustainable development of the country. It works on projects financed by GEF/UNDP, USAID, EU and other foreign agencies. EnEffect performs several major groups of activities – policy oriented, capacity building, demonstrations. Policy oriented activities aim to assist the central and local authorities in harmonization of the national legislation with the European one and to introduce innovative practices, such as standardization and labelling of electrical household appliances, proper financial mechanisms to overcome existing financial barriers, networking on the local level, etc. Capacity building aims to build local capacity in Bulgarian municipalities to develop and implement energy efficiency projects and skills for fund raising. Demonstrations aim to create replicable models for project development and implementation on the basis of innovative technologies and new financial schemes.

- Research, academic, scientific institutions

Mainly in the frame of the 6 EU Framework program and in the frame of state budget financing of the research activities

- Private Sector

Branch organizations of the industrial sub sectors

- International organizations

WB, EBRD, PCF UNDP and others

- Central Government

Institutional background

The Bulgarian national policy to address climate change is developed and coordinated by the **Ministry of Environment and Water** (MoEW). This ministry is responsible for developing, coordinating and implementing Bulgaria's obligations under the United Nations Framework Convention on Climate Change (UN FCCC) and the Kyoto Protocol. It is coordinating the national climate change strategy and is representing the country and the government in the international negotiations. It is also responsible for the development and reporting of the annual inventories of GHG emissions and the national communications.

The **Environmental Executive Agency** (EEA) is an administration under the Minister of Environment and Water established to carry out and coordinate the information and monitoring services regarding the control and preservation of the environment in the Republic of Bulgaria. The Agency is managing the ambient air quality control information system and the emission inventory system under the Convention on Transborder Air Pollution. The Agency is also providing expert review to the national inventories of GHG emissions. The Agency is the governing body of the National System for Environmental Monitoring (NSEM) and is a National Reference Centre for the European Environment Agency.

An **Inter-ministerial Climate Change Committee** (IMCCC) was established in July 2000 to monitor and co-ordinate the activities of ministries and agencies during the implementation of the National Action Plan on Climate Change. Chairman of the Committee is a Deputy Minister of Environment and Water. Representatives of the Ministry of Economy, the Ministry of Finance, the Ministry of Justice, the Ministry of Transportation and Communications, the Ministry of Regional Development and Public Works, the Ministry of Education and Science, the Ministry of Foreign Affairs, the Ministry of Agriculture and Forestry, the Ministry of Energy and Energy Resources, the Executive Agency for Energy Efficiency and the Privatisation Agency are members of the Committee.

Apart from ministries and agency departments a number of governmental institutions in form of national centres, science institutes organisations and NGO's play a role in the Bulgarian climate change policy. Key players are:

Energy Institute, a consulting company which main activities are: study, research and design in the energy sector. In 1993 it established a climate change unit. The team co-ordinated and actively contributed to the preparation of the Emissions Projections for Bulgaria. It also compiled the First, Second and Third National Communications of Bulgaria under UNFCCC, the National Action Plan on Climate Change and the annual GHG emissions inventories by sources and sinks. The national communications, the action plan and the inventories were approved by the Government and submitted to the UNFCCC Secretariat.

The Bulgarian **Energy Efficiency Centre EnEffect**, which is an NGO among institutions has carried out a number of climate change and JI related studies and good practice guidelines.

- Line Agencies - Not applicable
- Provincial Government - Not applicable
- Municipal Government (see Local communities)
- Regional Government(see Local communities)

9. How involved are various national coordinating agencies/bodies, climate focal points and other coordinating entities in your capacity-building activities? What roles do they play?

There is a very limited capacity of all ministries and national agencies to support the climate change activities in the country, especially in the lack of finance. Under such circumstances The National Focal point is acting not only as a coordinator, but mainly performs all the necessary work.

The NCSA process involved from its most initial phase a wide range of stakeholders. The project's first phase involved dissemination of questionnaires to 378 representatives of all stakeholder groups (government, municipalities, NGOs, academia, business, media). 195 responses were received and a number of interviews carried out. The NCSA outputs are result of the work of stakeholder working groups involving 64 representatives of 43 different organizations. Series of wide stakeholder consultations are also organized with the participation of over 300 people. All comments of stakeholders are discussed and either adopted and reflected into the respective document or explanations on non-adoption are provided.

10. To what extent have the capacity-building activities supported by donor organizations in your country during the period 2002-2004 been in line with your country's capacity-building priorities?

To a great extent.

11. What are the priority areas for future capacity-building activities in your country and why?

The following five areas are the priority ones, they have been identified during the NCSA project

1. Efficient organization for formulation, preparation, presentation, reporting, implementation and evaluation of the national and foreign climate-change policy

The reasons for focusing on this issue are:

- It may lead to non-compliance with the UNFCCC and Kyoto Protocol commitments

Consistent with the trends related to Bulgaria's transition from planned to market economy, it is far below the total emissions threshold allowed during the First commitment period under the Kyoto Protocol (2008 – 2012). From this perspective, this period (provided that the Kyoto Protocol does become effective, which is not certain at present) should be expected with a degree of calm. However, it should be remembered that apart from Bulgaria's main commitment, undertaken with the ratification of the Convention and the Protocol, to reduce (or, rather, to not exceed) the defined greenhouse gas emission quantities, there is a number of other commitments defined in these documents that require both political will and specific steps requiring the allocation of funds, building of capacities, adoption or amendment of the regulatory framework, etc.

- It may adversely effect the international image of Bulgaria

The current national climate policy is based on Bulgaria's strong desire to join the international efforts to resolve the problem of climate changes. This desire alone is insufficient to maintain good international image if it is not followed by the construction of an efficient organization and structure for formulation, implementation and evaluation the national climate policy. The lack of such organization would create the impression that the country has only formally adopted the requirements of the international documents.

- It will lead to difficulties in the accession to the EU

Climate change is one of the main priorities in the environmental policy of the European Union. In this relation, the EU has adopted or is in the process of adoption a number of documents regulating the commitments related to climate changes. In the process of its accession to the EU, Bulgaria should consider these commitments.

- It may lead to the adoption of international obligations that could place Bulgaria in a difficult situation

The year 2005 will begin the negotiations on the commitments that the parties to the UNFCCC and to the Kyoto Protocol should undertake for the Second commitment period (after 2012). It is expected that if this second period is reached, the commitments will be far more serious as compared to the period 2008 –

2012. The lack of organization to formulate and evaluate the national climate changes policy would create difficulties for Bulgaria's most expedient position in the negotiations for the future commitments.

- It might result in increasing emissions/diminishing volume of proscribed emission permits that are subject to trading

It is very likely that Bulgaria will be far below the prescribed emissions quantities in the period 2008 – 2012. This will help not only in the fulfilment of the main commitment under the Kyoto Protocol, but it will also place Bulgaria in a position to draw benefits from the selling of "excess" emissions quantities (the so-called hot air) to countries with problems to reduce their own emissions in order to reach the threshold set in the Protocol. These are the developed industrial countries which will have to either purchase "excess" emissions at market prices or finance the implementation of projects to reduce emissions in countries such as Bulgaria. In both case Bulgaria can only benefit from its "excess" emissions (or, more accurately, its emissions permits). Without efficient organization and structure for evaluation of the climate changes policy there is a real danger that the anthropogenic greenhouse gas emissions in Bulgaria may increase during the next few years which would cause missed opportunities from possible sales.

2. Functional national system for the estimation of **anthropogenic green-house emissions not later than 31.12.2006 created in line with the requirements and decisions of UNFCCC authorities**

The reasons for focusing on this issue are:

- Non-fulfilment of the commitments defined in Articles 4[1] and 12[2] of the UNFCCC, and Article 5 of the Kyoto Protocol

Building a functional national system for assessment of the anthropogenic greenhouse gas emissions is one of the most important requirements to the parties to the UNFCCC and the Kyoto Protocol with a deadline of December 31, 2006. The lack of such a system is a direct and serious failure to fulfil the specific and significant obligation undertaken by Bulgaria with the ratification of the Convention and of the Kyoto Protocol.

- It may adversely effect the international image of Bulgaria

Bulgaria would damage its international image if it fails to build such a system consistent with the requirements and terms of the Convention, the Kyoto Protocol and the additional agreements with the parties.

- Bulgaria may not participate in the Joint Implementation and Emission Trading mechanisms.

As was already mentioned, Bulgaria is expected to be significantly below the allowed emissions level during the First commitment period 2008-2012. This gives it a very good opportunity to generate financial revenue from the sale of the "excess" emission permits using the "emissions trading" mechanism defined in the Kyoto Protocol. For this to happen, however, Bulgaria needs to have completed a number of requirements one of which is to have in place a national system for evaluation of the anthropogenic emissions of greenhouse gas.

[1] Commitments of the countries
[2] Communication of information related to the application of the Convention

3. Functional national green-house gas emission register, established not later than 31.12.2006, created in keeping with the requirements and decisions of UNFCCC authorities

The reasons for focusing on this issue are:

- The current Joint Implementation and Emission Trading project deals are not registered and accounted for

Several projects are under way (or impending) in Bulgaria using the "joint implementation" mechanism. Since there is no National registry, the emission credits to be secured by these projects are not registered and accounted, and this can create problems with the "recognition" of these credits. Another, even less desirable result from the lack of registering is the fact that the possibility to gain clear understanding of the actual level of emissions in Bulgaria is compromised.

- It is a direct non-fulfilment of the commitments defined in Articles 7[3] of the Kyoto Protocol and in the Marrakech Agreement.

The national registry is one of the specific and important commitments that were the subject of additional clarification and regulation by the countries that had ratified the Convention and the Kyoto Protocol. Therefore, Bulgaria should make efforts to fulfil this commitment while observing the deadline of 31.12.2006.

- It may lead to the inability of Bulgaria to participate in the flexible mechanisms (Joint Implementation and Emissions Trading)

The National registry is also absolutely necessary if Bulgaria wants to participate in those flexible mechanisms.

4. Functional emission trading and joint implementation system(s) in compliance with the Kyoto Protocol requirements and with the relevant decisions of the UNFCCC authorities, and with Directive 2003/87/EU of the European Union introducing the emission trading scheme.

The reasons for focusing on this issue are:

- It may lead to non-compliance with the EU accession requirements in the field of environment

In 2003 the European Union adopted the Emissions Trading Directive as part of the efforts to apply specific measures to reduce the emitted quantities of anthropogenic greenhouse gasses. (The specific measures are grouped in the so-called European Climate Changes Program and comprise a set of mandatory and voluntary emission reduction measures). Bulgaria's intentions to accede to the Union in 2007 are no secret. At present the Directive is expected to be applied without delay by the countries acceding to the EU in 2004, and the countries that will be accepted in 2007 (such as Bulgaria and Rumania) may be subject to a transition period. However, this Directive must be implemented and the sooner the preparations for such implementation begin, the better chances Bulgaria has to comply entirely with the EU regulatory framework which is also one of the conditions for accession.

- It may lead to below-optimal use of emission savings

It is very likely that without sufficient preparation for emissions trading (which suggests a clear vision, adopted scheme etc.) Bulgaria could sell emissions under unfavourable terms. Simply put, there is a threat that the "excess" emissions may be sold at process far lower than the market prices.

- It may result in increasing of emissions

[3] Accounting and reporting of greenhouse gas emissions

The emissions trading system not only allows for revenues but, also, for monitoring and control of the annual emission quantities in Bulgaria. This is made possible by the emission quotas for certain emitters (mainly, power generators and industrial enterprises). The absence of such quotas and the difficult application of emissions standards would cause the emissions of anthropogenic greenhouse gasses to increase as Bulgaria develops since the enterprises would not feel restricted as to what quantities they may emit.

- It may require implementation in the future of expensive direct measures to reduce greenhouse gas emissions

The largest advantage of emissions trading is that it allows for reduction of greenhouse gas emissions where it would be least expensive whilst observing the common (national) emission quantity limit or threshold.

5. Active participation of stakeholders and the public in the formulation, drawing up, implementation and evaluation of climate change related policies and measures

The reasons for focusing on this issue are:

- Non-implementation of the obligations defined in Articles 4 and 6 of the UNFCCC

Some of the clauses of the UNFCCC contain unambiguous requirements for the parties to the Convention to establish conditions for public and stakeholder involvement in the national process for prevention of climate changes and for adaptation to such changes. In the spirit of these requirements, the eight meeting of the parties to the UNFCCC held in 2002 adopted the so-called New Delhi Program providing additional guidelines about the fulfilment of the commitments defined by Article 6 of the Convention.

- Possibility for development of inefficient policy caused by insufficient scientific research for prevention of climate changes and for adaptation to such changes

Scientific research should always underlie the formulation and implementation of any national policy. This rule holds true even more in respect of the national climate changes policy. The lack of sufficient and diverse scientific research in Bulgaria on the subject has had a negative effect on the quality of the policy.

- Lack of public support for the national policy and measures related to climate changes

Climate changes affect all economic sectors and the general well-being of the population. The restriction of public and stakeholder involvement in the national process related to climate changes or the complete elimination of such involvement would cause lack of support for such policies and measures, especially those affecting (or perceived as affecting) the well-being of the public (such as loss of employment caused by the termination of businesses or production activities which cause substantial emissions of greenhouse gasses).

It is expected that the future commitments of the parties to the UNFCCC and the Kyoto Protocol will be far more stringent as compared to the commitments assumed during the First commitment period (2008 – 2012). Any attempt to undertake such commitments would be received with serious disagreement by the public if it does not understand the need for them. Such understanding will be achieved best through specific involvement in the national process related to climate changes, i.e. the public should be involved in this process.

Priority areas for capacity building in connection with the implementation of the Convention and the Kyoto Protocol capacity building activities for establishing the institutions needed (or strengthening existing institutions) are:

- National system for the estimation of the anthropogenic greenhouse gas emissions. National inventories. National communication.

- National climate change policy. Development and implementation of policies and measures, including those taken for adaptation to climate change and transfer and development of technologies as part of the national, regional and local development programs and plans, and in the sector policies.
- Participation in the flexibility mechanisms. National Registry.
- Participation in international negotiations.
- Public information, education, training and securing of public support.
- Scientific research in the climate system and in adaptation to climate changes, preparation of databases on the condition of the climate system and exchange of information.

The main problems for ensuring the good quality of the inventories and complying with the new guidance are:

- There is no legal or regulatory mandate to produce inventories.
- There is a lack of defined institutional setup and lack of rules for participation in the development and approval process.
- This is also connected with the lack of regulations for the allocation of funds for inventories preparation.
- The number of trained expert for inventories preparation is decreasing.

Among the capacity building activities proposed in the area of "Policies and measures, and the estimation of their effects" we consider most important:

- Institutional support for capacity building activities for policy formulation, design, implementation and evaluation (important role for EU);
- Exchange of information about the effects of implemented policies and measures;
- Good practices database.

The following actions need to be taken to secure the effective and efficient implementation of JI in Bulgaria:

- Further development of operational guidelines for JI.
- Updating the criteria for assessment of JI projects.
- Developing the legal framework for JI.
- Strengthening of the MoEW's capacity to implement and manage JI.
- Further dissemination of information and training for project proponents and financiers.

Part of these tasks will be covered by the project "JI Capacity Building", support by the Danish Government through DANCEE. Its objectives are:

1. To elaborate Bulgarian Joint Implementation guidelines.
2. To enhance the process for preparation of national greenhouse gas inventories.
3. To prepare institutional and legal structures for JI and Emissions Trading.

In achieving a functional system for emission trading and JI, the following objectives can be distinguished:

1. Establish position on the participation in the 'Joint Implementation' mechanism in compliance with the Kyoto Protocol.
2. Established position and adopted decision on the manner of introduction and implementation in Bulgaria of the EU Emission Trading Directive.

3. Determined emission trading state policy in compliance with the Kyoto Protocol, Article 17.
4. Development of an overall strategy considering all three instruments and the links between them.

The tasks to be implemented in establishing the Green Investment Scheme as part of the International Emission Trading are:

1. Decision on the establishment of a Green Investment Fund and its basic conditions.
2. Elaboration of the design of the GIS.
3. Training of emissions trading specialists in the responsible agencies.
4. Establishment of a fund accumulating the revenues from emission trading.
5. Negotiations with potential investors/buyers of green AAUs.

The following actions need to be taken to successfully implement the EU ETS in Bulgaria:

1. Evaluation of market developments and experiences in the other new Member States of the EU.
2. Study to clarify the structure, functions and management of the emission trading system and the necessary amendments of the financial, tax and other legislation.
3. Transposition of Directive 2003/87/EU in the Bulgarian legislation.
4. Establishing and approving an allocation plan for distribution of emission quotas distribution plan to be approved by the EC.
5. Adopting and implementing the monitoring guidelines.
6. Selection of an institution or method for distribution and monitoring of emission quotas/permits.
7. Setting up an emission registry.
8. Training of emission trading experts according to the requirements of the Directive.
9. Information dissemination to (future) participants in industry and the energy sector.

In our view, priority gaps to be addressed in education, training and public awareness are:

- Limited public awareness generally on CC related issues, as the CC is not among the priorities of the society;
- Lack of information on issues related to JI and emission trading;
- Lack of support for participation of experts from EIT in international workshops;
- Limited international workshops in EIT countries;
- Lack of financial support for training and certificate programs
- The National Communications and Inventories are not printed and disseminated in national language, and although they are available on web site of MOEW (only in English), the access to them can be assessed as limited.
- No efforts has been made to produce a diversity of user friendly products based on the National Communications and Inventories to reach and support the understanding of different audiences and to involve the mass media.
- Lack of capacity of the public for meaningful participation in climate-change-related decision

A national system for public participation in climate-change-related decisions is meaningful only if the general public is able to make use of it. A public that is aware of its rights and knowledgeable about climate issues can use information effectively to contribute to decision-making. This part of the research aimed at assessing that capacity.

It is high time for the Bulgarian governmental institutions to develop and establish the institutional and legal framework for the development and implementation of climate change related policy and activities. The success of this policy is possible only if all stakeholders are deeply involved – throughout the whole process of development, approval, implementation, review and evaluation. All possible groups who might launch activities and allocate resources to abatement of climate change should be considered – municipal authorities, industries, branch associations, NGOs and the general public.

To achieve such involvement substantial efforts to raise public awareness and to ensure access to the specific climate change information are needed permanently. The target groups can be as follows:

- State institutions should be aware of the harmful impact of climate change and the required measures to mitigate them, as a result of which a National Climate Change Strategy should be developed. On the basis of the latter an institutional framework shall be developed for administrative organization of the activities to mitigate climate change of the different ministries and state agencies and budgetary funds will be allocated for implementation of the activities envisaged in the National Climate Change Plan ;

- It is necessary to raise the awareness of municipal authorities on the opportunities and measures that they might undertake at the local level by elaboration of municipal energy efficiency plans, introduction of various incentives for the population and launching of public awareness campaigns, etc.;

- In almost all sectors of the national economy there are branch associations that defend their interests and seek ways and means to support their activities. These associations should be acquainted with the opportunities for financing, offered by the JI mechanism. Enterprises which are big emitters of GHGs should be encouraged to undertake the necessary action to reduce their emissions. There are numerous opportunities in this respect, including taking advantage of the experience of the developed countries in this respect.

- It is necessary to launch a broad public awareness campaign on the impact of climate change and thus make sure to involve everyone in mitigation of harmful GHG emissions by simple or no-cost actions.

The capacity and interest of NGOs and the media should be more trusted better communication and coordination of efforts should be looked for.

12. What mechanisms exist for dissemination and sharing of information and experiences, coordination and cooperation in capacity-building between your country and other countries?

There is no formal mechanism in place for sharing of information, co-ordination and co-operation between Bulgaria and other countries.

Some projects developed their own websites to provide information on the capacity building and the development of the strategic action plans.

GEF opens an operational program for funding capacity building activities identified under the NCSA processes worldwide. Results of NCSA process in the different countries are analyzed and are used on international level for guiding capacity-building efforts and support by other parties.

Extensive information sharing should take place among the countries on capacity-building efforts in order to optimize the use of resources and application of best practices

13. What are the main sources of funding your country has accessed during the period 2002-2004 to support capacity-building activities?

The main international sources are GEF , World Bank, OECD

Bilateral – The Netherlands, Denmark

The total amount of donor support is about 500 000 ERO for the period 2002-2004 according to the information available in MoEW

14. What were the particular difficulties, or constraints your country has faced in accessing resources in support of your capacity-building priorities?

Complicated time and efforts consuming application procedures exists.

The procedures should be simplified if the Government or specific ministry is beneficiary of international or bilateral support.

The number of specific capacity building needs (projects) is much higher than the number of state experts that should prepare the application forms and coordinate the projects later on.

The donors could be proactive in starting the procedures with involvement of Governmental organizations.

The flow of information on the possibilities of access to financing is insufficient.

15. What are the main lessons learned (positive or less positive) that could help improve capacity-building activities?

- Identification of common capacity building areas in the country and in groups of countries contributes to better justification of needed efforts, higher possibility to be considered at high political level and leads to optimization of resource use.

- Stakeholder participation in the process of capacity building gaps identification and action plan development is of crucial importance.

- The availability of financial, human, institutional recourses and political and public support is crucial.

- Sustainability of the capacity building activities is of a great importance.

16. What general or specific recommendations that could help improve the effectiveness, impacts and/or sustainability of capacity-building activities relating to decision 3/CP.7?

1. Capacity building should be part of political level discussions
2. The capacity building focus should be in the areas of building knowledge and skills at all levels, ensuring better cooperation among stakeholders and ensuring financial means for implementation.
3. Ensuring financial means for sustainability of the activities financing through non governmental budget sources.

The most important work and urgent measures required to avoid threats from non-compliance with commitments already undertaken by Bulgaria are in the:

- creation of flexibility mechanisms participation tools or, more precisely: identification of an institution responsible for the national registry; establishment of a national system for the estimation of emissions,
- the adoption of national level regulations of inventory, emission trading and of the national register,
- creation of an emission trading and joint implementation mechanisms participation strategy;

- ensure a clear procedure for an exchange of information related to economic projections among institutions, including the definition of the role of the Government

Difficulties are expected in this regard caused by the insufficient available resources and experience but nevertheless, the initial efforts should be oriented toward resolving those problems for which the resources are available. International support is of critical importance to overcome the difficulties.

PAPER NO. 2: CROATIA

Additional information on effectiveness of capacity-building activities in EIT countries

1. What are the capacity-building activities being implemented in your country based on the initial priority needs identified in decision 3/CP.7 (see list below)?

(a) National greenhouse gas (GHG) inventories;

Implemented
National GHG Inventory is prepared on the annual contract basis.

(b) Projections of GHG emissions;

Implemented
There are certain reservations because of numerous uncertainties regarding the technological progress, economic development, political situation in the region, Croatia's relation with EU, international support and numerous other issues, in addition to the uncertainties regarding identification and evaluation of the potential and cost of the measures, that asks for permanent engagement.

(c) Policies and measures, and the estimation of their effects;

Partially implemented
The First national Communication of the Republic of Croatia to the UNFCCC includes approximately 40 different measures in energy, transport, industry, agriculture, forestry and waste management sectors. At the present stage, it is necessary to define the GHG reduction potentials of different measures on aggregate basis as well to determine technology needs for the implementation of this measures and to start on capacity building to assess technology needs, modalities to acquire and absorb them, design, evaluate and host the projects.
Also, a cost estimate of the implementation of measures needs to be done, as well as analysis of effects on the economy in terms of its competitiveness.

(d) Impact assessment and adaptation;

Partially implemented
The first National Communication, in the section related to the estimates of impacts, has been prepared on the basis of existing data and knowledge, with minimal additional analysis or numerical calculations. Further research is especially necessary regarding the flooding of coast, the impact on hydrology systems and water resources, and impact on cultivation of plants and forestry. The underlying bases for these analyses are historical climate data and climate scenarios. The existing observation and measurements made in Croatia that are connected with the climate should be organised and the methods of inclusion into the Global Climate Observation System (GCOS) investigated to a greater degree.
Capacity for the assessment of socio-economic damage, especially coastal areas and agricultural land needs to be developed. Historical data analogy-based impact assessment will require processing of existing climatologic data for the past century. Case studies of extreme weather events and intersectoral analyses needs to be performed.

(e) Research and systematic observation;

Partially implemented
In the National Communication, the GCOS-related issues were only addressed to as information on institutions, which could provide data on, and take part in capacity building activities. There is no program or a complete information system on the possibilities of development of GCOS observation points in Croatia.

Study of the existing Global Climate Observing Systems (GCOS)-related materials from numerous sources, especially focusing on the UNFCCC GCOS standard reporting format will be performed and information about existing climate observations and available resources will be collected within the execution of the GEF Project CRO/03/G31/A/1G/99 Climate Change Enabling Activity (additional financing for capacity building in priority areas). The aim is to assess how those resources could be used for GCOS development. Draft concept of capacity building program for integration into the international GCOS will be prepared.

(f) Education, training and public awareness;

Not implemented
Following activities are needed:
To disseminate the basic information and to raise general public awareness concerning the general causes and consequences of global climate change, with special emphasis on the Croatian participation.
To inform and educate the primary and secondary school students regarding climate change issues
To educate and train the administrative staff in relevant government departments and local authorities
To information professionals and management in industries (energy, agriculture, forestry etc) producing greenhouse gases on technologies, measures, and possibilities of banking sector involvement.

(g) Transfer of environmentally sound technologies;

Not implemented
One component of the GEF Project CRO/03/G31/A/1G/99 is identification of technology needs, and capacity building to assess technology needs, modalities to acquire and absorb them, design, evaluate and host projects. The main output will be Report «Assessment of capacity building needs for implementation of priority GHG emission abatement measures". The Report will address technical, institutional, legislative and financial aspects of capacity building needs with providing terms of references for the main follow up activities.

(h) National communications and national climate action plans;

Partially implemented
The First national Communication of the Republic of Croatia to the UNFCCC was delivered in February 2002. Second National Communication is under preparation. Preparation of the National Action Plan is one of the components of the project proposed for the financing in the framework of the LIFE 2004 Third countries ″Capacity building for Implementation of the United Nations Framework Convention on Climate Change and the Kyoto Protocol in the Republic of Croatia″ (in folowing tekst LIFE 2004 Project).

(i) National systems for estimation of GHG emissions

Partially implemented

(j) Modalities for accounting relating to targets, timetables and national registries;

Not implemented
Design of monitoring information system and eestablishment of the registry are also components of the above mentioned LIFE 2004 Project.

(k) Reporting obligations;

Partially implemented
The First national Communication of the Republic of Croatia to the UNFCCC was delivered in February 2002. Second National Communication is under preparation. National Inventory Report for the period 1990-2002 was submitted in time at April 15 2004.

(l) Joint implementation projects and emissions trading;

Not implemented

Beside establishment of the National Registry, following tasks regarding the capability of the Croatia to participate in the Kyoto Protocol Mechanisms will be executed under the LIFE 2004 Project:
-preparation of the national strategy for implementation of Kyoto flexible mechanisms
-establishment of the institutional, legislative (cross-cutting task, see Task 3) and organizational framework for implementation of Kyoto flexible mechanisms
- preparation of the all neccesary guidelines documents needed for preparation and execution of project mechanisms (JI, CDM, ET)

2. What are the key outcomes and impacts achieved of the completed or on-going capacity-building activities in your country?

An integral approach to resolving climate change issues began within the framework of preparation of the First National Communication to the UNCCC. This project has assisted in capacity building for the systematic resolution of the climate change issues, the networking of institutions, the establishing of international Co-operation, improving public awareness and gathering experience for the active participation of the Republic of Croatia in international negotiations on the climate issue. Preparation of the national inventory, projections as well as implementation of the climate change related projects have the similar positive capacity building impact.

3. What types of capacity-building activities have proven most successful in yielding results, and why?

Design, submission and execution of the projects related to the particular climate change topics.

4. What are, in your country's view, the best practices in implementing capacity-building activities?

Preparation of the national communication, national inventory and execution of the projects related to the climate change.

5. What are the key challenges to the effectiveness of capacity-building activities in your country?

Increasing of capability to the fulfilment of the UNFCCC obligations.

6. What are the key challenges to the effectiveness of capacity-building activities?

7. What would you define as the key elements/strategies required to ensure the sustainability of the capacity-building activities in your country?

Establishment of legal and institutional framework and achieving of sustainability in term of needed human and financial resources.

8. Based on the elements defined above, how sustainable in the long-term are your current capacity-building projects?

Not sufficient sustainable. Capacity-building projects are more on the short term/ad hock basis.

9. What types of stakeholders are usually involved in your country's capacity-building activities (see list below) and what are their levels of involvement?

- Local communities — not involved
- NGOs — involved
- Research, academic, scientific institutions — involved
- Private Sector — involved
- International organizations — partially involved
- Central Government — involved
- Line Agencies — partially involved
- Provincial Government — not involved
- Municipal Government — not involved
- Regional Government — not involved

10. How involved are various national coordinating agencies/bodies, climate focal points and other coordinating entities in your capacity-building activities? What roles do they play?

Ministry of Environmental Protection, Physical Planning and Construction as climate change focal point is responsible for the preparation of the legislation, fulfilment of reporting obligations and coordination all climate change activities. Coordinating entities and expert institutions are responsible for the coordination and execution of the projects. Individual experts which are involved in particular fields are responsible for carrying out specific task whithin the capacity-building projects.

11. What measures can be used to ensure further country ownership and adequate participation of relevant stakeholders, if any?

Education and public awareness actions targeted especially at the local community.

12. To what extent the capacity-building activities supported by donor organizations in your country during the period 2002-2004 were in line with your country's capacity-building priorities?

Fully in line.

13. What are the priority areas for future capacity-building activities in your country and why?

Following areas are important for the increasing capability to the fulfilment of the UNFCCC obligations:
Establishment of legal framework for implementation of policy and economic instruments for climate change mitigation;

Preparation of national implementation strategy and an action plan;
Preparation of technical guidelines for sectoral operational programmes;
Improvement of the GHG monitoring mechanism;
Education, training and public awareness;
Transfer of environmentally sound technologies;
Implementation of Kyoto flexible mechanisms.

14. What mechanisms exist for dissemination and sharing of information and experiences, coordination and cooperation in capacity building between your country and other EIT countries?

Cooperation among the EIT countries is taking place in terms of electronically network while Central Group (CG11) existed. After termination of the CG11 at 18th SBI session in Bonn 2003, cooperation still exists among the CG countries, Bulgaria, Croatia and Romania.

15. What are the key lessons learned when it comes to ensuring the retention of capacity built in your country?

Continuation of the institutional arrangements is essential for sustainability of the capacity building process.

16. Who are the key donors and what funding mechanisms your country has accessed during the period 2002-2004 to support capacity-building activities?

GEF, EC LIFE Third countries programme, bilateral cooperation with Nederland.

17. Were any of your funding requests for capacity building over the period 2002-2004 formally turned down? Why?

No.

18. What were the particular difficulties, or constraints your country has faced in accessing resources in support of your capacity-building priorities?

Croatia gained its independence in 1991. During its self-reliant development as a sovereign state, Croatia was faced with numerous difficulties. Besides the problems associated with an economy in transition, the Croatian problems include negative consequences of the war for independence, the political instability that defined the region as a whole and ten years of marked political and economic isolation.

19. What types of additional programme/support capacity building would be useful in view of the needs identified in your country?

Transfer of knowledge and experiences from any of developed country, which already have all elements of capacity building implemented or established.

20. What general or specific recommendations that could help improve the effectiveness, impacts and/or sustainability of capacity-building activities relating to decision 3/CP.7?

Establishment of mechanisms for enforcement of capacity building activities in EIT countries.

PAPER NO. 3: JAPAN

SUBMISSION BY THE GOVERNMENT OF JAPAN ON CAPACITY BUILDING
19 August 2004

INTRODUCTION

The government of Japan is pleased to present its contribution requested by the SBI on the additional information on the effectiveness of capacity-building activities in countries with economies in transition (EITs). This short paper should be read in conjunction with Japan's previous submission on capacity building contained in the UNFCCC document FCCC/SBI/2004/MISC.1, pp 28-40.

COOPERATION BETWEEN JAPAN AND EITS

Under the philosophy of the Kyoto Initiative and the EcoISD, the government of Japan has been implementing a number of projects in EIT countries with the aim of assisting these countries to build their capacity in implementing UNFCCC and its Kyoto Protocol. In the following pages, along the line of para 5 of decision 9/CP.9 and para 20 of the annex 1 of the decision 3/CP.7, Japan will present some examples of its assistance to illustrate the cooperation with EIT countries.

1. Projects Technical Cooperation

The government of Japan, through the Ministry of Foreign Affairs, has provided technical cooperation projects in EIT countries. At the request of the host government, Japan conducted the project development study to assess the needs of technical assistance, and proposed a concrete project to bridge the gap. In 1993, Japan and Bulgaria agreed to implement a project to establish an Energy Efficiency Center, which served as an information hub on energy saving technology and trained energy conservation auditors. Building on the success of the Bulgarian project, an Energy Conservation Technology Centre (ECTC) is being built in Poland under a project launched in July 2004. The details of the project are contained in the annex 1, table 1.

2. Research projects

The Regional Environmental Center for Central and Eastern Europe (REC) is an emblem of the multilateral cooperation on the global environmental issues in the EIT countries. The government of Japan, by way of establishing Japan Special Fund, has been actively engaged in supporting the activities of the REC. Between 1999 and 2002, Japan, along with other Annex II countries, supported an umbrella project "Capacity for Climate Protection in Central and Eastern Europe" (See annex 1, table 2). There were five subproject in this umbrella project, and one subproject assisted eight EIT countries to identify their capacity-building needs in implementing UNFCCC and its Kyoto protocol. Subsequently, it was replicated in other four countries in the region between 2003 and 2004 (See annex 1, table 3). Lastly, since many EIT countries will soon need greenhouse gas (GHG) registries to participate in the Kyoto Mechanism, a REC project assisted six countries in identifying the needs to modify existing policy and legal instruments to develop national GHG registry system (See annex 1, table 4).

3. Feasibility studies for Joint Implementation (JI) projects

The government of Japan attaches great importance to the promotion of Kyoto Mechanisms as a measure for EIT countries to achieve sustainable development. With the aim of encouraging cooperation between EIT countries and the Japanese private sector, the government of Japan has been actively supporting interested parties to conduct feasibility studies on potential JI projects. The Ministry of the Environment has recently quintupled the annual budget allocation to support feasibility studies for CDM and JI. As a result, 20 feasibility studies were conducted in the fiscal year 2003. In the EIT countries, a biomass recycle project in Ukraine, a wind farm project in Estonia (fiscal year 2001), a centralized heating system project in Bulgaria (fiscal year 2002, see annex 1, table 5), a methane recycling project in an open landfill in Romania, a regional heating project with geothermal energy in Russia, a biomass heating project in Poland, and a wind power generation project in Hungary (fiscal year 2003) have been

examined[1]. The New Energy and Industrial Technology Development Organization (NEDO) also conducted 20 feasibility studies in the fiscal year 2003. In the EIT countries, a landfill methane recovery project in Ukraine, Czech Republic, and Romania, a coal mine methane recovery project in Kazakhstan, a cogeneration project using remnant of colza oil in Poland, a biomass generation project in Hungary, a regional heating system improvement project in Bulgaria, a wind farm project in Romania, and a pipeline repair project in Russia have been examined. The Ministry of Agriculture, Forestry and Fisheries have been engaged in a multi-year feasibility study on forestry management in Russia.

4. Seminars

Apart from the climate-change related seminars already reported to the SBI in the previous submission by Japan (FCCC/SBI/2004/MISC.1, pp 28-40.), there are seminars specifically targeting the EIT countries, reflecting Japan's strong interests in EIT for GHG-reducing projects and for opportunities of so-called "green" investment. Japan International Cooperation Agency (JICA) has been implementing annual training course for Central and Eastern European Countries (CEE) on energy efficiency (see annex 1, table 6) since 1994. The project has trained 113 participants in total from 13 EIT countries (see annex 2). The most recent training course was held in Japan between 14th October and 16th November 2003, inviting 13 experts from nine EIT countries. The training aimed at technology transfer for energy conservation, targeting government officials in EITs. In addition, to create business opportunities and promote more cooperation between Japanese private sector investors and EIT countries, Japan External Trade Organization (JETRO) held two seminars in 2004. The seminar provided a forum for informal discussion on how to promote JI projects between Japan and EIT countries (see annex 1, table 7).

CONCLUSION

As mentioned above, the government of Japan has been implementing a number of projects in EIT countries with the aim of assisting these countries to build their capacity in implementing UNFCCC and its Kyoto Protocol. Japan will continue to collaborate with EIT countries in the field of climate change, including the implementation of the Kyoto Mechanisms.

ANNEX 1

Table 1

Project title	The project on Poland Japan Energy Conservation Technology Centre
Project description	Based on the assessment for project development on "Energy Conservation Master Plan" conducted in 1997, Polish government requested Japan to support the establishment of ECTC, which will promote dissemination of the energy saving technologies in the Polish industry.
Project period	July 2004-August 2008
Host country	Poland
Financial support	Not available
Project objectives according to 3/CP.7	(g) Transfer of environmentally sound technologies: The Polish industry integrates energy saving technologies into their business practices.
Stakeholders' involvement	Polish National Energy Conservation Agency Ministry of Economy and Labor Warsaw University of Technology
Expected outcome	The ECTC: ❖ establishes its administration and management system; ❖ implements training courses; ❖ acts as a broker to dispatch professional auditors on energy conservation

[1] Summary of the feasibility studies conducted between 1999 and 2002 are available from the Global Environmental Center website. See http://www.unep.or.jp/gec, under Activities, "Feasibility Studies on Climate Change Mitigation Projects for Clean Development Mechanisms (CDM) and Joint Implementation (JI)."

	assessment to factories ❖ assists companies specialized in the energy conservation ❖ disseminate information on energy conservation
Expected output	❖ Establishment of ECTC, adoption of the action plan to promote energy conservation, maintenance of facilities at the ECTC. ❖ Launch of ECTC training course and issue of diploma, preparation of training materials, practical training sessions on the transfer of energy saving technology, education of lecturers ❖ Establishment of factory assessment broker system, establishment of qualifying examination for the professional auditors, transfer of energy saving technology to conduct factory assessment, registration of professional auditor, dispatch of auditors to the factories. ❖ Provision of information on energy saving to private companies who subsequently disseminate such information to the wider audience. ❖ Collection, analysis and dissemination of energy saving technology.
Feedback from the stakeholders	Not available.
Implementing agency in Japan	JICA

Table 2

Project title	Capacity for Climate Protection in Central and Eastern Europe
Project description	The REC serves 16 countries in the CEE. "Capacity for Climate Protection" project is an umbrella project consisting of five subprojects: (1) national case studies, (2) advisory committee meetings, (3) promotion of dialogue among government officials, industry and NGOs, (4) participation in UNFCCC meetings, (5) information dissemination and awareness raising. The subproject (1) assisted NGOs in 8 CEE countries to conduct case studies on the following five themes: (1) Activities Implemented Jointly (2) Capacity needs for implementing national systems for inventories and for the Kyoto Mechanisms (3) Good Practices in Policies and Measures for climate change mitigation (4) Public Participation in climate change (5) Challenges and Opportunities to implement Kyoto Protocol.
Project period	June 1999-April 2002
Host country	Region: CEE
Financial support	EUR 299,373 by Japan Special Fund (total project budget is EUR 787,401 jointly supported by Japan, European Commission (EC), the United States (US), Italy and Netherlands)
Project objectives according to 3/CP.7	(c) Policies and measures, and the estimation of their effects, (l) JI projects and emissions trading
Stakeholders' involvement	NGOs in Bulgaria, Czech Republic, Estonia, Hungary, Poland, Romania, Slovakia, Slovenia, government officials in CEE countries, industry representatives from Central and East European countries, Japan, European Union (EU) and the US.
Expected outcome[2]	❖ Reforming policies and institutions in CEE to comply with international commitments. ❖ Responding to opportunities for infrastructure development created by the UNFCCC

[2] See http://www.rec.org/Climate/index.html

Expected output	Case study reports[3], Advisory committee meeting reports, dialogue workshop reports, fact sheets, and pamphlets.
Feedback from the stakeholders	N.A.
Implementing agency in Japan	Japan Special Fund of the REC, Ministry of Foreign Affairs of Japan

Table 3

Project title	Support of the implementation of the Kyoto Protocol in the Central and Eastern European countries: promotion of the Kyoto mechanism
Project description	Replicating the success of the national case study project under the umbrella project, "Capacity for Climate Protection in Central and Eastern Europe," this project allowed NGOs in four CEE and South East Europe countries to conduct surveys among national stakeholders on capacity needs in implementing UNFCCC and its Kyoto Protocol. The survey investigated the capacity of the respective country in: ❖ Estimating and reporting GHG emissions from all sources and sinks; ❖ Submitting national communications; ❖ Facilitating and participating in review processes; ❖ Establishing national systems to implement Kyoto Mechanisms. Note: the last two points only applied to Croatia and Lithuania, who are Annex I parties.
Project period	September 2003 – March 2004
Host country	Croatia, Lithuania, Bosnia and Herzegovina, Serbia and Montenegro
Financial support	EUR 50,540
Project objectives according to 3/CP.7	(c) Policies and measures, and the estimation of their effects, (l) JI projects and emissions trading
Stakeholders' involvement	Relevant ministries of the host country, NGOs, research institutes, GHG emitting industries, national focal point to the UNFCCC.
Expected outcome[4]	Identification of capacity needs in implementing UNFCCC and its Kyoto Protocol.
Expected output	❖ Country report to be submitted to the government of the host countries. ❖ Action plan (Serbia and Montenegro), Summary table of capacity needs (Croatia), and summary of the survey conducted in the project (Bosnia and Herzegovina) .

[3] Available from http://www.rec.org/Climate/publications.html

[4] See http://www.rec.org/climate/index.html

Feedback from the stakeholders	❖ The report on Serbia and Montenegro noted that the data frequency and validity is the major obstacle to comply with the UNFCCC obligations. It also reported that the lack of financial resources prevents the government of Serbia and Montenegro from securing a team of experts specialized in developing national inventory. It also points out that the existing legislation does not allow adequate resources to be allocated to the UNFCCC issues. ❖ The Croatian report identified its capacity needs as: data collection, estimating uncertainty in its inventory, use of Quality Assurance/Quality Control systems, and establishment of confidentiality provisions for the date submitted by the industry sources. It also pointed out that human resource constraint is a major problem. ❖ The Lithuanian report assessed the quality of its GHG inventory as low-medium. It identified the lack of financial resources to maintain a permanent national inventory system as a major cause. ❖ The report on Bosnia and Herzegovina stressed that the lack of funding is the major problem in implementing the UNFCCC obligations. It also pointed out that the level of awareness and information availability on the climate change issues is generally low, and in its post-conflict situation, the climate change issue has a low national priority.
Implementing agency in Japan	Japan Special Fund of the REC, Ministry of Foreign Affairs of Japan

Table 4

Project title	Support of the implementation of the Kyoto Protocol in countries with economies in transition: development of GHG registries
Project description	The project assisted NGOs in six CEE countries to present national reports to their governments, advising how to upgrade existing policy measures and legislations to develop national registry system. The national reports were presented at a workshop which invited relevant government officials from host countries and representatives of international organizations, such as the UNFCCC, the Organization for Economic Co-operation and Development, and the EC.
Project period	July 2002 – April 2003
Host country	Hungary, Romania, Poland, Slovenia, Czech Republic, Latvia
Financial support	EUR 86,929
Project objectives according to 3/CP.7	(c) Policies and measures, and the estimation of their effects, (l) JI projects and emissions trading
Stakeholders' involvement	NGOs in the host countries, the relevant ministries of the host government
Expected outcome[5]	❖ Analysis on the existing policy measures and legislation in the host countries ❖ Identification of the needs to modify the legislation to implement obligations under the UNFCCC and its Kyoto Protocol. ❖ Identification of the necessary human, institutional and financial resources to establish national system and registry
Expected output	National Reports and a workshop report.
Feedback from the stakeholders	❖ The Slovenian report pointed out that as a potential buyer in the emissions trading, there is no immediate incentive for Slovenia to develop a legislative national system for emissions trading. The national report, however, emphasizes the importance of promoting a national ownership of the emissions trading project, by setting its own national standards on national system and registry. ❖ The Romanian report made concrete sets of proposals to be implemented by the government. From a policy aspect, it proposed that the government develop a

[5] See http://www.rec.org/climate/index.html

	national strategy to exploit the opportunities presented by the Kyoto Mechanism, in which Romania can act as a seller. From a legal aspect, it proposed that a dedicated legislative framework be established for the emissions trading. From an institutional aspect, it recommended that a national registry of Romania be managed by a national institution. From a human resource aspect, it suggested that existing personnel receive trainings specifically on the UNFCCC and its Kyoto Protocol. From a legal enforcement aspect, it recognized that there is some room for improvement, for example, in reducing uncertainties of data submitted by ever-increasing number of emission sources. Lastly it emphasized the need for financial assistance in carrying out above-mentioned tasks. ❖ The Polish report analyzed the existing legislative systems, such as "the system of fees for the use of the environment," i.e. an application of polluters' pay principle, and "the system of recording emissions." It pointed out that although the systems are in place, they are by no means enshrined in the national legislative structure, and therefore they suffer from legal and financial uncertainties in continuing activities. In light of this, it proposed that the government adopt an official climate protection policy and a strategy to reduce GHGs. The report further analyzed if the emissions trading should be solely conducted by a government entity or by any interested party. It also addressed the question of whether the national registry should remain independent or be integrated into the EU framework. Lastly it estimated costs on establishing national registry (15,110-38,650 EUR). ❖ The Latvian report recommends that the government modify laws and regulations so that Latvia can develop a national registry system. It pointed out that neighboring Baltic states are developing different systems according to their differing needs, and there is a lack of interest in establishing a common registry system. From an institutional aspect, it recommended that a government institution should be designated as the administrator of the national system and registry. It also made technical recommendations and derived a cost estimate on the design of the registry system, based on its own research and interviews. ❖ The Czech report analyzed the existing systems of REZZO (for monitoring of air pollutants), national GHG inventory, and energy statistics system, providing with relevant sets of legislation. It then analyzed the example of the securities register in its financial market. It derived the following observations: difficulty in acquiring confidential data from industry, lack of relevant CO2 emissions data from industry, development of national system and registry should make use of existing trading platforms to save costs; compliance with the EU directives. ❖ The Hungarian report addressed the following three questions: if the registry system should be developed nationally; if the registry should be maintained independently or be integrated into an international system; and if the registry should be maintained by a government entity or a private one. It concluded that the remaining uncertainty on technical standards on registry or the EU directive shall determine the most cost-effective option the government will pursue.
Implementing agency in Japan	Japan Special Fund of the REC, Ministry of Foreign Affairs of Japan

Table 5

Project title	Feasibility Studies on Climate Change Mitigation Projects for Clean Development Mechanism and Joint Implementation: Utilization of Waste Wood for Centralized Heat Supply to Buildings in Bulgaria[6]
Project description	Since 1999, the Ministry of the Environment of Japan provided financial assistance to conduct feasibility studies of CDM/JI projects so that interested private Japanese companies can participate in the CDM/JI projects once the Kyoto Protocol enter into force. Global Environment Center serves as the secretariat for these projects. The feasibility study in Bulgaria conducted a thorough analysis on the global benefits of reducing GHG through renovating the heating system of public institutions in the municipality of Haskovo.
Project period	Financial year 2002 (June 2002-March 2003)
Host country	Bulgaria
Financial support	Approx. JPY 9,400,000 (approx. USD 75,200)
Project objectives according to 3/CP.7	(g) Transfer of environmentally friendly technologies (j) JI projects and emissions trading
Stakeholders' involvement	Centre for Efficiency EnEffect, Energy Institute JSC, Municipality of Haskovo, ERATO Holding, coordinated by the REC and Overseas Environmental Cooperation Center, Japan.
Expected outcome	Present a convincing case of a replicable pilot project of JI, which, if implemented, will make a financially sound investment with the reduction of GHG emissions (approx. 502 thousand tons of CO2 equivalent over 15 years).
Expected output	Feasibility Study report and a summary report.
Feedback from the stakeholders	N.A.
Implementing agency in Japan	Global Environment Centre Foundation, Ministry of the Environment

Table 6

Project title	Area Focused Training Course in Energy Efficiency and Conservation for Central and Eastern European Countries
Project description	The course aimed to "top up" the capacity of administrative officers in the respective government in CEE countries to promote energy conservation by examining energy conservation policies implemented by the Japanese government, energy saving technologies implemented by the industry.
Project period	1994-2003, one month training course.
Host country	Albania, Bulgaria, Czech Republic, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, Serbia and Montenegro, Slovakia, Romania, Ukraine.
Financial support	All the costs (stipend, travel costs, etc.) to participate in the seminar will be incurred by the government of Japan.
Project objectives according to 3/CP.7	(g) Transfer of environmentally sound technologies.
Stakeholders' involvement	The Energy Conservation Center, Japan; Ministry of Economy, Trade and Industry; academic institute; industries (utility company, food processing industry etc.)
Expected outcome	The course participants will: ❖ have a greater capacity to manage the energy saving projects; ❖ become pioneers in disseminating energy saving policies and technologies.

[6] Feasibility Study Summary is available at http://www.unep.or.jp/gec/ under Activities, "Climate Change Mitigation in Japan and Overseas".

Expected output	❖ JICA Certificate to be awarded to the successful participants ❖ Country reports ❖ Country report data sheets
Feedback from the stakeholders	❖ When asked to grade if they achieved the course objectives in five point scale, the participants gave an average 4.8 points. ❖ When asked which subject was the most beneficial, the participants named: ➢ Energy policies in Japan ➢ Environmental protection measures ➢ Kyoto Protocol ➢ Field trip to private companies ➢ Highly energy-efficient factories visited in the field study ➢ Japan's energy efficiency law ➢ Field trip to power plants ➢ Promotion of energy saving policy in Japan ❖ When asked which subject needs to be added to the course: ➢ Energy efficiency fund management ➢ Green Certificate Market ➢ Financing of energy efficiency and energy conservation ➢ Field visit to a company which was mentioned in the lecture.
Implementing agency in Japan	JICA

Table 7

Project title	JETRO Seminar on Joint Implementation and Green investment in Central and Eastern Europe
Project description	Organized by the JETRO WIEN, this seminar gathered government officials from CEE countries and Japan to explore the possibility of JI projects. The seminar consisted of presentation and discussion sessions.
Project period	26th January, 2004 28th and 29th June 2004
Host country	Poland, Hungary, Czech Republic, Romania, Bulgaria and Ukraine
Financial support	N. A.
Project objectives according to 3/CP.7	(l) JI projects and emissions trading
Stakeholders' involvement	Government officials from 5 CEE countries, private companies (Point Carbon, Japanese Initiative Ltd.), Japanese government officials, NEDO, Japan Bank for International Cooperation.
Expected outcome	Promotion of the JI projects between Japanese private companies and CEE.
Expected output	Presentation materials are available from the JETRO website.
Feedback from the stakeholders	N.A.
Implementing agency in Japan	Ministry of Economy, Trade and Industry.

ANNEX 2

Participants by representing country

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Poland	3	2	1	3	3	1	2	2	2	2	21
Hungary	3	2	2	2	0	0	0	0	0	1	10
Czech Republic	2	3	2	3	0	0	0	0	0	1	11
Slovakia	2	2	2	0	2	1	0	2	2	1	14
Estonia	0	0	0	0	0	0	1	0	0	0	1
Bulgaria	0	2	2	2	3	2	2	1	2	2	18
Romania	0	1	2	0	3	2	2	1	1	2	14
Latvia	0	0	0	0	1	1	0	1	0	0	3
Lithuania	0	0	0	0	0	1	1	1	0	1	4
Albania	0	0	0	0	0	1	1	1	1	0	4
Croatia	0	0	0	0	0	2	2	2	2	1	9
Ukraine	0	0	0	0	0	0	1	0	0	0	1
Serbia and Montenegro	0	0	0	0	0	0	0	0	1	2	3
	10	12	11	10	12	11	12	11	11	13	113

PAPER NO. 4: NETHERLANDS ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

SUBMISSION BY THE NETHERLANDS ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

The Hague, 15 August 2004

Subject: Capacity-building. Additional information on the effectiveness of capacity-building activities in countries with economies in transition, being guided by paragraph 5 of decision 9/CP.9.

The Netherlands, on behalf of the European Community and its Member States, welcomes the opportunity to submit additional information on the topic of effectiveness of capacity-building activities in countries with economies in transition, provided by Member States with economies in transition, in accordance with Article 4 para 6 and Annex I of the UNFCCC, following from conclusion FCCC/SBI/2004/L.5.

REPORT ON CAPACITY-BUILDING ACTIVITIES IN SLOVENIA

1. What are the capacity-building activities being implemented in your country based on the initial priority needs identified in decision 3/CP.7?

a) National greenhouse gas (GHG) inventories;
Slovenia received assistance on GHG inventories through UNDP/GEF Training Programme on Climate Change. It is also taking part in a 3-year project "Capacity-building for Improving the Quality of GHG Inventories (Europe/CIS Region)" which started this year. The project is being coordinated by the Regional Environment Centre for Central and Eastern Europe.

b) Projections of GHG emissions;
Slovenian expert is going to take part in a workshop on GHG emission projections.

c) Policies and measures, and the estimation of their effects;
UNDP/GEF grant of the Enabling activities project enabled a domestic study on policies and measures and the estimation of their effects.

d) Impacts assessment and adaptation;
UNDP/GEF grant of the Enabling activities project enabled a number of domestic studies on impacts and adaptation.

e) Research and systematic observation;

f) Education, training and public awareness;

g) Transfer of environmentally sound technologies;
Slovenian expert participated in several meetings and workshops on Technology Transfer, partly in combination with EGTT.

h) National communications and national climate action plans;
UNDP/GEF assisted Slovenia financially with the Enabling activities project at the preparation of its initial and second/third national communications.

i) National systems for estimation of GHG emissions;

j) Modalities for accounting relating to targets, timetables and national registries;

k) Reporting obligations;
Slovenian experts participated in UNFCCC secretariat's workshops on GHG inventories and reporting obligations, including on CRF.

l) Joint implementation projects and emissions trading;
Slovenian experts participated in several workshops on JI, CDM and ET, e.g. those organized by IEA, OECD, EPRI, CCAP, CTI, UNFCCC secretariat.

m) Others

2. What are the key outcomes and impacts achieved of the completed or on-going capacity-building activities in your country?
Completed initial and second/third national communications, several climate change related studies, improved emission inventories, better knowledge on Kyoto mechanisms, etc.

3. What types of capacity-building activities have proven most successful in yielding results, and why?
Workshops, especially where active participation (e.g. with presentations) was necessary; assistance for CB with financial grants.

4. What are the key challenges to the effectiveness of capacity-building activities in your country?
To keep experts where they can continue working on the climate change issues after the assistance has expired (sustainability).

5. What would you define as the key elements/strategies required to ensure the sustainability of the capacity-building activities in your country?
Awareness and political will of higher-level decision makers.

6. Based on the elements defined above, how sustainable in the long-term are your current capacity-building projects?
The field of emission inventories preparation and reporting is in a very good shape, impacts and vulnerability is promising, others are less satisfactory.

7. What types of stakeholders are usually involved in your country's capacity-building activities and what are their levels of involvement?
NGOs (medium); Research, academic, scientific institutions (high); International organizations (medium); Central Government (high); Municipal Government (low).

8. How involved are various national coordinating agencies/bodies, climate focal points and other coordinating entities in your capacity-building activities? What roles do they play?
National Climate Change Committee (medium; approve action plans, acts as steering committee for national communications etc.); CC focal point (high; all coordination, supervision etc.).

9. To what extent have the capacity-building activities supported by donor organizations in your country during the period 2002-2004 been in line with your country's capacity-building priorities?
Completely.

10. What are the priority areas for future capacity-building activities in your country and why?
National communications (lack of permanent staff); Impact assessment and adaptation in different sectors (except in agriculture almost nothing has been done so far); CDM/ET/JI.

11. What are the main sources of funding your country has accessed during the period 2002-2004 to support capacity-building activities?
UNDP/GEF.

12. What are the main lessons learned (positive or less positive) that could help improve capacity-building activities?
Most capacity-building activities have proved to be very effective provided we have experts who will work on the issue also for some time in the future.

13. What general or specific recommendations that could help improve the effectiveness, impacts and/or sustainability of capacity-building activities relating to decision 3/CP.7?
Bring climate change issue higher on the priority list.

Prepared by: Andrej Kranjc, Slovenia

REPORT ON CAPACITY-BUILDING ACTIVITIES IN POLAND

Capacity building at the systemic, institutional and human-resource levels in countries with economies in transition is a process aimed at strengthening or establishing relevant organisational structures, institutions or human resources. Both international organisations, governments at all levels, society and the private sector should be involved in the broadly conceived capacity-building activities.

1. What are the capacity-building activities being implemented in your country based on the initial priority needs identified in decision 3/CP.7 (see list below)?

a) National greenhouse gas (GHG) inventories;
In 2000, the Minister of the Environment established the National Emission Centre (KCIE) as part of the structure of the Institute for Environmental Protection. The Centre develops: annual reports from inventories of greenhouse gas sources and emissions as well as emission inventories for the purposes of national communications; creates databases on emissions; carries out methodological analyses; and conducts domestic and international co-operation on issues related to emission inventories. Through its network of contacts with different experts, the Energy Market Agency, the Main Statistical Office and scientific institutes, the Centre conducts a wide scope of activities designed to collect data, exchange views and conduct discussions (e.g. on the emission factors, work on methodology). Emission inventories are accepted by the Ministry of the Environment. The Ministry of the Environment highly appreciates the quality of the work submitted by the Centre.

b) Projections of GHG emissions;
Projections of greenhouse gas emissions for the purposes of the successive national communications were carried out by different entities. At present, given the requirement for the preparation of the National Allocation Plan (for emissions trading under the Directive[1]), projections have been developed for CO_2 only. Unfortunately, in Poland there is no organisational unit which would regularly prepare projections of greenhouse gas emissions and removals. One of the organisational units which could regularly carry out projections of greenhouse gas emissions and removals is the National Emission Centre (at the Institute for Environmental Protection); this would allow for an effective use of the resources gathered by this Centre and for projections to be connected with the system for making emission inventories.

c) Policies and measures, and the estimation of their effects;
The Department of Environmental Policy (DPE), within the structure of the Ministry of the Environment, is responsible for the overall co-ordination of the development and implementation of climate policy, including the identification of the effects of policies, national strategies and plans, i.e. the climate protection strategy and its implementation programme. The Department also co-ordinates the preparation of national communications and exercises substantive supervision over the preparation of reports from greenhouse gas inventories.

d) Impact assessment and adaptation;
The Institute of Meteorology and Water Management (IMGW) conducts systematic climate observations and represents Poland as a member in the World Meteorological Organisation

[1] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC came into force on 25 October 2003. Pursuant to this Directive, the emission allowance trading scheme will be implemented as from 1 January 2005 in all the Member States of the European Union. CO_2 emission allowances will be allocated to the installations participating in this scheme, as specified in Annex I to this Directive. These allowances may be traded on the financial market.

(WMO). IMGW carries out the tasks of hydrological and meteorological services, consisting of continuous monitoring of the state of the atmosphere and the hydrosphere, and also manages the system for early warning against spontaneous effects of the forces of nature, such as floods, hurricanes, storms, hailstorms, disastrous rains as well as the contamination of waters and the air.
The assessments of vulnerability, climate change impacts and the measures for adaptation to climate change are contained in the Third National Communication to the Conference of the Parties, covering only agriculture, the coastal zone and water resources.

e) Research and systematic observation;
The Institute of Meteorology and Water Management (IMGW) is a research and development unit which is supervised by the Ministry of the Environment. The Institute conducts research, development and implementation work; it also maintains an observation and measurement network, carries out observations and measurements and prepares projections and expert studies. In particular, the Institute conducts scientific research work e.g. in the scope of climatology, systematic observations and measurements by means of basic measurement systems and networks. IMGW participates in the activities of the World Meteorological Organisation and other specialised United Nations agencies and conducts co-operation with other and domestic and foreign organisations and institutions. The Focal Point for the Intergovernmental Panel on Climate Change (IPCC) is located at the Meteorology Centre which is part of IMGW. The Focal Point conducts current co-operation with the IPCC Secretariat, takes part in certain expert studies and nominates Polish experts for the team which prepares successive IPPC reports. The Marine Division of IMGW conducts observations of change in the sea coastline and levels.

f) Education, training and public awareness;
The issues of environmental protection, including climate change, have a high rank in Poland. The education policy in the scope of environmental protection falls within the range of competence of two Ministers, specifically the Minister of National Education and the Minister of the Environment. These two Ministers signed an agreement on co-operation in the scope of environmental education, under which the National Strategy on Environmental Education was developed (which was adopted in 2001 by the Council of Ministers) and implemented by the Implementation Programme for the National Strategy on Environmental Education. The Programme set out measures designed e.g. to give an adequate rank to environmental education, which is considered an indispensable condition for the achievement of sustainable development, and to integrate environmental education into the system of comprehensive public education. The environmental awareness of the public is shaped at schools and by different types of activities conducted by state and non-governmental organisations and the mass media. Training of professional and social groups also plays a special role. The upbringing and education of the public concerning the need to take care of the environment cover all the age groups of children and youth (kindergartens, primary schools, gymnasiums and grammar schools). A wide range of environmental issues and knowledge of climate change caused by human activities is also disseminated by higher education institutions (universities, technical universities, teachers' colleges and agricultural academies) at faculties related to environmental education. Non-governmental colleges are also established to conduct education on threats to the environment, including those to the climate. Moreover, post-graduate studies, where such issues are also presented, are conducted for graduates of higher education institutions. Training in the broadly conceived environmental protection, including climate change issues, is conducted in the communities of teachers and young people, government services responsible for nature conservation or representatives of local/regional governments. Such training is also conducted by both governmental and non-governmental organisations. The main directions of training include measures to ensure energy efficiency at households, at the levels of local/regional governments and enterprises, rational waste management, including waste reuse, and the use of renewable energy sources. Examples of very active governmental environmental information

centres include the Bureau of Environmental Education and Public Communication as well as the Environmental Information Centre, which are part of the Ministry of the Environment.

g) Transfer of environmentally sound technologies;
In Poland, there is a great interest in the transfer of energy-saving technologies and equipment as well as technologies using renewable energy sources (including solar and wind energy, biomass, liquid biofuels, geothermal and water energy) for the purpose of the development of renewable energy on the national, regional and local scales. Energy-saving technologies and equipment as well as technologies using renewable energy sources are promoted by governmental institutions, scientific research institutes and non-governmental organisations, including organisations of industry and enterprises. There is general access to information on the market, technology suppliers, services and training courses (such information is available on the websites of different institutions and organisations).

h) National communications and national climate action plans;
A large number of entities participate in the preparation of strategic documents concerning the implementation of the UNFCCC Convention and the Kyoto Protocol: the climate policy, strategies, implementation programmes, national communications, emission projections etc. Their work in this scope is co-ordinated by the Ministry of the Environment. The Institute of Environmental Protection, where the National Emission Centre is located, plays a large role in this work. At this point, it is necessary to stress the participation of the scientific community in the preparation of these documents as well as the involvement of ministries in the development of strategic materials of adequate quality.

i) National systems for estimation of GHG emissions;
At present, Poland is at the stage of preparations for the establishment of its national system for making inventories and assessments of change in greenhouse gas emissions. The top-down approach is applied. The organisational, institutional and financial conditions have not been created yet for the fulfilment of the commitments which Poland has made in the scope of reporting, monitoring and verification of the emission levels achieved.

j) Modalities for accounting relating to targets, timetables and national registries;
One of the requirements of the Kyoto Protocol[2] is the establishment of a national registry which would allow for keeping track of the level of possession of assigned amount units of greenhouse gas emissions[3] and their transfers between the Parties to the Convention. At present, work is underway on the registry. Poland expects high costs of the implementation of this registry (infrastructure, communications, safeguards and staff) and seeks sources of financing for this system.

k) Reporting obligations;
- *Reports from greenhouse gas inventories must be submitted to the Convention Secretariat by 15 April of each year in electronic and printed forms. The inventory is made in accordance with the 1996 Revised IPCC Guidelines and the "good practice" developed by IPCC. The report must be prepared in accordance with the format approved by the Conference of the Parties. To date, the greenhouse gas emission inventories prepared by Poland have been submitted on time. Given financial problems, in 2004 the greenhouse gas emission inventory for 2002 was not submitted to the Bonn Secretariat.*

[2] In accordance with Articles 5, 7 and 8 of the Kyoto Protocol. The requirements set for the national registry were defined in the documents adopted by the Parties to the Climate Convention (UNFCCC) at their conferences in Marrakesh and Delhi.
[3] The amount of emissions expressed in CO_2 equivalent (for six GHGs) in the base year as reduced (for Poland) by the percentage assigned to it in the Kyoto Protocol.

- *To date, the national communications to the Conference of the Parties have been submitted on time.*

l) Joint implementation projects and emissions trading;
The Department of Environmental Protection Instruments (DIOŚ) of Poland's Ministry of the Environment is responsible for the establishment of the emissions trading scheme and the launch of Joint Implementation projects. It exercises overall supervision over the implementation of investment projects and is responsible for the development of environmental quality standards and the establishment of the principles of monitoring the environmental quality. The structure of the National Fund for Environmental Protection and Water Management, which is supervised by the Minister of the Environment, includes the Department of Structural Instruments, where the Division of Air Protection manages the Secretariat of Joint Implementation Projects. At present, Poland is at the final stage of adopting legislation on emissions trading and it has also prepared the National Allocation Plan under the EU Emissions Trading Directive.

m) Others

2. What are the key outcomes and impacts achieved of the completed or on-going capacity-building activities in your country?
   - *The adoption of Poland's Climate Policy by the Council of Ministers in November 2003.*
   - *The preparation of the Implementation Programme for Poland's Climate Policy, entitled The programme for the reduction of greenhouse gas emissions and the document entitled The development of detailed guidance and instruction for the preparation of the programmes for the reduction of greenhouse gas emissions by economic sectors.*
   - *A favourable mechanism for financing investment projects: the Environmental Funds, EcoFund and the Bank for Environmental Protection.*
   - *The progress achieved in the fulfilment of the commitments under the Kyoto Protocol (according to the inventory for 2001, 32% GHG emission reduction with respect to the 1988 base year). Poland is committed to reducing the greenhouse gas emissions in the first commitment period (2008-2012) by 6% with respect to the 1988 base year.*
   - *The establishment of a unit for making inventories of greenhouse gases – the National Emission Centre, within the structure of the Institute for Environmental Protection.*

3. What types of capacity-building activities have proven most successful in yielding results, and why?
Once the ongoing harmonisation of Polish climate protection law and policy with the policies and measures contained in the European Climate Change Programme has been completed, the implementation of a wide-range process of carrying out tasks under the Treaty of Accession will allow for joint commitments to be made in the second commitment period (after 2012).

4. What are, in your country's view, the best practices in implementing capacity-building activities?
   - *Ensuring continuous financing:*
     - *for making greenhouse gas inventories,*
     - *national communications,*
     - *conducting the emissions trading scheme,*
     - *establishing the national system for making inventories and assessments of change in greenhouse gas emissions (for the creation of organisational, institutional and financial conditions for the fulfilment of the commitments Poland has made in the scope of reporting, monitoring and verification of the emission levels achieved).*
   - *Maintaining the existing effective mechanism for financing investment projects: the Environmental Funds, EcoFund and the Bank for Environmental Protection.*
   - *Maintaining the unit responsible unit for making inventories of greenhouse gases – the National Emission Centre – within the structure of the Institute for Environmental Protection.*

5. What are the key challenges to the effectiveness of capacity-building activities in your country?

Systemic challenges

- *The development and implementation of a legal framework and an operational system (the registry, monitoring, verification and certification of emission reduction units) allowing for Poland's participation in the auxiliary mechanisms (particularly in the Joint Implementation mechanism and emissions trading) and for its harmonisation with the European Union scheme.*
- *The enhancement of the capacity of the national system for making inventories and assessments of change in greenhouse gas emissions (at present, it is not fully prepared for meeting the requirements for emission data collection for the purposes of reporting to the Conference of the Parties to the Convention).*
- *The system for monitoring and observation of climate change.*
- *The development of long-term strategies for economic sectors, including specific measures and scenarios for greenhouse gas emission reductions by individual sectors and separately for each gas listed in Annex A to the Kyoto Protocol.*
- *The better and fuller integration of climate policy with other national policies, in the first instance with the policies of infrastructural nature (transport) and the sectors of energy, industry (particularly the energy-intensive sectors), agriculture, forestry, waste management, hard coal mining and others.*

Institutional challenges

- *The establishment of a sustainable and transparent institutional system for the management of climate protection.*
- *The establishment of an organisational unit to manage the registry of unit allowances for greenhouse gas emissions.*
- *The establishment of an organisational unit to regularly prepare projections of greenhouse gas emissions and removals.*

Human resources

- *The provision of staff to deal with climate change issues.*

6. What would you define as the key elements/strategies required to ensure the sustainability of the capacity-building activities in your country?

- *The development of long-term strategies for economic sectors, including specific measures and scenarios for greenhouse gas emission reductions by individual sectors and separately for each gas listed in Annex A to the Kyoto Protocol.*
- *The integration of climate policy with other national policies, in the first instance with the policies of infrastructural nature (transport) and the sectors of energy, industry (particularly the energy-intensive sectors), agriculture, forestry, waste management, hard coal mining and others.*
- *The establishment of a sustainable and transparent institutional system for the management of climate protection.*

7. Based on the elements defined above, how sustainable in the long-term are your current capacity-building projects?

Since 2003 Poland has implemented the GEF/UNEP project entitled National capacity needs self assessment for global environmental management , expected to be concluded at the end of 2004.

8. What types of stakeholders are usually involved in your country's capacity-building activities (see list below) and what are their levels of involvement?

- Local communities

  Local communities become actively involved in competitions of different types, e.g. in energy saving in heating systems and the reduction of air pollutant emissions at health resorts and national parks. There is a large interest in investments in renewable energy sources and energy saving. The competition "Our Community Protects the Climate", organised by the Institute for Sustainable Development, was extremely popular and made local governments involved in global action for environmental protection.

- NGOs

  A large role is played by non-governmental organisations whose activities consist in initiating and implementing projects and programmes of importance for climate protection, supporting valuable environmental initiatives, providing consultation and substantive advice, entering into co-operation with domestic and foreign organisations and institutions interested in activities in the scope of climate protection, with particular consideration given to local governments at all levels, and the provision of financial resources for the implementation of such activities.

- Research, academic, scientific institutions

  The role and participation of scientific communities are significant in the work in the scope of climate policy, e.g. in the development and review of national communications, in the analysis of the documents issued by the Convention authorities, in the implementation and consultation of a large number of programmes under the UNFCCC Convention and the Kyoto Protocol, such as the preparation of scenarios for greenhouse gas emission reductions and removals. However, their role should be much greater than it is now. The participation of scientific institutions is reduced to the implementation of works for the purposes of the Convention and Poland's National Environmental Policy, the overwhelming majority of which are commissioned by the Minister of the Environment, in addition to those commissioned by the Minister of Agriculture and Rural Development and the Minister of Economy and Labour. The most important scientific research institutions include: the Institute for Environmental Protection (IOŚ), the Institute of Meteorology and Water Management (IMGW), the Forestry Research Institute (IBL) and the Institute of Industrial Chemistry (ICHP).

- Private Sector

  The private sector has been involved in initiating environmentally sound projects related to energy generation, transmission and use, such as e.g. sustainable construction (including thermal modernisation of buildings and heating control units, heating systems, systems for energy monitoring and management at buildings), sustainable energy policy (including instruments of sustainable energy policy, renewable energy sources, combined heat and power generation), energy-saving transport, the implementation of the mechanisms of JI and emissions trading, and the best energy-saving technologies.

- International organizations

  Poland co-operates with international organisations, such as IPCC, WMO, WHO as well as those, e.g. the Center for Clean Air Policy (CCAP, based in Washington, that promote and implement innovative solutions in the scope of environmental and energy policies following the principle of sustainable development. In Central and Eastern Europe, CCAP conducts projects in the scope of climate policy as well as with the Regional Environmental for Central and Eastern Europe (REC) which provides assistance in the solution of the problems of environmental protection in this region.

- Central Government

- *The development of long-term strategies for economic sectors, including specific measures and scenarios for greenhouse gas emission reductions by individual sectors and separately for each gas listed in Annex A to the Kyoto Protocol.*

- *The integration of climate policy with other national policies, in the first instance with the policies of infrastructural nature (transport) and the sectors of energy, industry (particularly the energy-intensive sectors), agriculture, forestry, waste management, hard coal mining and others.*
- *The establishment of a sustainable and transparent institutional system for the management of climate protection.*
- *The development and updating of Poland's Climate Policy and its implementation programme.*

- Line Agencies

  For example, the European Community Baltic Renewable Energy Centre (EC BREC) was established in December 1994 by the European Commission. By the decision of the Council of Ministers of 5 September 2000, EC BREC was appointed as the institution responsible for the implementation of the national policy on sustainable energy sources. The mission of the Centre is to stimulate the development of the use of renewable energy sources (RES) by conducting scientific research and developing technologies, by preparing relevant policies, strategies and plans for the development of renewable energies, to support the process of the implementation of RES technologies as an effect of co-operation with investors and equipment suppliers and to promote the sector of renewable energy.

- Local Government at County Level

  Local governments at county level have been involved e.g. in the implementation of JI projects and the initiation of environmentally sound projects related to energy generation, transmission and use. Counties develop environmental protection programmes where the issues of climate protection are adequately reflected

- Local Government at Communal and Municipal Levels

  This level of local administration (municipal governments) has been involved e.g. in the implementation of JI projects (those implemented to date have brought an economical use of natural resources and their reuse as well as waste recycling; they have also fostered the use of advanced production processes) and in the initiation of environmentally sound projects related to energy generation, transmission and use. Communal governments develop environmental protection programmes. The Energy Law also provides for the requirement, of essential importance for climate policy, for the preparation of coherent development plans of enterprises and local communities. These plans must include e.g. projects using renewable energy sources. Communal governments implement their tasks in line with the assumptions of the national energy policy.

- Regional Government

  The regional (Voivodship) level of administration has been involved e.g. in the implementation of JI projects (those implemented to date have been consistent with the policy at regional level). Regional governments develop environmental protection programmes, where the issues of climate protection are covered to a significant extent. Regional self-governments (Assemblies) participate in the planning of energy and fuel supplies within the region; these plans must be consistent with the national energy policy.

9. How involved are various national coordinating agencies/bodies, climate focal points and other coordinating entities in your capacity-building activities? What roles do they play?
   Within the scope of capacity-building activities, various co-ordinating agencies/bodies, focal points and other entities play advisory and opinion-providing roles. These are very important roles, but the whole burden of the responsibility for meeting the commitments under the Convention in respect of the capacity-building process rests on Poland's Government.

10. To what extent have the capacity-building activities supported by donor organizations in your country during the period 2002-2004 been in line with your country's capacity-building priorities?
    In 2002, a representative of the Ministry of the Environment participated in a training course on capacity building for global environmental assessment, for the purposes of three global

conventions (UNFCCC, UNCBD and UNCCD). As mentioned in item 7, Poland now implements the GEF/UNEP project National capacity needs self assessment for global environmental management (to be implemented in 2003 and 2004).

11. What are the priority areas for future capacity-building activities in your country and why?
    - *The development and implementation of a legal framework and an operational system (the registry, monitoring, verification and certification of emission reduction units) allowing for Poland's participation in the auxiliary mechanisms (particularly in the Joint Implementation mechanism and emissions trading) and for its harmonisation with the European Union scheme.*
    - The *establishment* of the national system for making inventories and assessments of change in greenhouse gas emissions.
    - *Ensuring financing for the system for monitoring and observation of climate change.*
    - *The development of long-term strategies for economic sectors, including specific measures and scenarios for greenhouse gas emission reductions by individual sectors and separately for each gas listed in Annex A to the Kyoto Protocol.*
    - *The establishment of a sustainable and transparent institutional system for the management of climate protection.*

12. What mechanisms exist for dissemination and sharing of information and experiences, coordination and cooperation in capacity-building between your country and other countries?
    There is an informal mechanism in place for sharing of information, co-ordination and co-operation between Poland and other countries. There is also a formal exchange of information between Poland and the Presidency, other EU Member States and third countries. In addition, Poland has signed bilateral agreements with other countries, covering e.g. an exchange of information and experiences related to the issues of environmental protection.

13. What are the main sources of funding your country has accessed during the period 2002-2004 to support capacity-building activities?
    GEF/UNEP

14. What were the particular difficulties, or constraints your country has faced in accessing resources in support of your capacity-building priorities?
    An insufficient flow of information on the possibilities of access to financing.

15. What are the main lessons learned (positive or less positive) that could help improve capacity-building activities?
    - *Ensuring financing for:*
    - *the establishment of the national system for making inventories and assessments of change in greenhouse gas emissions as well as the management of the system for monitoring and observation of climate change;*
    - *the improvement of long-term strategies for economic sectors, including specific measures and scenarios for greenhouse gas emission reductions by individual sectors and separately for each gas listed in Annex A to the Kyoto Protocol;*
    - *the establishment of a sustainable and transparent institutional system for the management of climate protection.*

16. What general or specific recommendations that could help improve the effectiveness, impacts and/or sustainability of capacity-building activities relating to decision 3/CP.7?

    Inventories of greenhouse gas emissions
    - *expand the inventories of GHG emissions and removals with an assessment of the uncertainty involved in the results of the estimation of emissions;*

- *carry out the procedures for data quality control;*
- *conduct methodological work on the emission factors for different sources of GHG emissions;*
- *improve the methodological work on inventories of GHG emission sources which have not been fully explored;*
- *improve the procedure for the financing of activities;*
- *ensure the timeliness of inventory-making;*
- *ensure the transparency of inventory reports (NIRs) and completeness of all the data sets from 1988 until the present year;*
- *ensure a clear procedure for an exchange of information between institutions;*
- *establish a new system for collecting information from plants, i.e. bottom up;*
- *move from the task-based financing and functioning of KCIE and provide a legal ground for the position of this unit in the institutional system for the management of environmental protection in Poland;*
- *improve the website on emissions.*

Projections of greenhouse gas emissions

- *ensure a clear procedure for an exchange of information related to economic projections among institutions, including the definition of the role of the Government Centre for Strategic Studies in the preparation of economic projections;*
- *decide to entrust one unit with the preparation of GHG emission projections (in a unified manner, based on emission inventories);*
- *improve the website on emissions by including emission projections.*

Adaptation to climate change

- *perform regular assessments of vulnerability, climate change impacts and measures for adaptation to climate change in successive national communications.*

National communications

- *improve the flow of information among institutions;*
- *develop a clear procedure for the flow of information;*
- *improve the organisation of the preparation of national communications;*
- *organise high-level meetings in order to enhance the quality of material and the responsibility of individual ministries for their contributions;*
- *strengthen the role of the co-ordinator.*

Emissions trading

- *ensure financing for the establishment of the emissions trading scheme, including the implementation of the registry (infrastructure, communications, safeguards and staff).*

Prepared by Poland

REPORT ON CAPACITY-BUILDING ACTIVITIES IN THE CZECH REPUBLIC

1. What are the capacity-building activities being implemented in your country based on the initial priority needs identified in decision 3/CP.7 (see list below)?

a) National greenhouse gas (GHG) inventories
In 1995, the Czech Hydrometeorological Institute (CHMI) has been authorized by the Ministry of the Environment (MoE) to provide official national GHG emission inventories on regular basis. CHMI is responsible for inventory management, all general and crosscutting issues including the choice of methods, data processing, data storage and archiving relevant documents and collecting activity data and emissions factors, where necessary. The other core participants are KONEKO Ltd (energy sector, fugitive emission and some industrial processes), the Environmental Centre of Charles University (waste sector), Centre for Transport Research (transport sector) and Institute of Forest Ecosystem Research (Land Use Change and Forestry sector). In addition, a number of external consultants from universities and research institutes are also involved in the inventory preparation. GHG inventories are used for the UNFCCC and EEA reporting purposes, for the preparation of UNFCCC National Communications and for GHG projection preparation. Requested formats and deadlines are usually meeting in last several years.

b) Projections of GHG emissions
GHG projections for all three National Communications and for the preparation of the National Allocation Plan were carried out homogenously by the ENVIROS Ltd under the methodological guidance of the CHMI and MoE. Recommended UNFCCC methodology has been used for the NC3 GHG projections preparation.

c) Policies and measures, and the estimation of their effects
Climate Change Unite of the MoE is responsible for the overall co-ordination of the development and implementation of climate policy, including the identification of the effects of policies, national strategies. Latest analyses, serving as a basis for the preparations of most recent climate change national strategy („National Program to Abate Climate Change Impacts in the Czech Republic“, approved by the Czech Government on 3 March 2004), were carried out under the coordination of CHMI and jointly with ENVIROS Ltd.

d) Impact assessment and adaptation
The CHMI conducts systematic climate observations and represents country in WMO. Impact assessments and adaptation measures are elaborated under the guidance of the National Climate Change Programme of the Czech Republic, which is the umbrella body for about 12 academic and research institutions focused mainly on climate change modelling and hydrology, agriculture, forestry and well-being activities. Activities and results have been reported in NC3 and they are also part of the most recent climate change national strategy.

e) Research and systematic observation
As described in the previous paragraph, climate change research is conducted under coordination of the National Climate Change Programme of the Czech Republic, supported, in particular, by financial resources coming from MoE, and partly also from the National Grant Agency or Grant Agency of the Czech Academy of Sciences. Systematic observation are carried out by CHMI. Cooperation with GCOS and WCP is satisfactory beneficial, IPCC National Focal Point is located in CHMI.
Climate-related research concentrates on two areas: climate change modeling and climate change impacts. In the modeling of climate change, the development of new regional scenarios of climate change by the year 2050 was an important achievement. They are based on two extreme scenarios from IPCC's Special Report on Emission Scenarios and high/low assumptions on temperature sensitivity, so that the results are likely to cover the full range of possible changes. For the impacts of climate change, most studies deal with impacts on water resources, agriculture and forestry.

f) Education, training and public awareness

The role of environmental education was strengthened by a recent (2000) State Programme on Environmental Education and Public Awareness. Environmental education is present in pre-school education, in elementary and secondary schools, and in institutes and universities. MoE makes considerable efforts to increase public awareness on environmental issues. This is done through periodical and thematic publications, promotion of environmentally friendly products, organization of an international EKOFILM festival, communication and cooperation with NGOs, and support of the web site of MoE and CHMI. The web site also provides an opportunity to ask any question on the environment, for which a qualified answer would be given in compliance with the citizens' right to information on the environment.

To facilitate cooperation with NGOs, MoE organizes, twice a year, a meeting of the Green Forum, where the Ministry and senior officials answer questions and provide information. Even so, the review team felt that cooperation with NGOs in climate-related activities might be strengthened. For example, NGOs were not involved in the preparation and review of the NC3. Still they are the specific issue of climate change appeared to be receiving only minor attention. There is relatively little communication on climate change problems with industrial, regional and national decision-makers (for example, with managers of large enterprises and with members of parliament).

g) Transfer of environmentally sound technologies

There is a reasonably high interest in the transfer of energy-saving technologies and equipment as well as technologies using renewable energy sources for the purpose of the development of renewable energy on the national, regional and local scales. High support is also declared in the National Program to Abate Climate Change Impacts in the Czech Republic.

h) National communications and national climate action plans

All responsible ministries covering industry, transport, agriculture, forestry, health, education, finance, etc., large number of entities and the Inter-ministerial Climate Change Commission were involved in the preparation of NC2 and NC3; very similar and well-tried structure will be used also for the preparation of NC4.

"National Program to Abate Climate Change Impacts in the Czech Republic" was approved by the Government in March 2004 (Gov. Resolution No. 187/2004) and it amended the document "Strategy of Protection of the Climate System of the Earth in the Czech Republic" from 1999. The National Program is focused on setting of the main national targets and appropriate policies and measures to ensure meeting of the reduction emission targets to the maximum possible degree in the sense of international agreements, to reflect existing and future social and economic conditions in CR and to promote sustainable development. Its preparation was based on detailed analysis of national trends in greenhouse gas (GHG) emissions in the 1990 - 2001 period, analysis of key emission sources, i.e. groups of sources that make the maximum contributions to the overall national balance, on updated projections of emission trends over the period to 2020, based on estimation of energy requirements and expected macroeconomic trends.

i) National systems for estimation of GHG emissions

The national system for estimation of GHG emissions is institutionally reasonably prepared under the methodological guidance of CHMI. Financial conditions have not been created yet for the comprehensive fulfilment of the commitments, which country has made in the scope of reporting, monitoring and verification of the emission levels achieved. GHG inventories are carried out on project basis, which has to be improved in the future. Also formal approval of national system, according to UNFCCC requirements, is still needed.

j) Modalities for accounting relating to targets, timetables and national registries
One of the UNFCCC requirements is the establishment of a national registry for keeping track of AAU, ERU, CER, etc. At present, work on the registry is underway; nevertheless very high costs are expected. MoE is seeking financial resources for establishing and maintenance such system.
k) Reporting obligations
All deadlines for GHG inventory submissions (to UNFCCC and EEA) are meeting without delay, also NC2 and NC3 were submitted on time.

l) Joint implementation projects and emissions trading
Climate Change Unite of the MoE is responsible for the establishment of the EU ETS and for implementation of JI projects. At present, Czech Republic is at the final stage of adopting legislation on emissions trading and the National Allocation Plan should be discussed on the Government level in September. There is significant lack of personal capacities at MoE to cover all related and urgent issues.

2. What are the key outcomes and impacts achieved of the completed or on-going capacity-building activities in your country?
    - *The adoption of National Program to Abate Climate Change Impacts in the Czech Republic in March 2004 and its main objectives by 2020 and 2030;*
        - *After the end of the first commitment period of the Protocol, reduce CO_2 emissions per capita to 2020 by 30 % compared to 2000;*
        - *After the end of the first commitment period of the Protocol, reduce total aggregate CO_2 emissions to 2020 by 25 % compared to 2000;*
        - *continue in the commenced trend to 2030;*
        - *increase the share of renewables in primary energy sources consumption to 6 % by 2010 and to 20 % by 2030;*
    - *The progress achieved in the meeting of the Kyoto Protocol commitments under (according to the inventory for 2002 (27,1% GHG emission reduction with respect to the 1990 base year);*
    - *Methodological and institutional improvement of GHG inventories*.

3. What types of capacity-building activities have proven most successful in yielding results, and why?
    - *progressive harmonisation of national climate change policies with main objections of the European Climate Change Programme;*
    - *implementation of a wide-range cooperation under the Treaty of Accession.*

4. What are, in your country's view, the best practices in implementing capacity-building activities?
Enhance financing condition for GHG
    - *inventory preparation, covering, in particular, LUCF sector;*
    - *conduction of the EU ETS;*
    - *implementation of JI projects; and*
    - *formal approval of national inventory system.*

Increase personal capacities for climate change management.

5. What are the key challenges to the effectiveness of capacity-building activities in your country?
    - *Development and implementation of the registry system, monitoring, verification and certification of emission reduction units;*
    - *Improvement of climate change monitoring and observation systems;*
    - *Better integration of climate policy with other national policies, in particular, in energy, transport, agriculture and forestry sectors;*
    - *The establishment of a transparent institutional system for the climate change management;*
    - *Increase number of personal capacities dealing with climate change issues;*

6. What would you define as the key elements/strategies required to ensure the sustainability of the capacity-building activities in your country?
   - *Better integration of climate policy with other national policies, in particular, in energy, transport, agriculture and forestry sectors;*
   - *Development of long-term strategies for economic sectors;*
   - *The establishment of a transparent institutional system for the climate change management, incl. increase number of personal capacities dealing with climate change issues.*

7. Based on the elements defined above, how sustainable in the long-term are your current capacity-building projects?

No specific capacity-building projects have been established.

8. What types of stakeholders are usually involved in your country's capacity-building activities (see list below) and what are their levels of involvement?

There is still lack of involvement of stakeholders, except of rresearch, academic, scientific institutions and NGO's. The main reason is still inadequate support for climate change issues coming from the central and regional Governments.

9. How involved are various national coordinating agencies/bodies, climate focal points and other coordinating entities in your capacity-building activities? What roles do they play?

The Climate Change Unit of the MoE (even it consist only of 4 officials) and UNFCCC and IPCC Focal Points are doing in all their coordination activities and advisory and opinion-providing roles their all the best, sufficiently effective role plays also the Inter-ministerial Climate Change Commission.

10. To what extent have the capacity-building activities supported by donor organizations in your country during the period 2002-2004 been in line with your country's capacity-building priorities?

N/A

11. What are the priority areas for future capacity-building activities in your country and why?
   - *Develop and implement the registry system, monitoring, verification and certification systems for emission reduction units;*
   - *Improve climate change monitoring and observation systems;*
   - *Improve integration of climate policy with other national policies, in particular, in energy, transport, agriculture and forestry sectors;*
   - *Establish a transparent institutional system for the climate change management;*
   - *Increase number of personal capacities dealing with climate change issues;*

12. What mechanisms exist for dissemination and sharing of information and experiences, coordination and cooperation in capacity-building between your country and other countries?

Informal mechanism for sharing of information, co-ordination and co-operation with other countries could be the best.

13. What are the main sources of funding your country has accessed during the period 2002-2004 to support capacity-building activities?

14. What were the particular difficulties, or constraints your country has faced in accessing resources in support of your capacity-building priorities?

Financial barriers and lack of practical understanding from high governmental officials

15. What are the main lessons learned (positive or less positive) that could help improve capacity-building activities?

- *Enhance financing condition for GHG inventory preparation (covering, in particular, LUCF sector), conduction of the EU ETS implementation of JI projects and formal approval of national inventory system.*
- *Increase personal capacities for climate change management.*

16. What general or specific recommendations that could help improve the effectiveness, impacts and/or sustainability of capacity-building activities relating to decision 3/CP.7?

Again, bring climate change issue higher on the priority list on the governmental level.

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ADDITIONAL INFORMATION ON EFFECTIVENESS OF CAPACITY-BUILDING ACTIVITIES IN LITHUANIA, BEING GUIDED BY PARAGRAPH 5 OF DECISION 9/CP.9

At COP 7 (Marrakesh, October/November 2001) the Parties adopted decisions, on which agreements were reached related to capacity-building for developing and EIT countries. The frameworks for capacity-building in developing and EIT countries contained in the Marrakesh Accords are intended to serve as a guide for the climate change capacity-building activities of the GEF and other funding bodies. The frameworks include a set of guiding principles and approaches: capacity-building should be country-driven and involve learning by doing and also should be built on existing activities. They are very important to Lithuania.

In processing the 2004 submissions of annual inventories from Annex 1 Parties, under the provisions of the technical review of GHG inventories (Decision 19/CP. 8), Lithuania submitted for the first time its national inventory in CRF format and did it before the date of 15 April 2004. This represents a considerable step forward compared to previous years' submissions, because in 2003 Lithuania did not submit annual GHG inventories as requested by Decision 19/CP.8.

Lithuania signed the United Nations Convention on Climate Change (UNFCCC) during the Summit in Rio de Janeiro in June 1992. The Seimas (the Lithuanian Parliament) ratified it on 23 February 1995. After that, the National Working Group has prepared the National Strategy and Action Plan of the Convention Implementation . The strategy and plan have been approved by the Lithuanian Governmental Resolution. In 1998 the President of the Republic of Lithuania signed the Kyoto Protocol, and the Seimas ratified it on 19 November 2002. According to Annex B to the Kyoto Protocol, Lithuania has pledged itself to reduce GHG emissions by 8 per cent. Such a commitment requires Lithuania to undertake quite serious tasks. The assessment of carbon dioxide (CO2) also reveals the fact that after the closure of Ignalina NPP, which generates over 80% of total energy amount at present, we may face some difficulties when fulfilling the obligations of the Kyoto Protocol, but Lithuania is looking for possibilities to improve the situation in future. GHG emissions will decrease if the demands for primary energy resources are substituted by the most environment-friendly fuel. The First National Communication (NC) on Climate Change of the Republic of Lithuania was prepared in 1997 and the Second NC was ready in 2003. Though the UNFCCC National Implementation Strategy and the NC on Climate Change of the Republic of Lithuania have been successfully prepared by local experts but there are still weak points in this field, e. g. modelling and simulations of climate change and preparation of GHG inventory.

ough BASREC activities. A number of Activities Implemented Jointly have taken place in Lithuania. Thus, there is already some national expertise on principles of joint implementation, bio-energy production and eLithuania as a country in transition lacks financial resources and is able to benefit from emission trading and Joint Implementation having lower emission abatement costs and attracting capital and technology transfer sponsored by developed countries in exchange for GHG emission credits.

The Ministry of Environment (MoE) and the Lithuanian Environment Investment Fund (LEIF) are designated as the national authority for all the tasks related to JI and GHG emission trading. MoE is the competent authority, which organizes and coordinates the implementation of JI, organizes the development of the legal basis, after coordination with concerned institutions it makes decisions regarding the implementation of concrete joint implementation projects, organizes monitoring of these projects, organizes the preparation of the order of the implementation of joint implementation projects, provides information regarding institutions and actions related to the implementation of JI to the Secretariat of the United Nations Framework Convention on Climate Change. The examination criteria are based on the requirements of the Marrakesh Accords and on the BASREC Regional Handbook on Procedures for Joint Implementation in the Baltic Sea Region.

The Ministry of Economy coordinates the implementation of JI projects in the energy sector, including projects under the Agreement on the Testing Ground and submits the conclusions to the MoE regarding the acceptability of the concept (notion) of each project to be implemented within this sector and the expediency of further development of that concept.
Regional Environmental Protection Departments under the MoE are responsible for issuing GHG permits, monitoring and enforcement. LEIF is responsible for developing the National Allocation Plan and maintaining the GHG registry.
The MoE, which is the National Focal Point for the UNFCCC, has only 1.5 full-time specialist to cover all the functions of the climate change policy process. More staff is involved in climate change related issues for less than 50% of its working time (in many cases even less than 20%) mainly at the MoE itself, the Ministry of Economy, and many research institutions. This existing staff capacity could be very important if further developed and better integrated.

The lack of relevant training in climate change policy development, implementation, and reporting issues is pervasive through all the governmental institutions. There is a need for systematic approach to training in climate change policy and implementation issues, including training required to apply the guidelines for monitoring and reporting, to develop projections of emission levels, as well as for baseline determination, assessment of policy options and participation in flexible mechanisms. Training is needed for the transposition and implementation of the EU legislation connected with climate change.
The existing organizational structures of the governmental institutions are still not adapted to the climate change policy as it is a comparatively new policy issue. There are no specific structural units in the main organizations in charge of climate policy.
The policy framework in Lithuania that defines general climate change related goals to be achieved is mainly based on the ratification of the Convention and the Kyoto Protocol and the commitments of the country. The climate change policy is not clearly defined and structured in the strategic policy documents of the Government and its ministries. The Lithuanian environmental legislation is starting to reflect climate change issues, but on a rather general level.
Many of the key institutions are participating in the climate change policy process, but there are also some missing actors, who are of considerable importance, like NGOs, businesses and financial institutions, and etc.

The main challenges are as follows:

- shortage of sustainable financial resources,
- lack of experienced staff within governmental institutions,
- uncertainty designating tasks and responsibilities among governmental institutions,
- deficit of technical resources (clear guidelines, computer models),
- passive stakeholders.

The biggest obstacles to an effective long-term climate policy in Lithuania are a lack of staff and training, a lack of funds, sufficient authority of the organisations assigned to the national climate change policy, a lack of co-operation among relevant institutions. Among other obstacles, there is a lack of efficient stability of institutions in charge of climate policy; insufficient allocation of responsibilities, a lack of good co-ordinating bodies.

The list of capacity needs in Lithuania is as follows:

1 strengthening institutions at national level to co-ordinate and guide activities for climate change policy development and implementation (including national systems for data collection and verification, national GHG registries, and JI units);
2 transfer of methodologies and know-how on monitoring and data collection, data quality assurance and control;

3 public awareness support;
4 education of local governments and industry stakeholders;
5 awareness raising among government officials and training of local experts.

On September 29, 2003, 11 Countries of the Baltic Sea Region met in order to sign the Regional Testing Ground Agreement for Flexible Mechanisms of the Kyoto Protocol. Seven countries - Lithuania, Denmark, Finland, Germany, Iceland, Norway and Sweden - signed the Agreement, which is sufficient for the Agreement to come into force. Currently, the ratification of the Testing Ground Agreement for Flexible Mechanisms of the Kyoto Protocol is under discussion in the Parliament. There is a certain capacity built already in the fields of Joint Implementation and bio-energy thrnergy efficiency measures. Moreover, the recent BASREC initiative on the Testing Ground and the JI/CDM linking Directive gave an insight for further activities. A lot of workshops under the project have been held so far, and a scoping paper has been prepared. BASREC has played a crucial role in capacity building in the Baltic States through the organization of the Climate Change Group, preparation and updating of the BASREC Handbook as well as the organization of workshops and research projects. Moreover, the activities of BASREC Bio-energy and Climate Change Groups (in particular Action 1. „Strengthening Bio-energy Capacity Building", Action 3. "Joint Implementation of Bio-energy Projects" under the Bio-energy 2003 – 2005 working plan) could be considered as actions, which contribute to capacity building because capacity building is of the highest importance in Lithuania. We need financial support for establishment of a national system for the estimation of anthropogenic emissions by sources and removals by sinks of greenhouse gases, for a computerized national registry to account for and track changes in the assigned amount, for a unit of experts preparingannual greenhouse gas inventories, elaboratingperiodic national communications and realizing the mechanism of the Kyoto Protocol.

Emission trading in the EU will start on 1 January 2005, and Lithuania has prepared the National Allocation Plan. Data about the quantities of emissions from installations have been collected by way of questionnaires, which have been compiled taking into consideration specific nature of energy companies, industrial enterprises operating energy production installations . After gathering all the information from installations, the authors of the National Allocation Plan conducted consultations with scientists to obtain the most accurate data available. The National Allocation Plan has been presented to the public. The objectives, principles and process of the National Allocation Plan are outlined in an article entitled „The Allowances Trading Scheme Has Been Started in Lithuania," which was published in the newspaper „Verslo Žinios" on 4 March 2004 . On 16 March 2004, a workshop was organized, at which the National Allocation Plan was presented. All the enterprises covered by the emission trading scheme and all the stakeholders (environmental nongovernmental organizations, public environment protection institutions, scientific institutions) were invited to participate in the workshop. Besides, the representatives of various associations, such as the Association of Local Authorities in Lithuania, the Lithuanian Heat Supplier Association, and the Lithuanian Confederation of Industrialists, were also invited. The workshop was attended by 55 participants, who represented various stakeholders. The participants were especially interested in learning more about the methodology of the Allocation Plan and compliance with the requirements of the EU Directive and the Kyoto Protocol. The authors of the Plan provided explanations and answered all these questions. The reports given at the workshop were put on the Lithuanian Environmental Investment Fund website. After the workshop, the authors of the National Allocation Plan answered questions by telephone and e-mail. At the beginning of April 2004, the draft National Allocation Plan was put on the website of the Ministry of Environment of Lithuania, and the readers were asked to share their comments. Comments were sent by e-mail, snail mail, facsimile or conveyed by telephone. The authors of the Plan reviewed the comments and suggestions and, if there was a need, made necessary amendments to the National Allocation Plan. The list of comments explains how these comments have been incorporated into the revised text of the Plan prepared .

General evaluation

	Priority
1. Lack of funds	High
2. Lack of personnel	High
3. Lack of training	High
4. Lack of efficient management/stability of institutions in charge of climate policy	Medium
5. Lack of co-operation among institutions	High
6. Lack of sufficient authority	High
7. Insufficient allocation of responsibilities	Medium
8. Lack of well-functioning co-ordinating bodies	High
9. Lack of stability of an institutional framework for climate policy	Medium
10. Insufficient interest in climate change medium	Medium

Prepared by Lithuania

REPORT ON CAPACITY-BUILDING ACTIVITIES IN ESTONIA

1. What are the capacity building activities being implemented in your country based on the initial priority needs identified in decision 3/CP.7 (see list below)?

- *NGO´s;*
- *Better intergration of climate policy with other national policies;*
- *increase number of personal capacities dealing with climate change.*

2. Based on the elements defined above, how sustainable in the long-term are your current capacity-building projects?

No specific capacity building projects have been established.

3. How involved are various national coordinating agencies/bodies, climate focal points and other coordinating entities in your capacity-building activities? What roles do they play?

National Climate Change Committee – approves the inventory reports, national communications and national actiona plans on climate change.

a) *Climate focal point – all coordination work related to the UNFCCC and EU* National greenhouse gas (GHG) inventories;

The Ministry of the Environment organises the practical providing of GHG inventories. Financial resources for this purpose are planned in the State Budget. Practical work has been done on the basis of contracts. The Institute of Ecology at Tallinn Pedagogical University is responsible for the inventories and National Communications. The active contribution of the Estonian Energy Research Institute, Tallinn Pedagogical University and Estonian Agricultural University should also be mentioned. Eight to ten specialists from different research institutes and universities are involved in this work. Most of them have long experience. At the beginning of the work we encountered various problems. In 1993 a new project, Estonian Country Study, was initiated within the U.S. Country Studies Program. The project was of great help to Estonian specialists in starting with the work to compile the GHG inventory, to find contemporary trends in the investigation of the impact of climate change on Estonian ecosystems and economy and to formulate national strategies for Estonia for addressing global climate change. For estimating the emissions of GHG and sinks, as well as the uncertainties associated with them, the IPCC top-down method according to the IPCC Guidelines (IPCC Greenhouse Gas Inventory Reporting Instructions: Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volumes I, II and III, 1997) was used.

b) Projections of GHG emissions

The projections are based on general trends of *the future development of the national economy and energy demand and supply in Estonia. It is a rather complicated task to forecast the GHG emissions in Estonia for the next twenty years due to several uncertainties. The first and major reason of uncertainties is lack of long-term development plans for the national economy as a whole. The projections contained in the third national communication were based on the Long-Term Development Plan for the Estonian Fuel and Energy Sector. This plan was developed by the Tallinna Technical Unversity, the Estonian Energy Research Institute, Stockholm Environment Institute and the Netherlands Energy Research Foundation during the preparation of the Third National Communication. As the main tool in these studies, the MARKAL model, a demand-driven multi-period linear programming model of the energy sector was used*

c) Policies and measures, and the estimation of their effects;

Policies and measures in Estonia are mainly planned, adopted and implemented at state level. Some activities relevant to climate change mitigation are also found at country and municipal level, for example district heating, local energy plans, waste management and activities related to forestry. The

Ministry of the Environment has prepared annual progress reports on the implementation of the National Environmental Action Plan. Policies and measures driven by concern about climate change have played a limit role so far. The new developments in the policy portfolio are mostly driven by harmonization with EC legislation.

d) Impact assessment and adaptation;

In 1996-1998 the Country Study on Climate Change Impacts and Adaptation Assessments was carried out. The Country Study was financed by the Global Environment Facility / United Nationas Environment Programme. The country study supported the project objective of providing guidance and catalysing the further improvement of methodologies for climate change impacts assessment, especially on vulnerable sectors such as agriculture, forestry, freshwater and marine environment, and elaborating integrated policies and plans for adaptation responses to climate change. The results of the project are published in two books: 1.Country Case Study on Climate Change Impacts and Adaptation Assessments in the Republic of Estonia; 2.Climate Change Studies in Estonia. The Stockholm Environmnent Institute Tallinn Centre was appointed the Executing Agency.

e) Research and systematic observation;

Estonian organizations participate in meteorological atmospheric observations. The Estonian Meteorological and Hydrological Institute also exchanges observations and data collected with the Global Climate Observing System.During the last decade, many scientific groups from the Institute of Ecology and the Institute of Marine Research at the University of Tartu, the Estonian Meteorological and Hydrological Institute, the Energy Research Institute, Estonian Agricultural Unversity and Tartu Observatory performed basic research on global climate change impacts and adaptation in agriculture, water resources, forestry, the Baltic Sea and the Estonian coast. Many Estonian scientists take part in international cooperative research projects on climate change. Domestic research is normally funded by the grants of the Estonian Science Foundation. Climate change research concentrates on climate change modelling and climate change impact.The Stockholm Environment Institute Tallinn centre has been running various research and training projets, especially in the field of GHG mitigation options in the energy sector.

f) Education, training and public awareness;

The Ministry of Environment plays the main role in environmental education and has developed a detailed plan for the improvement of environmental education as a part of the National Environmental Action Plan. The Ministry has prepared special environmental sciences curricula for secondary schools and gymnasiums. Pupils are acquainted with the atmosphere and the ozone layer, energy economy, air quality and pollution, fossil fuels, ecosystems and natural cycles. Many NGO´s are involved in environmental education and awarness. Estonia joined a worldwide GLOBE project in 1996. A total of 33 schools are taking part in observations, the results of which are sent regulary to the coordination centre in the United States of America.

g) Transfer of environmentally sound technologies;

As a country in transition, the major means for Estonia to promote access to climate related environmentally sound technologies is active participation in AIJ and JI projects.

h) National communications and national climate action plans;

Estonia submitted the first and the second national communications in March 1995 and March 1998 respectively. The third national communication was submitted on 30 November 2001. Ministry of the Environment has drafted the National Programme for the reduction of GHG emissions for the years 2003-2012, which establishing among others a more detailed GHG monitoring mechanism and possible mitigation measures in different economic sectors. The programme includes a range of cost effective

policies and measures, which reduce GHG emissions and bring wider benefits to the economy and to people's quality of life. The programm was adopted by the Government in May 2004 .

i) National systems for estimation of GHG emissions;

The national system for estimation of GHG emissions has been established already in 1990, but it needs improvement in the future.

j) Modalities for accounting relating to targets, timetables and national registries;

k) Reporting obligations;

Estonia has submitted all the reports on time.

l) Joint implementation projects and emissions trading;

Estonia has prticipated in 21 AIJ projects as a host country, all implemented with Sweden. The AIJ projects with Sweden have been realised in the fields of fuel switching, energy efficiency, replacing outdated combustion technologies in the district-heating sector, and improving energy conservation in apartment buildings. Estonia has implemented two JI projects with Finland.

m) Others

1. What are the key outcomes and impacts achieved of the completed or on-going capacity building activities in your country?

- *Improved GHG emission inventory;*
- *better knowledge of the climate change and Kyoto mechanisms;*
- *reduction of local air pollutants;*
- *stimulating use of renewable energy sources and efficient use of natural resources;*

2. What are, in your country's view, the best practices in implementing capacity building activities?

Ensure continuous financing for:

- G*HG inventory;*
- *national communication;*
- *the emission trading scheme;*
- *climate change research;*
- *national system.*

Increase personal capacities for clmate change management.

3. What are the key challenges to the effectiveness of capacity building activities in your country?

Fullfil all the requirements of the EU ETS;

4. What would you define as the key elements/strategies required to ensure the sustainability of the capacity building activities in your country?

Better cooperation with other ministries andclimate change issues

5. To what extent have the capacity-building activities supported by donor organizations in your country during the period 2002-2004 been in line with your country's capacity-building priorities?

Yes.

6. What are the priority areas for future capacity building activities in your country and why?
    - *JI/ET – to transfer of environmentally sound technology*
    - *The national system - to improve the system.*
    - *Public awareness – to incease the knowledge about the climate change*

7. What mechanisms exist for dissemination and sharing of information and experiences, coordination and cooperation in capacity building between your country and other countries?

International Comissions

8. What are the main sources of funding your country has accessed during the period 2002-2004 to support capacity building activities?

Finnish Ministry of the Environment

9. What are the main lessons learned (positive or less positive) that could help improve capacity building activities?

Increase personal capacities for climate change management

10. What general or specific recommendations that could help improve the effectiveness, impacts and/or sustainability of capacity building activities relating to decision 3/CP.7?

Annex to the questions: table attached

In Estonia, the research and capacity building activities on climate change as well as on reduction of GHG impact on climate has been conducted during a long period already. Since 1994, Estonia has participated in several international research programmes (e.g. *U.S. Country Study Program Addressed to Climate Change, 1994-1996*, supported by US Government; UN environment programmes; PHARE Programme, etc.), in frames of which many studies on GHG and on mitigation of GHG impact have been carried out.

Project/study title	Duration	Description	Results
Possible Energy Sector Trends in Estonia. Context of Climate Change, 1999. Edited by Tiit Kallaste and Olev Liik and Arvo Ots. Tallinn, 1999, 190 pp.	1998-1999	The monograph gives a comprehensive overview of the present situation of the Estonian energy sector and treats its possible future development in the context of global climate change.	A macro-economic analysis of the possible social and economic development paths together with various GHG mitigation options (new combustion technologies, highly prioritized renewables, etc.) is performed. The results suggest that Estonia has good changes to reach the high target set both in the field of global climate protection and in local energy sector development. A significant rise in the energy efficiency with the help of an energy conservation programme could be achieved with relatively modest investments.
Estonian Organisation for the Promotion of Energy Technologies (FEMOPET Estonia)	1998-1999	Promotion of new energy efficient and environmentaly friendly energy production technology	During the all working period, from 1998-1999, FEMOPET Estonia has developed a close relationship with the Estonian governmental institutions, research institutes, energy centres, Estonian energy companies, energy specialists, etc. Their dissemination work through organised seminars, workshops, training courses and also FEMOPET library with excellent information on RUE and RES technologies, FEMOPET Estonia Newspaper and Website - all this has become very popular and well known. Specific highlights: FEMOPET Estonia participated in governmental commissions for elaboration of the following energy strategic programmes: • The Energy Concept for Tallinn • Local Agenda 21 Energy Part • The Programme for the Implementation and Use of Wind Power and Hydro Technology • Energy Conservation Target Programme
Development Scenarios for the Estonian Energy Sector. Estonian Energy Research Institute. Tallinn, 2000-2001.	2000-2001	The study was financed by the Ministry of Economic Affairs with the objective of modeling different options for development of energy supply in Estonia.	Seven scenarios for meeting the energy demand were constructed. The main scenario reflected the development strategy provided in the *Long-term National Development Plan for the Fuel and Energy Sector*, which had been approved by the Parliament in 1998. The second scenario was focused on preferred development of oil shale based energy production. In three scenarios the reduction of CO_2 emission was set as the main target. In these scenarios the preferential development trends were set: to natural gas; to import of electricity;

Project/study title	Duration	Description	Results
			and to use of renewable energy sources. The two more scenarios were used to analyze the heat supply options: one dealt with the preferred development of local heating, the other with the wider deployment of cogeneration of heat and power. Regarding the emission of CO_2, only the oil shale scenario and local heating scenario resulted in increase (correspondingly, by 7.2% and by 2.3%, compared to the emission level in 2000) of CO_2 emission, all other scenarios were positive in this aspect. The largest reductions of carbon dioxide emission were calculated for imported electricity scenario (by 65.8%) and for natural gas scenario (by 43.0%). Nevertheless, both of these scenarios are highly unrealistic ones, due to the extremely negative impact on the foreign trade balance of Estonia. According to the results of the study, more realistic reduction of CO_2 emission (by 30%) could be reached by the preferred development of renewable energy sources.
NC3 - Estonia's Third National Communication under United Nations Framework Convention on Climate Change. Kont, A., Metusala, E., Punning, J.-M., Pensa, M., Roos, I., Soosaar, S. Terasmaa, J., Vürmer, T. Estonia, November 2001, 79 pp.	2001	The UN Framework Convention on Climate Change was signed by Estonia at the Conference in 1992. In July 1994 Estonian Parliament ratified the Convention and the Convention entered into force in October 2004. According to the Convention, Estonia has committed to submit a National Communication in every third year. Estonia's First and Second National Communications (NC) have been submitted in 1995 and 1998. Financed by the Ministry of the Environment	The NC3 (covers the period 1990-1999) gives an overview of GHG emissions, polices and measures and also tries to present projections of GHG emissions for next twenty years. The task to forecast the GHG emissions for such a long period was a difficult and complicated one due to several uncertainties. The major problem was the lack of long-term projections for the national economy as a whole. The main assumption for the GHG forecast was the idea that the total primary energy supply will stay at the 1990 level, possible increase of final energy demand will be covered by energy efficiency measures and the reduction of GHG emissions will by reached mainly due to changes in fuel structure (increase of the share of renewables, gas instead of oil shale, etc) to the 2020 (about 6% by "with measures" scenario and 15% by "with additional measures" scenario). *Today we have to admit that GHG emission reduction forecasts made three years ago were to optimistic and need a critical review.*
Estonian Organisation for the Promotion of Energy Technologies (OPET Estonia)	2001 - 2002	Promotion of new energy efficient and environmentaly friendly energy production technology	OPET Estonia has extended their activities including new technologies (pellets, biodiesel) and new topics (environmental policy and climate change), remaining thus to be a reliable partner and information source for the Estonian governmental institutions, research institutes, energy centres, Estonian energy companies, energy specialists, etc. Dissemination activities through the organised seminars, workshops, training courses and also OPET library with excellent information on

Project/study title	Duration	Description	Results
			RUE and RES technologies and regularly published newsletter have successfully reached the target groups. Specific highlights: An international seminar: *The Usage of Biomass for Producing Heat and Electricity* - organised by OPET Estonia in Tartu, 2-3 November 2001. 55 participants from 3 countries made 10 presentations on different Estonian-Finnish joint biomass projects.
SYNERGY Eastern Climate Change Network Project	2002	EU supply security and Kyoto flexibility mechanisms in CEE and CIS countries	9 Project Identification Notes (PIN) for possible JI projects were complied, including one hydro, two CHP, two wind energy and four bhoiler conversion (from heavy fuel oil to wood). For each PIN project lifetime, GHG reduction and estimated price of the GHG reduction (€ per ton CO_2 equivalent) was also estimated.
Roos, I. Baseline Study and Assessment Report for Paldiski Wind Farm JI Project, EMP Projects OY, 2002.	2002	The study was carried out for the Project Design Document (PDD) and includes the information required in order to implement the Paldiski Wind Farm project as a JI project within the Dutch ERUPT Programme. The PDD contains project information, description of the environmental impact and information about stakeholder involvement, a baseline study and calculation of emission reduction, an assessment of additionality as well as the proposed monitoring and verification plan.	The project foresees installation of 22 units of Nordex N90 wind turbines at Pakri peninsula at the Southern coast of Gulf of Finland. The project would contribute to alleviation of global warming, security of energy supply and sustainable development. At present, the project is in an advanced stage of development and is expected to be commissioned by the end of 2004. The site is considered ideal for wind energy generation due to good wind conditions, nearby technical infrastructure, and no environmental or other restrictions due to past military activities in the region. The risks of implementing the project are low due to local municipality support, agreement with the electrical utility for grid connection, guaranteed purchase of green electricity in accordance with the Electricity Market Act of Estonia and supplier's experience from current implementation of a neighbouring 20 MW wind farm. Due to the prevailing renewable energy policy in Estonia the financial income from the sales of carbon credits under the Joint Implementation programme is of utmost importance for the realization of the project. Emission reduction of the project during 2008–2012 is estimated at 730 595 ERUs (Emission Reduction Units). Emission reduction during 2005–2012 is estimated at 1 168 422 ERUs and AAUs (Assigned Amount Units).

Project/study title	Duration	Description	Results
Cleaner Fossil Fuel OPET (CFF OPET)	2003 - 2004	EC specific program for Research and Technological Development and demonstration on Energy, Environment and Sustainable Development (5th FW)	Promotion of new energy efficient and environmentaly friendly energy production technology for fossil fuel combustion
OPET Building	2003-2004	EC specific program for Research and Technological Development and demonstration on Energy, Environment and Sustainable Development (5th FW)	Promotion of new energy efficient and environmentaly friendly energy production technology for building sector
OPET CHP/DHC cluster (OPET CHP/DHC)	2003 - 2004	EC specific program for Research and Technological Development and demonstration on Energy, Environment and Sustainable Development (5th FW)	Promotion of new energy efficient and environmentaly friendly energy production technology for energy production
Biofuel Resources and Production Capacity in Estonia. Prepared for Eesti Energia AS, State Forest Management Centre and Private Forest management Co-operative, Tartu 2003, 80 pp (not for public use).	2003	The goal of the study was to analyze the current situation (in particular, the supply-demand balance) and to determine the future potential of the following energy sources: • wood; • agricultural residues (straw, reed); • peat.	The analysis of the demand-supply balance of wood fuels indicated, that the level of utilization of resources differs substantially by counties. The general conclusion is that in the near future there are sufficient resources of wood fuel available, but in long-run, the supply will not be adequate to keep the consumption even on the present level. It is indicated that the potential yield of traditional fuelwood from private and state forests will decrease more than three times by the year 2030. The amount of harvesting residues will decrease as well. Therefore, the quantity of forest biomass, used for energy production is predicted to decrease about to half of that current level during next 30 years: from current 5 Mm^3 (10 TWh) to 2.3 Mm^3 (4.6 TWh). For the short rotation energy forestry the analysis of soil quality by regions of Estonia has been made. It is estimated that on more than 300 thousand ha of the arable area the agricultural production is related to high economic risk. Therefore, willow, but also several other fast growing deciduous trees are suitable for cultivation in the conditions of extensive technology. It is estimated that already at present it would be possible to produce up to 600 GWh of energy using straw from agriculture. In future the produced energy may amount to even 1 TWh.

Project/study title	Duration	Description	Results
			The potential yield of reed is estimated up to 10 thousand tons (45 GWh). The co-firing of biomass harvested from wetlands with other biofuels (in particular, wood) is recommended for medium size power and boiler plants. Any estimation on potential reduction of GHG emission is not given in the report of the study.
Roos, I. Baseline Study and Assessment Report for Pakri Wind Farm JI Project, Tallinn 2003.	2003	The study includes the information required for preparation of Project Design Document (PDD) in order to implement the Pakri Wind Farm project as a JI project within the Finnish CDM/JI Pilot Programme. The project consists of 8 wind turbines with a total production capacity of 20 MW. The turbines will be new Nordex N80 models of 2.5 MW. The wind farm will be connected to a grid operated by the electrical utility AS Eesti Energia, to whom all electricity will by sold during the first 12 years of operation in accordance with the new Electricity Market Act.	The annual production of Pakri Wind farm is estimated at 50.6 GWh. The total amount of ERUs/AAUs is 506 017.
Roos, I. Baseline Study and Assessment Report for Türisalu Wind Farm JI Project, Tallinn 2003.	2003	The study includes the information required for preparation of Project Design Document (PDD) in order to implement the Türisalu Wind Farm project as a JI project within the Danish Environmental Protection Agency (DEPA).	The project foresees installation of 13 units of NEG Micron NM82/1650 wind turbines in a wind power plant on a former Soviet rocket base at Türisalu, which is located at the northern coast of Estonia, about 25 km West from Tallinn. The output of the project is estimated to be 59 GWh/year with operation in estimated 2751 equivalent full load hours. The expected date for beginning the project is July 1, 2005, its expected lifetime is 20 years and estimated emission reduction about 462 541 tons of CO_2 eq in total.

Project/study title	Duration	Description	Results
Economics of GHG Limitations - Phase I: Establishment of a Methodological Framework for Climate Change Mitigation Assessment **UNEP/GEF**	1996-1998	The principal objective was to conduct a climate change mitigation study for Estonia, adopting a common methodological framework for calculating the cost of climate change mitigation activities at country level, as well as developing and enhancing of local capacity.	UNEP Collaborating Centre on Energy and Environment (UCCEE) at the Risø National Laboratory and GEF. The results of the project are published: - *Economics of GHG Limitations -Phase 1: Establishment of a Methodological Framework for Climate Change Mitigation Assessment. Estonian Case Study*. UNEP/GEF Project No. GF/2200-96-15. Ed. by Tiit Kallaste. June 1998. Executing Agency: SEI-Tallinn, 193 p. - *Economics of Greenhouse Gas limitations. Country Studies Series. Estonia.* Ministry of the Environment, Republic of Estonia. Stockholm Environment Institute Tallinn Centre. Published by UNEP Collaborating Centre on Energy and Environment, Riso National Laboratory, Denmark 1999. 205 p. - *Possible Energy Sector Trends in Estonia. Context of Climate Change*. Kallaste, T., Liik, O., Ots, A., (eds.) SEI-Tallinn, Tallinn Technical University, 1999, Tallinn, 190p
Country Case Study on Climate Change Impacts and Adaptation Assessments in the Republic of Estonia **UNEP/GEF**	1996-1998	The country study supported the project objective of providing guidance and catalysing the further improvement of methodologies for climate change impacts assessment, especially on vulnerable sectors such as agriculture, forestry, freshwater and marine environment, and elaborating integrated policies and plans for adaptation responses to climate change.	The results of the project are published in two books: 1) *Country Case Study on Climate Change Impacts and Adaptation Assessments in the Republic of Estonia.* Eds. Andres Tarand and Tiit Kallaste..Stockholm Environment Institute Tallinn Centre, Ministry of Environment. Report to UNEP/GEF. Tallinn, 1998, 146 p. 2) *Climate Change Studies in Estonia*. Ed. by Tiit Kallaste and Piret Kuldna. Stockholm Environment Institute Tallinn Centre, Ministry of Environment. Tallinn 1998. 200p.
EU Workshop on Capacity Building on Emission Trading Directive 2003/87/EC EU, Ministry of Environment, Stockholm Environment Institute Tallinn Centre	May 2003	The objective was to introduce the ETS Directive to operators.	

Project/study title	Duration	Description	Results
Capacity for Climate Protection in Central and Eastern Europe "Activities Implemented Jointly" REC, Stockholm Environment Institute Tallinn Centre	June 2000	The objective was to draw lessons from CEE experience with Activities Implemented Jointly projects and to provide information on the rules set by the governments and the Conference of the Parties.	
Joint Implementation project – Paide Bioenergy Project Ministry of Environment of Finland	2003-2012	The objective of the project is to introduce a new biomass boiler in the Town of Paide. The project stimulates development of local heat markets and will lead to stabilization of the heat prices. It have a positive effect on socio-economic development in the area.	

PAPER NO. 5: UNITED STATES OF AMERICA

U.S. Submission on Capacity Building in EITs

19 August 2004

The United States is pleased to provide the Secretariat with additional information on the effectiveness of capacity-building activities in countries with economies in transition. We hope that this will provide useful input into the Secretariat's analytical paper on the effectiveness of the implementation of the framework for capacity building in countries with economies in transition.

We anticipate that this latest paper by the Secretariat will represent another constructive component of the comprehensive review of the implementation of the capacity building frameworks, and thus will be critical to our ability to generate meaningful results from this process, recognizing that the country driven approach of capacity building means that one size may not fit all.

We believe that the capacity-building framework for countries with economies in transition annexed to decision 3/CP.7 can serve as a useful tool to help bring country-driven priorities to the attention of those bilateral, multilateral and international organizations in a position to respond.

Making progress on capacity building is paramount to all Parties, and the United States believes that continued collaboration would help us to accomplish our mutual goal of effective implementation by the Parties of the UN Framework Convention on Climate Change.

For the Secretariat's ease in using this information for its paper we have provided illustrative examples of our work in a format keyed to the extent possible to the sub-paragraphs of paragraph 20 of the Annex to COP decision 3/CP.7, as found in document FCCC/CP/2001/13/Add.1.

The United States appreciates the opportunity to share its views on this matter and to provide the attached information.

Attachment: Highlights of U.S. Capacity Building Activities in EITs

Highlights of U.S. Capacity Building Activities in EITs

a) National greenhouse gas (GHG) inventories

Greenhouse Gas Inventory Program in the Russian Federation

EPA has worked for several years with Russian experts regarding the development of regional and sectoral inventories following Intergovernmental Panel on Climate Change (IPCC) methodology and the use of IPCC Good Practice Guidance. Over the last few years, the work has fostered the completion of inventories in seven Russian regions (Novgorod, Khakassia, Sakhalin, Chelyabinsk, Sverdlovsk, Nizhnii Novgorod, and Archangelsk) and a "hotline" is in place to assist additional regions with technical support in preparing inventories.

Results of the first four GHG inventories were disseminated and discussed at a workshop in Chelyabinsk in December 2000. The additional GHG emissions inventories were subsequently completed, followed by seminars in Saratov and Archangelsk to discuss challenges in preparing GHG inventories. The program has also included a report prepared by the Institute for Atmospheric Air Protection on high global warming gases.

Program partners have finished recommendations for pulp and paper inventories and have worked with the government agencies to finalize recommendations on the energy sector and how to use and improve the statistics. Work under this program will conclude in the summer of 2004. In-country partners include the Center for Energy Efficiency, the World Wildlife Fund for Nature (WWF), and the Institute for Atmospheric Air Protection.

Greenhouse Gas Inventory Program in Ukraine

EPA has worked for several years with Ukrainian experts regarding the development of sectoral inventories following Intergovernmental Panel on Climate Change (IPCC) methodology and the use of IPCC Good Practice Guidance. The first project task was to create a key source analysis and develop an inventory improvement strategy. Sectors completed to date include cement, district heating, and solid waste. Work on the livestock-related sectors is to begin in the third quarter of 2004. The in-country partner is Arena-ECO.

Greenhouse Gas Inventory Program in Kazakhstan

EPA has worked for several years with Kazakh experts regarding the development of sectoral inventories following Intergovernmental Panel on Climate Change (IPCC) methodology and the use of IPCC Good Practice Guidance. Sectors completed to date include multi-year studies on the important and complex sectors of mobile sources and oil and gas systems.

A detailed coal mining methane inventory was also completed. Work on the land-use and land-use change and forestry (LULUCF) sectors is set to begin in the third quarter of 2004. The in-country partner is KazNIIMOSK/KazNIIK.

b) Projections of GHG emissions and
h) National communications and national action plans.

The U.S. Country Studies Program

Beginning in 1993, the U. S. Country Studies Program (USCSP) provided technical and financial support to fifty-five countries to enhance their capacity to address the issue of climate change and to participate more fully in the international response to this issue. Many of these countries have indicated that this support contributed significantly to their initial National Communication.

More specifically, the USCSP provided financial support, training, technical assistance, computer equipment, data, analytical tools, and information services to assist countries:

- inventory their emissions of greenhouse gases;
- assess their potential vulnerability to climate change and approaches for adapting to such change;
- identify and evaluate options for controlling these gases or increasing sinks thereof;
- develop national plans for responding to climate change;
- assess related technological needs; and
- increase public understanding of climate change.

Handbooks to guide studies, state-of-the-art simulation models, and analytical methodologies and tools were tailored to meet the needs of the countries. Training was provided in ten global training workshops and over twenty regional workshops. Individuals trained in these workshops led training workshops in their individual countries. In total, over 3000 analysts received training. In addition, fifteen senior officials from the participating countries helped shape the Program by working for a number of months each with the Country Studies Management Team in Washington.

Building on the work of the analysts from developing and transition countries more than three hundred and fifty publications and journal articles were produced, including ten guidance documents, sixty workshop and conference proceedings, more than one hundred and sixty country reports, and seventeen special journal editions. Much of the material included in the country reports was later reflected in countries' national communications.

The following eight countries with economies in transition participated in the USCSP: Bulgaria, Hungary, Kazakhstan, Poland, Romania, Russia, Slovakia and Ukraine. Almost all of these countries completed an emissions inventory as well as significant elements of a vulnerability and adaptation assessment. All of the countries completed a mitigation analysis. Participants from five of the countries each worked with the Country Studies Management Team for a number of months in Washington.

The program continues through efforts now underway to make the extensive information generated by the USCSP available electronically as an ongoing reference to interested countries.

c) Policies and measures, and the estimation of their effects.

Energy Efficient Building Codes in the Russian Federation

EPA-funded work on Energy Efficient Building Codes focuses on the development and implementation of new building codes to improve and monitor the use of energy in buildings in Russia. The effort has been underway since the mid-1990s and the project partners have developed and are overseeing the approval and implementation of a model thermal-performance code for Energy Efficiency in Residential and Public Buildings. The code is a fundamentally new approach for codes in Russia for building energy efficiency and meets modern international requirements for performance-based codes, as developed by the ISO. Use of the energy efficient code opens the way for the practical implementation of energy-

saving components and technologies in the construction of civil buildings and leads to stimulate market transformation in the production of these technologies. To date more than 45 Russian administrative entities (including Moscow City and St. Petersburg) are implementing new energy efficient building codes and a new national code came into effect October 1, 2003.

The implementation of energy efficient codes leads not only to a reduction in greenhouse gases and local air pollutants but also to cost savings. In the case of Moscow, on average, the new code is estimated to have reduced energy consumption by 40 percent in residential buildings and to have helped save an estimated 1,716 TJ of energy in 1999, which resulted in an avoidance of 85,800 tonnes of CO2-equivalent emissions. This reduction in energy use saved an estimated $4 million.

In-country partners include the Ministry of Construction, regional and municipal governments, the Research Institute for Building Physics of the Russian Academy of Architecture and Building Science, and Center for Energy Efficiency.

Energy Efficient Building Codes in Kazakhstan

EPA-funded work on Energy Efficient Building Codes focuses on providing assistance regarding the development and implementation of new building codes to improve and monitor the use of energy in buildings in Kazakhstan. The effort has been underway since 2002, and the project partners have developed and are overseeing the approval and implementation of a model thermal-performance code for Energy Efficiency in Residential and Public Buildings. The code is a fundamentally new approach for codes in Kazakhstan for building energy efficiency and meets modern international requirements for performance-based codes, as developed by the ISO. Use of the energy efficient code opens the way for the practical implementation of energy-saving components and technologies in the construction of buildings, leads to an avoidance of greenhouse gases and local air pollutants as well as leads to stimulate market transformation in the production of energy efficient technologies. The first code on energy efficiency for buildings in Kazakhstan was recently finalized and adopted in late May 2004, and will become effective November 1, 2004. It is estimated that these new codes will reduce, on average, 30-40 percent of energy consumption in new buildings in Kazakhstan.

Regional partners include the Kazakhstani Ministry of Economy and Trade (Committee for Construction), the Russian Research Institute for Building Physics of the Russian Academy of Architecture and Building Science, and the Russian Center for Energy Efficiency.

d) Impact assessment and adaptation.

Kazakhstan Dryland Management Project

The project's objective is the conservation, rehabilitation and sustainable utilization of natural resources in marginal cereal growing areas in the Shetsky Rayon of Karaganda Oblast in Kazakhstan. This program works with local communities and the Kazakh government to (1) develop alternative land uses, rehabilitate ecosystems for conservation of plant and animal bio-diversity; (2) develop a coherent framework and national capacity to monitor carbon sequestration; and (3) build public capacity and develop a replication strategy so that project activities can be adopted in other similar areas of Kazakhstan and other Central Asian countries. Thus far, the U.S., the Global Environment Facility (GEF), and the government of Kazakhstan have implemented the pilot phase of this project.

The Project demonstrates options for mainstreaming environmental issues in the ongoing and proposed reforms of the agricultural sector and addresses the following key issues that are specific to the Kazakh steppe as well as to large areas of Central Asia:

- *Develop sustainable land use in marginal areas.*
- *Reverse environmental degradation and loss of biodiversity.*
- *Diversify income-earning opportunities to raise family incomes and alleviate poverty.*

Two main strategic choices were made during project preparation. The first was the decision of addressing land degradation in marginal dryland from among the environmental challenges facing Kazakhstan. This decision was based on the World Bank's considerable experience with the linkages between agriculture and natural resource management. Kazakhstan does not have any agricultural and/or environmental activity targeted to the dry-land cereal-growing areas, which, if they continued to be neglected, would lead to a further degradation of the already marginalized lands. Thus the proposed project made the strategic choice of designing a multi-focal, cross-sectoral project whose interventions would not only have a positive impact in the pilot area, but could also be replicated nationally and globally in similar dryland ecosystems.
The second strategic choice was to propose a relatively large pilot, with a total investment of $9.7 million, instead of a smaller carbon monitoring activity. This decision was based on the fact that a small carbon monitoring activity could not have tested the socio-economic feasibility of shifting from crop-based production system to the traditional livestock production system. Experience has demonstrated that a few innovative farmers would easily accept such a shift; however, the real challenge lays in having a large share of farmers in one district adopting the proposed shift so that the viability of such a shift could be proven on a scale large enough to demonstrate its potential of replicability.
Individual farmers, farmer organizations, NGOs, and local officials have been fully consulted in the development of detailed project components. As women are deeply involved in productive labor, such as livestock tending, the project sought to ensure the involvement of women in project preparation. According to the project financing plan, beneficiaries should contribute almost 20% of project costs. In addition, the project benefits from best practices and technology transfer contributed by external stakeholders, such as the donor community. Stakeholders are quite diverse and include: individual farmers, farming partnerships, local public officials and community leaders, local households, local Kazakhstan agencies (Department of Agriculture, Akimat), research institutes, politicians, media, NGOs, and international donors like the GEF.

At the local level, the project will build capacity in environment-related technical farming skills, in developing alternative income-generating activities in the villages, as well as in community level management of the environment. At the national level, the project will build capacity to better manage environmental issues, while at the regional level-- Turkmenistan, Uzbekistan, and Mongolia, and to a lesser extent Russia and China-- the project will promote an inter-change of experiences and thus build capacity in dealing with problems of land degradation in the region.

f) Education, training, and public awareness.

Climate Change Initiative/Ukraine (CCI)

With U.S. support, the Climate Change Initiative/Ukraine (CCI) was established as an information and project management center in December 1999. It has served as a support unit and resource for the Government of Ukraine in its efforts to develop a sound national climate change program and to build capacity. The CCI website (www.climate.org.ua) offers a unique resource for building capacity in Ukraine in both English and Ukrainian. The site includes articles on the science of climate change, analyses of sources of GHG emissions in Ukraine, a database of all climate activities in Ukraine, a pipeline of potential GHG mitigation projects, a catalogue and copy of training modules, and other valuable information and links on global climate change. A training strategy and an extensive training program enhance technical assistance in these areas. The CCI developed and delivered training courses on a variety of climate related topics, including: greenhouse gas mitigation; developing a national GHG inventory; the economics of climate change; establishing project baseline emissions; and monitoring,

reporting, evaluating and verifying GHG emissions reductions. Because the training modules were delivered to a variety of participants with different degrees of understanding, each module was modified to include an introductory session on the basics of climate change and an overview of the international climate change negotiation process. On average, the CCI delivered one training course per month across Ukraine.

The CCI established a strong working relationship with key individuals and institutions involved in climate change issues in Ukraine. These relationships have brought climate change issues to the highest levels in the Ukrainian Government. CCI's counterparts include the Ministry of Ecology and Natural Resources, the Ministry of Fuel and Energy, Verhovna Rada (Parliament), regional and city administrators, NGOs, industrialists, and entrepreneurs. The CCI also supports an information and project management center that provides Ukrainian officials and NGOs with Ukrainian translations of UNFCCC documents and other climate change materials. Ukraine has made use of these materials in its participation in the UNFCCC negotiations. The CCI also distributes a monthly electronic Ukrainian/English newsletter that has been cited by Ukrainian officials as an extremely valuable resource. This project has succeeded in promoting citizen and NGO involvement in the development of Ukraine's climate change policy.

g) Transfer of environmentally sound technologies.

Municipal Network for Energy Efficiency (MUNEE)

MUNEE is a regional network to strengthen the environment for implementing energy efficiency activities at the local level and to overcome the barriers to expanded private and commercial investment. MUNEE is implemented by the Alliance to Save Energy, working with partner energy efficiency centers and other NGO organizations in the region. The goal of MUNEE is to design, implement, and disseminate innovative energy efficiency policies at the national and local levels, and identify barriers to their successful adoption. In addition, it will strengthen the capacity of regional and municipal stakeholders to develop and attract financing for energy efficiency projects throughout the E&E region.

Technical Assistance Facilitating Financing for Energy Saving Investments

- MUNEE helped arrange vendor credit for water efficiency in Kovel, Ukraine. Under the arrangement, the vendor of water pumping equipment is providing the equipment at no up-front cost to the city, and will be repaid from project savings over one year; a local bank is providing a guarantee to the vendor.
- MUNEE worked with Ivano-Frankivsk, Ukraine on an agreement to implement a voluntary carbon-neutral project consisting of energy efficiency improvements in schools. The carbon savings offset the emissions from the operations of the buyer, Swiss Re's Center for Global Dialogue, effectively allowing them to operate on a carbon-neutral basis for the next eight years. Similar projects are underway with other Ukrainian cities.

Capacity Building

- MUNEE held four regional conferences and a dozen workshops in individual countries for municipal leaders, providing capacity building in the following areas:
  - Preparation of business plans for energy efficiency projects (Moldova and Kazakhstan).
  - Residential energy improvements (Armenia).

- MUNEE disseminated best practice success stories that are appropriate for replication. The following actions were taken based on the MUNEE workshops:
  - Innovative municipal leaders shared their experiences and results with their colleagues (Russia and Ukraine).

- Cities implemented two-tier tariffs after learning how other cities were using this reform to reduce non-payment levels (Ukraine).
- Cities explored debt forgiveness programs in return for regular payment to communal service suppliers (Russia).
- The city of Kharkiv is studying the rehabilitation of its district heating network, including physical improvements accompanied by tariff reforms, advanced billing systems, and incentives for meter installation (Ukraine).

Natural Gas System Methane Emissions Reduction Project Feasibility Assessments in the Russian Federation

Russia is the world's largest producer of natural gas, with levels approaching 30 trillion cubic feet per year by 2005. While the Russian gas sector is mature in terms of infrastructure and resource assessment, the current Russian gas system leaks approximately 4% of its gas before it reaches the market. This loss results in gas sale revenue reduction of over $5 billion (at $3 per thousand cubic feet) and stifles Russian small- and medium-sized business development opportunities in the area of leak reduction assessment, technology installation and maintenance. The escaping gas substantially contributes to climate change as the single largest source of methane emissions in the world.

Starting in June, 2004, the U.S. EPA Natural Gas STAR Program funded a five-year project to: 1) identify key Russian natural gas system technologies in the Kemerovo, Novosibirsk and Tomsk region production, processing, transmission and distribution sectors, allowing identification of leak points, leak quantification and new technology implementation opportunities; 2) develop a comprehensive list of potential gas leak reduction investment opportunities; 3) develop methane emissions reduction project feasibility studies; 4) market leak reduction projects to investors; and 5) build capacity among Russian staff in leak identification and repair techniques.

In-country partners include the Russian Academy of Sciences (Siberian Branch), "Ugle Metan" Group, and various Russian Natural Gas Companies.

Investment in the Russian natural gas system methane emissions reduction project would generate revenue through increased gas sales and possibly GHG emission reduction financing. Through EPA capacity building efforts, Russian small- and medium-sized energy service companies will have training in leak identification, technology applications, installation and maintenance.

Coal Bed Methane Outreach Program in the Russian Federation

The Coal Bed Methane Outreach Program (CMOP) is a voluntary program whose goal is to reduce methane emissions from coal mining activities. Since its inception in 1994, CMOP has provided technical assistance to the industry by: (1) evaluating coal mine methane (CMM) recovery technologies and use options and the project economics for those options; (2) identifying financial mechanisms for project development; (3) providing analyses to assist CMM project developers; (4) overcoming regulatory, institutional, and technological barriers to implementation; (5) facilitating discussion among industry participants; and (6) providing project specific technical assistance.

Drawing on this U.S. experience, EPA works internationally to reduce CMM emissions and has had a strong collaborative program in Russia since the mid-1990s. The Russian Federation is one of the major coal producers and is the world's 4th largest emitter of coal mine methane emissions. Over the last 5 years, EPA has actively worked in the Kuznetsk Coal Basin to improve the efficiency and safety of coal production and reduce methane emissions.

EPA provides technical assistance primarily through support for the "Ugle Metan" Group, the International Coal and Methane Research Center, in Kemerovo. The agreement underwriting the support is in its third and final year, and "Ugle Metan" has made excellent progress including playing a key role in securing approval for a UNDP GEF CMM/CBM (coal bed methane) project. EPA also works closely with the Russian Ministry of Energy, regional and municipal officials, and local coal companies.

Coal Bed Methane Outreach Program in Ukraine

Beginning in 1998, EPA began actively supporting efforts to recover coalmine methane in Ukraine. Specifically, EPA provided grant funding to a coalbed methane clearinghouse operated by a U.S.-based NGO, Partnership for Energy and Environmental Reform (PEER). Over the funding period from 1998 through 2003, the clearinghouse prepared the coalmine methane inventory for Ukraine for three years before transferring the task to the Ministry of Ecology and Natural Resources. In addition, PEER also prepared an important investment guide, produced business plans for two mines, and conducted technical workshops. The clearinghouse also served as an in-country expert on the methane recovery opportunities and served as a liaison between project developers and the Ukrainian mining industry. An important component of the project was the development of a strategic plan for a service company that could provide drilling services to the mining industry. The program is becoming a reality as the U.S. Department of Labor (DOL) is committing funds for such a project. EPA is working with DOL to address utilization of the methane.

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