

## IPM of CSD-15

### **Statement by the Scientific and Technological Community**

**IPM Opening Session 26 February 2007**

Mr. Chairman,

It is inarguable that science, engineering and technology are essential elements of making a transition to more sustainable energy systems, of mitigating and adapting to climate change, of reducing air pollution, and of enhancing industrial development in a sustainable manner. Jointly, we have a responsibility to ensure a significant strengthening of science, engineering and technology efforts which contribute directly to the solutions of the world's most pressing sustainable development challenges.

Currently existing technological options are insufficient for meeting the world's growing energy needs in an affordable and sustainable manner. And present levels and directions of energy R&D investments are not at all adequate for ensuring that the needed technological advances occur.

Consequently, we recommend as a first priority for action, to massively enhance public and private-sector support for developing and deploying a wide array of clean and carbon free energy technologies. The choice of optimal technologies for any particular country will depend on many factors. But for all countries, increasing energy efficiency and conservation, and increasing the share of renewables in the energy mix, should be particularly urgent priorities. Also needed are less polluting and less carbon-intensive fossil fuel energy systems, and secure nuclear energy systems.

These investments must be made now, if we hope to see a new generation of technologies for electricity, heating and cooling, transportation fuels, and other essential energy services, reach the market in the coming years. Such efforts must involve partnerships between government and the private sector, and significant international cooperation for sharing knowledge, technology, and capital.

To help guide effective and coherent R&D investment strategies, the scientific and technological community has set up in 2006 an International Science Panel on Renewable Energies. Moreover, our community is organizing an International Conference on Engineering for Sustainable Energy in Developing Countries, to take place in mid-2007 in Brazil.

Mr Chairman, Climate change is real, and it is being caused by human activities. This was confirmed by the latest report from the IPCC. While strong public policies and economic incentives are urgently needed to reduce greenhouse gas emissions, in order to mitigate climate change impacts, action is also needed to implement strategies to adapt to the consequences of climate change, and to limit its socio-economic costs for societies worldwide.

At the same time, we must continue to improve our scientific understanding of the climate and the Earth system, to refine our predictive tools and reduce uncertainties in projections of future climate and its impacts, particularly at the regional level. In this respect, important priorities during the coming years are:

- Countries to enhance support for long-term observations of the Earth and climate system, thus enabling the global environmental observing systems, including the Global Climate Observing System, to become fully operational, and the Global Earth Observing System of Systems to be implemented;
- Countries to vigorously pursue climate change related research, notably through the World Climate Research Programme and related global environmental change research programmes;

Mr. Chairman, Air pollution represents a serious, and in many places growing problem. Effective air quality management requires that all nations maintain a strong scientific, engineering and technological foundation for assessing air quality status and impacts; for setting emission standards and ambient air quality objectives; and for designing and implementing pollution control strategies and technologies.

Finally, Mr. Chairman, a better harnessing of science and technology for addressing the problems dealt with in this CSD cycle will only be possible on the basis of a massive effort aimed at building the needed critical mass of scientific, engineering and technological capacity in all regions of the world. Governmental and non-governmental actors must take action to reduce the North-South gap in S&T capacity which continues to widen. South-South cooperation must also be increased, as an effective means of capacity building. The S&T Community is committed to work nationally and internationally with governments, the private sector, all our Major Groups partners, and all relevant stakeholders towards implementing scientifically sound and thoroughly engineered solutions to the problems address in this CSD cycle.