

**Interactive Thematic Dialogue of the United Nations General Assembly on “Energy Efficiency, Energy Conservation and New and Renewable Sources of Energy”**  
**18 June 2009**

**Opening Session:**

1. In his opening statement the President of the General Assembly underlined that the climate change challenge, the financial and economic crisis, and the food crisis converge, interact, fuel and exacerbate each other. He noted that energy is necessary for the daily survival as well as for economic development, but that the current energy path is unsustainable. He stressed that inequitable energy patterns, with over consumption of energy in some parts of the world and insufficient access in many others. A technology revolution is needed to reconcile development and growing energy needs with steps to mitigate climate change and the general carrying capacity of the earth. The recovery from the current economic and financial crisis should be coupled with visionary policies, innovative technologies and broad incentives for new and renewable sources of energy. He noted the important role of the Climate Change Conference in Copenhagen in December with respect to establishing a new generation of financial incentives, based on the Kyoto mechanisms, for directing financing flows towards development of renewable energy production in developing countries.

2. The Secretary General stressed the role that energy efficiency and renewable energy play for significantly cutting greenhouse gas emissions as well as for creating new employment opportunities. He stated that energy efficiency and renewable energy are tools that not only help to de-link economic growth from rising greenhouse gas (GHG) emissions, but also contribute significantly in alleviating poverty and empowering the billions of people whose development is held back by lack of electricity. Therefore, renewable energy and energy efficiency are important for clean development not only for developed but also for developing countries. He noted the support by the United Nations (UN) to developing countries in identifying locations for new and renewable energy sources. However, one of the obstacles to be overcome is limited access to finance. He emphasized that strong government policies are required that send the right signals to markets to boost renewable energy and energy efficiency and stimulate investment of the private sector. Additionally, capacities have to be enhanced to access financial mechanisms such as the (Clean Development Mechanism). Moreover, he stressed the need for governments to finalize in Copenhagen a new climate change agreement that is comprehensive, fair and ambitious. The Secretary General concluded by underlining that a transformation of the global energy market is essential and that energy efficiency and renewable energy offer an opportunity to simultaneously tackle the challenges of climate change, energy security and poverty alleviation.

3. Professor Hoesung Lee (Vice Chair Intergovernmental Panel on Climate Change) in his keynote speech underlined that energy efficiency and renewable energy are major vehicles in reducing GHG emissions. He noted that in the past, improvements and energy intensity and fuel substitutions had been more than outweighed by the effects of

economic and population growth on GHG emissions. In order to achieve the needed low-carbon transformation of energy systems, it is essential that greenhouse gas emitters pay a price for their emissions, while Governments support technology research and development. This transition would take decades due to the long life of energy infrastructure. He noted that public support for energy research and development has not increased over the last 15 years. He emphasized that the uncertainty concerning the social cost of carbon should not excuse the world from implementing carbon prices.

### **Panel 1: Status and Prospects: Energy Efficiency and New and Renewable Sources of Energy**

4. The panel comprised the Director General of UNIDO and leading energy experts from research institutions and non-governmental organizations. The panellists stressed that energy plays a central role in addressing the food crisis, climate change, poverty eradication and economic development. Establishing a new Millennium Development Goal (MDG) on energy access would be warranted. They stressed that energy should not be looked at from a climate change perspective alone. Instead, a twin strategic approach is needed to address climate change and energy access. The lack of access to modern fuels as well as the high energy intensity of industrial production processes in major regions of the world has serious impacts on climate change.

5. Panellists noted that energy efficiency plays a large role in the needed paradigm shift towards sustainable energy. Whereas improvements in energy efficiency have massively contributed to limiting the rise in energy demand, its potential often remains untapped in both developed and developing countries. One panellist noted that investing in energy efficiency can also 'buy time' before new low-carbon energy technologies become available. Technologies for achieving energy efficiency often exist. However, there are many market barriers that prevent their efficient employment, such as socially inefficient pricing uncertainty over future energy prices, technological lock-in, lack of information, and the separation between investors in energy efficiency measures and beneficiaries, for example in rental buildings. Policies to overcome these barriers include rationalizing energy pricing, such as introducing carbon prices and limiting energy subsidies, as well as standards and information labelling.

6. Panellists noted that whereas investments and capacity in renewable energy, in particular wind and photovoltaic, had been massively increasing until last year, investment in 2009 may drop by 38 per cent due to the economic crisis. Therefore, renewable energy should receive attention in economic recovery packages. In order to achieve cost reductions in renewable energy, experience has shown that public support to basic research and development, applied research and development and investment in early technology stages is necessary. Unfortunately, overall public support to energy and research and development has been constant since the aftermath of the oil price shocks in the 1970s and early 1980s. Moreover, in many regions in the world, commercial banking systems are not conducive to financing renewables. In addition to energy efficiency and

renewable energies, options such as advanced nuclear energy, carbon capture and storage and sustainable transport systems should also be explored.

7. A panellist also informed about UN-Energy, a United Nations interagency mechanism on energy, which works on energy access, energy efficiency and promotion of renewable energy. In its work UN-Energy stresses the coordination of capacity building and the importance of energy access for the achievement of the MDGs. Other panellists outlined the role of the United Nations in training and capacity building, the facilitation of formulating national energy policies, awareness raising, reduction of transaction costs, risk coverage and promoting South-South cooperation.

### **Opening of afternoon session:**

8. In his statement in the afternoon, the President of the General Assembly underscored the importance of energy for achieving the MDGs. He noted the need for technology transfer and fulfilling financial obligations, as well as for a reorientation of development policies of international financial institutions. He also stressed the moral imperative of the responsibility to protect the populations of small island developing States (SIDS) and least-developed countries (LDCs) who are particularly vulnerable to the impacts of climate change.

9. In his keynote address in the afternoon, Dr. Mohammed Waheed Hassan, Vice-president of the Republic of the Maldives, highlighted the vulnerability of the Maldives to climate change and sea level rise. He noted that sea level rise is forcing the Maldives to undertake and explore adaptation measures such as building sea walls, moving inhabitants internally to less vulnerable islands, and even finding new homeland outside the Maldives. Despite its insignificant emissions, the Maldives are committed to be the first carbon neutral country in 2020, thereby demonstrating leadership. He underlined that with rising oil prices, the high investments for transitioning from fossil fuels to renewables may pay-off within 11 years, and noted the carbon neutrality may lead to additional tourism revenues.

### **Panel 2: Meeting the Challenges: Investment and Policies**

10. The second panel comprised experts from parliaments, governments, the private sector and the United Nations. Again, the urgency of the twin challenges of energy access and climate change were stressed. Moreover, panellists highlighted the importance of improvements in energy efficiency and savings, also for developing countries. Access to energy for sustainable development must be crowded out by climate change mitigation considerations. One panellist, putting these challenges in the broader context of sustainable development, noted that a daily per capita consumption of primary energy of around 100-150 kWh, as well as full access to electricity appears to be a prerequisite for achieving a reasonable level of development, as measured by a score of the Human Development Index (HDI) of 0.9-0.95. Therefore, the strategies for massively expanding renewable energy must be different for developed and developing countries. In case of

the former, addressing climate change requires raising costs of energy, whereas developing countries require lower costs to overcome poverty.

11. A global strategy is needed to allow technological leapfrogging of developing countries. Such a strategy may include a global feed-in tariffs and a focus of investment in developing countries. Another panellist pointed out the advantages of first developing and employing technologies in developed countries, followed by technology transfer to developing countries when technologies become mature.

12. Panellists pointed out that promoting renewable energy is not only needed in response to climate change and energy access, but also in response to rising prices for fossil fuels. Nevertheless, public support is needed in all stages of technology development, as demonstrated by the experiences in wind and solar technologies. Overall, panellists stressed the importance of expanding research and development, including through global networks of research centres, joint research institutions and public-private partnerships. In developed countries, the cost of transitioning towards renewable energy has proven to be affordable.

13. Panellists stressed the role of regional and international cooperation. North-South and South-South regional cooperation in renewable energy can help developing countries to increase the share of renewable energy, while also creating substantial economic benefits from electricity exports in addition to meeting domestic energy demands, reducing emissions and creating new jobs. Other solutions proposed included capacity building projects, sharing of best- practices and technology transfer Proactive policies in developing countries as well as facilitation of access to innovative financing tools and appropriate regulatory frameworks in developed countries are necessary. International development cooperation can also play a role in leveraging funds for energy for sustainable development, even though official development assistance (ODA) in total is declining and the share of renewable energy is very small.

### **Interactive discussions**

14. Many delegations underscored the central role of energy in achieving sustainable development goals. Technological advancement in energy is needed for development. Participants highlighted that increased energy efficiency and energy conservation, together with the deployment of new and renewable sources of energy would contribute to sustainable development, including the MDGs. However, for many developing countries existing renewable energy technologies are often unaffordable. It was noted that energy saving and energy efficiency represent one of the most rapid and affordable ways to address energy security and climate change, while maintaining economic growth. Changes in energy structures are necessary not only for combating climate change, but also bring other benefits such as reductions in air pollution, including indoor air pollution.

15. Participants advocated moving towards a new concept of energy security, going beyond import dependency. Both regional and international cooperation were suggested

elements of an expanded definition of energy security, as were the question of energy access.

16. There was general agreement that market mechanisms are important, but not sufficient to ensure adequate investments in energy efficiency and renewable energy. Many delegations shared their experiences in promoting energy efficiency and renewable energy. Many countries have established specific time-bound targets for the share of renewables in energy consumption or electricity and for increasing energy efficiency. Other instruments used include specific renewable energy laws, energy standards, labelling, sustainable transport systems, public support to research and development and promoting energy self-sufficiency in remote areas.

17. Whereas many noted the need for financial incentives, one delegation noted that in its country renewable energy became a major energy source on a purely commercial basis, due to an appropriate regulatory framework, as well as favourable natural conditions. One delegation noted that subsidies to fossil fuels are often unavoidable in developing countries to ensure affordable access, but that such subsidies could be limited. Many delegations noted the positive role of the CDM.

18. Some countries noted the cost effectiveness of sugarcane-based biofuels and large-scale hydropower, and cautioned against focusing attention solely on wind and solar in the promotion of renewable energy. International markets for renewable energy should be open, allowing developing countries to harness their comparative advantages, for example in biofuels. The often untapped potential of geothermal, as a now widely established technology, was also mentioned. Some delegations drew the attention to a need for investments in fossil fuels to meet growing energy demand and highlighted the role of cleaner fuels.

19. Delegations stressed the important role of technology transfer and North-South, South-South and triangular technical cooperation in energy, including through global partnerships. Reference was also made to the potential of genuine partnerships that promote the participation of all relevant stakeholders. Some countries noted a need for flexible intellectual property right regimes and suggested placing existing new and renewable energy technologies into the public domain. Joint research and development was mentioned as an effective mechanism. Some delegations supported the creation of an international mechanism for access and transfer of renewable energy technologies, and cited the Consultative Group in International Agricultural Research (CGIAR) as possible model. Countries also expressed support for the new International Renewable Energy Agency (IRENA).

20. Delegations recognized the value of intergovernmental dialogue on energy cooperation, including in the form of further informal General Assembly debates on energy efficiency and renewable energy. Some delegations addressed the question of new energy governance under the United Nations, while many expressed support to UN-Energy. Overall, capacity building support and sharing of experiences were seen as important roles for the United Nations.