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OECD ENVIRONMENT DIRECTORATE
AND
INTERNATIONAL ENERGY AGENCY

**TRANSITION COUNTRY PERSPECTIVES
ON THE KYOTO PROTOCOL**

Workshop report and results from a questionnaire
on capacity building needs and hurdles

OECD and IEA project for the
Annex I Expert Group on the UNFCCC



FOREWORD

The Annex I Expert Group on the UNFCCC aims to provide useful and timely input to the climate change negotiations. As part of its work, it oversees the development of analytical papers and organises workshops.

The Annex I Parties or countries referred to in this document refer to those listed in Annex I to the UNFCCC (as amended at the 3rd Conference of the Parties in December 1997): Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, the European Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, and United States of America. Where this document refers to “countries” or “governments” it is also intended to include “regional economic organisations”, if appropriate.

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1. Meeting report

Introduction and highlights

The Annex I Expert Group (AIXG) workshop *Transition Country Perspectives on the Kyoto Protocol* was held in Bratislava (Slovakia) on May 17th 2000. It was undertaken as part of the AIXG's workplan supporting countries with economies in transition (EITs), and as part of AIXG work to improve the understanding of implementation requirements for the Kyoto mechanisms. Decision 11/CP5 at the fifth Conference of the Parties affirmed that capacity building is "critical to the effective participation of countries with economies in transition" in both the Convention and the Protocol.

The workshop objective was to identify the capacity building needs of EIT countries, with particular emphasis on activities under Articles 5, 6, 7 and 17 of the Kyoto Protocol. The workshop was divided into three sessions. The first was on "perspectives and issues", which introduced capacity building needs and programmes, and the context in which they operate. This session built upon the results of a survey of EIT governments, which highlighted main areas of concern. These are capacity needs related to reporting emissions, to identifying, approving and accepting JI projects, and to emissions trading. The second session went into depth on national systems for inventory preparation, assessing the policy, resource and management developments that are likely to be required to establish national systems for inventory preparation. The final session focussed on the Kyoto mechanisms, outlining EIT experience with "activities implemented jointly" and raising issues that countries may need to consider in preparing to implement joint implementation or emissions trading (at the national or international level). This session also highlighted some general functions that would be needed from national systems for emissions monitoring to support implementation of the Kyoto mechanisms.

The workshop was attended by government representatives from 28 Annex I countries as well as of invited experts from these countries. Invited experts also included representatives from UN and other intergovernmental organisations, non-governmental organisations, research institutes, both as speakers and participants (see participants list in Annex).

Key themes that emerged from the workshop were:

- **progress** in capacity development. EIT countries have improved their capacity over the 1990s, although further improvements are needed if these countries are to fulfil their monitoring and reporting commitments under the Kyoto Protocol;
- **stability** in personnel capabilities and in institutional help is an important underlying component of capacity building (in particular in countries with limited number of personnel working on climate change, which is the case of many EITs);
- **information sharing** and availability, particularly in local languages, can play an important role in raising awareness of climate change and potential mitigation actions by all stakeholders within a country. Facilitating information flow between different parts of government, and between policy makers and technical experts would also help to increase awareness on climate change.

It was also suggested that programmes aiming to develop capacity and facilitate inventory preparation will need to operate in the context of a comprehensive framework that includes stakeholder dialogue, support for project development, facilitating funding from bi- and multi-lateral donors, training, and information exchange.

Workshop summary

Session 1: Perspectives and issues

This session laid out the capacity building needs of EIT countries (e.g. institutions, infrastructure, training and processes) and outlined some international and national programmes that are working towards meeting these needs.

An overview of capacity needs of EIT countries highlighted both the broad, general issues and specific, technical gaps that EIT countries face in implementing commitments under the Kyoto Protocol. Gaps are particularly notable in inventory preparation: many EITs have incomplete inventories particularly for non-energy emission sources, and do not currently have the capacity to follow IPCC inventory methodologies guidance. Capacity for JI is increasing, and many EITs have experience from the AIJ pilot phase, which has helped build capacity in this regard, but the approval process for JI projects can still be administratively burdensome, even for prioritised project types. Regarding international emissions trading, an assessment of needs is difficult for countries where substantive discussions on how to operationalise trading are not far advanced.

The Global Environment Facility (GEF) is one multi-national source of funding for projects aiming to mitigate climate change (and/or improve other environmental performance) in EITs. GEF's climate change-related activities in EITs include both project-based activities, such as improving energy efficiency in municipalities, and "special activities", such as providing support for country focal points. GEF has approximately 35 capacity building projects totalling more than \$20million in EIT countries. GEF funding cannot currently be used to build capacity that is specific to the Kyoto Protocol (although funding could in theory be used for projects that happen to be JI projects). Countries are not eligible for funding unless they have ratified the UNFCCC.

Speakers in the session also outlined important lessons from two national capacity-building programmes in EIT countries. Sweden's experience in initiating AIJ project partnerships with EIT governments, underscores the need of raising basic awareness on climate change and the Kyoto mechanisms. Establishing a pool of local experts who can talk to national policy makers in their own language was indicated as an important step in increasing the knowledge base on climate change within a country's decision makers. Experience also shows the need for donor country experts to work with local experts on technical issues such as baseline setting and emission monitoring.

Experience from US capacity building programmes in EITs underscores the importance of having a clear, focussed objective for each individual project. Other lessons included ensuring that local experts were involved in project operation, that a diverse group of stakeholders were involved in the project, and that stable, long-term institutional support is available. Moreover, it was emphasised that "one size does not fit all", i.e. that a project organisation that worked in one situation would not necessarily be equally successful in another situation.

The discussion focused on:

- how to assess what needs to be in place in order to demonstrate compliance with Kyoto Protocol commitments;
- how to build necessary expertise/infrastructure in EITs; and
- the different needs of different EIT countries.

Participants agreed that all Annex I countries - EITs and non-EITs - needed to know what to put in place to demonstrate compliance with commitments under the Kyoto Protocol. Certain commitments would be difficult for all countries, not only EIT countries, to meet. In this regard, publicising and prioritising existing needs should help facilitate appropriate/timely help for EIT countries. However, many countries, particularly EITs, are currently still unable to meet the reporting requirements laid down in the Framework Convention on Climate Change for both emission inventories and emission projections, despite significant improvements achieved during the 1990s. The relatively high institutional and administrative burden that comprehensive reporting places on small countries was also mentioned, as was the fact that a focused, step by step approach to fill gaps is likely to be the most effective.

Regarding how this capacity could be built, participants emphasised the need for long-term financial support (e.g. to finance administrative capacity to carry out emission inventories and/or projections). Increased regional co-operation could also be useful, both on technical issues, such as sharing information about emission factors, and on policy-related issues, such as which institutional structures have worked in particular instances and why. The WRI/REC project on "capacity for climate" and the potentially useful role to be played by other non-governmental organisations was mentioned in this regard. Participants also indicated that the lack of information available in local languages was a barrier to increased awareness, and therefore increased action by policy-makers.

Discussions also highlighted the varying needs of different EIT countries. Specific, technical needs for capacity building will differ for each country, and even for regions within a country. These needs will also be influenced by the priorities that different EIT countries place on improving capacity in different areas, e.g. reporting, implementing joint implementation projects or setting up an emissions trading system. However, capacity building needs are sometimes similar at a general level, and countries could learn from each other regarding the institutional infrastructure needed, and how institutions work.

Session 2: National systems for inventory preparation

This session outlined the policy, resource and management developments that are likely to be required to establish national systems for inventory preparation. It also examined the UNITAR proposal on capacity needs for inventory preparation, and explored whether this process/proposal is a model that could be used for developing national capacity in other areas needed to implement the Protocol (e.g. establishing policy frameworks, projecting emissions, etc.).

Many different actors are involved in setting up an emissions inventory for a country. These include a country's focal point, such as a government department, the institutions involved in preparing emission inventories, such as government agencies or research institutes, and other contributors to inventories, such as consultants, other government departments and industry. In order to establish a comprehensive emissions inventory, significant interaction is required. However, co-operation is often likely to be informal, co-ordination between the different institutions may be insufficient, the responsibilities of different participants may be unclear, and the tasks/processes needed may not be clearly documented.

Overcoming these problems could be facilitated by improving information flow, for example by setting up technical national focal points as well as the existing policy national focal points, by translating the IPCC's good practice inventory guidance, and by training those responsible for inventory development in that guidance. Documenting the processes used to establish emissions inventories, and establishing stable institutions for inventory preparation would help improve the continuity between inventories in different years. Finally, a plan should be set up to prioritise the collection of activity data and emission factors .

The technical and institutional barriers faced by EITs in constructing complete emission inventories were illustrated in a Russian example. Like many other EITs, Russia did not maintain separate national

emissions data in its base year; the lack of the correct geographical disaggregation makes retrospective data compilation extremely difficult. Possible solutions to improve the situation include encouraging regions within a country and/or large companies to undertake their own “bottom-up” assessment of GHG emissions, paying particular attention to obtaining high quality data for the base year (e.g. by using the IPCC “good practice” recommendations). This information could subsequently be disseminated to national experts.

It was suggested that a comprehensive framework will be needed for programmes aiming to develop capacity and facilitate inventory preparation. This framework could consist of:

- an initial dialogue amongst stakeholders at a national level to gain consensus on identifying institutional needs. (Building a national profile would also be helpful in raising awareness of the issues, and a profile could be used as a basis for tracking progress);
- project development support, which provides resources to countries so that they can develop the projects they need;
- a clearing house function to facilitate funding from bi- and multi-lateral donors, and to be the focal point of co-ordination;
- training, in order to create a network of experts at a national and sub-regional level that can interact with experts from Annex II countries at a detailed level; and
- information exchange (such as through the internet).

The discussion highlighted the high level of interest in the critical issue of developing and reporting complete GHG emission inventories. The importance of focused capacity-building projects, and projects with institutional support were highlighted. Institutional support for inventory preparation was felt by many EIT and other delegates to be a key issue: given the small number of people working on emissions inventory, staff turnover and informal/undocumented inventory preparation processes can lead to problems in inventory continuity. However, focused, technical projects have also demonstrated their value in helping to train local experts, to raise local awareness and to link different people involved in the inventory process.

Session 3: Implementation of Kyoto Mechanisms

This session outlined experience that some EIT countries have had with “activities implemented jointly” and raised issues that countries may need to consider in preparing to implement joint implementation or emissions trading (at the national or international level). It also highlighted some general functions that would be needed from national systems for emissions monitoring to support implementation of the Kyoto mechanisms.

Regarding joint implementation, two EIT countries, Poland and Romania, highlighted both general and specific lessons that could be learnt from their experience with the AIJ pilot phase. At a general level, it was repeated that national circumstances and environmentally-related legislation are changing rapidly in EIT countries, particularly in countries planning to accede to the EU, and that this has implications for the institutional processes and initial criteria set up to approve AIJ/JI projects. National environmental action plans and sectoral development priorities will therefore need to be taken into account when developing AIJ/JI projects and the baselines for these projects. A co-ordinated institutional structure (including government, NGOs and others) within the host country is also needed in order to prepare a package of potential JI projects, assess ERU abatement costs and initiate effective policies and measures to mitigate

greenhouse gas emissions. It was also noted that public participation in the review of a project's baseline, and in the assessment of its additionality had been very limited under AIJ.

At a more detailed level, one of the reasons highlighted for the lack of diversity of projects undertaken under the AIJ pilot phase was that AIJ pilot phase projects were generally "supply" (investor) rather than demand (host) driven. The governments of some EIT countries, including Poland, have in fact established project categories and/or criteria for acceptable AIJ/JI projects. However, even if a country establishes project categories that are *a priori* acceptable, each project may still require individual negotiations on baselines and other technical issues if the host country has no long-term/consistent strategy for assessing the additionality of projects. In addition, some countries may face difficulties in setting up a transparent and corruption-free system to approve JI projects in the absence of agreed methodological guidance on project selection and approval. The issue of credit sharing between JI investing and host Parties was raised, and suggestions made (e.g., by Russia) that credits should be shared in a dynamic fashion, with investors getting most credits at the beginning of a project's crediting lifetime, and hosts getting more credit towards the end.

The importance that legal contracts could have in answering some of the currently unanswered questions between potential JI hosts and investors was highlighted. The aim of such contracts would be to distribute risks regarding whether or not ERUs would be valid from a particular project, what the quality and quantity of ERUs generated would be from a particular project, and the price of these ERUs.

Given that potential investors in climate mitigation projects have a choice where to spend their money, most funds may flow to potential host countries and project managers with certain characteristics. Desirable characteristics for the potential host country were identified as: a willingness to initiate joint activities, already established co-operation between relevant government ministries and other bodies (e.g. from the AIJ pilot phase or via a JI Secretariat), a draft memorandum of understanding for future common activities, and capacity building activities between different stakeholders already underway. Desirable project manager attributes were outlined as being prepared to take risks for the financial side of the project, being open to the idea of pre-feasibility studies, and having the technical and personnel capabilities to undertake project monitoring and baseline calculations.

Regarding emission trading, a comprehensive review for Slovakia indicated how a potential cap and trade scheme for greenhouse gases could be set up, building on current national experience with the legislation set up principally for SO₂ trading. It was indicated that a system in which companies could trade is likely to be more effective in reducing domestic emissions than one in which only the government can trade, because the former motivates companies directly. However, the administrative burden of distributing quotas to companies would be likely to make it impractical to distribute emission quotas to small companies. The importance of a penalty for breaching domestic quotas in order to limit over-selling was highlighted.

The functions that national systems for monitoring and reporting greenhouse gas emissions (at entity/project level and at the national level will serve were highlighted as:

- supporting domestic emission trading and joint implementation programmes;
- supporting international trading by governments and entities; and
- providing information needed for compliance assessment to the international community.

These systems will require significant institutional capacity. Although these systems can be expected to be developed by national governments, some international guidance or requirements may be helpful, for

example to outline good practice in monitoring and enforcement. This guidance could be relevant to all Annex I Parties (not just EITs). It was recommended that minimum guidance, e.g. for registries, be as simple as possible. Any international requirements would, however, need to recognise differences in national institutions, laws, capacity and traditions between countries.

The different strategies of different EITs towards joint implementation and emissions trading, can be expected to lead to variations in the systems designed to support the implementation of these mechanisms. Countries with limited resources may therefore prioritise the objectives of a national system. In the short to medium term, participants suggested that priorities in EITs should be to raise capacity to implement obligations under the Kyoto Protocol.

The discussion centred on ways that institutions could be used to make a country's JI programme run smoothly, and on potential eligibility criteria that potential host countries could establish.

It was suggested that potential host countries' JI programmes could be made more effective if the country prepared a national strategy for JI project implementation and ensured that any body making decisions on the eligibility of JI projects was within the governmental structure. The potential importance of using JI funds as leverage for projects was mentioned. (This was one of the reasons behind the Polish decision to locate their JI Secretariat inside the existing national Environment Fund.) Regarding host country criteria for JI projects, some participants indicated that criteria should include social and economic aspects of a project, as well as environmental criteria.

2. Supporting analysis and results

Compilation and synthesis of an informal AIXG questionnaire on capacity building needs and hurdles

This document is a compilation and synthesis of the responses to the AIXG questionnaire on EIT capacity building needs provided by representatives of Bulgaria, Croatia, Czech Republic, Estonia, Latvia, Lithuania, Poland Romania, Slovakia and Slovenia, and on other information communicated to the AIXG Secretariat by Russia. It gives a detailed overview (but not an exhaustive list) of the capacity needs related to reporting of inventories and projections, joint implementation, emissions trading and other institutional issues.

Capacity needs and hurdles to related to reporting emissions

All countries that responded to the questionnaire indicated capacity needs in relation to calculating and reporting emissions inventories and reporting projections. These needs are both general/institutional (e.g. the need for dedicated inventory personnel) and specific/technical (e.g. the need for a particular hardware or emission factor).

General capacity needs

1. Institutional/administrative

- personnel and/or institution working on inventories on a regular basis [Bulgaria, Latvia, Lithuania, Romania, Slovakia, Slovenia (uncertainty analyses, to produce and recalculate inventories)], strengthening existing team [Estonia]
- (increased) personnel working on projections on a regular basis [Croatia, Latvia, Lithuania, Romania, Slovakia, Slovenia], financial/personnel ability to undertake projections for CH₄ and N₂O [Poland]
- administrative capacity (in general) [Czech Republic, Russia]
- need funding to train existing experts in inventory and projection issues [Poland], new inventory methodologies and reporting requirements [Estonia, Latvia, Lithuania] and in JI/IET-related issues [Estonia]

2. Communication/networking with other experts (internationally)

- funds to participate in relevant international meetings [Romania], e.g. IPCC/UNFCCC meetings [Bulgaria, Lithuania, Slovakia] or other international fora [Lithuania]
- need improved access to international methodological guidance (e.g. IPCC) [Lithuania]
- need to work with technical experts on particular inventory problems [Bulgaria]
- need for some regional data exchange [Bulgaria, Estonia], in particular for countries using but not producing PFCs and HFCs [Poland], and preparation of regional “good practice” inventory guidelines [Estonia]

3. Communication/networking with other experts and/or administration (nationally)

- Bodies responsible for monitoring project/entity emissions and calculating emissions inventories are different [Bulgaria, Romania, Slovenia] and do not co-ordinate well [Slovenia] or would benefit from improved linkages [Bulgaria, Estonia, Lithuania, Poland].

Specific/technical needs

4. Technical problems

- unavailability of software/hardware capability in general [Latvia] or particularly to use IPCC's common reporting format (CRF) [Lithuania, Slovakia] or to develop projections [Croatia]
- limited capability to apply IPCC's good practice methods in general [Slovenia], in uncertainty assessment [Poland, Slovakia, Slovenia], and QA/QC [Estonia, Poland, Slovakia]

5. Data gaps/problems

- Emission factors in general [Bulgaria, Romania] for waste management [Croatia, Lithuania, Slovenia], energy sector [Estonia (oil shale), Slovenia], industry [Croatia], N₂O [Czech Republic], HFCs and SF₆ [Bulgaria, Latvia, Slovenia], solvents [Bulgaria, Latvia, Lithuania], PFCs [Bulgaria, Czech Republic (do not separate different HFCs and PFCs), Poland], land use and forestry [Estonia, Lithuania, Poland], methane emissions from landfills, gas pipelines and refinery industry [Poland]
- Historical activity data in general [Bulgaria, Croatia] for waste management [Lithuania, Slovenia], energy sector [Slovenia – fuel quality], HFCs and SF₆ [Croatia, Latvia, Lithuania, Slovenia] and PFCs [Croatia, Latvia, Lithuania]. Two countries [Bulgaria and Lithuania] have no data collection system/statistics on HFCs, PFCs and SF₆. Poland indicates that they may have difficulties (in the first year) to get the new data expected to be required in the new inventory guidelines.
- Projections for the transport and agricultural sectors [Slovenia] and for HFCs, PFCs and SF₆ [Bulgaria, Slovenia]
- Lack of consistency in time series [Bulgaria] or overlapping data collection [Croatia]
- Mis-match between data collected and data needed for IPCC methodologies [Lithuania (particularly for energy, transport, industry and agriculture), Romania]
- Incomplete set of GHG inventories [Lithuania: no emissions information 1991-1997] (There are no official statistical data for 1991 in Lithuania).

6. Other

- Reporting on policies and measures [Estonia, Poland]
- Estimating effect of policies and measures in general [Poland] and in the non-energy sector [Czech Republic]

- Financing for studies on expected impacts of climate change, vulnerability assessment, adaptation measures [Latvia]

Insights:

→ Consistent set of needs identified between different countries (mainly because what needs to be reported is so well defined).

→ Data gaps and inconsistencies were identified in 8 of the 11 countries who responded. One of the most common “gaps” relates to estimating activity data and emission factors and projections for the three industrialised gases (HFCs, PFCs and SF₆).

→ A shortage of financing for personnel to calculate inventories on a permanent/consistent basis were consistently highlighted as a capacity need, although some countries also indicated that working on inventories was not enough to keep a staff member busy all year.

→ In addition, a number of countries indicate that they will not be able to follow the suggested IPCC guidance on inventory good practice and uncertainty estimation, due to e.g. lack of training and/or the necessary hardware.

Capacity needs related to identifying, approving and accepting JI projects

The needs relating to implementation of JI identified by different countries vary, in part because of the large variations in process/institutions that are carrying out similar tasks, and because of the differing levels of experience gained during the AIJ pilot phase.

Project identification

There are no international guidelines/suggestions on how to identify JI (or AIJ) projects. The process used, and body responsible for project identification therefore varies from country to country. There is a body/bodies officially nominated in some countries [Lithuania] and suggestions for such a body in others [Bulgaria: to be created under the State Energy Efficiency Agency]. Some countries do not have an officially nominated project identification body [Croatia, Latvia (although the Environment ministry unofficially identifies potential projects), Romania (although projects are unofficially identified by the relevant ministries), Slovenia].

Focal point

Some countries have nominated a focal point for JI, who can be contacted by potential project hosts and by potential project investors [Czech Republic, Estonia, Latvia, Poland, Slovakia, Slovenia], while others have a temporary/acting focal point [Lithuania, Romania].

Approving and accepting projects

The procedure for approving and accepting JI projects also varies between countries.

Which projects are approved:

Some countries have publicly listed criteria or preferences for JI projects in certain project categories [Bulgaria (energy efficiency), Czech Republic, Poland, Romania, Slovakia] and some are planning to do so [Latvia, Slovenia].

Some countries have also indicated areas in which they do not wish to have JI projects. These include the transport sector [Bulgaria, Latvia].

How they are approved:

Some countries have set out a process (or body) who is in charge of approving and accepting JI projects [Bulgaria, Czech Republic (expert body makes recommendations to Environment Minister and controls/verifies accepted projects), Poland (Environment Ministry, based on proposals from the JI Steering committee), Romania (environment ministry)]. Other countries are in the process of doing so [Estonia, Latvia (projects endorsed by focal point if projects approved by specific departments within two agencies)]. Other countries have not set out a set process for how a project is approved [Slovenia], and any process used is agreed with the donor country [Lithuania]. However, even when a country has published project criteria, project approval is not necessarily automatic (e.g. Slovakia: where the process of approval depends on the project features).

Calculating and/or reviewing project baselines:

- Baselines calculated from the project budget [Slovakia] by project developers [Czech Republic]
- Limited administrative and/or financial capacity to develop and review baselines domestically [Bulgaria, Latvia, Poland, Romania, Slovenia]

Credit sharing:

The approach to credit sharing for JI projects is different for different countries, although most potential host countries indicate that they would expect to receive some of the ERUs generated by a JI project. Some countries have set up official policies related to credit sharing for JI projects in general. For example, Slovakia stipulates that a maximum of 80 per cent of credits will be transferred except in exceptional cases when this will be 90 per cent. Other countries do not have official policies, but either examine (or indicate that they will examine) credit-sharing issues on a project-by-project basis [Bulgaria, Latvia, Poland].

One country [Czech Republic] has indicated that it will not promise any emission credits to any other country until rules, guidelines, system of project verification and rules of KP commitment are approved by the COP.

Funding:

Domestic sources (if any) expected to be used for:

- project screening (identification), policy development and studies [Latvia, Slovakia]
- project evaluation, monitoring and reporting of projects, initial screening to make sure proposed project is consistent with AII/JI criteria [Poland]
- developing credit sharing policy [Latvia]

- contribution to JI project funding [Romania]

International sources are expected to be used for:

- funding of the projects themselves [Slovakia]
- awareness building for stakeholders [Bulgaria, Latvia, Romania]
- expert assistance and/or co-operation with experts and/or guidelines for calculating/validating baselines [Bulgaria, Latvia, Romania]
- monitoring and reporting of JI projects [Latvia]
- establishing and maintaining infrastructure (e.g. register of JI projects) [Latvia]
- exchange of experience with JI via a workshop [Latvia]

Raising domestic awareness of JI:

Some countries acknowledge the need to increase awareness about JI in their country [Romania]. Others focus on the technical and financial attractiveness of projects [Bulgaria]. Other countries focus on informational/awareness-raising policies [Latvia], and indicate that AIJ projects could have been reviewed by stakeholders, but that no interest was shown in doing this. Poland suggests disseminating information on AIJ and JI during relevant conferences (e.g. on renewable energy, environmental protection).

Insights:

- ➔ Capacity needs again fall into two categories: administrative (e.g. ability to identify and approve projects), and technical (e.g. relating to project baselines). The first has benefited from AIJ experience (although different EITs have this experience to different extents), but technical capacity needs is consistently highlighted as an area needed for improvement.
- ➔ The approval process is at an early stage of development in some countries. Some countries have identified priorities for JI projects, although approval/acceptance procedures appear to be the same for all project types). Two countries have identified transport as a no-go area for JI projects.
- ➔ Lack of a process for accepting JI (AIJ) projects is common. However, project approval/acceptance would be likely to be more rapid if the process was documented (and available to potential investors). Moreover, if the criteria against which potential projects were compared were known it may help increase the transparency and reduce the time/cost of the approval/acceptance procedure.
- ➔ The idea of “credit sharing” between hosts and donors appears to be becoming more widespread. However, it is likely that many host countries will wish to keep a flexible (and possibly confidential) approach on credit sharing because of competitiveness concerns.

Capacity needs related to International Emissions Trading

As for JI, there are significant differences in how different countries are approaching emissions trading. One country has already introduced domestic emissions trading systems (e.g. Slovakia for SO₂, and are considering extending this to CO₂). Other countries are considering this option [Bulgaria, Latvia, Lithuania, Romania, Slovenia] and the changes in legislation that it implies [Bulgaria, Lithuania, Romania, Russia]. However, other countries do not plan to implement a domestic emissions trading system [Czech Republic¹].

Who is expected to trade internationally also varies. Some countries [Czech Republic, Latvia, Slovakia] indicate that only the government is likely to participate in international emissions trading, whereas other countries [Bulgaria, Poland, Romania] indicate that they expect both government and entity trading, or that a decision on this matter has not yet been made [Slovenia]. No information on the sectors to which AAUs are expected to be devolved (or which sectors were “out of bounds” for emissions trading) was given other than for Poland, who indicated that IET is likely to include entities in the energy production and industrial sectors.

The date when trading is expected to begin also varies between countries, e.g. 2008 [Slovakia], “in accordance with COP/MOP” [Latvia], “not later than at the beginning of the first commitment period” [Poland] “end of the first commitment period” [Czech Republic].

Many countries expect to set up a registry to track AAUs/ERUs [Croatia, Russia] that may be an electronic registry [Latvia, Slovakia, Slovenia]. Poland is going to set up a database on ERUs. Some do not expect to set up a registry [Czech Republic], while others have not yet decided whether or not a registry is needed [Romania].

Some countries indicate that steps are underway to improve awareness of IET within their country [Latvia, Slovenia].

Funding:

Domestic sources of funding are expected to be used for local language awareness-raising exercises and in setting up the necessary legislation for emissions trading [Latvia] and implementing emissions trading [Poland].

Bilateral/multilateral assistance needed for methodological elaboration [Poland], to trigger process and implement AAU/ERU tracking capacities [Latvia], as well as to provide support for enforcement of any legislation enacted, and on translation/printing of relevant studies.

¹ The submission of the Czech Republic indicates that the country was successful in reducing emissions of SO₂ by more than 75 per cent 1990-1998 by using domestic policies and measures (but without the use of a domestic trading system).

Insights:

- Different EIT countries (like different Annex II countries) have differing strategies regarding both domestic and international emissions trading. Some countries expect both domestic and international trading, while others indicate that trading is likely to be international only, with possibly only the government authorised to trade.
- Detailed assessment of capacity building needed to implement ET difficult when substantial discussions have not begun at a national level (and when there is no previous experience in this – unlike for JI).
- Given lack of legislative changes in many countries, trading unlikely to start soon.

Other institutional and financing issues

Several countries who responded to the questionnaire had undertaken, or were undertaking, an assessment of capacity building needs in relation to implementing the Kyoto Protocol [e.g. Bulgaria, Czech Republic, Poland]. Some of these were general assessments of needs under the Kyoto Protocol [Czech Republic, Slovakia], that assess the institutional and financial needs implicit in their Kyoto commitments and in participation in the Kyoto mechanisms. Others were focused on particular aspects of the Kyoto Protocol such as joint implementation [Bulgaria, Lithuania]. Some EIT countries have not yet drawn up a capacity building plan [Latvia, Slovenia (which is counting on bilateral/multilateral aid to do this)]. EU accession is also expected to play a role in helping to increase capacities as they relate to Kyoto Protocol commitments [Slovakia].

Some countries indicated that increased capacity was needed for the assessment of public attitude towards GHG abatement measures in transport [Slovenia] or for increased awareness of climate change issues in general [Czech Republic, Russia].

Need for a permanent team to work on JI, IET, Art 5 and 7 [Slovenia]. Need for a strategy (after wide consultative process) on how to implement the provisions contained in the Convention and the Protocol [Romania].

Some countries have prioritised their capacity needs in relation to Art. 5, 6, 7 and 17 of the Kyoto Protocol. These priorities vary, e.g. Slovenia's top priority is Art 5, followed by IET. Bulgaria's is JI, Art 5-7, IET. Estonia's is strengthening reporting capacity, developing JI capacity. Latvia's is reporting, then a JI/IET office. Russia's is to create a system to monitor, report, check and register GHG reductions, to develop the necessary legal basis, and to develop information base and training.

Other countries have not drawn up a capacity building plan as such, although they are elaborating a national strategy for JI [Lithuania].

Limited domestic funds are available for JI/IET capacity needs [Czech Republic, Estonia, Lithuania, Slovenia]. Lithuania indicated that its inventory had so far been calculated on a "voluntary basis". Some countries indicated that funding should be directed to strengthening existing bodies [Estonia], while others indicated that new bodies (e.g. Latvia: JI/IET office, Romania: entity to prepare emissions inventories, national compliance system) would be needed. The Czech Republic indicated that its KP commitment will

be met primarily by implementing domestic policies and measures (although it is also prepared to host some JI projects).

No mechanism to link potential JI donors and hosts has been set up yet [Slovenia], although some countries indicated that this could be a useful exercise [Latvia]. Some countries [Latvia, Lithuania] indicated that they had had useful bilateral capacity building exercises with Annex II countries (e.g. the Netherlands, Sweden) or with international organisations (e.g. the World Bank). In addition, some Baltic countries indicated that they have benefited from past energy/environment co-operation between countries adjoining in the Baltic sea [Lithuania].

Insights:

- Specific assessments of detailed capacity needs are already being made by some EITs, and while there are some “gaps” or “hurdles” that are common, there are also significant differences between countries. However, carrying out a detailed assessment of capacity needs requires capacity in itself, which not all EIT countries have.
- The capacity needs that have been identified have not always been prioritised. Prioritisation of needs may, however, facilitate finding funds (by e.g. raising the awareness of potential donors of current gaps). For the countries that have prioritised needs, these vary.
- Many countries indicate that it would be very useful to have exchanges at the technical level (e.g. on inventories or emission baselines) between national and other experts.

Background paper: National Systems for the Kyoto Mechanisms²

1. Introduction

1.1 Objective and structure

The objective of this paper is to discuss the national systems that Parties will need to establish and maintain to support their participation in the Kyoto Mechanisms. The paper places special focus on Annex I Parties that are in the process of transition to a market economy, but the issues are relevant to all Annex I Parties.

The term “national system” appears in Article 5, referring to systems for estimating greenhouse gas emissions and sinks and has also been used to refer to domestic institutions and processes that may be needed to support the Kyoto Mechanisms, particularly for entity participation. Through-out this paper the term “national systems” refers to systems that relate to the Kyoto Mechanisms. The Kyoto Mechanisms issues link with inventory issues, but this paper does not comprehensively address national systems for emission inventories.

Section 1 sets out the objectives of the paper (Section 1.1) and discusses the functions that national systems will be required to carry out (Section 1.2). Section 2 discusses the elements of national systems that will be needed to support the Kyoto Mechanisms. Section 3 sets out the conclusions of this paper.

1.2 Functions of national systems

National systems for the Kyoto Mechanisms will serve (at least) three objectives:

1. they will be used by governments to support domestic emissions trading and joint implementation programmes;
2. they will be used to support international trading by the government and companies; and
3. they will provide information to the international community that is required for compliance assessment under the Kyoto Protocol.

The functions that are required of national systems to achieve these multiple objectives are setting entity emission constraints, monitoring and enforcing entity emissions, tracking government and entity transactions, and providing information for compliance assessment (domestic and international). These functions are explored in Section 2.

National systems for international and domestic trading will be closely inter-related. In many cases the functions required for domestic and international trading will be exactly the same. Similar types of information will be required for both domestic and international objectives, although the degree of detail of the information requirements will differ. Any country that cannot establish national systems for a domestic emissions trading or joint implementation programme will face a major hurdle in allowing its entities to participate in international trading under the Kyoto Mechanisms. Any country that is not interested in allowing its entities to trade will have little interest in investing in national systems that would support domestic emissions trading.

² This paper was written by Fiona Mullins, consultant to the OECD.

The need for international requirements for national systems is unclear. The umbrella group disagreed with the proposal in the chair's note that would require a "national system" for "accurate monitoring, verification, accountability and allocation of AAUs to legal entities". This suggests that international guidelines should not be required for entity or project level data or for domestic systems for estimating entity emissions, tracking entity transactions and assessing entity compliance. One EIT country submission (Poland) states that Parties must establish a "national system" for managing and monitoring emissions trading if their legal entities are to participate in international emissions trading. This may mean that some Parties may need guidance (not necessarily international requirements) on what would constitute an adequate system for managing and monitoring emissions trading by legal entities. Some submissions (non Annex I) propose that Article 6 projects should be subject to equally stringent monitoring and verification requirements as Clean Development Mechanism (CDM) projects. This could imply quite stringent national systems requirements for Article 6.

2. *Functions of national systems for the Kyoto Mechanisms*

2.1 *Introduction*

As outlined in Section 1, national systems will be needed to support domestic emissions trading and joint implementation programmes, to support international trading by the government and companies, and to provide information for compliance assessment under the Kyoto Protocol. The functions that are required of national systems to achieve these multiple uses are:

- setting entity emission constraints;
- monitoring and enforcing entity emissions;
- tracking government and entity transactions; and
- providing information for compliance assessment (domestic and international).

Sections 2.2 to 2.5 examine these functions of national systems and consider their implications for the institutional capacity that could be required to establish and run them.

2.2 *Setting entity emission constraints and project baselines*

2.2.1 *Introduction*

Any emission reductions that are traded in a domestic or international trading system are derived from an emission constraint of some sort. The constraint can be a project baseline or a regulated limit on company emissions. The environmental obligation is a responsibility to limit emissions to a specific level within a specific time-period.

Parties' emission constraints have been negotiated in the Kyoto Protocol. Consequently, the main issues for emission constraints that will impact on national systems are those associated with setting entity emission constraints and project baselines. Entity and project emission constraints are essential if countries wish to allow entity and project participation in emission trading and joint implementation (whether domestic, international or both).

The institutional implications of emission constraints for emissions trading and joint implementation in Sections 2.2.2 and 2.2.3 below.

2.2.2 Emissions trading

In emission trading systems that involve companies, a constraint is placed on emissions from clearly defined activities of a legal entity. Entities that reduce their emissions below this level can sell emissions. Those that find it too expensive to reduce their emissions can buy emission reductions from other firms in order to comply with their emission constraint.

The “national system” for setting entity emissions constraints is often simply a negotiation process between the government (eg Industry, Environment and Finance Ministries) and industry associations, or individual companies if these are very large. Good analytical capacity to assess what emission constraints are fair and reasonable is another important institutional factor, but it is impossible to calculate optimal emission constraints for industry and political factors often outweigh analysis.³

There are no specific institutions required for setting entity emission constraints beyond those that Annex I country governments already have in place. These include government bodies that are responsible for deciding or negotiating environmental obligations on big industry emitters (and any other emission sources that are included in the domestic emissions trading system), staff resources to spend time designing the emissions trading system, deciding which entities should receive an emission constraint, and legislation to make the emission constraints legally binding. The resources that are required for the controversial process of deciding the design of an emissions trading system and setting each entities initial emission constraint are high in the early stages.

Because of the cost implications of the emission constraints on industry, the time required for negotiating them is typically high when an emissions trading system is first established. However, once the emission constraints have been agreed they should not need to be re-negotiated very often so the ongoing resource requirement is lower (emission constraints are typically decided up front and revised infrequently).

The institutional capacity that EIT countries will need to negotiate emission constraints with industry is much greater now than it would have been before the transition process began. This is because the number of regulated entities has increased dramatically as large state-owned companies have been privatised and broken up into many smaller entities.⁴

2.2.3 Joint implementation

In joint implementation systems, an assessment of baseline emissions for an activity or “project” serves as the basis for claiming emission reductions units that can be sold. Only projects that are likely to reduce emissions below business-as-usual levels will develop baselines. However, project developers will want a baseline that gives them as many emission reduction units as possible since these will be valuable assets that can be sold.

On balance the initial resource burden required in developing methodologies for setting project baselines is likely to be lower than for setting entity emission constraints for the host country government. However potentially there could be many more applications for project baselines than there are entity traders and the process of approving and accepting projects and baselines will continue over time whereas allocating entity emission constraints are typically one-off events (or revised infrequently). Although the process can be

³ In a sense getting the initial emission constraints correct is not important. Entities will trade to the optimal point in an emission trading system, but some will incur lower costs or make higher profits than others depending on how tough their initial constraint is.

⁴ Roginko, *ibid*.

expected to become smoother over time as experience with setting project baselines is gained, the numbers of applications for project baselines may also increase.

As with emissions trading, institutional capacity will also be required to decide the many design issues that will arise before baseline setting is possible. For example, resources will be needed to decide what types of project should be eligible to participate in joint implementation and project baseline methodologies.

2.2.4 Conclusions

There is no need to specify international requirements for specific institutions that a country will need to support the Kyoto Mechanisms (international emission trading and joint implementation). However strong government and legal institutions are absolutely essential for the successful and fair operation of market mechanisms that are based on property rights for a “commodity” that requires expertise to monitor or estimate. The stakes are high. Industry wishes to minimise its regulatory costs and inevitably has much better information on their greenhouse gas emissions, future emission projections, and mitigation costs than government departments. Governments want to ensure that the entities take on a fair share of the emission reduction burden, particularly as the main participants in trading systems are large stationary sources of emissions that are relatively easy to address compared to other sectors such as transport.

Any leniency in setting entity emissions constraints or project baselines will create domestic distortions because other sectors of the economy will have to do more in order for the country to meet its national target. Overly tough emission constraints or project baselines will increase the cost of compliance for the entities or projects that receive them. It is therefore important from a domestic perspective to get the emission constraints or project baselines right (or at least not consistently over-estimated).

In their 31 January submission on the Kyoto Mechanisms text, the umbrella group rejected any requirements regarding compatibility in allocating assigned amount to entities. They suggest that the main requirement is for a country to have the capacity to calculate, negotiate and set baselines and emission constraints and to authorise entities to trade around these constraints. However, in recent responses to a UNFCCC questionnaire on capacity needs, several EIT countries called for guidelines or exchange of information on setting JI project baselines (Bulgaria, Czech Republic, Latvia).⁵ This highlights the importance of international collaboration as a way to build capacity and common understanding both on methodological or analytical techniques and on the institutions and processes that work well. Collaboration at expert level may be sufficient without inter-governmental agreements on “national systems” that may result in unnecessary and counter-productive requirements.

2.3 Monitoring entity emissions and enforcing emission obligations

2.3.1 Monitoring

Emissions monitoring involves collecting emissions data (by either measuring emissions or estimating them from fossil fuel consumption), reporting the data (often self-reporting by entities), and independent review to check that the data are accurate (through spot checks at plant level or broad checks against energy statistics). National systems could include institutions, processes and methods for estimating or collecting activity data, for calculating or choosing emission factors, institutions with trained personnel and resources for collecting and compiling the data, processes to ensure the quality, openness and transparency of data, and reporting formats for emissions data and for documentation of methodologies. Many of these functions could build on the existing environmental monitoring functions and processes of governments

⁵ FCCC/SB/2000/INF.7.2 “Capacity Building: Submissions from Parties”, 5 May 2000.

(eg for LRTAP). Guidance on national systems could include good practice methods for monitoring and enforcing private entity emissions.

Emission rights are a valuable commodity under emissions trading and joint implementation systems (both domestic and international). Every participant will want to maximise the amount of emission rights that they can sell or minimise the amount they have to buy. Therefore to ensure the environmental effectiveness of trading systems, systems are needed to ensure that for every increase in emissions above an emission constraint in one place there is a corresponding decrease in emissions elsewhere. Monitoring systems must cover the emissions of every participant in a trading system, that is:

- all national greenhouse gas emissions (as governments must comply with Kyoto targets and can participate in the Kyoto Mechanisms);
- the emissions of all entities that have emission constraints and are authorised to buy or sell emission reductions; and
- emission reductions below a baseline from authorised projects that can be sold.

For national emissions, greenhouse gas inventory methodologies and national systems to support data collection and sound estimation of emissions are required for compliance assessment. National systems for national inventories as required under Article 5.1 of the Protocol are being addressed in expert meetings and by the UNFCCC.

Within countries, emissions monitoring is important both for calculating the initial emission constraints on entities or project baselines, and for assessing compliance with these constraints and/or how far actual project emissions are below the baseline. Authorisation to trade emission reductions (or, equivalently, the right to emit) tends to be placed on entities can be monitored easily. For large stationary sources of emissions, the national systems that are needed for monitoring and reporting emissions from fossil fuels are no more complex than systems that exist for monitoring compliance with obligations for other pollutants such as SO₂ and NO_x. In fact the direct link between fossil fuel combustion and CO₂ enables monitoring and verification to be associated with the amounts of fossil fuel used rather than with the emissions themselves. For other gases, however monitoring is much more difficult and would require much greater institutional capacity and more expensive monitoring processes. For example CH₄ from livestock, surface coal mining and many older landfills, N₂O from spread of animal waste, and HFCs, PFCs, and SF₆ used in the semi-conductor industry are particularly difficult gases to monitor.

The national systems that are required for monitoring emissions might include regulations on the data that must be collected and reported by the entity, regulations on the measurement equipment that should be used (if measurements are feasible), reporting requirements, and verification processes. Self-reporting is often used for large entities but the monitoring equipment that they use will have to be validated and spot checks might be required to ensure that the equipment is functioning properly.

Estimating emissions from projects will require expert judgement in many cases. This will be a major new area of work that government departments may not be well placed to undertake. For project trading, it is likely that specialist agencies are accredited or authorise to validate projects, verify baselines and certify emission reductions. Government departments will be able to define the extent to which they authorise projects, baselines and emission reductions, and to require certain methodologies to be used (although internationally accepted methods are likely to be available).

In their 1 February submission on the Kyoto Mechanisms text, the umbrella group opposed the notion that guidelines for national systems should include any requirements for entity emissions monitoring (or

transaction tracking or compliance). On Article 6 monitoring and verification issues, the umbrella group proposed that a Party participating in an Article 6 project may develop its own internal mechanisms for verifying a reduction in emissions by sources or an enhancement of removals by sinks. The European Union (EU) suggested that some requirements for project monitoring would be necessary. In their individual submission, the United States (US) proposes that Parties should report domestic compliance and enforcement programmes (eg legal authority, implementation, effectiveness of programmes), arguing that this is critical to ensuring a Party's compliance with the Protocol. Given the importance of monitoring to compliance processes such a reporting obligation would probably include reporting on monitoring processes. The chair's text (28 Sept draft) implied that international verification would relate to entity emissions only if legal entities participate in emissions trading (and if not then verification would relate to the checking of national inventories).

The interest of the international community in emissions of legal entities will depend on the quality of the national inventory and systems for tracking changes to assigned amount. If the quality of data in a country is good, then a national compliance assessment will be possible with some certainty which should mean that questions of entity compliance are less important to the international community. If the national data is poor, however, and the Party and its entities participate in the Kyoto Mechanisms, then the international community may be more concerned to ensure that entity level data is of good quality. It may also be considered important for review teams to have access to the entity and project data that national monitoring and reporting systems will provide. If a country with high data uncertainty also has poor entity emissions monitoring and enforcement then it is quite possible that their entities could sell more AAUs or ERUs than they should. This could be a problem, particularly if the process of agreeing adjustments to a country's inventory takes a long time, or if the rules for adjustments are arbitrary or are not defined clearly at an early stage.

For the reasons outlined above, best practice guidance or agreed guidelines for national systems for monitoring entity and project emissions could be important. However, rather than focus requirements on countries with less good quality inventory data (which would be difficult and controversial to determine), it would be simpler and fairer to encourage good monitoring standards in all Parties. Verification of these monitoring standards would be part of the review process. Alternatively all Parties could be requested to report on their entity and project monitoring (as will be required for CDM projects) and this information could be subject to regular review. Care would be needed to ensure that the reporting burden is not too great, perhaps by requiring a general description of monitoring and verification requirements rather than demonstrating how each project has been monitored and verified.

Guidance on good practice for monitoring in all countries would be particularly useful if a situation arises where poor inventory quality occurs together with questions over a suitable adjustment, and coinciding with poor entity monitoring and enforcement. It will be in the self-interest of most Annex I Parties to establish effective systems for monitoring and verifying entity compliance with emission constraints and emission reductions from projects, just as they monitor and ensure compliance with any other policies that they implement. This is important from a domestic perspective to avoid distortions between sectors. If a project gains too many ERUs and does not result in equivalent emission reductions or if an entity exceeds its emissions constraint, then other sectors will have to reduce emissions more than they would otherwise in order for the Party to meet its Article 3.1 commitment. Thus a requirement to implement effective monitoring and verification of entity and project emissions is no more than Parties would ordinarily do. It would have little impact on the reliability of information from projects.

2.3.2 *Enforcement*

Enforcement has proved to be a major barrier in implementation of policies in EIT countries. The European Commission has identified that some countries that are currently working towards EC accession

do not have sufficient stability of institutions to enable the public authorities to function properly. For example there is a lack of suitably qualified judges and guarantees of their independence and there is too much government interference in the judicial system in some countries.⁶ The Commission is concerned that the rule of law and the proper functioning of state institutions and the respect for their constitutional roles are not sufficiently deeply rooted.

The European Commission also stresses that EU applicants' administrations need to be modernised so that they can implement and enforce laws. This will require new administrative structures as well as properly trained and properly paid administrators. The applicants' judicial systems must be capable of ensuring that the law is enforced. This requires the retraining and in some cases, the replacement of judges, to ensure that courts are able to operate swiftly and effectively in cases involving Community law. In many cases the applicants still lack the structures needed to apply new regulations, for example on environmental and technical inspections, banking supervision, public accounts and statistics. There are also widespread problems of corruption which are now being tackled by most governments of the applicant countries.

A study of Baltic Sea countries found that the environmental bodies that are responsible for implementing pollution controls lack financing, do not have clear lines of authority for their tasks or well defined responsibilities, and face serious co-ordination problems.⁷ These problems are also identified in a study on Russia that documents the difficulties with implementing international environmental requirements on long range transboundary pollutants.⁸ The Ministry for the Environment lacks funds and has not been able to influence the powerful industrial ministries even though it has the authority to do so. Devolution of control to regions and local authorities is occurring although funding for implementation is still controlled at the federal level.⁹ With the changing institutional structures, responsibilities at the federal, regional and local levels are not clear:

*"With the general decentralisation of power, regions and separate enterprises are increasing their roles in the decision making process.... Formerly powerful, centralised industrial ministries are losing their authority; they can no longer totally control the activities of producers that are becoming increasingly independent through privatization."*¹⁰

Inability to impose non-compliance penalties such as fines (due to an over-burdened system) together with the failure to index fines to inflation has greatly reduced the impact of environmental policies such as taxes in EIT countries.¹¹ The larger number of entities (now that large state-owned companies have been privatised and broken up) also makes it more resource intensive for authorities in EIT countries to monitor and enforce regulations.¹²

6 The points in this paragraph and the two that follow are from the commission website on enlargement <http://www.europa.eu.int/>

7 Alexei Roginko "Implementation of Baltic Sea Pollution Controls" in "The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice (Victor et al ed, IIASA 1998, MIT Press).

8 Kotov and Nikitina "LRTAP: Implementation and Effectiveness in Russia" in "The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice (Victor et al ed, IIASA 1998, MIT Press).

9 EAP Taskforce Background Document No (99) 11/9. Summary of Discussion at the Meeting on Environmental Compliance and Enforcement in the NIS 23-24 September 1999, Moldova.

10 Kotov and Nikitina, *ibid.*

11 Roginko, *ibid.*

12 Roginko, *ibid.*

2.4 Tracking government and entity transactions

As well as monitoring national, entity and project emissions, Annex I Parties that wish to establish domestic trading systems or allow their entities to participate in international emissions trading under the Kyoto Mechanisms will need systems for tracking government and entity transactions.

National registries is the term used for institutions that will track changes to industry emission limits and to national assigned amounts as a result of transactions. Both the EU and the umbrella group submissions stated that the main purpose of registries is to record and track the initial assigned amount and any adjustments from transfers and acquisitions.

National registries: excerpts from Parties' submissions

The main purpose of registries is to record and track the initial assigned amount and any adjustments from transfers and acquisitions (EU and umbrella).

A registry must be in the form of: a compatible computer database (umbrella); a standard electronic reporting format (Canada); a computerised accounting system (EU); computer databases (Costa Rica) to ensure accurate accounting of assigned amount and to track changes to the Party's assigned amount.

The format of the databases should be internationally compatibility.

National registries must include accounts for legal entities (umbrella and EU).

Each unit must be held in only one account in one national registry (umbrella and EU).

"Instantaneous" (umbrella) or "near real time" eg maximum 1 working day (EU) transactions.

Registries should include a dedicated retirement account (umbrella)

Registries should be publicly accessible - including minimum data elements eg account holdings, name and address of account reps (EU, umbrella, Costa Rica, India).

Transactions should be dated and records of each transaction should be kept (umbrella, EU, Costa Rica).

An agency (government or private) must be identified that is responsible for the registry in each Party (umbrella, EU, Costa Rica).

There must be unique serial numbers for each unit of assigned amount (umbrella, EU).

Guidelines for national registries for the Kyoto Mechanisms should be agreed to at COP 6.

A national registry could track and record devolution of assigned amount to industry, credits awarded to JI projects, permits/credits traded, retired, banked, and automatic penalty deductions (if any). National registries will also enable governments and other participants in emissions trading systems to verify changes in ownership and be sure that they are purchasing from a legitimate permit holder.¹³ In order to ensure that the market functions smoothly, registries will need to:

- record holdings, transfers and acquisitions in a compatible way to facilitate transactions between registries;
- record assigned amount held by legal entities;
- provide information that is needed for checking the validity of AAU, ERU and CER holdings (to ensure that AAUs, ERUs and CERs are only in one account; and
- provide a publicly accessible interface that allows anyone to query and view non-confidential information;
- make transfers between accounts as quickly as possible, ideally instantaneously (or within one working day) and keep records of all transactions.

National registries under domestic law are a logical point for recording information that is relevant to changes to national assigned amounts as a result of trading by entities and Parties. Governments will need to track entity compliance and keep track of ownership of parts of assigned amount. If governments in Member States with no domestic trading programme or registry were to agree to authorise their industries to trade, it may be possible for the industry traders to report their transaction directly to another country's registry.

International transactions by firms will alter the amount of emissions that they can legally emit under their domestic trading programmes. The emissions of these entities, together with permits that they surrender, will also affect the assigned amount that the Party has available to demonstrate national compliance.

For each permit, national governments would maintain a record of the holder, identification numbers, and buyers or sellers in their national recording systems. Registries must differentiate between different types of holdings of permits and account for them appropriately. Some holdings of permits should not automatically lead to adjustments of Parties' assigned amounts. For example, permits that are held by an NGO or company that wishes to retire them from the market permanently should not be added to the assigned amount of the Party in which the NGO or company is located.

2.5 Providing information for compliance assessment

Transfers and acquisitions by governments and entities under the Kyoto Mechanisms will have impact on Parties' compliance with the Kyoto Protocol Article 3.1 obligations. The type of information that is needed to account for the changes to assigned amount and to assess compliance will come from national registries.

Proposals by Parties suggest that the information that must be reported annually for compliance assessment will include: the total assigned amount in the national registry at the start of the year; any transfers and acquisitions; any units retired during the year, and total assigned amount in national registry at year-end.

¹³ The capacity to verify the validity of all holdings of permits (those held by governments, obligated entities and non-obligated entities) is critical for an effective emissions trading market.

Parties will need the following information in order to calculate their assigned amount and report to the secretariat:

- assigned amount at the start of the period;
- serial numbers for AAU and ERU allocations to capped entities and those engaging in mitigation projects;
- serial numbers of any AAUs (either the ones allocated to them initially or AAUs, ERUs or CERs that they have purchased) that are returned to the government by entities as part of their compliance process (eg annually); and
- serial numbers for any transfers and acquisitions by the government on behalf of the Party.

National registries will have to be compatible, but not necessarily the same. The registries need to be effective, simple (non bureaucratic) and transparent, allowing third party inspection to be sure that trading is water-tight with no room for fraud or mistakes. There was clear support in the 1 February UNFCCC submissions for registries that are publicly accessible. There may not need to be an additional reporting requirement for information from registries other than requiring national registries to hold and verify the a common set of information in a comparable format and make it accessible to all. National registry guidelines could take the form of statements of what functions national registries must be able to perform in order to ensure that the system works smoothly and compliance requirements are met. In addition, certain general principles would be useful in national registry guidelines, such as transparency, public accessibility, and compatibility of format.

The EU submission suggests that an Article 8 expert review team would review the integrity of national registry systems.¹⁴ It may be useful to give review process a mandate to review national systems more broadly, whether this is held in national registries or some other part of the national system. A comparison of emission factors used in entity or project emissions monitoring could be a useful check on whether the emission factors used at the national level are sound. Some entities and projects may be so large that inconsistencies between the emission factors for the entity level emissions and the national inventory would warrant attention, particularly if the entity level factors are based on actual measurements and the national inventory uses a default factor.

3. Conclusions

National systems to support domestic emissions trading or joint implementation programmes or entity and project participation in the Kyoto Mechanisms will require significant institutional capacity. The institutions that are needed will be similar to those required to implement regulatory or fiscal policies, but national systems to support the Kyoto Mechanisms will require additional institutions and processes beyond those that exist to support current measures.

Countries that find it difficult to calculate and negotiate reasonable emission constraints or project baselines for major emitters, and/or to monitor and enforce compliance with these constraints will face several problems. One serious problem is that a country that lacks institutional capacity to monitor and enforce emission constraints could face a much tougher task to meet their Kyoto commitment if major emitters have constraints that are too lenient or are able to sell more than they should due to poor monitoring or lack of enforcement. Another possible problem is that if an international requirement for all

¹⁴ Stéphane Willems, OECD "International requirements for national registries" Draft issues paper February 2000.

countries to have national systems in place by 2007 is an eligibility requirement for participation in the Mechanisms, this could prevent such countries from participating in the Kyoto Mechanisms.

Participation in the Kyoto Mechanisms could be a strong incentive for institutional reform in EIT countries, and a source of OECD country funding to support such reform. It is very important to ensure that eligibility requirements do not place unnecessary constraints on EIT participation in the Kyoto Mechanisms. For instance, Kyoto Mechanisms national systems requirements could be lower for partial participation (eg through JI projects or government trades only).

It will be important for any national systems requirements to allow for differences in national institutions, laws, capacity and traditions. Each government should be able to implement its own systems for monitoring entity emissions, tracking entity trades and ensuring that entities surrender the correct number of AAU to demonstrate compliance and for reporting information to the UNFCCC.

Countries are likely to implement different domestic emissions trading and/or joint implementation (ie project based trading) systems, depending on their institutional capacity and policies. It is likely that Parties will want to retain scope to set up the national systems that best suit their institutional capacity and other national circumstances. For example, it is quite possible that the functions carried out by a separate institution that serves as a national registry in one country might be carried out by the body responsible for the national inventory or another institution in another. The important issue is that systems must provide the required functions and information in a transparent and comparable format. Elements of comparability will be important, but complete harmonisation of national systems for any of the full range of functions discussed in this paper (to design domestic trading rules, set emission constraints, monitor emissions, enforce emission constraints, or track trades) is neither desirable nor feasible.

Annex 1: Workshop Agenda

Annex I Expert Group on the UN FCCC Workshop¹⁵: Transition Country Perspectives on the Kyoto Protocol

17 May 2000

Workshop Agenda

9.15 - 9.30 Welcome and objectives

- Welcome and introduction, *Rick Bradley, Chairman of the Annex I Expert Group*
- Objectives and background, *Daniela Stoytcheva, Workshop Chair (Ministry of Environment and Water, Bulgaria)*

9.30 - 10.45 Perspectives and issues

- Overview of capacity needs in transition countries, *Ingrida Apene (Ministry of Environmental Protection and Regional Development, Latvia)*
- Capacity building initiatives/sources of funding, *Susan Legro (UNDP), Jürgen Salay (Swedish National Energy Administration), Bill Irving (USEPA)*

11.00 - 12.45 National systems for inventory preparation

- Putting a national inventory system in place, *Anke Herold (Öko Institute)*

Discussants: *Marina Leneva (Center for Environmental Economic Research and Information, Russia)* and *Vladimir Berdin (State Committee for Environmental Protection, Russia)*

- UNITAR proposal on national inventory systems, *Gao Pronove (UNFCCC)*

12.45 - 13.45 Lunch

13.45 - 15.30 Implementation of the Kyoto mechanisms

- Lessons learned from AIJ in selected EITs

The Joint Implementation Procedure in Poland, *Zbigniew Karaczun (Institute for sustainable development, Poland)*

Kyoto Mechanisms in Romania, *Serena Adler (Ministry of Waters, Forests and Environmental Protection, Romania)*

- Credit transaction issues, *Ivan Mojik (Ministry of the Environment, Slovakia)*

Discussants: *Vladimir Berdin (State Committee for Environmental Protection, Russia)* and *Oleg Ploujnikov (Ministry of Fuel and Energy, Russia), Jake Werksman (FIELD)*

Discussion

¹⁵ The AIXG Secretariat would like to thank the European Commission, the governments of Canada (DFAIT) and Slovakia for their support of this workshop.

15.45 – 17.00 Implementation of Kyoto mechanisms (cont.)

- Compliance, monitoring and reporting at national levels, *Fiona Mullins (ERM)*

Discussant: *Valya Peeva, (Eneffect, Bulgaria)*

General discussion (cont.)

17.00 – 17.30 Follow-up and next steps with EITs

17.30 – 18.00 Conclusions by Chair

Annex 2: List of participants to the Workshop

Annex I Expert Group on the UN FCCC Workshop: Transition Country Perspectives on the Kyoto Protocol

17 May 2000

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