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Item 12 of the provisional agenda

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**PRINCIPLES, MODALITIES, RULES AND GUIDELINES FOR THE  
MECHANISMS UNDER ARTICLES 6, 12 AND 17 OF THE  
KYOTO PROTOCOL**

**Submissions from Parties**

**Note by the secretariat**

1. By its decision 7/CP.4, the Conference of the Parties (COP) invited Parties to submit further proposals on principles, modalities, rules and guidelines for the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol by the end of February 1999 as an input to technical workshops (FCCC/CP/1998/16/Add. 1) for compilation by the secretariat as a miscellaneous document.
2. Nine such submissions\* have been received. 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.
3. By the same decision 7/CP.4, the COP also invited Parties to submit additional proposals by 31 March 1999 to be compiled and made available to Parties at the tenth sessions of the subsidiary bodies as addenda to the present document.

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\* In order to make these submissions available on electronic systems, including the World Wide Web, these contributions have been electronically scanned and/or retyped. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

**FCCC/SB/1999/MISC.3**

**GE.99- 61223**

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**FURTHER PROPOSALS ON PRINCIPLES, MODALITIES, RULES AND  
GUIDELINES - INPUT TO TECHNICAL WORKSHOPS**

Submission by Australia

Decision 7/CP.4

Australia believes that the workshops on Kyoto mechanisms to be held in April 1999 in Bonn should be used for technical and educative purposes. The workshops provide an excellent opportunity for presentations on various technical aspects of the Kyoto mechanisms, and on the benefits that the mechanisms offer to all Parties involved in the UNFCCC process. Parties whose knowledge of particular technical aspects of the mechanisms - or of the overall purpose of the mechanisms - is still developing will have an opportunity at the workshops to seek clarification of how the mechanisms are likely to operate.

Australia places great emphasis on the Kyoto mechanisms and considers it has much to contribute to the discussion. Australia would be pleased to make a presentation at the workshops to show how the Kyoto mechanisms can help achieve the environmental aims of the UNFCCC by reducing the overall costs of meeting the quantified emission limitation and reduction objectives in Annex B of the Kyoto Protocol.

Australia does not consider that the workshops are an appropriate forum for developing negotiating text. The workshops are described in 7/CP.4 as "technical" and participation by Parties in the workshops is limited. It is important to consider how the outcomes from the workshops should be progressed. One option could be to summarize the outcomes in a resource document that could inform, but by no means bind, further negotiations on the Kyoto mechanisms.

Australia considers that the following broad themes would be appropriate for the agenda of the workshops:

General Issues

- . objectives of mechanisms
- . environmental and economic benefits of the mechanisms
- . linkages between mechanisms
- . complementarity

Clean Development Mechanism

- . project eligibility
- . share of proceeds

- . institutional issues (including the role of the Executive Board and operational entities)
- . participation of eligible Parties and entities
- . additionality: verification procedures and determination of baselines
- . reporting, monitoring and tracking issues
- . compliance issues

#### Joint Implementation

- . project eligibility
- . participation of eligible Parties and entities
- . certification procedures
- . additionality: verification procedures and determination of baselines
- . reporting, monitoring and tracking
- . compliance issues under Article 6.4

#### International Emissions Trading

- . definition of unit of trade
- . liability
- . competition issues
- . eligibility for participation in trading
- . institutional issues
- . reporting, monitoring and tracking

## Inputs from China on CDM

25 February 1999

These are initial inputs from China on CDM in light of Decision 7/CP.4 on Work Programme on mechanisms of the Kyoto Protocol, as adopted at COP-4. The numbering of each of the following points refers to the numbering of the elements in the Work Programme. More comments may follow.

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### **1. Basic Principles**

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**(1) Purpose of CDM projects activities:**

In accordance with Article 12.2 of the Kyoto Protocol, each CDM project shall meet the 2-fold purpose, namely, (a) to assist the developing country Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention, and (b) to assist the developed country Parties in achieving compliance with their quantified emissions limitation and reduction commitments under Article 3 of the Kyoto Protocol.

**(2) The "part of" commitments under Article 3, namely, the principle of complementarity :**

It must be ensured that CDM project activities shall be supplemental to domestic actions by developed country Parties to meet part of their QELRCs (quantified emissions limitation and reduction commitments).

**(3) Compatibility with sustainable development priorities/strategies:**

Whether a CDM project could promote sustainable development of a developing country Party shall be decided by the developing country Party itself, not by other Parties or international institutions.

**(4) Special needs of least developed countries:**

It should be ensured that certain numbers of CDM projects should be implemented in the least developed country Parties to meet their special needs. And this issue shall be resolved in conjunction with the implementation of Article 4.8 and 4.9 of the Convention.

**(5) Criteria for the CDM project:**

- a) CDM project shall be implemented between Annex I and non-Annex I country Parties on a voluntary basis. The governments of the participating Parties shall bear the overall responsibility for the CDM project.
- b) CDM activities shall be project based, and shall be carried out on a project-by-project basis.
- c) CDM project shall be implemented in accordance with the requirements of Article 12.2, 12.3 and 12.5 of the Protocol.
- d) CDM project should promote the transfer of advanced technologies needed by the

developing country Parties.

- e) CDM project activities should be carried out in accordance with methodological guidelines and criteria to be adopted by COP/moP.
- f) Funding for the CDM project shall be additional to ODA, GEF and other financial commitments of the developed country Parties under UNFCCC, under the Kyoto Protocol and commitments under other relevant international conventions and their protocols. Moreover, funding for the CDM project shall be provided by the project participating developed country Party to the project participating developing country Party on a grant basis, with the CERs acquired from the CDM project as returns for the participating developed country Party for meeting part of its QELRCs, in accordance with the relevant provisions of Article 12 and Article 3 of the Kyoto Protocol.
- g) Technology transfer in CDM project shall be additional to the Annex II Parties' commitments on technology transfer to developing country Parties under UNFCCC.

**(6) Adaptation:**

The issue of "Adaptation Costs" is an important issue and needs further study. This issue has to be resolved in conjunction with the implementation of Article 4.8 and 4.9 of the Convention. A special fund should be established to assist covering the adaptation costs taking into account the implementation of Article 4.8 and 4.9 of the Convention.

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**II. Methodological and Technical Issues:**

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(11) "Part of " Annex I commitments. Vide No. (2) above.

**(12) Additionality criteria in project funding:**

Funding for the CDM project shall be additional to ODA, GEF and other financial commitments of the developed country Parties under UNFCCC, under the Kyoto Protocol and commitments under other relevant international conventions and their protocols. Moreover, funding for the CDM project shall be provided by the project participating developed country Party to the project participating developing country Party on a grant basis, with the CERs acquired from the CDM project as returns for the participating developed country Party for meeting part of its QELRCs, in accordance with the relevant provisions of Article 12 and Article 3 of the Kyoto Protocol.

**(14) Criteria for real, measurable and long-term environmental benefits related to mitigation of climate change:**

This issue concerns "climate change effectiveness", and should be resolved, taking into account the additional reduction in emissions at the project level as against the baseline of the CDM project. This issue is complicated, maybe evolving with the passage of time, and needs further study.

**(15) Criteria for certification:**

Emission reductions resulting from each CDM project shall be certified by the operational

entity to be designated by COP/moP in light of the requirements of Article 12.5 of the Protocol and in accordance with the modalities, rules and procedures to be adopted by COP/moP.

**(16) Criteria for project baseline:**

The baseline of CDM project shall be determined reasonably to ensure the realization of additional reduction in emissions at the project level as against the baseline of the CDM project

Only project-by-project, not sector or country baseline, shall be applied to CDM project.

**(18) Systems for independent auditing and verification of project activities:**

The systems for independent auditing and verification of CDM project activities, including modalities and procedures, shall be elaborated by COP/moP at its first session, with the objective of ensuring the transparency, efficiency and accountability.

**(19) Format for reporting:**

The governments of the participating country Parties in a CDM project shall report to COP/moP on the progress and results of the CDM project activities on a project-by-project basis, by using a uniform reporting format to be adopted by COP/moP.

**(20) Implication of Article 12.10 of the Kyoto Protocol, including implications for a possible interim phase approach to the CDM and of the activities implemented jointly (AIJ) under the pilot phase:**

Article 12.10 of the Kyoto Protocol may have negative impacts on the implementation of the developed country Parties' commitments under Article 3 of the Protocol, and will have negative impacts on the continuation of AIJ projects. SBSTA should be requested to study these issues and propose recommendations to cope with those negative impacts for consideration by COP/moP.

**(21) Outcome of methodological work on Article 3.3 and 3.4:**

This issue needs further study in view of its complexity.

**(22) Environmental additionality and baselines: Vide No.(5) above.**

**(24) Criteria for sustainable development: Vide No.(3) above.**

**(25) Determination of additionality of emissions reductions/removals:**

The issue of "additionality of emissions reductions/removals" is an important issue, which should be addressed in the light of the realization of additional reduction in emissions at the project level as against the baseline of the CDM project.

**(27) Fungibility among mechanisms:**

The concept of "fungibility" among the three mechanisms of the Kyoto Protocol is totally unacceptable.

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### **III. Process**

(30) Acquisition and transfer of certified emission reduction units:  
Acquisition of certified emission reduction units (CERs) should be carried out in accordance with Article 3 of the Protocol, in particular its Article 3.12. Any CERs which a Party acquires in accordance with Article 12 shall be added to the assigned amount for the acquiring Party (Article 3.12). This, along with the provision in Article 3.13, rules out using CERs for international speculation, etc.

(31) Determination of share of proceeds for adaptation:  
Vide No. (6) above.

(35) Approval by involved Parties of sustainable development:  
Vide No. (3) above.

(38) Reporting:  
Reporting and related format shall be elaborated by Cop/moP. In the case of the developing country participating Parties in the CDM projects, the reporting shall be carried out on a project-by-project basis. In the case of the developed country participating Parties in the CDM projects, the reporting shall not only be submitted to COP/moP on a project-by-project basis, but shall also be reflected in their inventories.

(39) Auditing and verification: Vide number (18) above.

(40) Eligibility of AIJ projects under the CDM beginning in 2000:  
Vide No. (20) above.

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#### **IV. Institutional Issues**

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##### **1. COP/moP**

As the supreme body of CDM, the Convention COP serving as the meeting of Parties to the Protocol is the supreme body for CDM decision-making, with overall responsibilities for all CDM issues; in particular, (CDM--43)\*

- a) To elaborate the modalities and procedures of the CDM project activities as provided for in Article 12 of the Kyoto Protocol,
- b) To decide on acceptance or refusal of CERs of CDM projects;
- c) To determine the quantification of "part of their QELRCS"; (CDM--11)
- d) To designate the "operational entities" as specified in Article 12 of the Protocol;
- e) To ensure that "a share of the proceeds" from certified CDM projects is used to cover administrative expenses and to assist developing country Parties that are particularly vulnerable to the adverse effect of climate change to meet the costs of adaptation. (General--6, CDM--6, 31,32)

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\* The number in the parentheses means the Element number in the Annex to Decision 7/CP.4. The same for the following numbers in the parentheses.



2. Role and responsibilities of Governments of Parties participating in CDM project: (CDM--49)

- a) The Governments shall bear overall responsibilities for approval and implementation of CDM projects, for non-compliance and for reporting.
- b) The Governments shall be responsible for the public and/or private entities that may be involved in the CDM projects.

3 EB (Executive Board)

- a) Operating under the authority and guidance of the COP/moP, the EB shall supervise relevant CDM project activities. (CDM--43,44)
- b) The EB shall implement the decisions and policy guidances on CDM to be adopted by COP/moP (CDM--43,44)
- c) The EB shall assist in supervising the operational entities designated by the COP/moP.
- d) The composition of the EB must be in line with the UN practice of equitable geographical representation (equitable regional distribution). (CDM--46)
- e) The EB may make recommendations to the COP/moP on matters relating to independent auditing and verification of CDM project activities, etc., as provided for in Article 12 of the Protocol.

4 OE (Operational Entities) (CDM--15, 48)

- a) OE shall be designated by the COP/moP and shall be limited in number to ensure transparency and credibility.
- b) The OE, so designated, shall certify the emission reductions resulting from each CDM project activity in accordance with Article 12.5 of the Kyoto Protocol and in accordance with the modalities, rules and procedures to be adopted by COP/moP. Further study is needed.

## Inputs from China on

### **“Emissions Trading” under Article 17 of the KP**

25 February 1999

#### **I. General comments**

##### **(I) Nature and Scope of ET under Article 17 of the KP**

The “emissions trading”(ET) under Article 17 of the KP is a very limited kind of “trading”. As clearly provided for in Article 17 of the KP, “Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission reduction commitments” under Article 3 of the Kyoto Protocol (KP). This means:

1) that the nature, purposes and scope of the ET under Article 17 are essentially no other than being supplemental to domestic actions for meeting Annex B Parties’ quantified limitation and reduction commitments under Article 3 of the KP – not for international speculation, etc.;

2) that, as such, any emissions trading under Article 17 of the KP does not bestow rights or entitlements to Annex B Parties;

3) that the emissions trading under Article 17 of the KP is merely the “transfer and acquisition”, between Annex B Parties, of emission reduction unit (ERUs) or part of an assigned amount under Article 3.10 and 3.11 of the KP;

4) that such “transfer and acquisition” are essentially for addition and subtraction in the respective inventories of “the acquiring Parties” & “the transferring Parties”, as has been clearly stipulated in Article 3.10 and 3.11 of the KP respectively;

5) that such “transfer and acquisition” (NOT buying and selling) must be transparent and must be in compliance with the relevant provisions of the KP;

6) that it is wrong to attempt going beyond the provisions of the KP to twist the “ET” under Article 17 into a so-called “market-based” international buying and selling system or regime, bringing in “brokers”, etc.

##### **(II) Climate change effectiveness (See: Work Programme “Elements”, No.5 under “General”):**

Such “emissions trading” under Article 17 of the KP shall bring about real,

measurable and long-term benefits related to the mitigation of climate change.

**(III) The principle of "supplementarity" must NOT be violated:**

On this principle, the KP has clear provisions relating to the 3 mechanisms. Specifically, regarding ET, Article 17 stipulates: "Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments" under Article 3 of the KP. Therefore, concrete ceiling for the total amount of overseas offsetting acquired from the 3 mechanisms of the KP should be defined quantitatively and qualitatively. (See: Elements No.9 under Article 12, No.19 under General, No.6 under Article 6, and No.8 under Article 17 — as listed in the "Work Programme", annexed to COP Decision 7/ CP.4 . (doc. FCCC/CP/1998/16/Add.1)

**II. Key Elements on "Emissions Trading" under Article 17**

1. The "emissions trading" under Article 17 is the "transfer and acquisition", between the Parties included in Annex B, of emission reduction units (ERUs) or part of an assigned amount under Article 3.10 and Article 3.11.
2. Any such trading under Article 17 of the KP does not bestow rights or entitlements to Annex B Parties.
3. Any such trading shall be supplemental to domestic actions by Parties included in Annex B for the purpose of meeting their quantified emission limitation and reduction commitments under Article 3.
4. The purpose of the "emissions trading" under Article 17 of KP is to assist Parties included in Annex B in fulfilling their commitments under Article 3, as a supplementary means.
5. "Emission trading" under Article 17 shall be conducted between or among the Parties included in Annex B to the Protocol.
6. Such "trading" shall bring about real, measurable and long-term benefits related to the mitigation of climate change.
7. "Transfers and acquisitions" of any emission reduction units or any part of an assigned amount could be effected through a bilateral or multilateral arrangement between or among the Parties included in Annex B, without creating a new international business transaction system or regime.
8. "Transfers" of any emission reduction units or any part of an assigned amount by a Party included in Annex B to another Party would be valid only if it is reported and verified that the former would have fulfilled its commitments under Article 3, in accordance with the rules and guidelines to be decided by the Conference of the

Parties.

9. Parties included in Annex B shall be eligible to "transfer" or "acquire" part of the assigned amount, if they:

- (a) are in compliance with Articles 3, 5, 7, and are responsible for meeting their commitments under the KP;
- (b) are not in violation of the compliance Article, namely Article 18 of KP;
- (c) have a transparent national system for recording and verification of such "transfers" and "acquisitions".

### ***III. Relevant work to be assigned to SBSTA and SBI***

The above issues, along with the relevant Elements on "emissions trading" between Annex B Parties under Article 17 as listed in the Work Programme adopted by COP-4, should be studied thoroughly by SBSTA and SBI. On this basis, SBSTA and SBI should work out recommendations on the relevant principles, modalities, rules and guidelines for "emissions trading" between Annex B Parties under Article 17 of the KP.

### PAPER NO. 3: GEORGIA

Proposals from Georgia on the activities for initiation of the Clean Development Mechanism

1. Requests the International Organizations and Funds (ICF), which in return for their financial support to the developing countries and the countries in transition strongly request them to implement the severe taxation policy, allow such countries to use more flexible taxation policy for the projects realized under the Clean Developed Mechanism and for Technology Transfer process thus facilitating the CDM and encouraging the participation of foreign and indigenous private sector in this processes.
2. Requests the Governments (the Legislative Bodies) of Annex II countries to make suitable changes and amendments to their legislation and regulatory acts for taxation facilitating the CDM and encouraging the participation of their own private sector in this mechanism and Technology Transfer process

**SUBMISSION BY GERMANY ON BEHALF OF THE EUROPEAN  
COMMUNITY AND ITS MEMBER STATES AND BULGARIA,  
CROATIA, CZECH REPUBLIC, HUNGARY, LATVIA, POLAND,  
ROMANIA AND SLOVENIA ON THE**

**CLEAN DEVELOPMENT MECHANISM**

With the Buenos Aires Action Plan COP 4 has decided on a work programme on the mechanisms, with a priority given to the CDM and with a view to taking a decision on all mechanisms at COP 6. According to Article 12 of the Kyoto Protocol (KP) the Conference of the Parties serving as the meeting of the Parties (COP/MOP) at its first session shall elaborate modalities and procedures for the Clean Development Mechanism (CDM).

In addition to previous papers tabled, the European Community and its Member States and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland, Romania and Slovenia have prepared a first proposal on modalities and procedures for the CDM hoping that it can serve as an input for the discussion amongst all Parties, and in particular between Parties included in Annex I and Parties not included in Annex I.

The proposal does not yet cover all of the issues that we believe need to be addressed. Therefore a number of places in this draft proposal have been left blank.

We suggest that those questions dealing with technical aspects related to baselines, monitoring and adaptation measures could be elaborated on in an appendix to the draft modalities and procedures or in a separate decision by COP/MOP. Institutional questions, including those related to the specific tasks of the Executive Board and operational entities, we believe, will have to be discussed once there is some more common understanding on other basic issues. Issues that the EU would in particular like to discuss with others are the content of the appendices and the questions included at the end of the submission.

The EU and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland, Romania and Slovenia are looking forward to discussions with other Parties e.g. at occasions like the upcoming technical workshops organized by the Secretariat.

## **Draft modalities and procedures for the CDM**

### **Para 1**

The following modalities and procedures apply for any project activity set up under the Clean Development Mechanism (CDM) set forth in Art.12 Kyoto Protocol (KP).

### **Para 2 Participation of Parties**

1. Parties included in Annex I shall only use certified emission reductions to contribute to compliance and Parties not included in Annex I shall only benefit from project activities under Art.12 KP, if the Party
  - a) has ratified the KP,
  - b) is bound by a compliance regime adopted by COP/MOP,
  - c) has not been excluded from participation in the CDM according to the procedures and mechanisms under the above mentioned compliance regime,
  - d) and is in compliance with its commitments under Art.12 UNFCCC.
2. A Party included in Annex I shall only use certified emission reductions resulting from project activities under Art.12 KP to contribute to compliance with its quantified emission limitation and reduction commitments under Art. 3 KP, if the Party is in compliance with its commitments under Art.5 and 7 KP.

### **Para 3 Responsibility of the Parties**

Private and/or public entities can participate in the CDM with the approval of the Parties involved in CDM projects. Participation of private and/or public entities in project activities under Art.12 KP does not affect the responsibility of Parties included in Annex I for the fulfillment of their commitments under the KP.

### **Para 4 Validation of project activities**

1. Validation is the binding assessment by an operational entity upon request of a project participant that a specific project activity under Art.12 KP meets the requirements laid down in the rules for the CDM, in the Kyoto Protocol and in the UNFCCC. A project activity needs to be validated before emission reductions resulting from that project activity may be certified.
2. Operational entities shall validate the project activities under Art.12 KP upon request of a project participant. Operational entities shall be institutionally and economically independent from, and not entitled to participate in, the identification, project development or project financing of any CDM project
3. A project activity shall be validated only if it meets all of the following requirement:
  - a) All Parties involved have approved the project activity.
  - b) All public and/or private entities involved in the project activity demonstrate that they are entitled to participate in the CDM according to Para 17.

c) The project participants provide a determination of baselines to the operational entity in accordance with Appendix A upon which the environmental additionality of the project activity is calculated. It must be demonstrated that the emission reductions from the project activity are real, measurable and long-term and that the emissions occurring with the project activity are lower than the emissions that would have occurred in the absence of the project activity. The latter are the baseline for the project and shall be determined according to the guidance provided for in Appendix A.

d) If public funds are used, the project participants provide information on the funding of the project activity proving that CDM investment will not result in a diversion of or competition with ODA and GEF funding.

e) The Party not included in Annex I involved in the project activity confirms in a written statement how the project activity

- assists that Party in achieving sustainable development taking into account its economic, environmental and social conditions according to its own priorities and needs and the need to minimize adverse environmental, social and economic effects taking into account existing guidance for sustainable development;
- contributes to the ultimate objective of the UNFCCC.

f) The project activity and its results are consistent with all relevant international agreements relating to sustainable development to which the Parties involved are a Party.

g) The project participants provide information to the operational entity on their procedures for accurate, systematic and periodic monitoring of the project in accordance with the guidance provided for in Appendix C.

h) Operational entities publish their decisions on the validation of project activities in a suitable manner.

#### **Para 5 Certification of emission reductions**

1. Certification is the binding assessment by an operational entity upon request of a project participant of how many additional, real, measurable and long-term emission reductions have resulted from a validated project activity. The certification process concludes with the issuing of certificates for these emission reductions.
2. Operational entities shall certify the emission reductions resulting from a validated project activity upon request of a project participant. Operational entities shall be institutionally and economically independent from, and not entitled to participate in, the identification, project development or project financing of any CDM project.



3. Additional emission reductions resulting from a project activity shall be calculated on the basis of the baselines set up according to Para 4 (2c) above. They shall be certified after they have occurred, only if
  - a) a participant of the project activity applies for the certification of the emission reductions resulting from the project activity during a specific period of time,
  - b) the project activity has been validated and continues to meet the requirements under Para 4 above,
  - c) all Parties involved are entitled to participate in the CDM according to Para 2 above,
  - d) the applicant submits the necessary monitored data proving that
    - the project activity has resulted in emission reductions that are additional to any that would have occurred in the absence of the project activity,
    - these emission reductions are real, measurable and long-term.
4. Issued certificates shall contain the following information and data:
  - the project activity and the project participants, including the Parties involved;
  - the number of certified emission reduction units that have resulted from the project activity and their serial numbers.
5. Emission reductions shall be denominated in emission reduction units. One certified emission reduction unit shall be equal to one metric ton of CO<sub>2</sub> equivalent emissions calculated using the global warming potentials defined by Decision 2/CP.3 or as subsequently revised in accordance with Art.5.3 KP.
6. Each certified emission reduction unit shall have a unique serial number that reflects the project activity, country of origin, the year of certification and the certifying operational entity.
7. Operational entities shall inform the applicant on their decision in writing immediately after the completion of the certification process.
8. Operational entities publish their decisions on the certification of emission reductions in a suitable manner.

#### **Para 6 Supervision**

1. The operational entities and their activities and decisions are subject to a supervision by the executive board as mandated for by the COP/MOP.
2. The executive board, if mandated for by the COP/MOP, to this Protocol shall carry out sample checks of the performance of the operational entities and the certification process. To this end it may designate operational entities not involved in the chosen certification process.

3. The executive board, if mandated for by the COP/MOP, decides independently or on request of the COP/MOP about which operational entity will be checked upon.
4. If the executive board, if mandated for by COP/MOP, concludes that the requirements for the certification of the emission reductions according to Para 5.2 above have not been fulfilled, COP/MOP may, upon recommendation of the board, decide that the operational entities involved are no longer entitled to certify emission reductions according to Para 5 above.

**Para 7 Reporting by Parties**

1. Parties included in Annex I using the CDM shall report annually on their activities under Art.12 KP within the framework of their reporting commitments under Art.7.1 and 2 KP. Reporting under the CDM will follow the guidelines to be developed under Art.7.4 KP.
2. Parties involved in CDM projects shall report in their national communications on CDM projects, on how they have assisted non-Annex I Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention, and how they have assisted Annex I Parties in achieving compliance with their commitments under Art.3 KP.

**Para 8 Acquisition of certified emission reduction units**

In accordance with Art.3.12 KP any certified emission reductions which a Party acquires from another Party in accordance with the provisions of Art.12 KP shall be added to the assigned amount for the acquiring Party.

**Para 9 Supplementarity**

[...]

**Para 10 Determination of „part of“ according to Art.12. 3b KP**

[...]

**Para 11 Share of proceeds**

1. A share of proceeds from each project activity shall be used to cover administrative expenses of the CDM as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.
2. The share of proceeds shall be calculated on the basis of the certified emission reductions units resulting from each project activity.

[...]

**Para 12 Administration**

1. A share of proceeds according to Art.12.8 KP shall be used to cover all administrative expenses of the CDM.
2. Administrative expenses of the CDM cover the administration of the executive board and of the share of proceeds for adaptation.

[...]

**Para 13 Adaptation**

1. A share of proceeds according to Art.12.8 KP shall be used to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.
2. Adaptation measures to be implemented under Art.12.8 KP shall be based on the guidance provided for in Appendix B.

[...]

**Para 14 Implementation of Art.12.10 KP**

Project activities generating emission reductions between the year 2000 and the date of adoption of the modalities and procedures for the CDM may be validated and emission reductions resulting from these validated project activities may be certified, provided the project activities and emission reductions comply with the agreed set of rules for the CDM.

**Para 15 COP/MOP**

[...]

**Para 16 Executive Board**

[...]

**Para 17 Operational entities**

[...]

**Para 18 Private and/or public entities**

[...]

**Para 19 Reporting by institutions involved**

[...]

**Para 20 Review**

1. COP/MOP shall review these modalities and procedures five years after their adoption and periodically thereafter.
2. Any revision of these modalities and procedures will not have an impact on emission reductions already certified.

**Appendix A**

Baselines: *[to be elaborated]*

**Appendix B**

Adaptation measures: *[to be elaborated]*

**Appendix C**

Monitoring: *[to be elaborated]*

## **Further points for discussion**

This proposal does not cover all of the issues that the EU and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland, Romania and Slovenia believe need to be addressed. We are looking forward to a fruitful discussion also on the following questions:

### **1. Definition of part under Art. 12.3 (b):**

In accordance with Art 12.3 b, the part of a Party's quantified emission limitation and reduction commitments under Art.3 that can be met through CERs in any one commitment period must be determined by the COP/MOP.

- How should this „part“ be defined?
- What would be an appropriate level?

### **2. Baselines**

Accurate definitions of baselines must ensure environmental additionality of CDM projects.

- What criteria will be required for the determination of baselines?
- Who should be responsible for ensuring the validity of the baseline?
- How regularly should baselines be reviewed?

### **3. Additionality**

- How can environmental additionality be ensured?
- How can financial additionality be ensured?

### **4. Share of proceeds**

- On what basis should the share of proceeds be calculated?
- What portion should be allocated to administrative expenses and adaptation?
- What criteria could be used for the allocation of means for adaptation? How should these criteria be developed?

### **5. Institutional arrangements**

The identity, role, funding, appointment, accountability, etc. of the Executive Board and Operational Entities are important for the operation of the CDM.

- What will be the role of operational entities?
- Could validation and certification be carried out by the same operational entity?
- What will be the role of the Executive Board?

### **6. Sustainable Development**

- How can the CDM assist in achieving sustainable development?
- How can capacity building be furthered by the CDM?

### **7. Project Sector Eligibility**

- Which project sectors will be eligible for CDM projects?

**SUBMISSION BY GERMANY ON BEHALF OF THE EUROPEAN  
COMMUNITY AND ITS MEMBER STATES AND BULGARIA,  
CROATIA, CZECH REPUBLIC, HUNGARY, LATVIA, POLAND AND  
SLOVENIA ON**

**JOINT IMPLEMENTATION**

With the Buenos Aires Plan of Action, COP 4 has decided on a work programme on the mechanisms of the Kyoto Protocol with a view to taking a decision on all mechanisms at COP 6. According to Article 6 of the Kyoto Protocol the Conference of the Parties serving as the meeting of the Parties (COP/MOP) may, at its first session or as soon as practicable thereafter, elaborate guidelines for implementing this Article.

The European Community and its Member States and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland and Slovenia have prepared a first proposal on guidelines for implementing Article 6, which is hereafter referred to as Joint Implementation (JI), hoping that it can serve as an input for the discussion amongst all Parties.

The proposal does not yet cover all of the issues that we believe need to be addressed. We suggest that those issues dealing with baselines and monitoring be elaborated on in an appendix to these guidelines or in a separate decision by COP/MOP. Institutional questions, we believe, will have to be discussed once there is some more common understanding on other basic issues.

To clarify the JI process envisioned by the EU and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland and Slovenia, the following terms in the set of guidelines shall be understood as follows:

**Verification encompasses**

- i) validation of a JI project: an assessment that a specific project under Art.6 KP meets the requirements laid down in the guidelines for JI, in the Kyoto Protocol and in the UNFCCC; and
- ii) certification of emission reductions: an assessment of how many additional, real, measurable and long-term emission reductions have resulted from the JI project.

The EU, Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland and Slovenia are looking forward to discussions with other Parties e.g. at occasions like the upcoming technical workshops organized by the Secretariat.

## **Draft Set of Guidelines for Joint Implementation**

### **Para 1**

The following guidelines apply for any project set up under Art. 6 of the Kyoto-Protocol (KP).

### **Para 2 Participation of Parties**

1. Parties included in Annex I of the UN Framework Convention on Climate Change (UNFCCC) shall only transfer or acquire emission reduction units (ERUs) from a project under Art.6 KP, if they
  - a) have ratified the KP,
  - b) are bound by a compliance regime adopted by COP/MOP,
  - c) have not been excluded from participation in JI according to the procedures and mechanisms under the above mentioned compliance regime, and
  - d) are in compliance with their commitments under Art. 12 UNFCCC.
  
2. A Party included in Annex I shall only acquire emission reductions units resulting from project activities under Art.6 KP to contribute to compliance with its quantified emission limitation and reduction commitments under Art. 3 KP, if the Party is in compliance with its commitments under Art.5 and 7 KP

### **Para 3 Responsibility of the Parties**

Legal entities can participate in JI with the approval of the Parties involved in such projects. Participation of legal entities in projects resulting from Art.6 KP projects does not affect the responsibility of Parties included in Annex I for the fulfilment of their commitments under the KP.

### **Para 4 Validation of JI projects**

1. Validation is the binding assessment by an independent entity upon request of a project participant that a specific project under Art.6 KP meets the requirements laid down in the guidelines for JI, in the Kyoto Protocol and in the UNFCCC. A project needs to be validated before emission reductions resulting from that project may be certified.
  
2. Independent entities shall validate the project under Art. 6 KP upon request of a project participant. Such entities shall be institutionally and economically independent from, and not entitled to participate in, the identification, project development or project financing of any JI project
  
3. A project shall be validated only if it meets all of the following requirement:
  - a) The project has the approval of the Parties involved.
  
  - b) All legal entities involved in the project demonstrate that they are entitled to participate in JI according to para 11 below.
  
  - c) The project participants provide a determination of baselines to the independent entity in accordance with Appendix A upon which the environmental additionality of the project is calculated. It must be demonstrated that the emission reductions from the

project are real, measurable and long-term and that the emissions occurring with the project are lower than the emissions that would have occurred in the absence of the project. The latter are the baseline for the project and shall be determined according to the guidance provided for in Appendix A.

d) The project participants provide information to the independent entity on their procedures for accurate, systematic and periodic monitoring of the project in accordance with the guidance provided for in Appendix B.

c) Independent entities publish their decisions on the validation of projects in a suitable manner.

#### **Para 5 Certification of emission reductions**

1. Certification is the binding assessment by an independent entity upon request of a project participant of how many additional, real, measurable and long-term emission reductions have resulted from a validated project. The certification process concludes with the issuing of certificates for these emission reductions.

2. Independent entities shall certify the emission reductions resulting from a validated project upon request of a project participant. Independent entities shall be institutionally and economically independent from, and not entitled to participate in, the identification, project development or project financing of any JI project.

3. Additional emission reductions resulting from a project shall be calculated on the basis of the baselines set up according to Para 4.3c above. They shall be certified after they have occurred, only if

a) a participant of the project applies for the certification of the emission reductions resulting from the project during a specific period of time,

b) the project has been validated and continues to meet the requirements under Para 4 above,

c) all Parties involved are entitled to participate in JI according to Para 2 above,

d) the applicant submits the necessary monitored data proving that

- the project has resulted in additional emission reductions by sources, or an additional enhancement of removals by sinks,
- these emission reductions or enhancements of removals by sinks are real, measurable and long-term.

4. Emission reductions shall be denominated in emission reduction units (ERUs). One ERU shall be equal to one metric ton of CO<sub>2</sub> equivalent emissions calculated using the global warming potentials defined by Decision 2/CP.3 or as subsequently revised in accordance with Art.5.3 KP.

5. Issued certificates shall contain the following information and data:

- the project and the project participants, including the Parties involved;
- the number of emission reduction units that have resulted from the project and their serial numbers.



6. Each ERU shall have a unique serial number that reflects the project, country of origin, the year of certification and the certifying independent entity.
7. Independent entities shall inform the applicant on their decision in writing immediately after the completion of the certification process.
8. Independent entities publish their decisions on the certification of emission reductions in a suitable manner.

#### **Para 6 Reporting by Parties**

1. Parties included in Annex I shall report annually on their projects under Art. 6 within the framework of their reporting commitments under Art. 7.1 and 7.2 KP. Reporting under JI will follow the guidelines to be developed under Art. 7.4 KP.
2. Parties involved in JI projects shall also report in their national communications on JI projects.

#### **Para 7 Transfer and Acquisition of ERUs**

1. In accordance with Art. 3.10 KP any ERUs from a verified JI project which a Party acquires from another Party in accordance with the provisions of Art. 6 KP shall be added to the assigned amount for the acquiring Party.
2. In accordance with Art. 3.11 KP any ERUs from a verified JI project which a Party transfers to another Party in accordance with the provisions of Art. 6 KP shall be subtracted from the assigned amount for the transferring Party.

#### **Para 8 Supplimentarity**

[ ... ]

#### **Para 9 COP/MOP**

[ ... ]

#### **Para 10 Independent entities**

[ ... ]

#### **Para 11 Legal entities**

[ ... ]

#### **Para 12 Reporting by institutions involved**

[ ... ]

#### **Para 13 Review of these rules**

1. COP/MOP shall review the guidelines governing the joint implementation, as set out in paras 1-12 above. The first review shall be carried out no later than the year 2012. Further reviews shall be carried out periodically thereafter.
2. Any revision of these guidelines shall take effect in the commitment periods subsequent to that of their adoption.

**Appendix A**

**Baselines:** *to be elaborated*

**Appendix B**

**Monitoring:** *to be elaborated*

**SUBMISSION BY GERMANY ON BEHALF OF THE EUROPEAN  
COMMUNITY AND ITS MEMBER STATES AND BULGARIA,  
CROATIA, CZECH REPUBLIC, HUNGARY, LATVIA, POLAND AND  
SLOVENIA ON**

**EMISSIONS TRADING (ART. 17 KP)**

With the Buenos Aires Plan of Action, COP4 decided on a work programme on the mechanisms with a view to taking a decision at COP6. According to Article 17 of the Kyoto Protocol (KP) the Conference of the Parties (COP) shall define the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading.

In addition to previous position papers tabled, the European Community and its Member States and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland and Slovenia have prepared a first proposal on principles, modalities, rules and guidelines for emission trading hoping that it can serve as an input for the discussion amongst all Parties.

This proposal does not yet cover all of the issues that we believe need to be addressed. We suggest that those questions dealing monitoring, verification and accountability as well as national registries could be elaborated on in an appendix to these principles, modalities, rules and guidelines.

Different options for compliance provisions are mentioned in para 10 of this paper. We note that those options are not mutually exclusive and look forward to discussing them with other Parties. Other issues that we would like to discuss e.g. at occasions like the upcoming technical workshops organised by the Secretariat, are included at the end of the submission.

## **Draft principles, modalities, rules and guidelines for emissions trading**

### **Para 1**

The following principles, rules, modalities and guidelines apply for any acquisitions or transfers of parts of assigned amounts under Art. 17 of the Kyoto Protocol (KP).

### **Para 2 Complementarity**

[...]

### **Para 3 Environmental effectiveness**

1. Emissions trading shall contribute to the achievement of real and verifiable environmental benefits and cost-effectiveness. It should not lead to overall emissions reductions being lower than would otherwise be the case.

2. Any part of an assigned amount transferred must correspond to the amount of actual emission reductions resulting from domestic mitigation efforts. This provision shall be subject to expert review under Art. 8 KP.

### **Para 4 Eligibility of Parties to participate in emissions trading**

A Party included in Annex B shall be eligible to transfer or acquire any part of an assigned amount under the provisions of Art. 17 KP, if the Party:

- a) has ratified the KP,
- b) is bound by a compliance regime adopted by COP/MOP,
- c) has not been excluded from participation in emissions trading according to the procedures and mechanisms under the compliance regime mentioned above,
- d) is in compliance with the provisions of Art. 5 and 7 KP and Art. 12 UNFCCC.

### **Para 5 Authorisation of legal entities**

1. A Party included in Annex B may authorise legal entities to participate in emissions trading under its responsibility, in accordance with the rules set out in paras 6 to 10 below, if the Party:

- a) is in compliance with the provisions of para 4 above,
- b) has established and maintains a national system for accurate monitoring, verification, accountability and allocation of parts of assigned amount to any legal entity it chooses to authorise. Guidelines on the establishment, maintenance and international compatibility of these national systems are included in Appendix A to these principles, modalities, rules and guidelines.

2. Participation of legal entities in emissions trading under Art. 17 KP does not affect the responsibility of the Parties included in Annex B for the fulfilment of their commitments under the KP.

#### **Para 6 Definition of parts of assigned amount**

1. Transfers and acquisitions of any part of an assigned amount (PAA) by a Party or legal entity that the Party has authorised to participate under its responsibility, shall be denominated in units of one metric ton of carbon dioxide equivalent calculated using the global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Art. 5 KP.

2. Each PAA unit shall be identified by a unique serial number that indicates its Party of origin and its associated commitment period.

3. An invalidated PAA unit, as referred to in para 11 below, cannot be used to meet any Party's commitment under Art. 3 KP, and cannot be further transferred or acquired.

#### **Para 7 Registries**

1. Any Party included in Annex B participating in emissions trading under Art. 17 KP or authorising any legal entity to participate in emissions trading under the provisions of para 5 above, shall establish and maintain a national registry which accurately records all holdings, transfers, and acquisitions of any part of an assigned amount by the Party and its authorised legal entities. Information maintained in such a national registry shall be publicly accessible.

2. Guidelines on the establishment, maintenance and international compatibility of national registries are included in Appendix B to this text.

#### **Para 8 Market mechanisms and Transparency**

1. Transfers and acquisitions of part of an assigned amount between Parties may take place through an exchange. This exchange shall also be open to legal entities.

2. Any Party wishing to transfer or acquire any part of an assigned amount must publish the amount to be transferred prior to the transfer.

3. The UNFCCC Secretariat shall make information on the Parties that are eligible to participate in international trade publicly available. Each Party shall maintain a record of names and contact details of authorised legal entities within its jurisdiction that it authorises to trade, and such information shall be made available both to the UNFCCC Secretariat and to the public.

[...]

#### **Para 9 Reporting**

1. Any Party participating in emissions trading under Art. 17 KP, or authorising any legal entity to participate in emissions trading under the provisions of para 5 above, shall include in its inventory to be submitted to the Secretariat under Art. 7.1 KP, information on any part of an assigned amount added to or removed from its national registry during the relevant year, including the serial number for each unit and the Party to which it was transferred or from which it was acquired.

2. The Secretariat shall include information submitted under para 9.1 above in its annual compilation and accounting of emissions inventories and assigned amounts under Art. 8 KP.

[...]

### **Para 10 Implementation**

If a question of implementation by a Party included in Annex B of the requirements referred to in these principles, modalities, rules and guidelines is identified in accordance with the relevant provisions of Art. 8 KP, transfers and acquisitions of parts of assigned amount may continue to be made after the question has been identified provided that such parts of assigned amount may not be used by a Party to meet its commitments under Art. 3 KP until any issue of compliance has been resolved in favour of the Party in question.

### **Para 11 Options for liability and compliance**

#### **Option 1 - Shared liability**

If a Party is found to be in non compliance with its commitments under Art. 3 KP, a portion [x%] of any of its assigned amount that has been transferred to other Parties under the provisions of Art. 17 KP, shall be invalidated and cannot be used for the purpose of meeting commitments under Art. 3 KP or further traded. [The portion [x%] to be invalidated shall be some multiple of the degree of non-compliance. The degree of non-compliance is the percentage difference between emissions in the commitment period and assigned amount.]

#### **Option 2 - compliance reserve**

A portion [x%] of every transfer under Art. 17 KP shall be placed in a compliance reserve in which event the units may not be used or traded. The Secretariat, as part of the annual compilation and accounting of emissions inventories and assigned amounts under Art. 8 KP, shall include a report of the units deposited in the compliance reserve. At the end of the commitment period, such units shall be returned to the Party of origin if that Party is in compliance with its commitments under Art. 3 KP, in which case the units can be transferred or banked for future commitment periods. If at the end of the commitment period a Party is not in compliance with its commitments under Art. 3 KP an appropriate number of units deposited in the reserve account shall be invalidated in which case they may not be further used or traded.

#### **Option 3 - "Trigger"**

If a question is raised on a Party's compliance with its commitments under Art. 3 KP and the Party is subsequently found to be in non compliance, any part of its assigned amount that has been transferred to other Parties under the provisions of Art. 17 KP after the point in time at which the question was raised shall be invalidated and cannot be used for the purpose of meeting commitments under Art. 3 KP, or further traded. Such questions can only be raised in particular circumstances to be defined.

[...]

### **Para 12 Review of these principles, modalities, rules and guidelines**

1. The COP shall review the principles, modalities, rules and guidelines governing the operation of the emissions trading system, as set out in paras 1-11 above. The first review shall be carried out no later than the year 2012. Further reviews shall be carried out periodically thereafter.

2. Changes in principles, modalities, rules and guidelines shall take effect in commitment periods subsequent to that of their adoption. Changes in Parties' eligibility to trade or changes pertaining to new entrants that meet the eligibility criteria may occur during the current commitment period.

#### **Appendix A**

**Guidelines on the establishment, maintenance and international compatibility of national systems : *to be elaborated***

#### **Appendix B**

**Guidelines on the establishment, maintenance and international compatibility of national registries: *to be elaborated***

#### **Further points for discussion**

**This proposal does not cover all of the issues that the EU and Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Poland and Slovenia believe need to be addressed. We are looking forward to a fruitful discussion also on the following questions.**

1. How can environmental effectiveness be ensured ?
2. How can transparency, accessibility and verifiability be ensured ?
3. Should parts of the assigned amount units be retired annually ?
4. How can emissions trading serve as an incentive for compliance ?

INDIA

Principles, modalities, rules, and guidelines for the mechanisms under Article 6, 12 and 17 of the Kyoto Protocol to the U.N. Framework Convention on Climate Change

INPUT TO THE TECHNICAL WORKSHOPS

1. The Kyoto Protocol to the U.N. Framework Convention on Climate Change provides for various mechanisms in Articles 6, 12 and 17. These mechanisms may be used by Annex B Parties to assist them in part in attaining their greenhouse gas (GHG) quantified emission limitation and reduction commitments under Article 3. Decision 7/CP.4 invites Parties to make submissions for use as input to the technical workshops. This is part of the ongoing effort to address the elements in the work programme on mechanisms of the Kyoto Protocol. This submission has been made in the context of the above Decision. Work also has to be allocated to the two Subsidiary Bodies.
2. An objective of the ongoing process is to ensure that inequities do not get entrenched. On the other hand, inequities must be reduced with a view to eliminating them. This should guide the workshop and the work programme.
3. The work programme has to make a comparison of the mechanisms proposed in Articles 6, 12 and 17. The differences and similarities should be brought out. Two of the instruments are specifically project based while the third (Article 17) draws from emission inventories of Annex B Parties. Such a comparison will also facilitate an outlining of the fundamental features of the mechanisms. For this purpose, the list of relevant issues (listed in SB Misc. documents) identified by the Group of 77 and China at the Subsidiary Bodies meeting in Bonn during June 1998 must also be addressed and be elaborated upon.
4. The mechanisms are essentially to assist Annex B Parties attain their GHG limitation and reduction commitments. Article 3 of the Protocol assigns reduction targets.
5. The Protocol has not created any asset, commodity or goods for transfers or exchange. No such assumption should be made. Neither does the Protocol create any title or entitlement. There is no provision for any concept related to inter-mechanism conveyances.
6. Precepts which have the potential of depriving developing countries of their right to develop must not be allowed. Historical emissions and inventories cannot bestow entitlements or any other permanent benefits.



7. Central questions pertain to the basis, and the manner of determination and creation of the requisite entitlements of Annex B Parties for the purpose of trading under Article 17.

8. The design of the mechanisms must not in any way compromise the modification of longer term trends in emissions, consistent with the objective of the Convention. The GHG reductions achieved should be real and verifiable. The mechanisms should be supplemental to domestic action. The importance of a compliance regime to ensure complementarity must be emphasised in the workshop. A well defined process should commence for the elaboration of issues pertaining to compliance.

9. There are methodological issues, e.g., determination of baselines, incrementality, etc. These issues need to be addressed before the organizational and other operational matters are looked into.

10. The CDM requires a comprehensive understanding to ensure that it delivers benefits to developing country Parties which are in terms of national environmental and developmental goals, with the investments being additional to the investing country's overseas development assistance. The CDM approach has to be project-by-project. The cleaner technologies to be made available must be state-of-the-art. Because CDM projects have to assist developing countries in attaining sustainable development, commensurate criteria or indicators could be drawn up. The CDM should not be cast in a light which subsumes the other provisions in the Convention pertaining to transfer of technology and financial resources.

11. Adaptation technologies must facilitate vulnerable systems to cope with actual or likely pressures. Food and nutritional well-being is a priority issue. In the context of food and nutrition, the poorest populations are the most vulnerable. Agriculture sustainability is a key area for developing initiatives related to adaptation. Any index for vulnerability under the CDM must take full cognizance of the vulnerable areas and situations in all the developing country Parties.

12. Domestic legislation and systems in trading emissions are inapplicable and non-translatable for international trading under Article 17.

## PAPER NO. 6: MAURITIUS

Please find below the views of Mauritius on KP mechanisms.

- Kyoto Protocol Mechanisms - proposals on principles, modalities and guidelines for mechanisms under Art. 6,12 and 17 of KP.

Issues regarding the mechanisms of KP were taken up by Decision 7/CP.4, which was step forward.

The three mechanisms need to be taken together and guided by the principle of Equity, sound scientific backgrounds, environmental benefits and cost factors as well as the shared broken principle.

Parties eligible to participate must have easy access to the benefits provided by the mechanisms. Parties marginalised by solely market - based actions, to be given extra incentives to attract investment.

For the design and application of these mechanisms, transparency must be the keyword. Everybody, involved with the mechanisms, must be able to understand their involvement's and rules and guidelines must build up the confidence.

At no time should Annex 1 Parties be allowed to fulfill their obligations to KP only by using facilities provided in other countries. The use of flexibility mechanisms by Annex I Parties has be supplemental to domestic ones.

It is also believed that the mechanisms will play a key role in the transfer of resources are technology between the private sectors (of all Parties) in the future reduction of GHG.

PAPER NO. 7: NEW ZEALAND

**NATIONAL REGISTRIES FOR EMISSIONS TRADING  
UNDER THE KYOTO PROTOCOL**

**New Zealand Submission to the UNFCCC Secretariat**

**1. PURPOSE**

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1. This paper summarises key design features of national registries and associated reporting requirements that could be addressed by the Article 17 trading rules. It discusses how registries would be used to record official transfers and acquisitions of assigned amount and provide information to demonstrate compliance by Parties at the end of the commitment period. The paper also serves a useful educational role on how an international trading system might operate<sup>1</sup>.

**2. INTRODUCTION**

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2. Article 17 of the Kyoto Protocol provides that each Annex B Party may transfer any part of its assigned amount to any other Annex B Party. Under Article 3, these transfers are added to or subtracted from a Party's initial assigned amount.

3. An essential building block of a trading system is a mechanism for recording transfers of portions of a Party's assigned amount. To meet this need, the trading rules under Article 17 should require each Party that elects to trade to establish and maintain a national registry. The registry would record who holds each part of assigned amount (hereafter called an "assigned amount unit" or "AAU"<sup>2</sup>), and track all transfers and acquisitions of such AAUs prior to their use for compliance.

4. National registries are needed for several important reasons. Each Annex B Party will need a tracking system to keep an official record of trade-related increases and decreases in the assigned amount held by the Party or by legal entities operating under its

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<sup>1</sup> This paper builds on the papers by the Umbrella Group (FCCC/SB/1998/MISC.1/Add.1/Rev.1) and the European Union (FCCC/SB/1998/MISC.1/Add.1/Rev.1) tabled at the Subsidiary Body meetings in Bonn (1998) on the design of an international emissions trading system. Any reference to an Article or Articles in this paper refers to Articles of the Kyoto Protocol. Similarly, any reference to a Party or Parties refers to Parties to the Protocol.

<sup>2</sup> An AAU is the tradeable unit of a Party's assigned amount. AAUs have also been termed Parts of Assigned Amount (PAA).

responsibility. A Party's registry will serve as the starting point for determining compliance with Article 3 commitments (together with measurement and reporting of information pursuant to Articles 5 and 7). Registry information will provide evidence that a selling Party or one of its entities possesses an AAU that it offers for sale. Likewise, buyers will use registries to record and confirm the official transfer of AAUs from seller to buyer. A system of compatible national registries will facilitate transaction efficiency and promote compliance as well as help build public confidence in emissions trading.

5. While national registries are likely to be most frequently used for emissions trading, they will play an equally important role for Joint Implementation (JI - Article 6) and the Clean Development Mechanism (CDM - Article 12), and may be helpful in accounting for reallocations of assigned amounts under Article 4. Transfers of assigned amount under Article 6 will need to be tracked to ensure an offsetting adjustment takes place. Pursuant to Article 3(12), certified emission reduction units from the CDM can be added to a Party's assigned amount and, therefore, subsequently traded. These transactions will also need to be tracked. The concept of national registries and their operation should therefore not be considered solely in an emissions trading context, but in the much broader context of Articles 3, 4, 6, 12, and 17.

### **3. DESIGN AND FUNCTIONS OF NATIONAL REGISTRIES**

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6. Once a Party has met any eligibility criteria for international trading, it can denominate its assigned amount as AAUs. Once denominated, AAUs will be tracked in the system of national registries (initially within the Party's own registry and if an AAU has been transferred to another Party, then in that Party's national registry).

7. Each AAU would represent one metric tonne (or another agreed amount) of CO<sub>2</sub>-equivalent. Serial numbers would indicate which Party denominated the AAU and in which commitment period (e.g. 1-JPN-00001, 1-NZL-00005). Unique serial numbers would prevent a given AAU from being transferred by one seller to more than one buyer, whether by mistake or fraudulently, and would identify and help prevent counterfeit AAUs being introduced into the system<sup>3</sup>. Each AAU must only be held in one national registry. Parties may choose to devolve some AAUs to entities. In this case, each Party would determine the appropriate balance between AAUs held by itself and those devolved to entities.

8. To simplify the tracking of changes to assigned amounts and the compliance determination process (discussed in section 4), Parties could choose to denominate all

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<sup>3</sup> Serial numbers may not be strictly necessary if sound, secure registry systems are put in place. The potential for a system without serial numbers is worthy of further consideration.

their assigned amount as AAUs, irrespective of what portion they choose to hold, trade or devolve to entities. The Party's holdings of AAUs (the balance of the 'Party account' discussed in section 3.1) would represent the Party's assigned amount and would be used to determine whether the Party was in compliance at the end of the commitment period. A Party may choose not to denominate all its assigned amount as AAUs. However, in both cases, a Party's assigned amount, whether denominated as AAUs or not, will need to be tracked.

9. The advantage for a Party of denominating all its assigned amount as AAUs is that the Party's whole assigned amount can be tracked in the Party's national registry. The denomination process to achieve this is not likely to be onerous or costly given that Parties could choose to hold a block of AAUs in the registry (e.g. 1-NZL-000001 ~ 1-NZL-000999), i.e. not every AAU needs to be serialised and recorded separately. The benefits for a Party of denominating its entire assigned amount as AAUs are therefore likely to outweigh the costs. This paper is based on the premise that Parties will choose to denominate all their assigned amount as AAUs. At appropriate points in this paper, reference is made to the case where Parties choose not to do so.

10. To keep track of AAU holdings, a Party's national registry would be required to:

- a) record AAUs denominated by the Party;
- b) record devolution of AAUs from the Government to entities (the initial change of holder);
- c) record in 'real time' (or near 'real time') changes of AAU holdings as a result of trades;
- d) record AAUs surrendered (i.e. transferred) by entities back to the Party to offset emissions as part of the domestic reconciliation process (discussed in section 3.3); and
- e) maintain a record of AAUs retired (i.e. cancelled) by the Party for the purpose of meeting its Article 3 commitments.

11. Given the large volume of data to be handled and the wide availability and low cost of modern computer technology, national registries would be kept in the form of computer databases. The design of national registries should be compatible <sup>4</sup>so that transactions can be processed at low cost and almost instantaneously. Each Party should

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<sup>4</sup> This could easily work in practice by one Party (or a group of Parties) taking the initiative to create a national registry which could then be sold or given to other Parties as a working model. A standard model could also simplify review and audit functions. Issues such as the language capabilities of the registry if a country wanted to use a different language would need to be worked through. The key design feature for compatibility amongst registries would be a standard protocol for communicating and processing international trades.

identify an agency (government or private) that is responsible for maintaining the Party's national registry and performing the necessary functions. This will facilitate the effective operation of the international trading system since Parties and traders will be clear about the point of contact for each national registry, particularly in the case of international trades. The use of computer databases would remove the need for Parties to issue a paper certificate for each tradeable unit. Computer databases can give both Parties and entities greater security and confidence in the recording system and lower transaction costs.

12. To simplify bookkeeping for registries, accounts would be established for each AAU holder, analogous to bank accounts for individuals who choose to hold money in a particular bank.

### **3.1 Establishing Accounts**

13. To enable all AAUs to be tracked, accounts would be established within a national registry so that a clear record of AAUs held and/or traded could be maintained. Each holder of AAUs (the Party and each entity) would be required to have an account. Holdings by the Party and holdings by entities would be distinguished by establishing a 'Party account'<sup>5</sup> and accounts for each entity. Any transfer of an AAU between or among Parties and/or entities would result in a change of holdings in the appropriate accounts (a debit (-) in the sellers account, a credit (+) in the buyers account).

14. At any time, the balance of 'Party account' would represent the Party's holding of assigned amount<sup>6</sup>. The account would be made up of:

- a) AAUs which have not been devolved to entities or transferred to another Party (or its entities) pursuant to Article 3(11)<sup>7</sup> (for simplicity, this could initially be a block of AAUs);
- b) AAUs which have been collected by the Party from its entities as part of the domestic reconciliation process (discussed in paragraph 27); and
- c) AAUs acquired by the Party from other Parties/entities pursuant to Article 3(10).

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<sup>5</sup> In practice, a Party could operate several accounts to ease the management of its assigned amount. For example, an account could be held for each sector of the economy that is part of a Party's domestic trading system. To simplify discussion in this paper, the concept of a single 'Party account' is used.

<sup>6</sup> For Parties who chose not to denominate all their assigned amount as AAUs, the Party's assigned amount would be the balance of the 'Party account' plus any unissued portions of assigned amount.

<sup>7</sup> These could include AAUs denominated by the Party from increases to its assigned amount pursuant to Articles 3(3), 3(4) and 3(12).

15. Parties could allow any entity (domestic or foreign) to have an account in their national registry. This would include entities that the Party makes responsible for holding sufficient AAUs at the end of the commitment period to cover their emissions (e.g. through an obligation under a domestic trading system), and any other entities that wish to trade or hold AAUs (e.g. brokers, non-profit organisations). At a Party's discretion, an entity could choose to operate multiple accounts if it wished to hold AAUs in several accounts as opposed to just one.

16. It would be possible for a group of Parties to consolidate their national registries. The participating Parties' registries would then exist as distinct accounts within a single registry (rather than as two or more separate registries). This would simplify transfers and reduce administration costs, particularly in the case of international transactions, as they would only require the movement of AAUs from one Party's account to another Party's account within the same registry.

17 To promote transparency and the efficient operation of the market, the trading rules should ensure that account information (the quantity and serial numbers held in each account) is publicly accessible. Transparency of information on holdings would help generate confidence in the market and ultimately encourage compliance by Parties at the end of the commitment period.

### **3.2 Processing Trades**

18. Once a buyer and a seller have agreed to make a trade, the seller would request that the national registry removes AAUs from the seller's account and credits the buyer's account with those AAUs<sup>8</sup>. For international trades, AAUs would need to be debited from the registry of the selling Party (upon request of the seller) and credited to the registry of the buying Party (upon notification by the registry of the selling Party). This system can accommodate government-government trades, government-entity trades (and vice versa) and entity-entity trades.

19. Contractual information beyond the appropriate account details and quantity of AAUs to be transferred would not need to be provided to national registries. A selling Party or entity would only report that the specified AAUs are being transferred to a specified buyer and authorise its national registry to enact the trade by crediting the buyers account and debiting the sellers account. Information on prices will emerge from private exchanges and brokerage services.

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<sup>8</sup> This transaction process would ideally be done electronically so that transactions could be processed quicker and the possibility of errors could be reduced. For example, under a manual submission, digits in the serial number could accidentally be transposed, whereas, in an electronic system, the user could 'point and click' at the AAU in question to significantly reduce (if not eliminate) the possibility of error.

20. For all trades recorded by a national registry, a record of the transaction must be kept. This would make it possible for account holders to access a transaction record (similar to a bank statement), which detailed the opening balance at the start of a period, transactions within the period, and the closing balance. Transaction records would also enable a check to be made at any time to ensure that correct double-entry bookkeeping has taken place between or within national registries (discussed in paragraph 24).

21. To facilitate an efficient, smoothly working market, it will be desirable to process changes in AAU holdings, for both domestic and international trades, on a real time or near real time basis. For example, stock exchanges have agreed settlement periods (e.g. three working days), which includes registering the change of holder. The SO<sub>2</sub> trading programme in the United States processes approximately 90% of changes in SO<sub>2</sub> allowance holdings within one day. To facilitate the efficient operation of the international trading market, a similar settlement period should be the basis for national registries to process changes of AAU holdings.

22. Buyers and sellers could potentially make a variety of private contractual arrangements for future trades (also known as 'contract trades' - e.g. forward contracts and futures). However, for the purposes of the national registry, these transactions would only be recognised when the contract is executed and the national registry of the seller is officially notified of the transfer. The registry only becomes involved to record the official change of AAU holder, whenever this occurs.

### **3.3 Reporting Information Internationally**

23. Rules under Articles 7 & 17 should require each Party to report information on trading activity to the FCCC Secretariat (or a designated authority). If this report were made annually, it would complement annual emission inventories prepared by Parties under Articles 5 and 7<sup>9</sup>. Assuming annual reporting, the report on trading activity would identify:

- a) the balance of the 'Party account' and the total balance of all entity accounts (in aggregate) at the start of the year;
- b) changes to the Party's assigned amount during the year pursuant to Articles 3(3), 3(4), 6, 12 (which would add to or subtract from AAUs held in the 'Party account');
- c) the quantum of AAUs transferred from the 'Party account' to entity accounts (in aggregate) within the national registry during the year (including those devolved to entities);

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<sup>9</sup> There may be advantages to having Parties report on trading activity more frequently than annually, especially in the early stages of trading. For example, any discrepancies between national registries would be identified earlier and could be resolved in a more timely manner.



- d) the quantum of AAUs transferred from entity accounts (in aggregate) to the 'Party account' during the year (including those surrendered as part of the domestic reconciliation process, discussed in paragraph 27);
- e) the quantum of AAUs traded internationally by the 'Party account', both acquisitions and transfers, with each other Party's national registry;
- f) the quantum of AAUs traded internationally by entity accounts (in aggregate), both acquisitions and transfers, with each other Party's national registry;
- g) the quantum of AAUs that have been retired from the system during the year (i.e. transfers from the 'Party account' to the 'retirement account', discussed in paragraph 26); and
- h) the balance of the 'Party account' and the total balance of all entity accounts (in aggregate) at the end of the year.

24. This information would enable the Secretariat (or designated authority) to compile a report of AAU holdings by each Party and the transfers to, and acquisitions from, other Parties<sup>10</sup>. The report would also confirm [through combining e) & f) in the list above for each Party], at an aggregate level, that correct double-entry bookkeeping between Parties has taken place (e.g. if Party A reported a +5 to Party B, Party B reported a -5 to Party A). For this confirmation, private entity information (e.g. names of account holders) would not need to be reported to the Secretariat (or designated authority).

25. Given the potential volumes of data that could be reported to the Secretariat (or designated authority), reports should ideally be submitted electronically. This would enable a computer database to be maintained, desirable in terms of speed, cost and accuracy. The database could be used to confirm that each AAU was held only within one national registry.

#### **4. DEMONSTRATING COMPLIANCE WITH ARTICLE 3 COMMITMENTS**

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<sup>10</sup> The following example illustrates how the information provided by Parties could be confirmed by the Secretariat (or designated authority). The balance of the 'Party account' at the start of the period is 100; aggregate entity holdings are 50. During the year, 45 units are added to the 'Party account' pursuant to Articles 3(3) & 12. Twenty (20) AAUs are transferred from the 'Party account' to entity accounts within the registry. 18 AAUs are transferred from entity accounts within the registry to the 'Party account'. In aggregate, the Party transfers 5 AAUs to other national registries; entities, in aggregate, acquire 12 (note the quantum to each national registry would also be required to be reported to confirm correct double-entry bookkeeping between registries). No (0) AAUs are retired from the system over the year. The reported balance of the 'Party account' should be 138 (100+45-20+18-5). The reported balance of entity accounts within the registry (in aggregate) should be 64 (50+20-18+12). Over the year, the Party's holdings of AAUs have increased from 100 to 138; entity holdings have increased from 50 to 64.

26. Pursuant to Article 3(1), to be in compliance at the end of the commitment period (including any grace period agreed internationally to give Parties the opportunity to "balance their books" after final inventories have been completed), a Party would be required to hold sufficient assigned amount to cover its total emissions for the commitment period. Information held in national registries (including the information reported by Parties on trading activity) will be important for this purpose. In particular, the balance of the 'Party account' would represent the Party's holdings of assigned amount<sup>11</sup>. A Party could use this information as the basis for showing it holds sufficient assigned amount to cover its total emissions for the period. AAUs used by the Party to offset its emissions would need to be retired (i.e. cancelled). In practice, this could work by transferring retired AAUs into a 'retirement account' in the Party's national registry so that a permanent record of retired AAUs could be kept or these AAUs could be retired to the Secretariat or designated authority.

27. If a Party chooses to make a group of entities responsible for their emissions under a domestic trading system, it will require a mechanism to collect AAUs from those entities to offset their emissions (i.e. a domestic reconciliation process)<sup>12</sup>. This could involve appropriate legislation<sup>13</sup>. In practice, the domestic reconciliation process would be a transfer of AAUs from entity accounts (corresponding to each entity's emissions) into the 'Party account'. The AAUs surrendered by entities could be ones they obtained in an initial government allocation or auction, ones they have acquired from other domestic entities, or ones they have acquired through international trades or through the other flexible mechanisms.

28. Domestic reconciliation could take place during the commitment period (e.g. annually) if a Party chose, or at the end of the commitment period. Reconciliation of entity emissions and AAUs is an important monitoring activity. If Parties chose to undertake domestic reconciliation only at the end of the period, this would limit the information available for monitoring purposes during the period. It would also mean that the level of the Party's assigned amount during the period (discussed in section 4.1) would not be known with certainty. Regular reconciliation during the period (e.g. annually) could impose costs, however, it has the advantage of providing better information for monitoring purposes. Further, it would enable any discrepancies between national registries to be resolved in a more timely manner.

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<sup>11</sup> For Parties who chose not to denominate all their assigned amount as AAUs, the basis for assessing compliance would be the balance of the 'Party account' plus any unissued portions of assigned amount.

<sup>12</sup> If a Party chooses, it could allow entities to participate in international trading (i.e. hold AAUs within the national registry) without making them responsible for emissions under a domestic trading system. The participation of entities and the design of any domestic trading system are of course at the discretion of an individual Party.

<sup>13</sup> For example, the US SO<sub>2</sub> programme has strict penalties for firms who are not in compliance at the end of each year. The fine for non-compliance is \$2000 per ton, adjusted annually by inflation. The penalty in 1999 is \$2623 per ton, around 10 times the current price.

29. At the end of the commitment period (and after it has been determined whether Parties are in compliance), pursuant to Article 3(13), the Party could request that AAUs remaining in the registry (both in the 'Party account' and entity accounts) be banked forward into the next commitment period. At any time, Parties or entities could also choose to retire AAUs from the system as opposed to banking them forward (e.g. for environmental reasons).

#### **4.1 Significance of Holdings of Assigned Amount During the Commitment Period**

30. During the commitment period, AAUs held by entities cannot be presumed to be part of the Party's holdings. Entities may choose to hold AAUs for a variety of reasons, not solely for the purpose of retiring them back to the Party at the end of the period to offset their emissions (e.g. environmental reasons, investment purposes or for use in a subsequent commitment period). As such, during the commitment period, it could not be accurately determined whether AAUs held by entities would become part of the Party's final assigned amount. The result of this is that for Parties that authorise entities to trade, an accurate assessment of a Party's assigned amount can only be made after the Party has undertaken its domestic reconciliation process.

31. Uncertainty during the period over what the Party's final assigned amount will be at the end of the period is not an issue unique to trading under Article 17. Irrespective of whether a Party chooses to trade, its final assigned amount will not be known with certainty during the period due to adjustments which could be made under Articles 3(3), 3(4), 6 and 12. Registries can, however, mitigate concerns about this by keeping an up-to-date record of all AAUs held by the Party and its entities and providing publicly accessible information on account holdings.

32. The balance of the 'Party account' would provide information on the holdings of assigned amount by the Party during the commitment period. Combining the balance of the 'Party account' with the balance of all entity holdings (in aggregate) would provide a useful indication of a Party's assigned amount during the period. It would only be an estimate because, if Parties had not reconciled with their entities, it could not be assumed that all entity holdings would be surrendered back to the Party to offset emissions. If, however, Parties chose to reconcile with their entities on a more frequent basis (e.g. annually), the information about a Party's assigned amount during the period would be more precise and certain. This would enable the balance of the 'Party account' to be compared with the Party's emissions (reported annually) as an indicator of a Party's progress during the period.

**SUBMISSION BY THE**  
**ALLIANCE OF SMALL ISLAND STATES (AOSIS)**

on

**The Work Programme on Mechanisms of the Kyoto Protocol**

Work programme on mechanisms of the Kyoto Protocol: further proposals on principles, modalities, rules and guidelines for the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol.

**Introduction**

In Decision 7/CP.4 the Conference of the Parties adopted a work programme aimed at resolving the many remaining issues regarding the 'mechanisms' of the Kyoto Protocol. In this context the Secretariat was requested to convene two technical workshops, 'based on inputs by Parties'. AOSIS welcomes this opportunity to submit its further views on selected items of the work programme.

AOSIS members participated actively in the negotiations during the Subsidiary Bodies meetings, and were also involved in the discussions at the 4th Conference of the Parties. While the process of negotiations must be improved for the future, AOSIS nevertheless views the decision of the Conference of the Parties as a step forward. In this context, AOSIS wishes to recall the initial views set forth by Samoa on the group's behalf and submitted to the Subsidiary Bodies in 1998. To keep the momentum, AOSIS would like to reiterate its principled position which was elaborated in this earlier submission:

AOSIS believes that the design of all three mechanisms (Articles 6, 12, 17 of the Kyoto Protocol) should firmly rest on three basic design principles:

- scientific and regulatory certainty;
- environmental and cost effectiveness; and
- equity between Parties.

These principles should be reflected in transparent, generally applicable and clearly stated modalities, rules and guidelines that allow participants, regulators and the public at large to understand and have confidence in the operation of each mechanism.

## **Additional Comments**

The following comments are set out in response to the list of 'General' or cross-cutting elements of the work programme in the Annex to decision 7/CP.4 as contained in document FCCC/CP/1998/16/Add.1. AOSIS reserves the opportunity to comment in greater detail in response to other Parties' submissions, in response to the discussions at Workshops on mechanisms, and at the sessions of the Subsidiary Bodies. AOSIS may also submit further comments on those sections which have not been addressed in this submission. For the moment, AOSIS offers no comments in respect of elements 1, 2 and 10 of the work programme. It reserves the right to do so later.

### **3. Equity and transparency**

All the Protocol's mechanisms should be guided by the principle of equity. (FCCC, Article 3.1; Kyoto Protocol preamble), and should be considered in the context of articles 4.4, 4.8 and 4.9 of the FCCC. Equity has a role to play in both the allocation of resources generated by the mechanisms, and in respect to procedural fairness. Generally, modalities, rules and guidelines should be designed to ensure that all Parties otherwise eligible to participate should have open access to the opportunities provided by the mechanisms.

However, additional incentives need to be created to attract the participation of and investment in Parties that are often marginalised by purely market-based instruments.

Transparency in the design and application of the mechanisms' rules and guidelines will be critical to achieving this access and equity. Participants, regulators and the public at large must be able to understand and have confidence in the system.

### **4. Supplimentarity**

AOSIS believes that the use of mechanisms by any Annex I Parties has to be supplemental to its domestic action. This obligation is stated clearly in text of the Protocol itself (Kyoto Protocol Art. 6.1; Art. 12.3; Art. 17). Quantitative or qualitative rules and guidelines on supplimentarity may be developed in the context of the elaboration of the Kyoto Protocol Article 2 and 3.2. These binding commitments on policies and measures and on

demonstrable progress would be seriously undermined if Annex I Parties were allowed to fulfil their obligations under Art. 3 of the Kyoto Protocol primarily through extraterritorial means.

Rules on complementarity should be developed in the context of these Articles and subject to the Protocol's reporting, in-depth review and non-compliance procedures, which should be empowered to suspend the right of Party to access mechanisms in circumstances where it has failed to demonstrate that its domestic efforts form the primary means of achieving its quantified emissions reduction limitation commitment.

### **5. Climate Change Effectiveness**

AOSIS has repeatedly stressed that any modalities, rules, and guidelines developed for the Protocol's mechanisms must aim to ensure, as their primary objective, that combined emission reduction obligations reflected in Annex B are not undermined. This requires the setting of rules that ensure the effective equivalence in quality of any Parts of Assigned Amount (PAA), Emissions Reductions Units, (ERUs) and Certified Emissions Reductions (CERs) that are allowed to be exchanged through the Protocol's mechanisms.

Participants in any transaction must be able to demonstrate the genuineness of any allowance or offset before it can be added to or subtracted from an assigned amount.

### **6. Institutional framework**

AOSIS believes that robust institutions and procedures to develop, monitor and enforce these modalities, rules and guidelines will be essential to the effective operation of all of the Protocol's mechanisms.

It is recognised that institutional responsibilities will have to be divided, as appropriate, between new and existing bodies, at the global, regional and national level, and in certain circumstances, between the public and the private sector. This division of labour must be based on principles of representativeness, demonstrable competence, and subsidiarity. The global framework must be presided over by the COP/MOP, as the supreme body of the regime, and any smaller bodies authorized to carry out executive functions on the COP/MOP's behalf, must have a membership that reflects the unique representational balance established by the practice of the Parties (e.g., the COP Bureau).

## **7. Capacity building**

Participation in any of the Protocol's mechanisms will require substantial capacity in both 'transferring' and the 'acquiring' countries, particularly in developing and least developed countries. Experience from the AIJ pilot phase, and from the domestic use of similar 'mechanisms', demonstrates that sophisticated means of monitoring, reporting and verifying emissions will be required of any country wishing to host or transfer emissions reductions.

AOSIS believes that the existence of this capacity must be demonstrated as prerequisite for participating in the mechanisms, and that resources should be made available to eligible Parties to meet the costs of building such capacity.

AOSIS further considers it to be necessary to establish a specific mechanism to assist developing countries with the capacity building required for these countries to be able to participate in the Clean Development Mechanism. Such a mechanism should be established well in advance of the implementation of the Kyoto Protocol mechanisms.

## **8. Adaptation**

AOSIS believes strongly that adaptation surcharges should be assessed against all transactions eligible under the Protocol's mechanisms. The principle of common but differentiated responsibilities, and the obligation in Article 4.4 of the Convention, provide a sufficient basis for ensuring that those mechanisms open only to Annex I Parties should share the responsibility of generating adaptation resources. AOSIS believes that the concerns of some Parties that high surcharges will dampen the market's interest in the mechanisms can be answered by agreeing a range of charges that could be adjusted by the COP/MOP and/or the Executive Board of the CDM in response to market signals.

## **9. Compliance**

AOSIS wishes to express strong support for the establishment, under Art. 18 of the Kyoto Protocol, of 'appropriate and effective procedures and mechanisms to determine and to address cases of non-compliance with the provisions of this Protocol, including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance.' Included among these consequences must be the authority to suspend the ability of any non-complying Party to benefit from participation in the Protocol's mechanisms. AOSIS will provide further views on the specific issues relating to compliance in another submission.

(See also ref. 3 above)

#### **11. Inapplicability of Article 4.8 and 4.9 of the Convention and/or Article 2.3 and 3.14 of the Kyoto Protocol to the mechanisms**

AOSIS believes strongly that there is no, and should be no, link between the Convention's and the Protocol's provisions on strategies for responding to any adverse impact of response measures and the Protocol's mechanisms.

#### **12. Dependence of the ambitious environmental targets of the Kyoto Protocol upon availability of mechanisms**

AOSIS would not characterise the quantified emission limitation and reduction commitments as 'ambitious', since greater emissions reductions commitments will undoubtedly be necessary to achieve the objective of Art. 2 of the Convention.

While the Protocol's mechanisms may lead to substantial cost savings for some developed countries, AOSIS rejects any effort by Annex I countries to tie their compliance with their obligations under Article 3 with the performance of what are largely untested mechanisms. AOSIS continues to endorse the conclusions of the IPCC which have identified substantial opportunities for Annex I countries to achieve reductions more ambitious than those set out in Annex B of the Protocol through cost effective domestic actions.

#### **13. Importance of prompt decisions on workable mechanisms for ratification/entry into force**

Although no group of countries would be more supportive of the prompt ratification of the Protocol, AOSIS questions the usefulness of the rapid



entry into force of a Protocol which has not been properly designed.

#### **14. Principle of cost-effectiveness**

The mechanisms envisaged in the Kyoto Protocol have the dual objective of ensuring that emissions reduced through these mechanisms are achieved in a manner that is both cost effective and environmentally effective. Costs will inevitably arise from the additional domestic, regional and international oversight necessitated by the complex nature of these mechanisms. Parties should resist the pressure to make false economies in the name of cost-effectiveness. Furthermore, transactional costs of ensuring transparency and accountability should not be sacrificed for the sake of cost effectiveness.

#### **15. Role of mechanisms in promoting compliance**

AOSIS believes the mechanisms can play a central role in promoting compliance by offering cost-effective means of emissions reductions, by encouraging the transfer of financial resources and technology, and engaging the private sector and developing countries in the business of reducing GHG emissions.

Conditioning the access of Parties to the benefits of participating in the mechanisms on their demonstrating compliance with Protocol obligations will also provide a powerful incentive.

AOSIS is concerned, however, that an overdependence of certain Annex I Parties on the use of the Protocol mechanisms to achieve their commitments may undermine their ability to fulfil commitments domestically, to demonstrate complementarity, and to undertake more ambitious commitments in the next round of negotiations.

See also Ref. 9 above.

#### **16. Comparable treatment among Parties included in Annex B to the Kyoto Protocol, whether using Articles 6, 12, 17 or other means to achieve their Article 3 commitments**

See discussion on equity, Ref. No. 2, above.

#### **17. Maximising the environmental benefits of mechanisms by assuring the lowest possible cost structures**

See discussion on cost-effectiveness, Ref. No. 14, above.

**18. Application of any quantification of "supplemental to domestic actions" to each individual State within a regional economic integration organisation**

AOSIS strongly supports the principle that arrangements made among subsets of Parties, including within regional economic integration organizations (RIEOs) should be subject to the oversight of, and be accountable to the COP/MOP.

With regard to the principle of complementarity, AOSIS believes that the legal and political character of any RIEO seeking special treatment under the Protocol must be assessed separately, particularly with regard to the division of climate relevant competencies between the central authority and its member states.

**19. Complementarity (concrete ceiling defined in quantitative and qualitative terms based on equitable criteria)**

AOSIS strongly supports the concept of complementarity and welcomes any proposals as to how it might be determined on either a quantitative or qualitative basis.

See ref. No 4, above.

**20. Linkages, inter alia interchangeability**

AOSIS believes that in order to preserve the environmental effectiveness of the commitments agreed in Kyoto, Parties should be able to exchange parts of assigned amount only under circumstances in which the emissions reductions involved meet standard and harmonised criteria. Any PAA, CER or ERU entering into the system should be clearly identified by its emissions value, date and country of origin. The value of any allowance or offset traded should depend on the ability of the issuer of the allowance or offset to demonstrate the genuineness of the emissions reductions it represents.

**21. Prerequisites for the use of mechanisms (compliance, linkage with Articles 5, 7, 8)**

AOSIS believes that the effective operation of the mechanisms and Protocol's procedures for reporting, monitoring and verification are

inextricably inter-linked. Before an emissions reduction unit generated in any Party can be offset against any part of an amount assigned to any other Party, the rules adopted under Art. 4, 6, 12, or 17 of the Kyoto Protocol for verification, reporting and accountability must provide a basis for demonstrating that the regulatory mechanisms in place in both Parties are effective.

The rules for verification, reporting and non-compliance and accountability should either be harmonised between the participating states at the domestic level, or the intervention of regional or international rules with equivalent 'bite' will be necessary. Furthermore, because there will be a shared, global interest of all Parties to ensure that arrangements between two or more Parties are jointly achieving the relevant part of an assigned amount, the Protocol must provide multilateral oversight to ensure verification, reporting and accountability.

## **22. Articles 2.3 and 3.14**

See Ref. No 11, above.

## **CONCLUSION**

AOSIS welcomes the convening of the two workshops by the Secretariat in April of 1999. AOSIS members have expressed an interest in participating, and requests that consideration be given to inviting experts from among the Small Island Developing States Parties to the Framework Convention on Climate Change. AOSIS looks forward to receiving the results of those deliberations, and to the discussion at the next meetings of the Subsidiary Bodies.



# Republic of Uzbekistan

**SBSTA**

## **Comments on the flexible mechanism of the Kyoto Protocol**

The working out of the final document on the flexible mechanism based on the 6, 12 and 17 articles will need a great deal of work on the compilation of the document text and various consultations. In this concern we propose to use the Ad Hoc groups mechanism, which has already proved to be successful, and to discuss the expediency of its approval at the forthcoming session of subsidiary bodies.

The list of the components of the Work Programme on the Kyoto Protocol mechanism, for the inclusion into the document in accordance with the rules, modalities and guidelines of these mechanisms, can serve as the basis for negotiations and needs comprehensive discussion. Our comments on the above mentioned list are as follows.

Among all mechanisms of the Kyoto Protocol only the Clean Development Mechanism (CDM) is aimed at the support to non-Annex 1 Parties and we would like to see that the resulting document of negotiations on CDM facilitates the achievement of the ultimate objectives of the Convention and the sustainable development of all these Parties. As each of these Parties has a limited potential for the certified emission reduction (CER), the developing countries should select the most important fields of the CDM projects realization, which follow the sustainable development of the above countries. That is why one of the components of the preliminary working out of projects can be the expert evaluation on the expediency of the project realization and recommendations on the most optimum use of CER units. For the real assistance to the developing countries in the selection of CDM projects it is necessary to create a bank of the technological proposals of Annex 1 Parties. It is also required to envisage a series of the regional training workshops for the developing countries for the consideration of the specific features of CDM projects realization, the procedure of certification of the emission reduction, its marketing and estimation of CER unit cost.

In our opinion, the parts of the document, which specify the aspects and priorities, should fix and comprehensively define the conditions and specific features of the development and transfer of technologies on this mechanism, the strengthening of potential and getting of ecological benefit.

In the document, there should be strictly defined the criteria for the identification of projects for the certified emissions reduction and for the procedure of certification itself.

The establishment of the flexible mechanisms of the Kyoto Protocol presupposes the deepening of the Parties co-operation in the fulfillment of their obligations and improvement of the effectiveness of the national activities. Such co-operation can be carried out on the basis of partnership, understanding of the national ecological and eco

nomical problems, absence of discrimination, and can be strengthened by the participation of the donor governments and governments-investors.

The guidance of these mechanisms should be made by the simple effective and clear rules, which have already been approved and which are credible ones. First of all, nothing in the documents on these mechanisms should be treated as to diminish or damage the responsibilities and duties of Annex 1 Parties in accordance with the Convention.

The framework and functions of all three mechanisms should be clearly identified for the guaranteeing the confidence of governments and agencies, and investors involved, in the expedience of their participation in the activities on such mechanisms creation, and of additional financing from the state and private sector.

We think that it is possible to unite the technical work in the area of the general methodological, procedure and institutional matters on all flexible mechanisms using the materials on the clean development mechanism as the basis.

Dear Mr. M. Zammit Cutajar,

National Commission on the Problems of Climate Change jointly with the World Bank and Government of Swiss Confederation are completed the work on the UzNSS project, the main goal of which was to assess potential of Uzbekistan on participating in GHG emission trading. Task 6 of the project was devoted to working out approaches for CDM projects preparation and implementation and to forming of CDM projects pipeline.

In accord with Secretariat inquiry (from December 17, 1998) and decision 7/CP.4 concerning the submission of views or information by Parties, National Commission of the Republic of Uzbekistan submits as Proposals on principles, modalities, rules and guidelines for the mechanisms under Article 12 of the Kyoto Protocol, the report of Task 6 where the methodological approaches to the CDM projects realization at national level were designed. Since Uzbekistan is Non-Annex 1 country the other trading mechanisms were not considered.

I hope the study should be useful for development of "Kyoto mechanisms".

Sincerely yours,

Bakhodir Khodjaev  
Deputy Prime Minister  
Macroeconomics and Statistics,  
Chairman Steering Committee  
Uz. NSS project

### LIST OF THE PROJECTS Proposed of the Republic of Uzbekistan for CDM projects implementation

Project	Technical performance	Investment cost	Including Donor support for GHG offsets reduction selling mio USD	Specific cost GHG emission reduction USD/1t CO <sub>2</sub>	GHG emission reduction thousand tCO <sub>2</sub> per year	Economic effects mio USD	Involvement of national organizations	Potential donor	Status of project development
1 Small Hydro	Additional generation 2069 mio kWh electricity	214 (for 14 hydro power station construction)	20,2	1,91	1350	37,8 fuel saving 755 thous. Tons of conventional fuel (t.c.f.)	Ministry of Agriculture and Water Management, Ministry of Energy	Switzerland, World Bank	Completed Prefeasibility study

2	Tashkent thermal power station reconstruction	Two boilers switching at combined cycle units (steam and gas) of 370 MW capacity	66.6	8.25	2.7	630	11.5 fuel saving 230 thousands tons fuel conventional (for energy efficiency increasing from 33 to 55%)	Ministry of Energyo	German, Japan	Prepared pre qualification format
3	Reconstruction of heating system in Tashkent with installation of two GTUs (gas turbine unit) on 16 MW for cogeneration electricity and heating	Additional cogeneration 192 млн кВт.ч.	7.6	0,96	8.6	64	0,7 fuel saving 14.7 thousands tons conventional fuel (for specific using fuel decreasing from 370 to 160 g/kWh)	Ministry of Energy, Tashkent's Khakimiyat (local authorities)	World Bank, EBRD	Prepared pre qualification format
4	Pskem hydro power station construction	Additional generation of 900 mio kWh, кВт.ч./г., capacity of 404 MW	420	8.76	8,6	584	16,4 fuel saving 328 thousands tons conventional fuels	Ministry of Energy	Switzerland, World Bank	Preparing pre qualification format



5	Using of sanitary wastes as low caloric fuel (incinerator plant, Samarkand)	Incineration of 400 thousand tons of sanitary wastes per year	45	2.625	17	175	8.75	Ministry of Communal Service, Samarkand's Khokimiyat	Switzerland, World Bank, EBRD	Preparing of pre qualification format
6	Introduction of natural gas metering and control equipment for population and residential	Saving of natural gas	To define at FS stage	84	0.6	5600	Reduction of fuel consumption at 15-20%	Ministry of Communal Service, Tashkent's Khokimiyat, Khokomoyat of provinces	German	Prepared pre qualification format. It is necessary to change tariff policy
7	Installation of boilers, burners and control equipment for small and medium heating installation	A) Boiler equipment switching. B) Enterprise construction for boilers, burners production	219 143	2.775	21.6 15,6	185	9,25 fuel saving 189 thousands tons conventional fuels/g. Boilers energy efficiency increasing at 30 %/	Ministry of Communal Service, Tashkent's Khokimiyat, Khokomoyat of provinces	Switzerland, EBRD, World Bank	Prepared pre qualification format/

8	Fuel efficiency increase at transport (switch form gasoline use to natural gas use)	Switching of 33% cars at natural gas. Construction of 700 Gas filling stations.	52.7	9	0.6	600	156	State Committee Of Nature Protection, Uzavtotrans		Application
9	Utilization of flared gases at Mubarek gas refinery plant	Saving of 800 mio m flared gases	To define at FS stage	21.75 delivery of flared gas utilization technologies	It was not defined	1450	72.5 for additional profit from natural gas realization	Uzbek Oil-Natural Gas Corporation	Canada, World Bank	World Bank mission
10	Update of district heating systems in Uzbekistan		To define at FS stage		It was not defined		It was not defined	Ministry of Communal Service, Tashkent's Khokimiyat, Khokomoyat of provinces	GEF grant	Preparing FS for investors

At the stage of the application considerations are:

11	Production and introduction of hot water supply gelio-technical installations
12	Switching of automobiles at compressed natural gas and gas-dizel fuel
13	Utilization of worn-out tires which don't are subjects for restoring
14	Introduction of CO <sub>2</sub> control system in transport
15	Utilization of flared gases at Shurtan gases complex

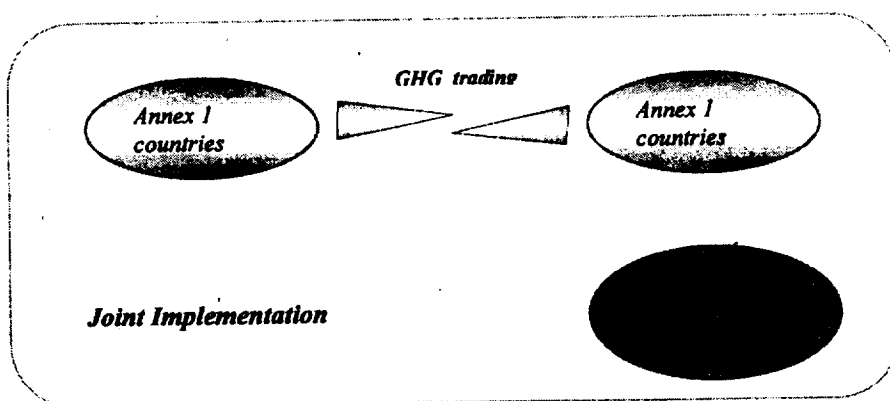
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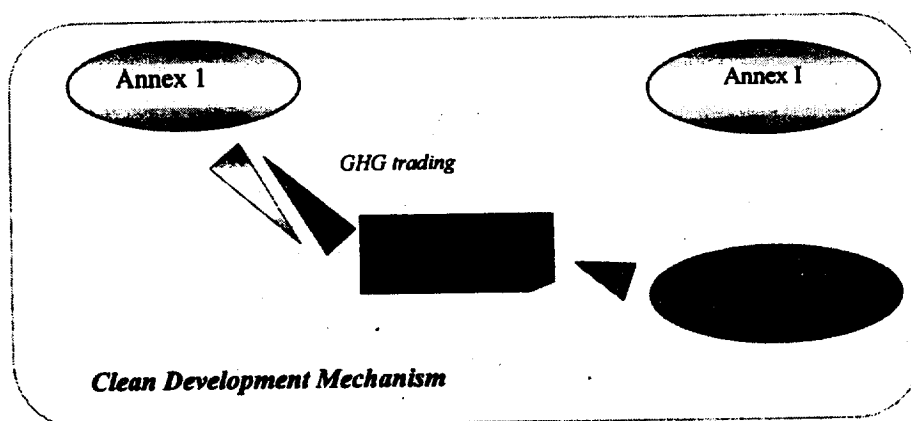
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6.1. INTRODUCTION

Protocol Kyoto for the UN Framework Convention on Climate Change (UNFCCC) has not only established for Annex 1 countries legal binding obligations for GHG emissions but also has outlined the possible forms of cooperation between the countries for implementation of their commitments by means of international transfer mechanisms (“Kyoto mechanisms”). At this stage of the Convention the most viable mechanisms are projects based mechanisms – joint implementation and clean development mechanism.



For Annex 1 Parties emission reduction units (ERU) trading is possible by realization of projects under Joint Implementation (JI) (Article 6, Protocol Kyoto). In accordance with the Clean Development Mechanism (CDM) (Article 12) Non-Annex 1 Countries can also transfer emission offsets to Annex-1 countries in the form of certified emission reduction (CERs) during jointly implemented projects.



Under JI projects implementation there is no necessity to carry out certification of the GHG emission reduction units since for all the partners, participating in the project, binding obligations under the Kyoto Protocol were denoted. . In case of CDM projects host-country have not fixed the quantifiable targets that is why the certification of the GHG reduction units is foreseen to be carried out by an operational entity specially authorized by the Climate Convention Secretariat. It was presumed that the certification process would be determined on the 4<sup>th</sup> Conference of the

Parties in Buenos-Aires. However, from considerable discrepancies between the Parties of the Convention concerning of GHG emission trading, making of the decisions on the modalities, procedures, guidelines for the "Kyoto mechanisms" was postponed to 6<sup>th</sup> session of the COP.

One of the main eligibility criteria for participation in JI/CDM projects, which was defined by the Protocol Kyoto, is additionality. The emission reduction units can be considered as goods provided that such reduction are additional to any that would occur in the absence of project activity. In both cases the project baseline – the basis for the assessment of emission reduction and the abatement costs - has to be determined.

Under creating of the modalities, procedures for ERU trading between Annex 1 Parties, the international and national rules and procedures for the implementation of JI/AIJ projects existed in a number of countries, are taken as basis. For CDM projects in spite of the basic similarity – additionality principle – these procedures and rules have to be worked out again taking into consideration the specific nature of the CDM.

In most of the cases the social-economic conditions of the Non-Annex 1 Countries do not allow the priorities to the measures directed to environment quality improvement including mitigation of the climate change consequences to be given. Moreover Non-Annex 1 Countries do not have the binding obligations under the Kyoto Protocol and that is why attraction of participation in the CDM projects must suppose, besides anything else, the economical benefit aimed to provision of sustainable development of these countries (the Protocol Kyoto, Article 12).

**Protocol Kyoto, Article 12 (2)**  
The purpose of the Clean Development Mechanism shall be to assist Parties not included in Annex 1 in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex 1 in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.

In the previous tasks the possibilities of international GHG emission trading were considered, evaluation of the CDM potential for CO<sub>2</sub> emission reduction has been carried out, the sequence of action implementations has been defined. The main purpose of this task is working out a pipeline the CDM projects portfolio and adaptation of the methodology for selection, evaluation and the CDM projects implementation.

Within the framework of the NSS project implementation the methodology "Assessment and realization of JI projects and transferable GHG emission reduction units production in Russia" has been worked out by Russian and Swiss experts. This methodology has been taken as a basis for CDM. project assessment.

## 6.2 PREREQUISITES OF UZBEKISTAN FOR THE CDM PROJECTS IMPLEMENTATION

As non-Annex 1 country Uzbekistan hasn't quantifiable binding obligations under the Kyoto Protocol. Nevertheless, Government of Uzbekistan is purposefully carried out a policy aimed at GHG reduction in the key sectors of national economy. Under Cabinet of the Ministers of Uzbekistan the Commission on Saving of Fuel and Energy Resources operates, State Energy Program based on applying of environmental sounds technologies are completed. Performed inventory of GHG emissions and sinks was allowed to rank the economy sectors on their contribution in total emission volume. The data were used for compiling of First National Communication on Climate Change under assessing of the measures on mitigation and adaptation of national economy and environment to adverse effect of climate change.

Belonging to a number of the priority directions of national technological development, environmental sounds technologies introduction is took into account under drawing up of the State Investment Program. For instance, Program on Small Hydro Energy Development worked out in 1995 has been completely financing at the expense of state budget. For incentive, the stations under construction are exempted from tax and the proceeds received from this activity are used for the reinvestments of the new stations. At present, the eight small hydro power station are under construction, total investment amounts: 1997 – 4,5 mio USD, 1998 – 7,3 mio USD, 1999 – 20,1 mio USD.

<i>SHP</i>	<i>Capacity, MW</i>	<i>Cost, mio USD</i>
<i>Tupolagskay</i>	<i>175</i>	<i>62,3</i>
<i>Gissarskaya</i>	<i>45</i>	<i>16,9</i>
<i>Akhangaranskaya</i>	<i>20</i>	<i>8,1</i>
<i>Andizshanskaya</i>	<i>11.8</i>	<i>21</i>

Under UzNSS project implementation, the assessment of GHG emissions and incremental costs for the measures included in the State Investment Program was conducted. Performed registration allows the scope of the national real actions on GHG mitigation to be estimated both to time and in the nearest prospect. A list of the measures was included at National Strategy on GHG Reduction and can be used for checking of CDM project baseline reliability for the purpose of "additionality" as well, in case of need, for monitoring of the Uzbekistan's commitments implementation under Convention.

The existence of the great potential for GHG emission reductions in Uzbekistan is one of the major conclusions of task 5. However, within analyzed period (to 2010) this reduction, in the most cases, can be only achieved by taking special measures required significant capital

investment. In connection with its participation in the CDM projects might be profitable both from the standpoint of emissions reduction and attraction of the new technologies, "know how" and capital on preferential terms to the country.

Uzbekistan did not yet take part in the realization of AIJ projects during the pilot phase, which is why there are no institutional and operational structures which could be used in case of CDM projects. For successful implementation of the CDM projects it is necessary to create infrastructure of CDM market on national level, including making decision mechanisms, eligibility criteria for the CDM, the rules of the registration, monitoring, evaluation, verification, certification and credit transfer.

Nevertheless, the work on preparation of base for taking part in the Clean Development Mechanism is already conducted in the state. By the decision of the National Commission on the Problems of Climate Change, the UzNSS Steering Committee was appointed responsible body for implementation of all the activities on the projects aimed at GHG mitigation. The Chairman of Steering Committee is Deputy Minister of Macroeconomics and Statistics who is responsible for investing policy in Uzbekistan. By the decision of Chairman National Commission the UzNSS project office under Ministry of Macroeconomics and Statistics is kept as operational unit under the UzNSS Steering Committee.

On existing phase of the CDM process progress in Uzbekistan, the main efforts of Steering Committee are aimed at searching of the potential investors for the CDM projects realization. It is carried on the negotiation with governmental JI/AIJ/CDM programs in Switzerland, Japan, and Netherlands. Under financing of the World Bank "Uzbekistan: Small Hydropower Investment" pre-feasibility study was fulfilled by the International Centre for Energy and Environmental Technologies. It is supposed to conduct pre-feasibility study on production of equipment for boiler houses. The work with the ministries and organizations on forming of the CDM projects pipeline is performed on regular basis. At the base of the existing projects electronic database which can be a core for CDM national information center is established. For increasing of capacity building the training workshops for the national experts on CDM projects preparation are held. Simultaneously, it is formed a roster of the experts being capable to make independent expertise of GDM projects.

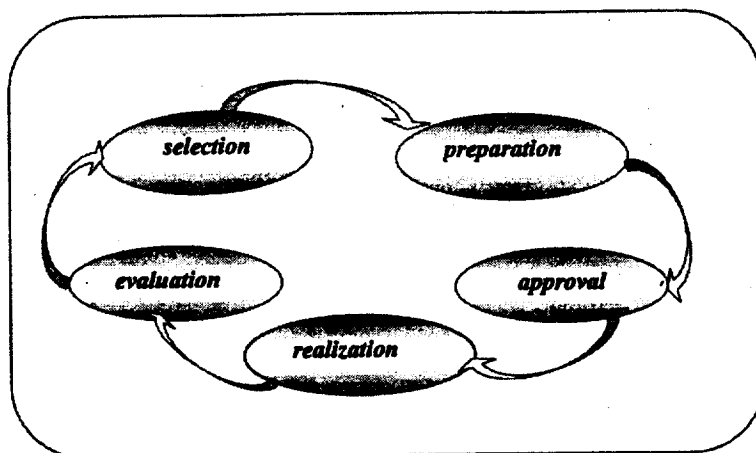
Initial phase of CDM process in Uzbekistan it is more advisable to start with implementation of the pilot projects which do not require big investment. I.e. the project scope should be restricted one unit, for example, reconstruction of small hydropower station, cogeneration of heat and electricity at district boiler house, etc. The implementation of the middle-size projects will allow the investors and the Uzbek partners with less risk:

- (a) to elaborate the institutional and legal procedures;
- (b) to elaborate the approaches for quantifiable assessment of additionality and sustainable development in CDM project baseline;
- (c) to design the standard tables for performing of the registration, verification, monitoring, certification;
- (d) to create electronic database for entering of data mentioned at point (c).



Creating institutional and legal base within the middle-size CDM projects realization will be served as guarantee of success under going on to the big-scale projects implementation requiring big investment (Fig. 6.1).

**Figure 6.1: Project Cycle**



### 6.3 REQUIREMENTS FOR THE CDM PROJECTS IMPLEMENTATION

The issue of CDM project eligibility assessment is discussion since there are few adopted strict procedural rules, modalities and methodology. A sketch outline the CDM definition given at Article 12 of the Kyoto Protocol can be only took as a base. To date, the most widespread standpoint on this issue – the ideology of JI/CDM projects is quite close, so the key criteria applied for the selection of the JI projects can be used for the selection of the CDM projects. However, there are two principle distinction between mechanisms: (1) *CDM project implementation should be assisted in achieving sustainable development in host-country*; (2) *host country will benefit from project activities resulting in certified emission reductions*.

The notions of “sustainable development” and “benefit” are quite elastic and should be given concrete expression to the CDM purpose (for instance, under “benefit” we can see and the proceeds receiving, and improvement of environmental and social conditions, and introduction of new technologies, and perfection of infrastructure and etc.). The definition of the eligibility criterions should be a topic for further international negotiations and to be adopted by the Conference of the Parties.

At existing stage of the Kyoto Protocol development the proposed projects can be approved for their realization on the CDM if they are satisfied the following requirements:

**International:**

- *for non-Annex 1 Parties* - to assist in achieving sustainable development and in contributing to the ultimate objective of the Convention;
- *for Annex 1 Parties* - to assist in achieving compliance with their quantified binding commitments under the Kyoto protocol;
- to ensure real, measurable and long-term benefits related to the mitigation of climate change;
- to produce GHG reductions that would not have occurred in the absence of certified project activities;
- participation in the project has to be voluntary and approved by each Party involved;
- to implement the certification of GHG emission reduction through operational entities to be designated by the Conference of the Parties;
- to meet the criterions of the CDM executive board which will be created under the Climate Convention Secretariat.

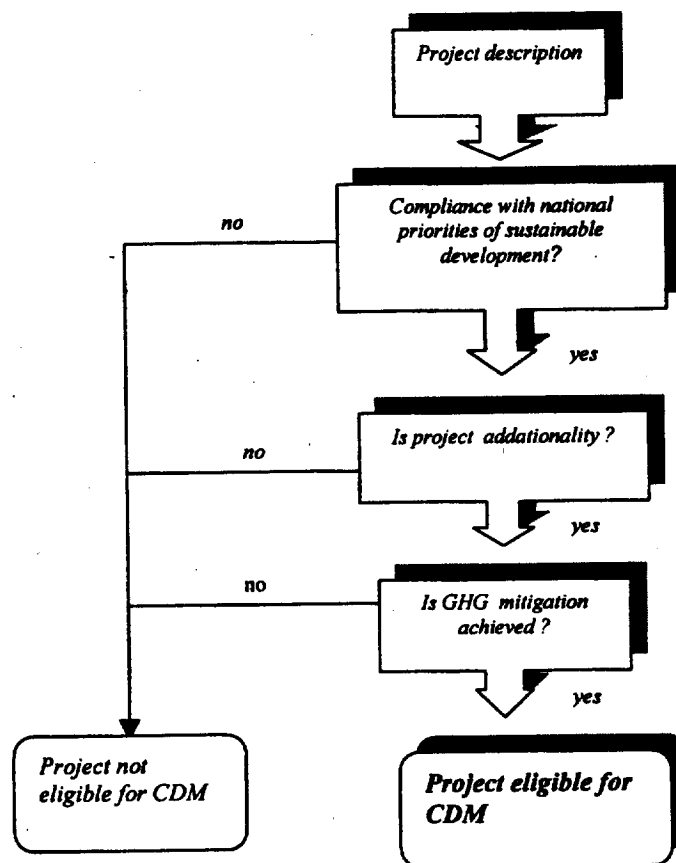
**National:**

- to meet the national priorities of sustainable development of Uzbekistan;
- to meet the priorities of conducted investment policy and to assist the development of market relations in Uzbekistan
- the cost for production of certified GHG emission reduction unit is to be minimum and competitive on international GHG emission market.
- to use the modern technologies, methods and products and to have low technological and financial risks.
- to cause the improvement of local ecological situation as a result of its realization ( reduction of pollutants emission, water and soil quality improvement , etc.)
- to be open for monitoring of its results by the UzNSS Steering Committee.
- to promote capacity building amongst the national ministries and organization and also amongst the national experts.

#### 6.4. General scheme of the CDM projects assessment

Standard assessment of conventional investment project consists of the analysis of its technical, financial, legal, institutional, social, economic, ecological characteristics. In order to evaluate the project eligibility for CDM it is necessary to identify another several key positions (Fig.6.2):

**Figure 6.2: Eligibility assessment for CDM projects realization**



- To discuss the project eligibility to national criteria, in particular, its contribution to national sustainable development priorities;
- To determine the project baseline from the standpoint of the costs and emissions reduction
- To calculate GHG emissions reduction
- To assess the project costs bearing in mind the barrier approach
- To set up the project crediting time
- To define the system boundaries

- To approve by the governments of the countries participating in the project

*The Preliminary assessment* is carried out during the pre-qualification stage and determines whether the given project meets the international and national requirements applied to CDM projects. The information is submitted in the electronic form of uniform format enclosed to this report. The critical issue of filling in of the format is the extent of working out detailed of presented information. Primarily it relates to carrying out of the economical analysis. Nevertheless, with the minimum efforts spent for the preparation, the information has to be quite detailed.

*Detailed assessment* is carried out within qualification phase under project feasibility study preparation after the interested investors are found and the preliminary approval of Governments of investor and Uzbekistan is obtained.

The terms of credits sharing, the procedures of monitoring, verification and certification, responsibility of each party and enforcement in the case of non-compliance of the contract terms are defined during working out the feasibility study.

Information on the project connected with GHG emission reduction and sustainable development enters into database and to serve as a base for carrying out the registration, certification, verification, monitoring, reporting. This information may also be presented for checking to executive board of the CDM.

## **6.5 RECOMMENDATION FOR THE CDM PROJECTS IMPLEMENTATION**

The recommendation for the CDM projects implementation were developed on the basis of analysis of the country possibilities in participating of the CDM projects as well as consideration of the international seminars, workshop and etc. materials connected with this issue (Fig. 6.3). The recommendation will be served as a basis for creation of CDM market infrastructure in Uzbekistan and shall be adjusted on the extent of experience in CDM project realization and designing of the international guidelines, rules, and procedures.

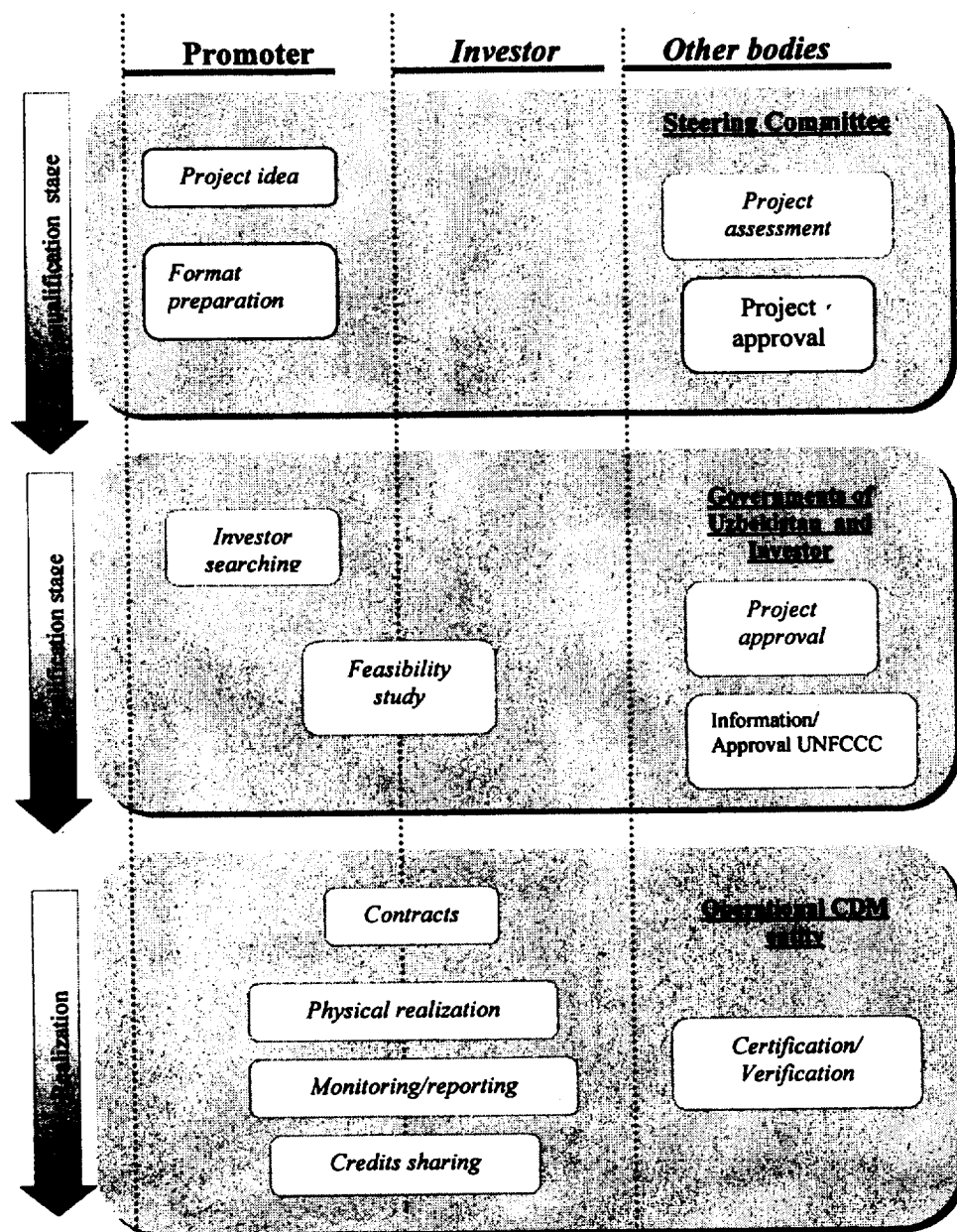
### **6.5.1 Preliminary assessment (Pre-qualification)**

Preliminary assessment (pre-qualification) conducts for definition of project adequacy to the CDM projects requirements and to envisage the following stages:

- (1) Project promoter prepares the proposals assessing of technical performances, the costs and probable GHG emission reductions;
- (2) The necessary information on the project is entered into electronic Uniform Format for Pre-qualification and it is submitted to UzNSS Steering Committee which is responsible for the CDM projects realization in Uzbekistan;
- (3) The project are given for a review to one of the independence national experts nominated by the National Commission on the Problems of Climate Change;

- (4) The project with positive expert's evaluation is approved by UzNSS Steering Committee, in the case of negative assessment – at request of the project promoter – the proposals can be additionally considered at the UzNSS Steering Committee for making of final decision.
- (5) After approving the electronic format is exhibited on web side in order to this information will be accessible for governments, international organization and institutions.

Figure 6.3: CDM projects implementation



### 6.5.2 Feasibility Studies

After getting of the principle consent of investor and Uzbekistan for participating in CDM project the feasibility study is prepared. Among others, the feasibility study refines and extends the data

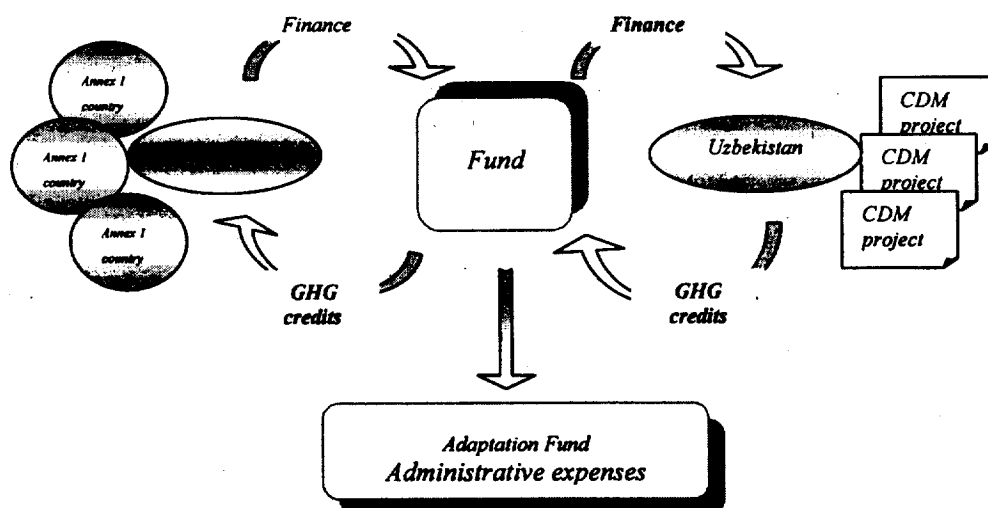
submitted for pre-qualification. Based on the revised data, the government of Uzbekistan and of investor will make the final decision for approval of CDM project.

The feasibility study provides all the information for making a decision concerning investment, for it all the needed preconditions are defined and presented on the basis of alternative decision. Possible financing of the project is considered at an early stage of the feasibility study since the financial conditions have a direct effect on total cost and, consequently, on project financial feasibility.

### 6.5.3 Mechanisms for financing

The financing mechanism of CDM has been discussing to date and its approval was postponed to 6<sup>th</sup> session of the COP. Mostly two main models are considered: (a) *multilateral financing* – joint investments which are managed and distributed by carbon investment fund (fig. 6.4) and *bilateral one* – direct transactions between investor and host country on a project level (fig.6.5). Besides that it is possible the intermediate variants.

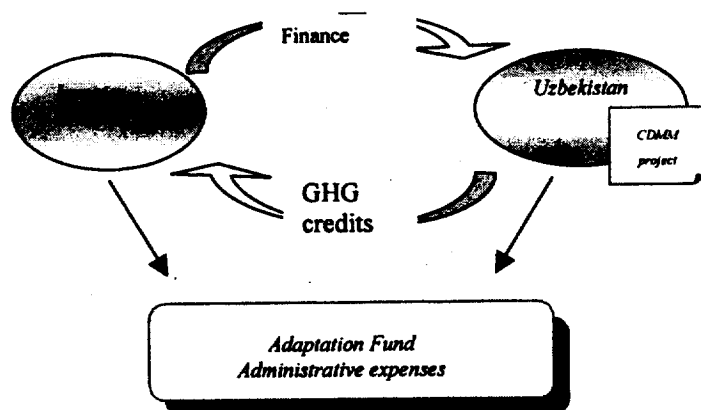
**Figure 6.4: Mechanism of multilateral financing**



Apparently, the process of carbon investment fond creation will take some time therefore at earlier stage the possibilities of striking bargain for CDM project realization through the fund are extremely small.

For existing state of the CDM progress a pilot system of the early transactions on bilateral base is seemed more viable, for example, Switzerland/Uzbekistan. The bilateral model can be used for forming of carbon market infrastructure both on national and international levels. Besides that an experience, gained under not great projects implementation, will be indispensable under resolving of conflicts of interests in the case of the big transactions in future.

**Figure 6.5: Mechanisms of bilateral financing**



#### 6.5.4 Registration

All the projects fulfilled under the CDM should go through registration at national register for stocktaking of the projects. The standard table is entered into national electronic database and to serve the base for checking of baseline as well verification, certification of GHG emission reduction.

Operational unit under UzNSS Steering Committee, which is responsible for registration, prepares the periodical (for example, annually) informational reports and submits them to the National Commission on the Problems of Climate Change and to the sides of the project. The UNFCCC Secretariat may also use the report for assessment of the quantitative targets meeting by investor at the end of accountable period.

#### 6.5.5 Certification. Monitoring. Verification. Reporting.

The certification and verification of the CDM project is conducted by operational entity to be designated by the Conference of the Parties on contracts with pointing out of the tasks, obligations and responsibility of the executors.

**Certification.** Certification of GHG emission reduction may be carried out: (1) within a process of project baseline assessment – *ex ante certification*; (2) after CDM project completion – *ex post certification*.

*Ex ante certification* is made during the project preparation. The certifier should assess:

- credibility of the project baseline;
- meeting of the project to the relevant criteria for CDM projects: the UNFCCC requirements, national criteria and legislation of investing country and of Uzbekistan, the World Bank criteria for social and environmental impact assessment etc.
- the major risks regarding the emission reduction and significant leakage effects from the project.

Following the assessment the certifier prepares a report recommending essential revision. After the adjustments has been carried out, the certifier issues a certificate for the project, including the project baseline.

*Ex post certification* is conducted after accomplishing of the project. As and in the case of ex ante certification, the certifier prepares a report and issues a certificate for the project.

The final certification should be done by the UNFCCC body.

**Monitoring.** The modalities for conducting of project monitoring during the crediting time are included at the basic agreement between investor and Uzbekistan. Under drawing up of the contracts it is specified how measurements will be made, who will be responsible for these, and how results will be verified. The monitoring results are offered at the form of standard tables and are entered into national electronic CDM database.

**Verification.** In the course of the project implementation, periodic verification of ex post GHG emission reductions achieved by the project is performed. For this aim auditing of physical measurements conducted at the project side and the comparison of received results with the baseline that was established for the project. At regular intervals the standard tables are filled and entered into national electronic database to be served for issuing of the periodical verification report. The verifier also reviews compliance with the set up modalities for project monitoring and reassesses the basic project assumptions if it is necessary.

**Reporting.** The procedures of supervision for project implementation – the certification, monitoring, verification – should be formalized in the form of standard tables which are filled during the project realization at regular intervals and to be entered into national electronic database. At request, they can be submitted for auditing to the Executive Board of the CDM. Information that is kept at database may also serve for conformation that the reduction can be applied to meet investor's commitments under the Kyoto Protocol.

#### 6.5.6. Sharing of credits

To a great extend the procedures of sharing of GHG credits are connected with following:

- (1) which type of financing model for the CDM will be adopted by 6<sup>th</sup> session of the Conference of the Parties;
- (2) which modalities will be determined for transfer of share of the "proceeds" from CDM projects realization in an adaptation fund (adaptation tax) and to cover administrative expenses;
- (3) how will be defined the notion "benefit" (credits, financial income, improving of environmental and social conditions and etc.).

Sharing of the credits may be made on the following schemas.

*Credits are allocated through carbon investment fund* - Transfer of the certified emission reductions (CER) is occurred through carbon investment fund which plays a part of intermediary



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between investing country and Uzbekistan. The credits are allocated between the investors only after getting of ex post CER and a share for covering of administrative expenses and of adaptation tax (perhaps, 1-2 %) has been deducted. A share of each investor will be depended on amount of the investment put in the project.

In exchange for CER, Uzbekistan obtains investment through the fund not participating in sharing of credits at that. A share of CER, belonged to the fund, may be sold by auction.

The interactions between the fond and Uzbekistan occur at governmental level or with a body authorized by Government - National Commission on the Problems of Climate Change.

*Credits accruing to the investing country (bilateral CDM project)* – In this case “benefit” from participating in CDM project for Uzbekistan comprehends as getting of investments and economical income from project realization. The whole volume of CER received during project crediting time transfers to the investing country.

The terms of CER transfer - after ex-post certification or after ex-anta certification within period baseline set up – are subject for the negotiations and to specify at the contracts for each CDM project.

Share of deductions for covering of administrative expenses and adaptation tax points at the basic agreement for the project and as well being the subject of the negotiations between Uzbekistan and investing country.

In the case of investing country, if the credits may be sold at home or international market they accrue to investing company. If home trade is absent the credits accrue to government which in turn should compensate the expenses of investor, for example through carbon tax reduction or reductions in regulatory requirements and etc.

In the case of Uzbekistan, emission reductions, getting under CDM project realization on completion of crediting time, will bank and a share (perhaps, in depend on project scope, till 30 %) is transferred to a national CDM fund for financing small CDM projects. CER receiving from these projects realization will bank and sell by Uzbekistan at international market at more profitable terms. For incentive of interest for participating in the CDM projects should be set up a system of privileges.

*Sharing of the credits between investing country and host country (bilateral CDM project)* – In this scheme for Uzbekistan “benefit” from participating in CDM means a share of the credits.

Sharing of the credits, the certification procedures, deductions at administrative expenses and adaptation tax are the subject for the negotiations between investing country and Uzbekistan and are compulsory components under signing of the agreement.

Project promoter obtains from Government of Uzbekistan the compensations for transferable CER which should be specified in the agreement. The agency authorized by Government will sell CER at international market. .

As in the case of previous scheme, a share of CER banking on completion of crediting time will transfer in national CDM fond.

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### 6.5.7 Contracts

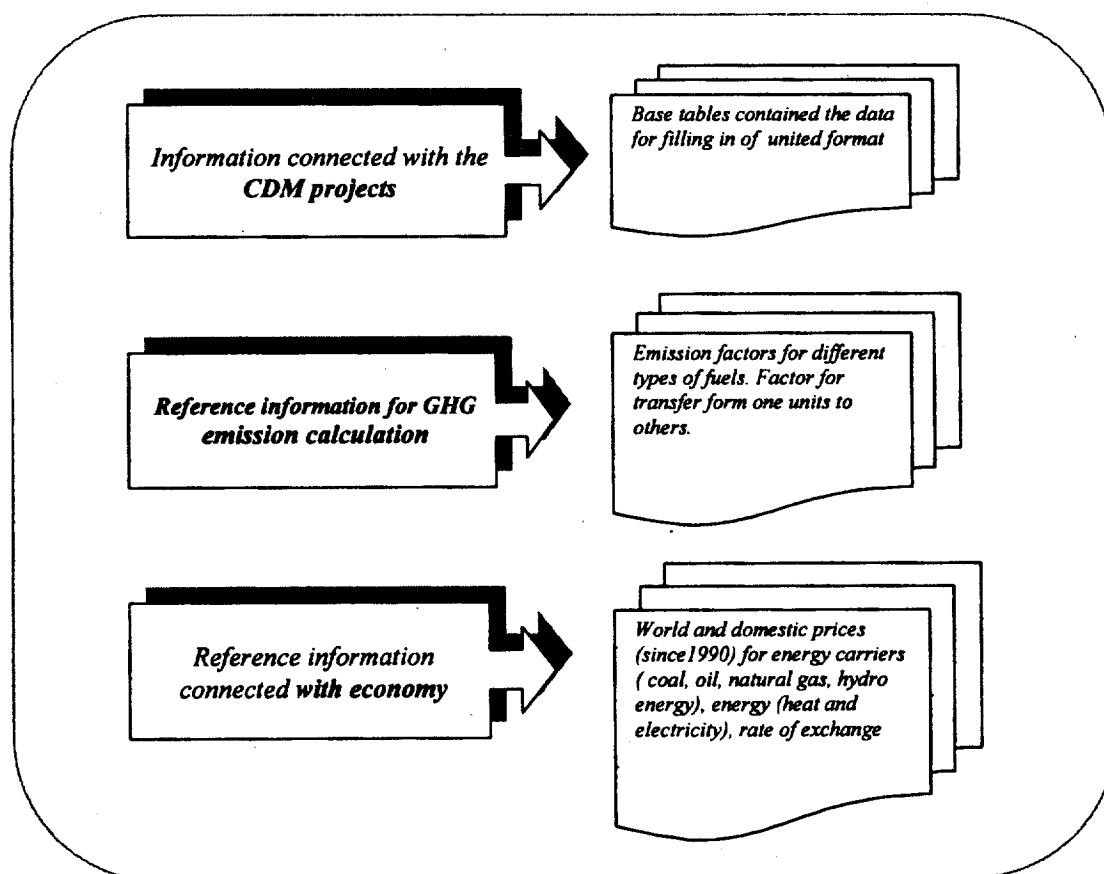
Under any models of financing, the contracts on the CDM project implementation should be only concluded after project approval by the National Commission on the Problems of Climate Change and by Government of investing country. The negotiations on base project agreement between project holder and investor and its preparation should be carried out with participation of UzNSS Steering Committee representative and to be approved by Chairman of SC.

Under CDM project realization through Investing Fond contract should be signed between Fond and Government of Uzbekistan. Under signing of bilateral agreements it is possible several variants of the contracts depending on the number of project sides, project scope, subject of the project.

### 6.6. Database

The electronic database creation is one of important component of the CDM project realization. At international scope, the compatible databases minimize the cost of the registration, certification, verification of the CDM projects besides that the electronic databases it is more difficult to falsify in comparison with paper accounting.

**Figure 6.7: Structure of database**



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Under the CDM project preparation, the analyses of big information pieces both for baseline and for project line for the three primary blocks - (1) assessment of technical performances, (2) economical analyses; (3) emission calculation – is needed within pre-qualification stage already.

As rule, there are a lot of versions for selection of the technologies, resources and etc. for each type of activity which can be used within the CDM project preparation. Conduction of the potential versions screening is enough difficult problem since the project promoter frequently has confined information for a variety of issues important for project. Entering into information part of database such kind of data lets to accelerate the following CDM projects preparation.

Within the framework of the carrying out of this study, a database has been worked out consisting of two basic levels – information and projects. The information level includes the data necessary for the carrying out of the technical and economical analysis of the project (prices for the energy carriers, technologies, fuel consumption, etc.) The project block consists of the CDM projects description formats for pre qualification stage in Russian and English languages (fig.6.7)

Under establishing of national CDM market infrastructure is important to standardize the procedure of the registration, certification, verification, monitoring. For this purpose for each type of activity should be designed the standardized tables being filled at regular intervals within the CDM projects implementation. Under the tables designing, the international requirements concerning similar procedures for conventional investing projects implementation should be took for the base with taking into consideration the particularities of institutional and legal base of Uzbekistan on investing project realization. Formalizing of the procedures should be considerably simplified the tasks of audit both national (National Commission on the Problems of Climate Change) and international level – Secretariat the UNFCCC, Executive Board for the CDM.

The formation of the CDM projects pipeline is one of the tasks of this study which includes not only the attractive presentation of the project description but also search of the investors including using Web side. The projects formats, entered into the database after their approval by the UzNSS Steering Committee, can be submitted to the page of the Web side promoting attraction of private investors for the CDV projects participation.

On the national level the database should become the basis of the information system which will be used by all interested ministries, departments, as well as the widest layers of the community. One of the functions of this system should become propaganda of the ideas of the Framework Convention on Climate Change including the GHG emission trading.

## **6.7 PREPARATION OF THE CDM PROJECTS PIPELINE**

In the course of the present study the preliminary pipeline of the CDM projects has been prepared.

For carrying out of the pre-qualification stage of the CDM projects assessment Uniformed Format worked out by the team of Russian and Swiss experts has been used. The format was structured for essential data entry into electronic database and was added a block “assessment of project eligibility to national sustainable development priorities”.

Within a pipeline preparation the main efforts, above all, were aimed at those sectors of economy where substantial GHG emissions reduction could be obtained during implementing of the CDM projects. The proposals on potential of GHG reduction in Uzbekistan, developed in Task 5 of UzNSS, were taken as a basis. As a result of the projects aimed at improving of energy efficiency, energy saving were selected as the key ones. The scope of the projects was the very difference from reconstruction of small boiler houses to switching of equipment for small and middle boiler houses in a scale of the Republic. A list of the project will be expanded since only a part of the projects submitted by the ministries and organizations of the Republic has passed the stage of pre-qualification assessment. For example, extraction, transportation and processing of natural gas are reflected in the pipeline to a small extent. There are not the projects to connect with improving of energy consumption in industrial processes.

As a result of the projects consideration a long and short lists were formed which consist of 10 projects (Annex, table 6.1). The list of the projects was considered at the UzNSS Steering Committee which coordinates the work of all projects related to the GHG reduction by the decision of the National Commission on the Problems of Climate Change and approved by the Deputy Prime-Minister, Chairman of the National Commission for Climate Change Mr. B. S. Khamidov.

By the initiative and with the support of the World Bank there was conducted the pre feasibility study for small hydro energy. Within the study, the assessment of national potential on small hydro energy development was performed, for 4 small hydro energy stations the detailed technical and economical analyses was conducted, specific costs avoided CO<sub>2</sub> were calculated. The prepared proposals are a good base for searching of the investors and fulfilling of feasibility study. Besides that, the SH projects are else attractive and because the Program on Small Hydro energy Development was adopted Government of Uzbekistan and a number of the privileges for stimulating of construction and reconstruction of SH stations were established.

### 6.8. Conclusions

1. The Government of the Republic of Uzbekistan realizes the importance of the CDM projects implementation and to coordinate the development of CDM process in Uzbekistan including the participation at the very early stage.
2. It was elaborated the approaches for CDM project eligibility assessment and project realization that can be adopted for the actions after adjusting and approval by the National Commission on the Problems of Climate Change.
3. It was created electronic database for carrying out the pre-qualifications phase of the CDM projects. It is worked out electronic standard tables for implementing of registration, certification, monitoring, verification.
4. There is a prepared CDM projects portfolio. Part of the projects is approved for realization by the National Commission on the Problems of Climate Change. Part of the projects is at the stage of the pre-qualification evaluation.
5. There are national organizations which can cooperate with potential investors for the CDM projects implementation and to play an active role in the formation of the projects portfolio

such as the Ministry of Macroeconomics and Statistics, Ministry of Energy and Electrification, Ministry of the Communal Services, Ministry of Agriculture and Water Management and others.

6. The potential investors including the governments of several Annex 1 Countries and also the World Bank, European Bank for Reconstruction and Development express their interest in financing of some projects.

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**ANNEX 6.1****INSTRUCTION FOR FILLING IN OF THE CDM PROJECT FORMATS FOR  
PRE-QUALIFICATION STAGE**

The guidelines worked out by Russian and Swiss experts within the framework of the NSS project were taken as a basis for this instruction.

**AN6.1 Project category**

The determination of the project category is based on the qualification proposed by the Intergovernmental Panel on Climate Change (IPCC)

- Energy efficiency
- Renewable energy
- Fuel switching
- Forest preservation, restoration and reforestration
- Fugitive gas capture
- Industrial processes
- Solvents
- Agriculture
- Waste disposal or bunker fuels

**AN6.2 Technical description of the project includes:**

- Purpose of the project
- Projection of the production capacity
- Description of the technological process in current status
- Annual production / energy saving
- Characteristics of the equipment, approbation level

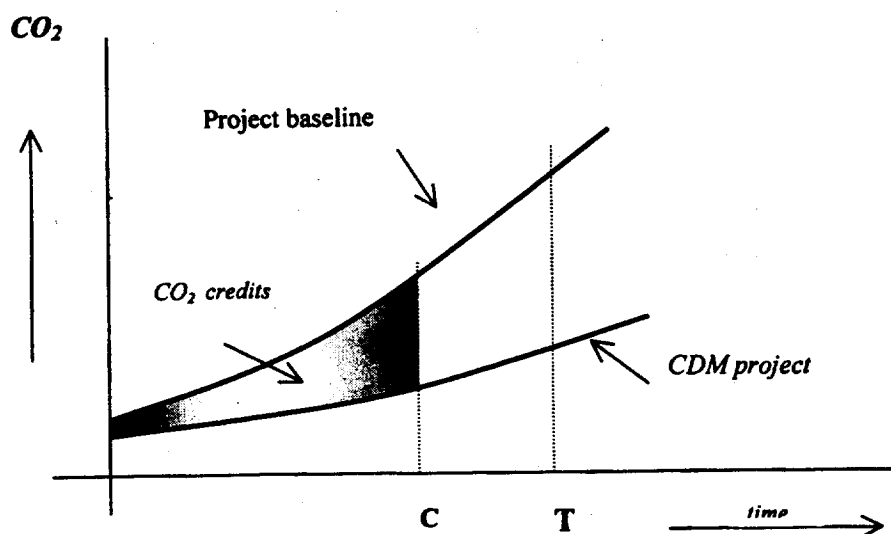
**AN6.3 Time of the project implementation**

The duration of the project or *crediting time* – is a period of production and transfer of the certified GHG emission reduction units (CERUs). Project durability is determined at the beginning of the project and can not be changed during its implementation.

Theoretically, crediting time can coincide with the technical life of the project i.e. service period of the available machinery and equipment. In practice this time is significantly shorter as the time for the CDM project implementation has to be limited by the interval for which the baseline is quite precisely determined. Uzbekistan will be interested in cutting down of crediting time since CERUs can be banked and transfer at more profitable terms after project completion.

The difference between the technical lifetime and the project crediting time is embodied on Figure 1. Crediting time discusses in period of the project preparation.

Figure 1: Project life time



$C = \text{CDM Project lifetime} = \text{Crediting time}$   
 $T = \text{Project technical life time} \quad (C \leq T)$

#### AN6.4. Project baseline determination

The baseline is a foundation for the calculations of GHG emission reduction and incremental costs. In order to determine the baseline for each of the projects a scenario is worked out taking into consideration of the existing processes and what will most likely occur in future in the case of business as usual. The calculation of the project baseline is carried out by the way of evaluation of existing GHG emission level with the actual production capacity and technical performances of an enterprise (Fig. 2). Being the basis for the calculation of the GHG emission reduction and abatement cost the project baseline requires thorough determination.

The final baseline will make a basis for the contract between the investor and the enterprise implementing the project. The baseline set up at the beginning of the project remains unchanged during the whole period of project implementation. Under project registration the reliability of the baseline has to be checked by: UzNSS Steering Committee and within emissions reduction certification by an operational entity to be designated by the Conference of the Parties.

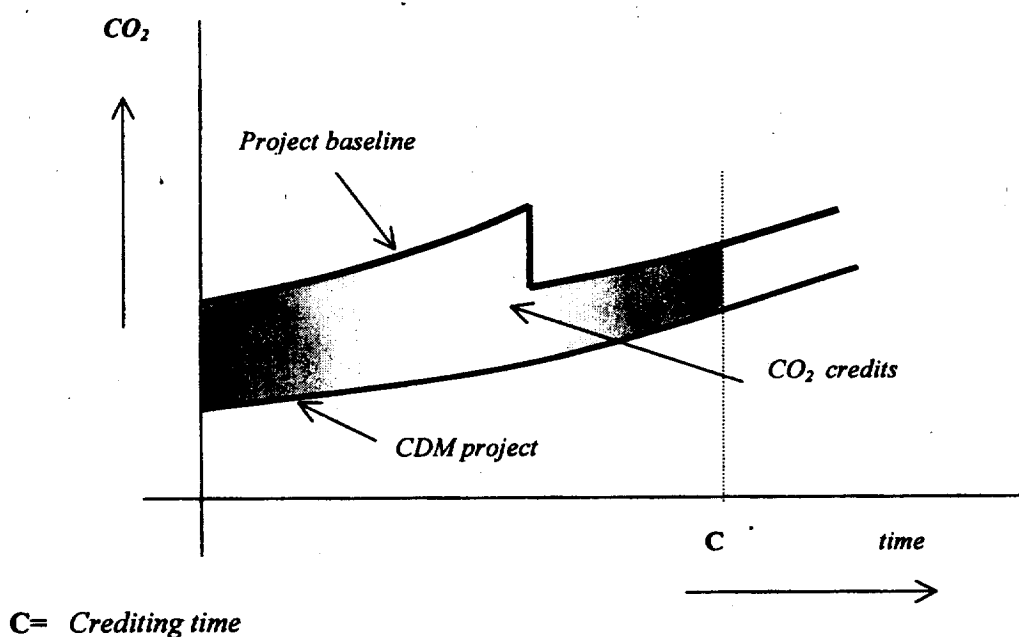
In addition, while making the calculation of the project baseline the existing development plans of the enterprise which can result in GHG emission reduction beyond the boundaries of project implementation have to be taken into consideration. In this case the correction of the project baseline and of the appropriate GHG emission reduction is to be carried out. For example, it can be corrected in case of production capacity increase or strengthening of the existing tariff policy.

Within an identification of the baseline both investor and project promoter will be interested in possible increase of the GHG emission reduction units, that is why during its determination they

will try to increase the actual scope of productive capacities resulting in GHG emissions. In order to avoid this it is necessary:

- to check up the project baseline reliability being performed by UzNSS Steering Committee under the project registration;
- to publish the baseline through Web side before signing of contract that allows to contest the agreement by third side;
- to reduce crediting time to interval provided the most objective determination of the baseline;
- to check up the baseline within GHG emission reduction certification by an operational entity to be designated by the Conference of the Parties.

**Figure 2: Baseline determination**



### AN6.5 System boundaries

The project sides should establish proper system boundaries which would be approved by government of investing country and of Uzbekistan for more precise determination of the baseline.

Under system boundaries notion is implied the scope of analyses within the limits of which fulfils the assessment of the project outputs. The system boundaries can be defined by the scale of proposed activity – productive unit, enterprise, a number of enterprises and etc. Under defining system boundaries it is necessary to reveal the factors affected significantly on the results of the project implementation, and first of all the baseline.

### AN6.6 Greenhouse gas emission



In order to determine the GHG emission reduction achieved by the project it is necessary to determine the difference between the GHG emission of the baseline and project emission (Fig. 2). The volume of GHG emission reduction can be banked during the whole life time of the given production while certified emission reduction for the project are only calculated for crediting time. The results of the calculations are determined by the system boundaries. The methodology approved by IPCC is used for GHG emission calculation

#### AN6.7 Additionality principle

*The barrier approach:* The GHG emission reduction is taken into account for crediting in CDM projects only in case if it is additionality, i.e. this reduction does not occur in the absence of the project activity. In order to evaluate additionality principle the barrier approach can be applied which was worked out by the International Energy Agency and adopted for the JI projects in the NSS projects.

Table 1

Potential barriers	Examples of barriers
Technological	<ul style="list-style-type: none"> <li>• Risks for provision of the technical service for equipment</li> <li>• Risks for project realization</li> </ul>
Organizational/Legal	<ul style="list-style-type: none"> <li>• Risk of delay of the project realization beginning</li> <li>• Substantial obstacles for receiving of direct investment</li> <li>• Subsidies for the natural gas or heat</li> </ul>
Financial	<ul style="list-style-type: none"> <li>• Shortage of the long-term capital</li> <li>• High cost of the capital</li> <li>• Exchange rate risks</li> </ul>
Market	<ul style="list-style-type: none"> <li>• Raw material supply risks</li> <li>• Vagueness of the prices trends for the energy carriers</li> </ul>
Employees qualification	<ul style="list-style-type: none"> <li>• Weak mastering of the technologies</li> <li>• Shortage of the qualified staff</li> <li>• Shortage of the information about the project possibilities</li> </ul>
Ecological	<ul style="list-style-type: none"> <li>• Increase of the air and water pollution</li> <li>• Reduce of industrial waste</li> <li>•</li> </ul>

The barrier approach is based on the following principles:

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- The GHG emissions offsets can be a subject for CDM crediting if reduction has been achieved additionally as a result of the activity, which is impossible without additional financial investments? Technology transfer and “know-how”.
  - Projects directed to the GHG emission reduction can face different barriers: technical, financial, organizational, legal, technological, etc. in the course of their implementation.
  - In order to meet additionality criteria the CDM project has to have certain barriers which are absent in the project baseline. At least one of the barriers should be serious.
  - Most of the possible barriers could be broken down due to attraction of the investment. Taking into consideration the economical situation in Uzbekistan financial viability of the project can be considered as dominating factor in the evaluation of additionality.

To date the major barrier for Uzbekistan is the limitation and high price for the investment. The commercial banks are not interested in granting the credits to the investment projects aimed at environmental improvement because of the low economical effectiveness and long-term viability.

*Additionality assessment.* Initially the financial analysis is carried out assuming the availability of the favorable local conditions for financing without taking into consideration the profit from the sale of the transferable emission reduction units. If the project has negative net cost i.e. one main barrier is revealed then the project can be considered additional. If the project appears to be notoriously financially viable it is necessary to carry out an analysis of other potential barriers (table.1.), to reveal the necessary additional financial means for their breaking down and to include this cost into the project financial analysis. This analysis is carried out till the barrier is revealed after which the project becomes financially enviable. Its further realization becomes possible only with participation of the external investors which will serve as a confirmation of the additionality principal for the given barrier. For example, the main barriers for Uzbekistan are limitation or absence of the investment, so called financial barrier as well the absence of the plants manufacturing some types of the equipment which allow to reduce the GHG emissions (boilers for small and middle-size boiler houses, turbine for small hydro-power stations, gas registration devices, energy-effective lighting lamps, etc.) and conducting tariff policy on energy carriers realization.

#### **AN6.8 Assessment of Sustainable Development**

According to Article 12 of the Kyoto Protocol, one of the main objectives of the CDM is to assist non-Annex 1 countries in achieving sustainable development. In this connection, project contribution in achieving sustainable development objectives is important element of eligibility assessment under the CDM project implementation.

Quantifiable assessment of the CDM project influence on sustainable development is difficult methodological problem since there are not certain quantifiable indicators which can be checked, monitored and verified over time. Therefore, for early stage of drawing up the mechanisms of the CDM project implementation, the national priorities for sustainable development are expediently adopted as a base for project selection. With the CDM progress it is necessary to design the more accurate indicators for assessment of the CDM project influence on sustainable development in national and international levels.

In Uzbekistan the priority directions of national sustainable development was given at the Sustainable Development Conception of the Republic of Uzbekistan approved by the Government in 1998. On the base of Conception a preliminary list of the national indicators for assessment of "sustainable development" component under the CDM projects implementation was prepared. The evaluation of sustainable development will be carried out on a number of the indicators and as well as emission reduction to be checked, monitored and verified within the project realization. The list of the indicators will be adjusted taking into account the findings of National Strategy on Sustainable Development which should be elaborated in the nearest future. The National Strategy of GHG Reduction will be a part of this strategy.

The indicators were combined at three groups as follows:

1. Conservation of natural resources;

2. Introduction of modern technologies, "know how", production of goods and services at the market;

3. Conservation of resources and energy intensity of production;

4. Improvement of production structure;

5. Revision of tariff policy

6. Creation of supplementary working place;

7. Improvement of production and social infrastructure;

8. Conservation of land and water resources;

9. Human capacity building of population

10. Improvement of population health

11. Conservation of water use and renewal quality of water resources,

12. Air pollution;

13. Industrial wastes;

14. Renewable energy (wind, water, solar)

### AN6.9. Cost Calculation

In order to calculate the costs for the GHG emission reduction it is necessary to know the cost for the baseline and the costs for the project itself plus the additional costs for overcoming the

barriers. The difference between these two amounts will make the expenditures for the project implementation. For each of the project the thorough economical analysis is carried out with the most possible specification, the figures of which should be discounted by years.

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