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SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

Twenty-first session

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Item 4 of the provisional agenda

Scientific, technical and socio-economic aspects of mitigation of climate change

**Views on the topics agreed at the twentieth session of the
Subsidiary Body for Scientific and Technological Advice and on the
workshop on mitigation to be held during its twenty-first session**

Submissions from Parties

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its twentieth session, agreed that, at its twenty-first session, it will focus on exchanging information and sharing experiences, views and lessons learned, taking into account different national circumstances, on the following topics:
 - (a) Mitigation technology innovation, deployment and diffusion, including identification of and removal of barriers
 - (b) Practical opportunities and solutions for mitigation that contribute to sustainable development.
2. The SBSTA requested the secretariat, under the guidance of the Chair of the SBSTA, to organize a workshop allowing for in-depth discussion during its twenty-first session to exchange information and share experiences and views on the topics referred to in paragraph 1 above.
3. The SBSTA invited Parties to submit to the secretariat, by 31 August 2004, their views on the topics referred to in paragraph 1 above, and on the workshop referred to in paragraph 2 above, for compilation into a miscellaneous document (FCCC/SBSTA/2004/6 para. 122) to facilitate the discussion at the workshop.
4. The secretariat has received nine such submissions. In accordance with the procedure for miscellaneous documents, these submissions are reproduced* in the language in which they were received and without formal editing.

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

FCCC/SBSTA/2004/MISC.13

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PAPER NO. 1: AUSTRALIA

Submission by Australia
Scientific, technical and socio-economic aspects of mitigation

The twentieth session of the Subsidiary Body for Scientific and Technological Advice agreed (document FCCC/SBSTA/2004/L.14) to continue its consideration under the agenda item on mitigation, by focusing on exchanging information and sharing experiences, views and lessons learned, taking into account different national circumstances, with respect to the following topics:

- a) Mitigation technology innovation, deployment and diffusion, including identification and removal of barriers; and
- b) Practical opportunities and solutions for mitigation that contribute to sustainable development

The secretariat was requested to organise a workshop to allow for in-depth discussion during its twenty-first session, to exchange information and share experiences and views on the topics listed above.

Australia considers that the workshop held at SBSTA20 provided a useful and productive forum for discussing and developing Parties' understanding of the scientific, technical and socio-economic aspects of mitigation and that conducting another workshop, in conjunction with SBSTA21, is a positive step. Australia thanks the secretariat for organising the previous workshop and welcomes the opportunity to provide views on the topics identified for discussion and other information that may be of use to the Chair of SBSTA when organising the workshop.

Operation of Workshop

As identified in FCCC/SBSTA/2004/L.14, the aim of the workshop should be to continue to focus on exchanging information and sharing experiences and views on practical opportunities to facilitate the implementation of the Convention.

The previous workshop provided an effective forum for exchanging information and promoted useful discussion about mitigation action undertaken in different countries and about the significance of different national circumstances. The secretariat may wish to build more time into the agenda to allow participants to discuss technical issues in detail.

SBSTA requested that the Chair prepare a summary of the workshop to be held at the twenty-first session, and requested that the secretariat make this summary, and the workshop presentations and abstracts, available on the UNFCCC website as soon as possible after the workshop. Australia supports the dissemination of this information and suggests that the Chair's summary should contain an accurate reflection of the nature of the discussion and the workshop results, without attempting to reach negotiated conclusions.

Topics for Discussion under Agenda Items

Australia considers that the workshop topics are useful and allow appropriate scope for the Parties to focus on issues of interest to them.

Workshop sessions under topic a) could focus on case studies and practical examples that promote understanding of the barriers, both within and between Parties, to technology innovation, deployment and diffusion, and of the practical and cooperative solutions available for addressing these.

Workshop sessions under topic b) could focus on no net-cost actions and practices that have climate change benefits. It may also be useful to focus workshop sessions on different sectors, for example, one on energy and another on agriculture.

Australia is involved in a number of cooperative arrangements with both developed and developing countries to design and implement joint projects including, for example, to improve climate change science and monitoring, and the take up of existing energy efficient technologies and practices. Australia would welcome the opportunity to share the valuable expertise and experience we have gained through our bilateral and regional partnerships at the upcoming workshop.

Participation

Australia considers it important that workshops continue to provide the opportunity to hear a balance of perspectives from both developed and developing countries, including the views of those that did not have an opportunity to present at the previous workshop. Australia encourages the secretariat to again ensure the broadest possible participation in the workshop, including representatives from Government, industry and other non-government organizations.

PAPER NO. 2: CANADA

Submission by the Government of Canada

Views on the workshops on the scientific, technical and socio-economic aspects of mitigation

Canada commends the Secretariat for its organisation of the information exchange workshop held during the Twentieth Session of the Subsidiary Body for Scientific and Technological Advice, SBSTA20. The informal workshops are a useful means to share the growing wealth of information and important lessons being learned by Parties and other stakeholders as they move forward in implementing the Convention and its Kyoto Protocol. This information will be of valuable assistance to all Parties in their future decision-making.

Organization of the Workshop

During the SBSTA 20 deliberations under these agenda items, many Parties requested that any subsequent workshops provide more opportunity for in-depth discussion. Although the in-session format attracted a large number of participants, this, together with a seating arrangement more characteristic of a negotiating session, made in-depth discussion and informal exchange of views difficult. Canada prefers a less formal and more interactive format. Canada would further urge that country flags not be used and that delegates be encouraged to ask questions and speak freely from the floor. As you may recall at the first workshop (directly preceding CoP9), country flags were not used until the "summary" sessions. Noting that many delegates expressed difficulty to participate in the in-session due to parallel activities, the workshop should be scheduled in a manner to minimize overlap with other activities. It may be appropriate to consider going back to pre-session arrangement if necessary.

The panel format itself can contribute to an enhanced discussion. Questions of clarification to one panelist should be addressed very briefly immediately after individual presentations. Following a set of presentations, all panelists should have the opportunity to respond to questions posed by the audience.

Presentations from both developed, economy in transition and developing country governments, experts and practitioners should be encouraged under each topic, with a goal of selecting themes where all Parties benefit from the discussion. Presenters should share suggestions on where the SBSTA might undertake activities to further facilitate implementation of the Convention.

Presentations on regional and bilateral cooperative activities should be considered where pertinent. A sectoral approach and the use of case studies to demonstrate practical and cooperative efforts underway and lessons learned, with an emphasis on no-regrets and win-win solutions, remains a useful approach for both topics.

Workshop Topics

- (a) Mitigation technology innovation, deployment and diffusion, including identification of and removal of barriers.

The barriers to deployment and diffusion of innovative technologies may warrant a special discussion. For instance, one of the barriers in the process to deploying/diffusing innovative technologies is the risk that companies may attach to unproven technologies or practices. It would be useful to hear views on solutions for addressing this challenge from the financial side, such as from venture capitalists.

A considerable amount of work to foster technology innovation, deployment and diffusion is taking place both within and outside of the UN and UNFCCC (for example, the UNFCCC Expert Group on Technology Transfer (EGTT), the Expert Group on Technology Transfer and Scientific and Technical Cooperation (EGTTSTC) of the Convention on Biological Diversity (CBD), the UN Environment Programme (UNEP) and the IEA/OECD/CTI. The IPCC Working Group III will hold an Expert Meeting on Industrial Technology Development, Transfer and Diffusion September 21-24, 2004. Representatives from these initiatives could be invited to report on their work. For instance, it may be instructive to invite the Chair of the EGTT to report on pertinent recommendations arising from the UNFCCC workshop on innovative options for financing the development and transfer of technologies that will take place in late September 2004.

It is important that the future SBSTA work program promote synergy with and non-duplication of the on-going work.

(b) Practical opportunities and solutions for mitigation that contribute to sustainable development.

This topic should focus on experiences with assessing mitigation options in the context of non-climate development goals, policies and priorities in different national contexts, and understanding the costs and benefits of mitigation. Case studies providing information on realized ancillary benefits of mitigation, or win-win scenarios, in the implementation of both domestic and international cooperative mitigation measures will be beneficial to all Parties.

Given that economies will remain globally reliant on fossil fuels for many years to come, Canada supports a focus on improvements in reducing GHG emissions from fossil fuels, such as carbon capture and storage, clean coal, petroleum refining improvements and including attention to demand-side emissions management.

Canada would welcome an opportunity for Parties to share information on research and activities in the area of cleaner fossil fuels, as well as bilateral and multilateral activities in this field.

Background Papers and Relevant Literature

It is Canada's view that it is not the best use of the secretariat's limited resources to develop background papers at this time, given that we remain at an exploratory stage of looking briefly at a wide range of topics under both new agenda items. Focused activities of this nature should be identified once a more specific work program under the agenda items is elaborated. Canada believes that thorough consideration by the Parties of specific background information products, and agreement on their precise scope and terms of reference, is needed to assist the secretariat to deliver products that would best serve Parties needs. Canada urges Parties to give more serious consideration to this in the future.

Next Steps

Canada expects that the lessons learned in the information exchanges will contribute to the SBSTA's report to CoP11 on progress under the two new agenda items, and to informing specific areas the SBSTA might focus its initial work under the two agenda items.

Canada looks forward to participating fully in the information exchanges and to working towards further elaboration of the work program of the two new agenda items at SBSTA 21.

PAPER NO. 3: CHINA

Submission by China
Views on the topics and workshop under agenda item of
scientific, technical and socio-economic aspects of mitigation

The Twentieth Session of the Subsidiary Body for Scientific and Technological Advice requested the Secretariat to organize a workshop on the scientific, technical and socio-economic aspects of mitigation during its twenty-first session and agreed to focus on the exchanging information and sharing experiences on the following topics:

- a) Mitigation technology innovation, deployment and diffusion, including identification of and removal of barriers;
- b) Practical opportunities and solutions for mitigation that contribute to sustainable development.

China welcomes the opportunity to express its views on the above-mentioned topics and workshop concerning scientific, technical and socio-economic aspects of mitigation. In response to Para. 6 of the conclusion of the 20th session of SBSTA as contained in document (FCCC/SBSTA/2004/L.14), China would like to put forward the following views:

1. With regard to mitigation technology, the following aspects should be given full consideration by the workshop during the 21st session of SBSTA:

- a) Role of technology in mitigation;
- b) Mitigation technology needs in developing countries;
- c) Ways and means to promote development, deployment, diffusion and transfer of mitigation technologies; and
- d) Possible international regime for technological cooperation, including technological innovation.

2. With regard to practical opportunities and solutions for mitigation that contribute to sustainable development, China proposes to focus on the following aspects:

- a) Identification of practical opportunities and solutions for mitigation that contribute to sustainable development;
- b) Financial and technical support for developing countries to integrate mitigation options into sustainable development strategy; and
- c) Successful cases on the application of mitigation technology in developing countries with support of developed countries.

3. China commends the Secretariat to organize an in-session workshop during the 21st session of SBSTA. The form of this in-session workshop can be similar to that held during the 20th session of SBSTA. With regard to the allocation of time to the two topics, China proposes to allocate more time to the technological aspects of mitigation. There should be simultaneous interpretation of the six official languages for the workshop. More time should be allocated to the exchange of views between the presenters and audience.

4. Organization of the in-session workshop during the 21st session of SBSTA shall ensure full participation of presenters from developing countries.

PAPER NO. 4: INDIA

Submission for Agenda Item 8:

Scientific, technical and socio-economic aspects of mitigation

Ref: FCCC/SBSTA/2004/L.14

The proposed workshop should include the issues of specific interest and concern for the developing countries. The following are the specific suggestion and recommendations for inclusion of themes in the workshop:

1. A dedicated session on the “**Special issues for developing countries**”. It is recommended to include sub-themes such as innovative financing for technology transfer; funding for prototype units; technical and financial support for local manufacturing capabilities in developing countries; promotion and diffusion of local innovations and appropriate technologies taking into account different national circumstances. A paper should be prepared on the proposed theme, with the involvement of developing country experts, and circulated at the workshop.
2. It is recommended to include a discussion on updating the “**Technology inventory database**” of the present and future technologies, including the emerging innovations. The database discussion should consider both technical and economic information. The workshop may discuss the institutionalization and continuous updating of the database and capacity building in the developing countries to access and use the database.
3. Substantial materials on the barriers exist in various IPCC reports. Most of this focuses on the barriers to market. It is recommended to focus the “Barriers” discussion to wider development perspective. Specifically, it is suggested to include the theme such as: “**How innovation, deployment, diffusion and transfer of technologies for climate mitigation could be aligned with development priorities, programmes and actions in the context of specific national circumstances?**”
4. The theme “**Roadmap for Implementation of the Article 4.5 of the Convention.**” It is suggested to include the following sub-theme and invite papers and presentation thereon: “The barriers to technology trade and bringing the intellectual property rights for environmentally sound technologies in the public domain”.

It is recommended to ensure adequate and meaningful participation of developing countries in the preparation towards the workshop and during the workshop at SBSTA 21.

PAPER NO. 5: NETHERLANDS ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS
MEMBER STATES

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

This submission is supported by Bulgaria and Romania.

Brussels, 3 September 2004

Subject: The Scientific, Technical and Socio-economic Aspects of Mitigation. Views on the topics raised in document FCCC/SBSTA/2004/L.14 and on the workshop to be held during the 21st session of the SBSTA

The Netherlands, on behalf of the European Community and its Member States, welcomes the opportunity to submit their views regarding agenda item 8 on the topics “mitigation technology innovation, deployment and diffusion, including identification and removal of barriers” and “practical opportunities and solutions for mitigation that contribute to sustainable development”, as well as on the format, organisation and scope of the workshop, as requested in document FCCC/SBSTA/2004/L.14.

Introduction

The EU is strongly committed to combating the causes and consequences of anthropogenic climate change jointly with other Parties through the UN Framework Convention on Climate Change and the Kyoto Protocol. We consider the exchange of information, which is taking place through the in-session workshop process started at SB20, to be a useful contribution to collective learning and sharing of experiences and views. Parties are encouraged to use this process to facilitate the implementation of the Convention. The EU wishes to suggest a number of improvements as follows.

Mitigation technology innovation, deployment and diffusion

Content for Workshop at SBSTA21

The EU suggests that the workshop should focus on how technology innovation, deployment and diffusion can bring forward significant emission reductions. The workshop should provide examples that illustrate how governments and stakeholders support and implement such activities and overcome barriers. Existing activities which are linked to or are relevant to the Convention, such as Green Tie, could report to the SBSTA at a future session on their experiences. The secretariat could also invite the representatives of such activities to contribute to the discussions and maintain a dialogue with the Parties.

In this context it should be noted that the development, deployment and diffusion of technology depend on the institutional capacity. Therefore, the development of institutional capacity through soft technologies is crucial to technology development and transfer.

EU-experiences

The EU and individual member states have many practical examples of technology innovation, deployment and diffusion regarding mitigation. The EU considers that the factors that influenced these developments should be part of the discussion as well as their longer term potentials. These examples include:

- The role of different types of targets and goals on all time scales, such as emission trading caps, Kyoto-targets, sectoral objectives, benchmarks, long term goals - including goals derived from the 2°C temperature rise limitation identified by the EU.
- Instruments such as subsidy schemes, fiscal measures, regulations, emissions trading schemes, voluntary agreements, direct public investments, infrastructure planning, labeling.
- Specific technologies such as concerning energy efficiency, biofuels, renewable energy generation, and CHP.

Practical opportunities and solutions for mitigation that contribute to sustainable development

Achievement of the objective of the UNFCCC is intrinsic to sustainable development. The EU considers mitigation to climate change as a key component of strategies for sustainable development. The EU considers that as a contribution to this workshop Parties who have formulated national strategies could be invited to provide examples of linkages between mitigation and sustainable development. This would provide a useful introduction to this important, but extensive and complex subject, that could be further developed at SBSTA 22. The contribution from Parties could include discussion on the following items:

- *Examples of synergies and ancillary benefits (identification of opportunities) and trade offs (identification of challenges) between mitigation and sustainable development.* These could be addressed covering a broad range of sectors both in industrialized and developing countries.
- *The linkage between climate change adaptation and mitigation strategies and their integration with sustainable development plans.*

Format and organisation of future workshops

The EU considers that the contributions should be more focused and that sufficient time for discussion should be provided. The use of breakout sessions with experienced Parties and experts, preferably under the guidance of experienced facilitators, could stimulate more detailed discussion and provide enhanced opportunity for exchange of views. The EU also stresses the importance of providing abstracts of the presentations in advance. It would be useful for the workshop to consider how lessons learned can be made more accessible to others.

Finally, as many experts deal with SBSTA agenda items 6, 7 and 8 the secretariat is kindly requested to aim to ensure at future sessions that consideration of these items is not concurrent.

PAPER NO. 6: NEW ZEALAND

Submission by New Zealand on the SBSTA workshops on (i) scientific, technical and socio-economic aspects of impacts and vulnerability and adaptation to climate change and (ii) mitigation of climate change

This submission responds to both FCCC/SBSTA/2004/L.13 and FCCC/SBSTA/2004/L.13. New Zealand welcomes this further opportunity to share its views regarding the themes of and arrangements for the SBSTA workshops on the agenda items on scientific, technical and socio-economic aspects of impacts and vulnerability and adaptation to climate change and mitigation of climate change.

Previous submissions by New Zealand have identified a general approach to the workshops and a number of specific topics that we believe would help SBSTA to explore the adaptation and mitigation agenda items in the context of implementing the objectives of the Convention. Those suggestions are not reiterated in detail here. We refer readers to submissions by New Zealand contained in FCCC/SBSTA/2004/Misc6 and FCCC/SBSTA/2003.Misc11. This submission specifically focuses on the subject matter New Zealand would find useful to have addressed by each of the two workshops to be held during SBSTA 21, in the context of the agreed themes.

Adaptation

Under the “methods and tools” theme, New Zealand would find it valuable to hear presentations by practitioners experienced in meeting adaptation challenges that relate to the effects of climate change on natural resource based economies. New Zealand would be happy to share its own experiences in this context at the Adaptation Workshop.

New Zealand considers that the “sustainable development” theme provides a useful opportunity to address the benefits and risks of early decision making to adapt to climate change in sustainable development pathways. Changes in climate, environmental and socio-economic systems are all subject to long response lags and irreversibility that coupled with the additional inertia of responses to those changes is one of the key reasons why anticipatory adaptation can be beneficial and may in some circumstances be necessary. At the same time, early action based on incomplete knowledge may also create unnecessary cost. In some situations early and anticipatory adaptation as a response to the changing climate is necessary to avoid lock-in of future vulnerabilities. In other situations adaptation occurs most effectively in the course of longer term decision making processes. The SBSTA workshop may be able to facilitate an exchange of information and experiences to assist Parties with decisions on adaptation priorities and timeframes for implementation of practical responses.

Mitigation

The “technology innovation, deployment and diffusion” theme provides an opportunity to consider the dual importance of ensuring that present day investment in technology deploys the most appropriate climate-friendly technologies in major investments and also ensures that the best future technology is successfully brought to market as soon as possible. New Zealand would welcome more information about the nature of major current investment decisions and the barriers that may exist to decisions to implement those climate-friendly technologies that are available now or are able to be brought to the market with minimal additional cost.

The mitigation workshop may usefully consider the contribution of carbon sequestration in forests to a balanced portfolio of mitigation actions in the context of both sustainable development and deployment and diffusion of technology. As part of the portfolio of mitigation actions, forest sinks can contribute to sustainable development plans by way of sustainable land use (achieving the co-benefit of emission reductions and, if properly managed, contribution to other environmental objectives such as prevention of soil erosion and maintenance and enhancement of biodiversity). Planted forests can also contribute as a renewable energy resource facilitating switching to bio-energy from fossil fuel energy sources.

New Zealand is also interested in learning about mitigation initiatives that not only have positive climate change outcomes but also directly address sustainable development objectives including sustainable long-term emission patterns and pathways. The "sustainable development" theme could usefully facilitate a presentation on management of climate change which also benefits wider sustainable development objectives. This could include global and/or regional initiatives designed to address the Johannesburg Plan of Implementation (such as WSSD Type 2 partnerships), and national-level action (such as initiatives that might be prioritised in national sustainable development strategies). A presentation of views, information and experiences of climate change relevant aspects of WSSD's Chapter 3 on "Changing unsustainable patterns of consumption and production" would also be useful.

PAPER NO. 7: SAUDI ARABIA

SAUDI SUBMISSION ON
“SCIENTIFIC, TECHNICAL AND SOCIO-ECONOMIC
ASPECTS OF MITIGATION”

Saudi Arabia would like to thank the UNFCCC Secretariat for the successful preparation of the in-session workshop on the Scientific, technical and socio-economic aspects of mitigation on the 20th session of SBSTA, Bonn, Germany and welcomes the opportunity to submit its views on the topics referred to in Paragraphs 4 of document FCCC/SBSTA/2004/L.14 and on the workshop to be held during the 21st session of the SBSTA as been invited by the SBSTA.

Saudi Arabia would like to emphasize that any exchange of information regarding Scientific, technical and socio-economic aspects of mitigation must be done within the context of Article 4 of the Convention, where commitments for Annex I and non-Annex I have been clearly outlined and identified. Differentiation between Annex I and non-Annex I is an essential element for any scientific or technical assessment under mitigation. Non-Annex I commitment under mitigation must be confined to Article 4, Paragraphs 1 and 7 of the Convention and should be in accordance to their specific national and regional development priorities, objectives and circumstances, **without introducing any new commitments**, taking into account the provisions of Article 4, Paragraphs 4, 5, 7, 8 and 9 of the Convention. Any development on mitigation shall be aimed at ANNEX-I meeting their commitment under the Convention, in particular Article 4 paragraphs 2 and 7. Hence, the ground must be provided to share experiences and to take up practical opportunities and solutions for mitigation that contribute to sustainable development plan precisely in the area of the negative impacts of Annex I Parties response measures on non-Annex I Parties including **negative spillover effects** from potential mitigation measures taken by Annex I parties. Discussions under this agenda item must be limited to the mandate of SBSTA as described in Article 9 of the Convention.

Saudi Arabia believe that an essential part of this agenda item is to advance robust solutions and opportunities to minimize the negative impacts of Annex I Parties response measures on non-Annex I Parties including negative spillover effects from potential mitigation measures taken by Annex I parties. This agenda item needs to further elaborate on the work of the IPCC-TAR and WGIII on spillover effects and impacts of response measures. This agenda item shall advance options to reduce impact of response measures and spillover effects.

The cost of mitigation must be addressed in a manner to minimize the potential economic impacts on developing countries which are heavily dependent on the exportation of fossil fuel. Developing countries have raised concerns about the potential climate change related energy policies undertaken by developed countries to mitigate greenhouse gas emissions as been emphasized in Article 4, Paragraph 8 of the Convention as well as Article 2, Paragraph 3 and Article 3, Paragraph 14 of the Kyoto Protocol, which mainly stipulate that Annex I parties should meet specific needs and concerns of developing countries arising from the impact of the implementation of response measures.

Saudi Arabia believes that any exchange of information under this agenda item must include information needed, and identification of possible measures that would cut emissions at the same time have minimal effects on oil producing developing countries such as removal of subsidies, restructuring the tax systems, enhancement of sinks, sequestration technologies and others. Hence, SBSTA needs to promote the exchange of information on **win-win** type policies and measures.

PAPER NO. 8: UNITED STATES OF AMERICA

**Submission of the United States
FCCC/SBSTA/2004/6
Views on the Scientific, Technical and Socio-economic Aspects of Mitigation
September 13, 2004**

The Twentieth Session of the Subsidiary Body for Scientific and Technical Advice in June 2004 (SBSTA-20) invited Parties to submit their views on the topics of “(a) Mitigation technology innovation, deployment and diffusion, including identification of and removal of barriers; and (b) Practical opportunities and solutions for mitigation that contribute to sustainable development” as well their views on the workshop to be held during SBSTA-21. The United States welcomes the opportunity to provide views on the scientific, technical and socioeconomic aspects of mitigation and to provide suggestions on the organization and substance of the workshop at SBSTA-21, and subsequent work on this agenda item.

The United States considers that the goal of this work should be to provide SBSTA participants with detailed information regarding opportunities at the practical level, so as to better inform SBSTA’s future work. We believe that SBSTA can usefully promote mitigation activities by helping participants and others identify opportunities and solutions in areas that have the potential for significant greenhouse gas mitigation.

We found the in-session workshop on mitigation at SBSTA-20 to be very useful in facilitating the sharing of experiences and views among Parties on practical opportunities and solutions. We noted from the presentations that developed and developing countries face many common challenges in energy supply, economic development, and meeting environmental goals, and that we have much to learn from each other’s experiences. Many presentations emphasized that climate projects need to be integrated into broader sustainable development objectives, and that the most successful projects yield local benefits. Workshop presentations also highlighted the critical role of technology in addressing climate change. We hope the discussions at SBSTA-20 will serve as the basis for a more detailed exchange of views on these subjects at the SBSTA-21 workshop.

It is our view that the form of discussions at SBSTA-20 provides a useful model for the future consideration of mitigation issues. The work program over the next several sessions could usefully consider a broad range of technical and analytical topics. In-session workshops will provide an opportunity to explore a few specific topics in greater detail, and will give direction to future workshops and discussions.

We found presentations by practitioners to be especially useful at the last session, and encourage more of this kind of information for the two topics that have been identified for this workshop. We also believe that there is an important role for presentations by those involved in advancing policies that promote opportunities in these areas.

Technology Innovation, Deployment and Diffusion

We note that many of the presentations have covered key technologies and the issues associated with their implementation and development. It is useful for SBSTA and for UNFCCC negotiators to be informed about developments with respect to these technologies, and their current and potential role in mitigation efforts. In addition, we believe it would be valuable for participants to have a better understanding of experiences in facilitating the research, development, and diffusion of technologies, both at the national and international levels. SBSTA can learn from the experiences of industries and governments in overcoming barriers and spurring innovation and ultimately transformation of commercial markets to deploy mitigation technologies. Market transformation is a broad approach that has been applied in the United States and other countries to identify and coordinate activities to accelerate the adoption of new technologies.

SBSTA could consider how emerging technologies have been successfully taken from idea to early commercialization. Industry practitioners could, for example, present their experiences in the practical process of developing new technologies, describing how they perceived risks and opportunities, how they overcame challenges and barriers, and the role governments play in this process. It would also be useful for government experts who have helped industries spur innovation and overcome barriers to present their experiences on effective measures to spur research, development and deployment of new technologies. It would be interesting to look at future climate-related technologies such as hydrogen fuel cells, advancements in more established technologies such as renewable energy and energy efficiency, as well as examples of successful technology development outside the climate arena.

Practical opportunities and solutions for mitigation that contribute to sustainable development

A number of activities have occurred in various parts of the world to identify greenhouse gas opportunities that support other sustainable development goals. SBSTA could benefit from this experience, and could also identify ways to promote successful approaches to identify such activities. Presentations could focus on specific mitigation opportunities for different greenhouse gases. In addition, a number of tools and methodologies have been developed to help decision makers at the local level identify such opportunities, and some of these are being applied internationally at this time.

A focus by SBSTA on such activities could help clarify the kinds of tools and activities that will help identify significant opportunities in a variety of circumstances. Presentations could look at, among others, activities to promote significant low- or no-cost reductions (e.g., methane, energy efficiency) as well as measures, such as fuel switching projects or sustainable transportation systems, that have significant non-climate co-benefits (e.g., air quality or land use). It would be useful to have presentations specifically on tools that currently exist to help decision makers and practitioners more accurately characterize the benefits of their actions.

PAPER NO. 9: UZBEKISTAN

The opinion of the Republic of Uzbekistan on the scientific, technical, social and economical aspects of climate alleviation

Republic of Uzbekistan supports the efforts of FCCC Secretariat in the field of scientific, technical, social and economical aspects of climate alleviation (FCCC/SBSTA/2004/L.14, pp. 4 and 6).
Republic of Uzbekistan

Basing on the results presented in the First National Report and report prepared within a framework of the project “Uzbekistan – country study on climate change” on its Phase II, proposed to use the following **innovative developments, introduction and propagation of technologies for the reduction of the green-house gases emission:**

- **measures for alleviation of aftereffects of climate change** will put the **base** for the further working out a **National Strategy** on the reduction of the green-house gases emission in the key sectors of national economy of the republic;
- **list of concrete sectoral measures and technological projects** aimed at the reduction of the green-house gases emission which present the specific features of the economy and **innovative and technological needs** of the country;
- **recommendations on an optimum management of the fuel and energy complex and rational use of an organic fuel** which is the core of the national policy on the reduction of the green-house gases emission;
- **proposals on the development and sustainable functioning** of the fuel-and-energy complex enterprises which allow to satisfy the needs of the republic in fuel-and-energy resources **almost to a full extent** due to a self-production and **to export** a natural gas, products of the oil re-processing and power to the neighbour countries;
- **guide-lines of a energy policy for the nearest future** for the maximum **increase of the energy effectiveness and creation** of the conditions for transferring the economy **on the energy-saving way of development and reduction of the negative effect** of energy on the environment.

Within a framework of activities on a technology transfer in Republic of Uzbekistan the **administrative-legislative, social-economical, financial, technological and informational barriers** were revealed as well as the **means** of possible solutions of these barriers liquidation were defined.

At present Republic of Uzbekistan has a sufficient potential **in the area of the emissions reduction which facilitates the substantial development**, namely:

:

- **Informational-analytical Centre on data generalization** created during working out the first National Report on project “Uzbekistan – country study on climate change” is functioning actively;
- **Teams of the national experts** and specialist in various fields from different agencies and institutions work in the following directions:
-green-house gases inventory, - study of climate changes, -assessment of vulnerability, - economical and energy analysis, -working out measures on reduction of green-house gases emission, etc.

However, the following activities should be a **practical possibility and solution** in the area of the reduction of the green-house gases emissions for Republic of Uzbekistan in future:

- intensive development of **activities on the clean development mechanism** which will provide Republic of Uzbekistan for the development and realization of projects aimed at the reduction of the green-house gases emissions in different sectors of the economy;
- further **informational, technological and human capacity building** in the field of reduction of the **green-house gases emissions**;
- **improvement of the information-analytical centre on data** generalization;
- **working out a Second National Report on climate change of Republic of Uzbekistan** разработка;
- **training in application of new economical models and in a practical application of macro-economical models** considering the experience of the other developing countries and countries with the economy in transition;
- introduction of the workable **measures on mitigation** climate change consequences **and adaptation** into the national sectoral programs of development of the priority economy sectors.
