### **ENGLISH ONLY**

### UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

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### IMPLEMENTATION OF ARTICLE 4, PARAGRAPHS 8 AND 9, OF THE CONVENTION

#### PROGRESS ON THE IMPLEMENTATION OF ACTIVITIES UNDER DECISION 5/CP.7

Views from Parties on the status of modelling activities to assess the adverse effects of climate change and the impact of response measures already implemented on individual developing country Parties, and on issues relating to progress in the implementation of decision 5/CP.7

- 1. The Subsidiary Body for Implementation (SBI), at its sixteenth session, welcomed an oral report on the workshop, held 16–18 May in Bonn, on the status of modelling activities to assess the adverse effects of climate change and the impact of response measures already implemented on individual developing country Parties, including on how to enhance the participation of developing country experts in such efforts. The terms of reference of that workshop included assessments of approaches to minimize the adverse effects of response measures on developing country Parties. The SBI also invited Parties to submit, by 1 August 2002, their views on these issues, and on issues relating to progress in the implementation of decision 5/CP.7 (FCCC/SBI/2002/6, para. 26).
- 2. The secretariat received four such submissions. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced in the language in which they were received and without editing.\*

<sup>\*</sup> 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.

### Parties making submissions

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### PAPER NO. 1: CANADA

## Views on Issues referred to in sub-paragraph (b) in document FCCC/SBI/2002/CRP.5 and on Issues relating to progress in the implementation of decision 5/CP.7

Canada would like to thank the Secretariat for organising the workshop on the status of modelling activities to assess the adverse effects of climate change and the impact of implemented response measures in Bonn, 16-18 May, 2002, pursuant to paragraph 33 of Decision 5/CP.7. As well, Canada wishes to express its appreciation for the excellent presentations made at the workshop and the deft handling of the discussion by the Chair.

Canada welcomes the opportunity to share our views on issues referred to sub-paragraph (b) in document FCCC/SBI/2002/CRP.5, and on issues relating to progress in the implementation of decision 5/CP.7.

Canada is generally of the view that considerable national and multilateral efforts are already underway to develop climate modelling tools and frameworks that are necessary to continue to improve the understanding of vulnerability assessments and develop appropriate adaptation strategies in developed and developing countries. International organisations such as the WMO World Climate Program, the UNEP World Climate Impacts Program, WHO, FAO and others should be encouraged to continue to promote the involvement of developing country experts and enhance capacity-building, in particular in the area of data collection and analysis. International organisations should be encouraged to explore opportunities to further strengthen cooperation amongst each other. Regional and bilateral efforts should also be able to contribute towards the objective of developing modelling tools and methodologies and disseminating results widely.

Although the capacity to continually improve the performance metrics of global climate models is the key task, Canada would also note that improving the regional specification of these models, including, if possible, the assessment of localized climate effects, is increasingly important. Nested modelling techniques to regional climate simulation, amongst other modelling approaches, show particular promise.

The IPCC WG1 technical summary correctly notes the following:

"Improve the integrated hierarchy of global and regional climate models with emphasis on improving the simulation of regional impacts and extreme weather events."

It further notes: "This will require improvements in the understanding of the coupling between the major atmospheric, oceanic and terrestrial systems, and extensive diagnostic modelling and observational studies that evaluate and improve simulative performance. A particularly important issue is the adequacy of data needed to attack the question of changes in extreme events"

Enhancing the involvement of developing country experts, as appropriate, in such efforts should continue to be pursued by the international community.

Notwithstanding that an effective international framework, within which to undertake such work is in place, further strengthening cooperation within the international research community, for instance, through research institutes and universities, building research capacity and disseminating research results in a manner that facilitates decision-making amongst the policy community should further assist in making well informed vulnerability and impact assessments. Broadly speaking, coordination of effort should allow research, computational and observational resources to be utilised to maximum effect.

In that context, developing, nurturing and sustaining regional and national networks of experts, particularly in developing countries, should assist in providing a mechanism with which to pool resources and exchange tools, ideas, approaches and results. For example, through the Canada Climate Change

Development Fund (CCCDF), Canada is supporting efforts by CILSS (Permanent Inter-State Committee on Drought Control in the Sahel) member countries to combat climate change by building the capacities of the AGRHYMET Center [Regional Training Center for Agrometeorology and Operational Hydrology and their Applications] to analyze vulnerability and develop adjustment strategies. Such networks should also help facilitate more effective dissemination of scientific expertise and awareness of climate change impacts.

Scientists and researchers, in a regional context, for instance, could explore climate feedbacks and processes, the range of uncertainties in climate predictions, understanding the hierarchy of models, coupling of climate system components and regionalization techniques. Clearly, such activities should not occur in isolation and preferably integrated into vulnerability and impact assessments and thus help develop more precise evaluation of adaptation options.

Frequently, methodologies and tools developed to conduct vulnerability and assessment studies have to be adapted to local conditions. Facilitation and support for such efforts is important. The international community should also continue to work towards assisting developing countries in incorporating adaptation planning into national planning for sustainable development.

Stakeholder consultations should assist in model specification, validation and acceptance. Government involvement and broader coordination at the domestic level should assist in enhancing understanding of modelling tools and approaches, including socio-economic scenarios where available, and implications for vulnerability and adaptation assessments.

Developing countries should use the national communications process to identify existing modelling activities and needs, capacity-building priorities such as training, and data gaps.

### **Impact of Response Measures to Climate Change**

Economic modelling is designed to provide insight into policy assessment. In spite of increased sophistication in economic modelling, models, for example CGE models, remain at an early stage of development. Increased efforts must be placed on assessing models' performance in terms of ex-post verification of predictions against actual history. The uncertainty of exogenous shocks may introduce significant variances into any models' predictions. Assessing the impact of response measures already implemented on developing countries is in its early stages and far more complex than a priori policy assessment.

Economic models remain a somewhat simplified representation of reality. Such models may not fully disaggregate the impacts of a suite of climate change measures and mechanisms given the complex linkages that exist in domestic and international economies. Separating climate policy consequences from consequences of other policies, such as energy, environment and social, is difficult, uncertain and possibly impractical. Models in this context, are essentially focal points for comparison of policies and relative costs and benefits of one policy approach over another. They offer insights to effects of policy actions, and are best used as part of a portfolio of policy tools. Furthermore, model results are largely driven by input data, which varies in quality among developing countries and the assumptions made, as well as interpretation placed on results.

Technology development, innovation, learning by doing, representation of technical change and behavioural assumptions all represent additional challenges for dynamic economic modelling.

Nonetheless, the international modelling community should continue to involve developing country experts and explore ways for further and deeper engagement through existing channels, such as universities and research institutes, in the work on evaluating potential economic and trade linkages. Strengthening research and scientific networks should also contribute to the mutual improvement of technical knowledge and expertise. One of the objectives of such joint efforts should be to help compile a

set of data that is consistent with the GTAP standards. A country's participation in the GTAP network will help to improve country-specific data and information while ensuring it is included in global modelling efforts.

Canada suggests that further workshops on the issue of impact of response measures to climate change should wait as the work evolves and further progress is made in modelling.

PAPER NO. 2: DENMARK ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES AND CROATIA, CZECH REPUBLIC, LITHUANIA, HUNGARY, POLAND, SLOVAKIA AND SLOVENIA

# SUBMISSION BY DENMARK ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES AND CROATIA, CZECH REPUBLIC, LITHUANIA, HUNGARY, POLAND, SLOVAKIA AND SLOVENIA

COPENHAGEN, 30 JULY 2002

WORKSHOP ON THE STATUS OF MODELLING ACTIVITIES UNDER DECISION 5/ CP.7, PARAGRAPH 33, AND ISSUES RELATING TO PROGRESS IN THE IMPLEMENTATION OF DECISION 5/CP.7

On behalf of the European Community and its Member States and Croatia, Czech Republic, Lithuania, Hungary, Poland, Slovakia and Slovenia, Denmark welcomes the opportunity to present its views, as requested in FCCC/SBI/2002/CRP.5, on the issues related to the workshop referred to in the heading above, and on issues relating to progress in the implementation of decision 5/CP.7.

We would like to stress our willingness to continue to contribute constructively to the implementation of Articles 4.8 and 4.9.

Workshop on the status of modelling activities to assess the adverse effects of climate change and the impact of implemented response measures.

The EU notes that possibly not all Parties were fully acquainted with the outcome of "Workshop on the status of modelling activities to assess the adverse effects of climate change and the impact of implemented response measures" held on 16 - 18 May 2002. Twenty Parties attended the workshop and an oral update of the workshop was given at the sixteenth SBI session. We regret that most Parties have to base their views on the oral update. Therefore, we will limit ourselves to offering some general reactions in response to the workshop discussions:

We believe that even though models present a useful tool for assessing vulnerability to climate change and for determining appropriate adaptation strategies they must be accompanied by actions in a broader priority setting. Thus, we believe that for adaptation to be effective it must be integrated into national sustainable development strategies and/or strategies for poverty reduction, and natural disaster prevention and be based on stakeholder involvement.

We note that even though some progress has been made, additional advances in modelling will be needed to provide sufficient insight into the impact of implemented response measures. We are thus of the view that another UNFCCC workshop in this area might be more useful after these advances have materialized.

### Issues relating to progress in the implementation of decision 5/CP.7

We find it unfortunate that at the sixteenth session of the SBI it was not possible to continue the process of discussing the progress in the implementation of activities on other sections under decision 5/CP.7. We would, however, like to use this opportunity to welcome the successful establishment of the Least developed countries Expert Group, which has made good progress with its work programme for supporting the preparation of national adaptation programmes of action (NAPAs).

We would also like to reaffirm our commitment to continue the work started at COP7 to meet the specific needs and special circumstances of LDCs and the developing country Parties that are most vulnerable to

the adverse effects of climate change. We find it important that actions related to adaptation follow an assessment and evaluation process based on needs expressed in national communications and/or NAPAs while ensuring that adaptation actions are environmentally sound and lead to benefits in support of sustainable development and poverty reduction.

Finally, we note that different developing countries have different needs for responses to adverse effects of climate change and/or the impact of the implementation of response measures (for example, there are distinctively different needs between many least developed countries and a range of fossil fuel exporting countries). This should be reflected in the target audience and terms of reference for workshops addressing specific issues of particular relevance for selected groups of developing countries. It calls for greater efforts in early consultation with the target audience during the preparation of such workshops, and for countries interested in participating in technical workshops, to submit specific inputs for such workshops. This more focused approach would also be in line with an earlier recommended development of specialised sectoral/regional centres which would serve as focal points for designated information networks (ref. FCCC/SB/2000/2)

### PAPER NO. 3: MYANMAR

### VIEW OF MYANMAR

Workshops on the status of modeling activities are welcome. Participation of experts should not be limited to the developing countries but also open to the least developed countries.

### PAPER NO. 4: UZBEKISTAN

### VIEW OF THE REPUBLIC OF UZBEKISTAN

### Seminar on the status of modeling activities to assess the adverse effects of climate change

The Republic of Uzbekistan supports the expansion of modeling activities and holding of a seminar on modeling assessment of adverse direct and indirect effects of climate change and exiting measures. The impact assessment within the framework of relevant scenarios and proposals is important and timely for definition of regional risks, in particular, for developing and least developed countries, where today the scientific resources are unsufficient for scientific researches and estimations. The strengthening of regional cooperation of this activity is also necessary.

The direct effects of climate change will be various in different regions and will be depend from national practice of land use, but inevitably will have an effect on food safety and health of the population. For this reason the modeling of socio-economic consequences of climate change is especially important. The purpose of modeling of climate change effects can be the specification of a degree of an acceptability and efficiency of adaptation strategies for different climatic areas and national conditions, and also estimation of cost of relevant variants of the approaches.

The Republic of Uzbekistan is interested in exchange information on the approaches to modeling complex estimations, including a climate change impact on socio-economic conditions and public expenses for adaptation measures. The increasing the number of the participants at such seminars from the Central Asia countries, especially, from area of the Aral Sea crisis and the financial support of UNFCCC Secretariat, would be expedient.

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