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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

AD HOC WORKING GROUP ON FURTHER COMMITMENTS FOR ANNEX I PARTIES UNDER THE KYOTO PROTOCOL Third session Bonn, 14–18 May 2007

Item 3 of the provisional agenda Analysis of mitigation potentials and ranges of emission reduction objectives of Annex I Parties

Information on external bodies and forums that could provide expert input to the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol

Submissions from Parties

- 1. The Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG), at its second session, invited Parties to submit to the secretariat, by 23 February 2007, information about external bodies and forums that could provide expert input to the work of the AWG (FCCC/KP/AWG/2006/4, para. 20).
- 2. The secretariat has received seven such submissions. In accordance with the procedure for miscellaneous documents, the submissions are reproduced* in the language in which they were received and without formal editing.
- 3. The secretariat has also received a submission from an accredited non-governmental organization. In line with established practice, the secretariat has posted this submission on the UNFCCC website http://unfccc.int/parties and observers/ngo/items/3689.php>.

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

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^{*} This submission is supported by Bosnia and Herzegovina, Croatia, Serbia, and The former Yugoslav Republic of Macedonia.

PAPER NO. 1: CHINA

INFORMATION ABOUT EXTERNAL BODIES AND FORUMS THAT COULD PROVIDE EXPERT INPUT TO THE WORK OF THE AWG

With regard to Document FCCC/KP/AWG/2006/L.4, I would like to inform you of the following three institutions that could provide expert input to the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol as external bodies:

1. Energy Research Institute

National Development and Reform Commission

Address: B-1405, Guohong Building, Muxidi Beili, Beijing, 100038 China

Tel: 86-10-6390-8455

Fax: 86-10-6390-8457

E-mail: xuhqing@public3.bta.net.cn

2. Energy Environment Economy Research Institute

Tsinghua University

Address: Energy Science Building, Tsinghua University, Beijing, 100084, China

Tel: 86-10-6278-4828

Fax: 86-10-6277-1150

E-mail: lbinet@tsinghua.edu.cn

3. Research Centre for Sustainable Development

Chinese Academy of Social Sciences

Address: No.5 Jianguomenei Dajie, Beijing, 100732, China

Tel: 86-10-8519-5788

Fax: 86-10-8511-9035

E-mail: cycass@163bj.com

I believe that the above-mentioned three institutions have expertise relevant to the work of the AWG and can contribute a broad diversity of experiences and expertise. Please feel free to contact them.

PAPER NO. 2: GERMANY ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

This submission is supported by Bosnia and Herzegovina, Serbia, Former Yugoslav Republic of Macedonia and Croatia

Subject: Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol:

Information from Parties about external bodies and forums that could provide expert input to the work of the AWG

The European Union strongly welcomes the progress made during the second session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG) in Nairobi, especially its decision on the work programme for the completion of its mandate (Document FCCC/KP/AWG/2006/L.4).

We welcome this opportunity to provide information about external bodies and forums that have expertise relevant to the work of the AWG. This, in addition to drawing upon relevant results achieved and work under way in other bodies and processes under the Convention and its Kyoto Protocol, will enable the AWG to proceed expeditiously towards the fulfilment of its mandate and allow its work to be based on latest scientific, technical and socio-economic information.

The work programme of the AWG is structured around the broad issues of

- Analysis of mitigation potentials and ranges of emission reduction objectives of Annex I Parties;
- Costs and benefits of mitigation;
- Analysis of possible means to achieve mitigation objectives;
- Consideration of further commitments by Annex I Parties;

and Parties further agreed that the work of the AWG should be guided by a shared vision of the challenge set by the ultimate objective of the Convention, based on the principles and other relevant provisions of the Convention and its Kyoto Protocol.

The AWG further requested the secretariat, with guidance from the Chair, in preparing for future sessions, to draw upon analysis and information from the IPCC, in particular its Fourth Assessment Report. In addition to this very important source of expertise we suggest the following bodies and forums, that have expertise relevant to the work of the AWG and can contribute a broad diversity of experiences and perspectives.

We would like to draw on expertise on mitigation potentials from organisations including the International Energy Agency (IEA), Renewable Energy Policy Network for the 21st Century (REN21), European Renewable Energy Council (EREC), International Civil Aviation Organization (ICAO), International Maritime Organisation (IMO) and the Tyndall Centre, UK.

In addition environmental NGOs and private sector actors, as well as trade unions can contribute based on their extensive work on mitigation options. This includes, inter alia, Vattenfall AB, Royal Dutch Shell, British Petroleum as well as the World Wildlife Fund and Greenpeace.

Sectoral potentials have a key role to play and organisations with expertise in this area could include Center for Clean Air Policy (CCAP), World Business Council for Sustainable Development (WBCSD), the World Bank and regional development banks, Food and Agriculture Organization (FAO).

Besides on mitigation options, there is valuable expertise on benefits and co-benefits of climate policy available, including from the World Health Organization, the OECD and the International Institute for Applied Systems Analysis (IIASA).

In terms of technology, we would like to use the expertise of a range of organisations and institutes who have carried out analyses on technological solutions including National Institute for Environmental Studies, Japan (NIES), Institute for Prospective Technological Studies (IPTS, Spain), National Technical University Athens (NTUA, Greece), Technical Research Centre of Finland (VTT), Netherlands Environmental Assessment Agency (MNP), Potsdam Institute for Climate Impact Research (PIK, Germany), Ökoinstitut (Germany), National Renewable Energy Laboratory (NREL, USA), Massachusetts Institute of Technology (MIT, USA), Princeton University (USA), Centre for Energy Efficiency (CENEf, Russia), Tata Energy Research Institute (TERI, India), Energy Research Institute (China), Energy Research Centre (Cape Town, South Africa), COPPE/UFRJ (Brazil) and international initiatives and partnerships, e.g., Standards for Energy Efficiency of Electric Motor Systems initiative (SEEEM), Renewable Energy and Energy Efficiency Partnership (REEEP), Carbon Sequestration Leadership Forum (CSLF), Climate Technology Initiative (CTI).

In addition to expertise on potentials, a better understanding of the means available to achieve mitigation objectives will be necessary and we would like to be able to draw on expertise from a range of organisations, institutes and other constituents, including Pew Center on Global Climate Change, World Resources Institute (WRI), International Emissions Trading Association (IETA) and the BASIC project.

This selection of bodies and forums is necessarily indicative and non exhaustive. Likewise, we may wish to draw on the expertise of an organisation or institute in relation to more than one area of analysis. There is broad range of institutes, organizations and other bodies working on issues of relevance to the work of the AWG. We are happy to provide further input on such bodies and forums as necessary at a later stage and as the work of the AWG proceeds.

PAPER NO. 3: JAPAN

${\bf Japan's\ submission\ on\ information\ about\ external\ bodies\ and\ forums\ that\ could\ provide\ experting the\ work\ of\ the\ AWG$

nal bodies (Domestic)	Input	Contact
AIST (Advanced Industrial Science and Technology)	Researches to cope with environmental risks, promotion of recycling, technologies combating global warming, innovative technologies for efficient utilization and conservation energy, and environment-friendly energy sources http://www.aist.go.jp/index_en.html <pre></pre>	Tel: +81-29-861-2000 Email: webmaster@aist.go.jp
	* Development of production technology for solar cells. AIST RCPV aims at reducing the cost of solar energy through comprehensive research works, from materials research to large scale PV systems. http://unit.aist.go.jp/rcpv/index-e.htm * Development of ethanol production process from woody biomass by non-H2SO4 process. AIST conducted research on a highly efficient production of ethanol for the source of ETBE separating the three components of hemicellulose, cellulose, and lignin in woody biomass through the hydrothermal and/or mechanical processing. http://unit.aist.go.jp/btrc/cie/	
CRIEPI(Central Research Institute of Electric Power Industry)	Survey and forecasts on a wide-range of environmental problems including global warming, and proposal of solutions for these problems: see http://criepi.denken.or.jp/en/ for details <pre> </pre> <pre> <pre> <pre> <pre> <pre></pre></pre></pre></pre></pre>	Tel: +81-3-3480-2111 Fax: +81-3-3480-3491 Email:src-rr- ml@criepi.denken.or.j

Survey on scientific, political and social situation on global environment, assessment on potential technologies of reducing greenhouse gases by using the integrated assessment model for long-term energy system sustainability, and evaluation on Japanese long-term strategies of R&D activities on energy and environment

<Research, project and relevant information>

* Survey on Coal Based Synfuel Potential

Coal is relatively abundant fuel compared to oil and gas. The feasibility of coal based alternative fuel will be assessed under high oil price and/or diversified fuel demand structure requirement.

* Policy Aspects of CO2 Capture and Storage

There was no CO2 capture and storage (CCS) accounting scheme in annual national GHG inventory report before IPCC 2006 guideline.
The modeling study was made about CCS feasibility assuming various kind of CCS accounting schemes to make realistic policy proposal.

IAE(The Institute of Applied Energy)

* Survey on Brazilian Proposal

In 1997, Brazil proposed GHG mitigation scheme called Brazilian Proposal' during the negotiation to determine burden sharing among ANNEX I parties. The proposal insists historical GHG emissions and its countries' attribution to current climate change. The analysis was conducted about historical GHG emissions effects to GHG concentration, temperature and sea level rise using simple climate model and regional attribution assessment methods.

* Carbon Cycle Uncertainty Implications for Climate Policy Global carbon cycle has the uncertainty about the scale of interactions among atmosphere, ocean and vegetation. If we assume the climate stabilization, the uncertainty will change GHG mitigation level. The mitigation cost analysis including carbon cycle uncertinty will be conducted.

* Energy Technology Vision 2100

Long term energy vision with technology roadmap is needed to overcome global scale issues. The technology detail roadmaps in the area of transformation, industry, transportation and residential & commercial were developed under energy resource and global environment constraints.

Tel: +81-3-3508-8891or8894

Fax: +81-3-3501-1735

Research activities specialized in the area of energy from the viewpoint of the national economy as a whole in a bid to contribute to sound development of the Japanese energy-supplying and energy-consuming industries and to the improvement of people's life in the country by objectively analyzing energy problems and providing basic data, information and reports necessary for the formulation of policies, including environmental problems and international cooperation closely related to energy.

<Research, project and relevant information>

*Methodological analysis for CDM and JI teams as a part of support for Japan's secretariat work for UNFCCC activities.

*Analysis of domestic measures to tackle global warming including voluntary action plans as well as energy efficiency improvement *Analytical work to support the G8 and APP process, including quantitative analysis and constructing of efficiency indicators

IEE (The Institute of Energy Economics, Japan) "CO2 Reduction Potential by Energy Efficient Technology in Energy Intensive Industry", http://eneken.ieej.or.jp/en/data/pdf/324.pdf

"Policy Framework of Renewable Energy for Paradigm Shift",

http://eneken.ieej.or.jp/en/data/pdf/288.pdf

*Estimation of short-, long-, and ultra-long-term econometric models including those for world energy outlook, oil trade projection, power generation outlook

"Japan Long-Term Energy Outlook -A Projection up to 2030 under Environmental Constraints and Changing Energy Markets", http://eneken.ieej.or.jp/en/data/pdf/342.pdf

"Asia/World Energy Outlook 2006", http://eneken.ieej.or.jp/en/data/pdf/362.pdf" "Short-Term Energy Supply/Demand Outlook",

http://eneken.ieej.or.jp/en/data/pdf/317.pdf

*Estimation of energy balance tables and its related indicators
*Coordination of international initiatives to collect process and
estimate energy indicators including those for APEC, IEA, and JODI.
*Analysis of energy market including those for supply and demand,
energy price, regulations, and players.

"Energy Security Challenges in Asia", http://eneken.ieej.or.jp/en/data/pdf/329.pdf *Consultation for power, gas, oil and energy consuming industries Tel: +81-3-5547-0231 Fax: +81-3-5547-0227 Email: otoiawase@tky.ieej.or.jp

IGES (Institute for Global Environmental Strategies)	Evaluation and recommendation on pragmatic climate policies for achieving sustainable development in the Asia-Pacific region in an era of evolving global climate regime	Tel: +81-46-855-3700 Fax: +81-46-855-3709 Email: iges@iges.or.jp
JICA(Japan International Cooperation Agency)	International cooperation agency on capacity building and technical assistance <pre> <research, and="" information="" project="" relevant=""> *Technical assistance on energy efficiency *Technical assistance on aforestation and forest management *Capacity building as to CDM project development</research,></pre>	Tel: +81-3-5352- 5311/5312/5313/5314 Email: jicagap- opinion@jica.go.jp
NEDO(New Energy and Industrial Technology Development Organization)	Industrial technology research and development, environmental technology research and development including activities to promote new energy and energy conservation technology, and R&D project planning and formation, project management and post-project technology evaluation functions *Research, project and relevant information> *Multi-purpose Coal Gasification Technology Development (EAGLE) http://www.nedo.go.jp/english/activities/portal/gaiyou/p98021/p98021 .html *Development of Ultra High-efficiency Combustion Technology Using Hyper-coal http://www.nedo.go.jp/english/activities/portal/gaiyou/p92006/p92006 .html *Study of Techniques to Mitigate Environmental Effects of Coal Utilization Processes http://www.nedo.go.jp/english/activities/portal/gaiyou/p06037/p06037 .html	Tel: +81-44-520-5100 Fax: +81-44-520-5103 Email: inf-r6@nedo.go.jp

NIES (National Institute for Environmental Studies)	Research on carbon cycle, carbon sink, socio-economic & emission modeling, climate modeling, impact & adaptation modeling. <research, and="" information="" project="" relevant=""> *Japan Low-Carbon Society Scenarios toward 2050 The object of the project is to propose concrete countermeasures to achieve a Low-Carbon Society in Japan by 2050, including institutional change, technology development and lifestyle change. This project supports the "Japan-UK Joint Research Project: Developing Visions for a Low-Carbon Society (LCS) through Sustainable Development" http://2050.nies.go.jp</research,>	Tel +81-29-850-2314 Fax +81-29-851-4732 Email: www@nies.go.jp
Nippon Keidanren(Japan Business Federation)	Business perspective on climate change policies Research, project and relevant information> *Keidanren Voluntary Action Plan on the Environment http://www.keidanren.or.jp/english/policy/index07.html	Tel: +81-3-5204-1500 Fax: +81-3-5255-6255 Email: webmaster@keidanren.or.j p

Research hub focusing on the development of innovative environmental technologies and the broadening of the range of CO_2 sinks, conducting R&D and research investigations and providing information to the public, with the cooperation of the private sector, academia and the government

<Research, project and relevant information>

*Integrated Assessment of Global Warming and its Mitigation Technologies in the Changing World Economy and Industry Exploration of desirable CO₂ concentartion stabilization level in consideration of both warming impacts and warming mitigation costs, and evaluation of economic responses by sector to emission reductions http://www.rite.or.jp/Japanese/labo/sysken/systemken.html
*Evaluation of International Emission Reductions Frameworks after 2013

Various top-down targets and bottom-up targets are evaluated using a global energy model having a high regional resolution for Post

Kyoto regimes investigation http://www.rite.or.jp/Japanese/labo/sysken/systemken.html

*Assessment of Global Warming Mitigation Technologies
Importance of many kinds of global warming technologies which are
expected to be developed within about 30 years are evaluated interms
of cost-effectiveness of emission reductions in Japan and their
probabilities of success and realization time are evaluated using the
corresponding data of their elemental technologies based on the
GERT technique.

RITE (Research Institute of Innovative Technology for the Earth)

http://www.rite.or.jp/Japanese/labo/sysken/systemken.html *CO₂ Geological Storage Project

http://www.rite.or.jp/English/lab/geological/geological.html *Cost Saving CO₂ Capture System -New Chemical Absorption System New chemical absorption system by development of novel absorbent and waste heat utilization.

http://www.rite.or.jp/English/lab/chemical/cocs-e.html

*Development of Biorefinery Technology

*CO₂ Ocean Sequestration Project

http://www.rite.or.jp/English/welcome/Project/ocean.html

*Programmed Research & Development

Supported by subsidies from METI, RITE is promoting the search of R&D themes, fundamental research at conceptual stage (leading research), and technological research for the verification of feasibility (fundamental technology research) on CO $_2$ fixation and effective utilization.

*Joint Research Program of Technological Development in the Private Sectors

RITE promotes R&D to restrain global warming with the participation of private companies through this program under METI's support. RITE funds half of the research for this program. http://www.rite.or.jp/English/about/tech/tech/e.html

*Project of Technology Development for Expansion of Vegetation Area by Afforestation for Large Sequestration of CO₂

*Molecular Gate Membrane for CO₂ Capture

Project of CSLF recognition as CO₂ separation from pressurized gas

Tel: +81-774-75-2300 Fax: +81-774-75-2314 Email: hq.kyoto@rite.or.jp

ernal bodies (International)	Input	Contact
IEA (International Energy Agency)	Energy policies coordinated with climate change policies, alternative energy scenarios and strategies aimed at a clean clever and competitive energy future, energy indicators to assess efficiency, identification of best practices	Tel: (33 1) 40 57 65 00/01 Fax: (33 1) 40 57 65 59 Email: Info@iea.org
OECD (Organization for Economic Co- operation and Development)	Analytical basis to develop environmental policies that are effective and economically efficient, including through performance reviews, data collection, policy analysis, and projections.	Tel (Mainswitchboad): +33 1.45.24.82.00 Fax: +33-(0)1.44.30.63.99 Email: env.contact@oecd.org

ernal forums	Input	Contact
APP (Asia-Pacific Partnership on Clean Development and Climate)	Public-private activities on sectoral assessments, capacity building, identifying best practices and technology research and demonstration in 8 key sectors (aluminium, building and appliances, cement, cleaner use of fossil energy, coal mining, power generation and transmission, renewable energy and distributed generation, steel).	
G8	Political perspective on climate change policy	

PAPER NO. 4: NEW ZEALAND

AD HOC WORKING GROUP ON FURTHER COMMITMENTS FOR ANNEX I PARTIES UNDER THE KYOTO PROTOCOL (AWG)

Information from New Zealand about external bodies and forums that could provide expert input to the work of the AWG

The AWG, as noted in the conclusions from its second session, considered it useful to seek input from external bodies and forums that have expertise relevant to its work and that can contribute a broad diversity of experiences and perspectives. The AWG has requested the Secretariat, with guidance from the Chair, in preparing for future sessions, to draw upon analysis and information from the IPCC, in particular its Fourth Assessment Report, and from intergovernmental organizations, and, as appropriate, from non-governmental organizations and national research institutions and programmes. The AWG invited Parties to submit to the secretariat, by 23 February 2007, information about external bodies and forums that could provide expert input to the work of the AWG.

In addition to analysis and information from the IPCC, the following is a non-exhaustive list of external bodies and forums which New Zealand considers could provide expert input to the work of the AWG:

<u>Intergovernmental organisations</u>

- International Energy Agency
- UN Food and Agriculture Organisation
- International Maritime Organisation
- OECD, including work of OECD Annex 1 Experts Group

Non-governmental organisations

- Center for Clean Air Policy
- International Institute for Sustainable Development
- Pew Center for Global Climate Change
- World Resources Institute
- Wuppertal Institute

PAPER NO. 5: SWITZERLAND

External bodies and forums that could provide expert input to the work of the AWG

Kyoto Protocol, AWG 3

- 1. Switzerland recognizes the need and usefulness in involving external bodies and forums that could provide expert input to the work of the Ad Hoc Working Group on future commitments for Annex I Parties under the Kyoto Protocol.
- 2. Therefore, we would like to propose that the following organizations be invited to provide their input in the various settings and arrangements (such as round tables, submissions, participation to expert workshops, etc.) that the AWG may consider useful for conducting its work:
 - Intergovernmental Panel on Climate (IPCC);
 - Organisation for Economic Co-operation and Development (OECD);
 - International Energy Agency of the OECD (IEA/OED);
 - The World Bank (WB);
 - International Emissions Trading Association (IETA);
 - International Chamber of Commerce (ICC);
 - World Business Council for Sustainable Development (WBCSD);
 - World Wildlife Fund (WWF) International;
 - Greenpeace International.

PAPER NO. 6: URUGUAY

I am pleased to contact you with reference to your letter of December 5th 2006 and to paragraph **6 of document FCCC/KP/AWG/2006/L.4**, which provides that Parties are invited to submit information on external bodies and forums that could provide expert input to the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.

In this respect I wish to point out the antecedents as well as the experience generated within the framework of the Montreal Protocol international environmental agreement relative to the substances that deplete the ozone layer, which establishes specific measures that the Parties are bound to take with the purpose of protecting the ozone layer as well as reducing the levels in the production and consumption of certain gases that deplete the ozone layer. To this effect, the potential reduction of these substances in the diverse countries, its economical implications and the possible new technologies were considered.

Concerning the above exposed, Uruguay thinks that the Ozone Secretariat may provide contributions in relation to the establishment of regulations and provisions and the Multilateral Fund for the Application of the Montreal Protocol Secretariat may share its experience in connection with the execution of the most appropriate measures for the protection of the ozone layer.

PAPER NO. 7: ZAMBIA

AD-HOC WORKING GROUP ON FURTHER COMMITMENTS FOR ANNEX 1 PARTIES UNDER THE KYOTO PROTOCOL

On the invitation to Parties, by the Ad-Hoc Working Group (AWG), to submit comments on the possible external bodies or forums that could provide expert in-put tot eh work of the AWG, Zambia welcomes the request and fully supports the need to consider in-put from external bodies and forums for its work.

In particular, Zambia expects the work of the Inter-Government Panel on Climate Change (IPCC) to inform the work of the AWG in establishing further commitments for Annex 1 Parties. The Fourth Assessment Report (AR4) expected to be released early this year will be valuable to this process.

Other external bodies that could enrich the work of the AWG include the International Atomic Energy Agency (IAEA). The IAEA's expertise and technical competence would be useful to the AWG's future work in this process. Other international Non-Governmental organizations with proven expertise would also make meaningful contribution to the AWG's work in order to objectively determine further commitments for Annex 1 countries.
