

**ODUMUNC 2010  
Issue Brief for the  
Economic and Social Council**



***Sharing Science and Green Technology for Sustainable Development***

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As the world wrestles with the challenges created by growing populations, more balanced distribution of wealth and rising public demands, new solutions are essential to insuring that growth can be economically and environmentally sustainable. As the world's principle forum for international dialogue and consistent policy-making, the UN is the ideal place to resolve issues of sustainable development. The UN has been able to insure these issues a permanent place on the global agenda. But action has been slower to come. Requiring the support of as many of its 192 members as possible, the UN prefers broad consensus over forceful action. How to reconcile the diversity of regional perspectives, with goals of particular countries and universal needs is a massive challenge for the UN's Economic and Social Council.

The growing yields of mass industrial production, the information revolution and success in other spheres of social life such as medicine and education have considerably enhanced the standards of living. But the benefits have been clearest only in the developed countries. And short-term success often obscures long-term degradation of natural environment and extensive depletion of natural resources. Thus, ever-growing global interconnectedness and interdependence in the beginning of 21<sup>st</sup> Century irreversibly spread into the environmental issue area.

Environmental degradation is worsened by inharmonic, poorly organized anthropogenic activity such as extensive use of environmentally hazardous mass production technologies and use of fossil sources of energy which emit carbon dioxide into the atmosphere contributing to the greenhouse effect and pollution. Only a thorough reassessment and reorganization of global development, when a central role would be given to mass transition to green technologies and intensive rather than extensive consumption, could guarantee optimistic prospects for future generations. However, in order to be successful such an enterprise needs reciprocal commitment of all countries to contribute to the solving of global environmental problems according to their capacities, which could be increased through exchange of knowledge and green technologies among the countries. Whether or not the UN is capable of such a review and reevaluation of global policy is not clear.

**Green technology** or environmentally friendly technology – is a method or “practical application of knowledge” from environmental science to conserve the natural environment and resources, and to alleviate the negative impacts of human anthropogenic activity. It is called to

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contribute to sustainable development – the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Even though there is no consensus whether great reliance on oil, gas, and coal as main sources of energy in global industrial production and energy consumption contributes to global warming, it is for sure that it undermines the ability of future generations to use these finite sources of energy. Thus, along with other problems of sustainable development such as reduction and prevention of pollution; poverty alleviation; health; clean water scarcity; deforestation; biodiversity; urbanization etc., the invention, production and global distribution of green technologies which could convert renewable resources such as sun, wind, hydro (tide, wave and river stream power), geothermal power to energy for industrial production and global electricity consumption is the important material basis of sustainable development.

Among abovementioned traditional types of environmentally friendly renewable sources of energy, there are other technologies which contribute to global green energy balance:

- **Biofuel** is obtained from lifeless or living biological material. It is similar to fossil fuels, which are derived from long dead biological material, but the advantage of biofuels is that it does not emit CO<sub>2</sub>.
- **Ethanol** (a type of biofuel) is easy to manufacture and process and can be made from common agricultural feedstock such as corn, potato, sugar cane etc. However, the controversy is that mass use of feedstock for energy production could aggravate global food scarcity, and poverty problems.
- **Anaerobic digestion** is a series of processes in which microorganisms break down biodegradable material in the absence of oxygen and is widely used to treat wastewater. It is widely used as a renewable energy source because the process produces a methane and carbon dioxide rich biogas suitable for energy production helping replace fossil fuels.

Of course, one could argue that there are other efficient sources of energy such as nuclear energy which could have successfully replaced fossil sources of energy. To date, however, the greatest successes in such alternatives have been limited to developed and well manageable states, allowing them the luxury of technologically complex and economically costly enterprises. Many advocates refuse to consider nuclear as a green technology. Others see it as a dangerous approach

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with military risks. Efforts to limit nuclear proliferation, moreover, are widely criticized by vocal opponents among non-aligned countries who charge that such goals repress regional development, and without vital civilian power. The 1968 Nonproliferation Treaty gives all member countries the right to develop civilian nuclear power, but many complain that vital assistance is withheld.

The ability of humanity to pursue an environmentally friendly shift to the green technology and intensive consumption is being procrastinated by the latest 2009 world financial crisis - the systemic reflection of the imbalanced world economy. It greatly undermined the perspectives of long-term sustainable development. Traditionally, it has put the economic issues on top of the world agenda at the expense of other unresolved urgent problems of the modern globalized era.

The problem is being aggravated by the fact that the worst problems are highly conspicuous in poor and developing countries whose dramatic population growth makes it harder for the government to preserve state's manageability, not even mentioning their weak incentives to address such abstract long-term issues like global warming.

**National Positions:**

*The United States:* Even though new American administration puts a big emphasis on the need of energy sources diversification through introduction of green technologies, the practical achievement of this enterprise is enormously costly. As the biggest economy and the second largest polluter in the world (after China), America's political will to lead the process of mass transition to green technology would contribute greatly to such transition on the global scale. However, there are no guarantees that other countries would follow America's initiatives. Under President Bush, America strongly opposed to any policies reducing the dominance of purely economic market forces. Under President Obama, America has become more willing to consider international action, but does not devote much attention to the issue. Washington also fears that ascending powers such as Brazil, China, and India would be the "free riders" who will share the benefits, but not pay the costs of an American green technology transition. American adversaries

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of change insist that even if the United States led such a transition unilaterally, there would be relatively little positive effect on environment, since it would be compensated by other major economies' pollution. Others note that China in particular is beginning large-scale investments in green technology itself, making American hesitation look more and more eccentric.

*The European Union's* approach in dealing with issues of sustainable development is by creating high economic, social and environmental standards and inducing its neighboring states to conform to these standards by offering them the prospect to become a member of this successful regional union which stimulates positive transformation and development of its neighboring countries. European governments have not been afraid to directly invest into particular technologies that are especially promising, especially natural gas and solar power. However, geographic and political constraints restrain the EU's ability to use its membership rewording mechanism worldwide. Some European countries strongly favor nuclear power, while others are opposed. Natural gas imports are a very sensitive issue, because they increase dependence on Russia. Through its foreign assistance spending, though, Europe has become a leading force in favor of global standards.

*China and India:* The most populous countries, in combination, account nearly for one-third of the world's total population and enormously big share of global energy consumption and pollution. Both are developing countries and regional leaders. Both also are strongly committed to maximizing economic growth. This is usually defended as essential to lift their people out of poverty. Some critics maintain the benefits only got to a small elite. As prominent developing countries they are very sensitive to double-standards. They condemn the developed countries for neocolonialism: setting high ecological standards and monopolizing green technology whose use would worsen the dependence of developing countries. In such a situation it is a matter of high importance to harmonize North-South relations in the environmental and energy areas. Only if they become technologically self-sufficient could they be transformed from big environmental problem makers into main regional problem solvers in this issue area. But this will require major concessions from all sides that may be difficult to arrange and financial costly for some.

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*Other non-aligned countries* generally view the issue in terms of their limited ability to pay for reforms, and the danger of barriers to their own economic development. They often support green technology when it is affordable and does not impinge opportunities for growth. Except for those most seriously affected by global warming or local environmental problems, they tend to prefer growth to environmental preservation. Foreign assistance often is the most effective tool for persuading them to balance growth and environmental needs. The decline of American development assistance has allowed Europe to become a leading voice on this issue in more ways than one.

**The United Nation's role**

As former UN Secretary General Kofi Anan put it, "Global era requires global engagement," which is also true for such controversial problems as massive transition to green technology and production. Since such a difficult global task could not be achieved unilaterally or even with the committed engagement of all developed countries, which is difficult to achieve as well, universal organizations like United Nations has to interfere in the process. There are a few factors which contribute to the UN's potential to enhance this process: international authority, appropriate organizational capabilities (through the one-country one-vote system, which is more likely to reflect the interests of developed and developing countries), and its financial and coordinative capacities (which could be increased as well if its member states decide it so).

The UN's legitimacy could contribute to the politicization of sustainable development issues. This would increase attention from the international community, and, thereby, would induce the designing of new creative strategies to help poor and developing countries enhance their level of education and overall scientific and technological capacities, which would appreciate prospects of global sustainable development. This could be achieved through exchange of ideas between the high representatives within UN auspices; through creating a specialized fund to support long-term global demand on green technology and to subsidize research in spheres which do not yet guarantee relatively quick commercial outputs. UN specialized agencies could contribute to sustainable development by monitoring the modern trends of the world's development which is

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extremely important for the thorough analysis, agenda prioritization and devising appropriate strategies for reaching global development goals.

Predictable economic growth is an important precondition for pursuing thorough structural transition to green production. In light of the 2007-09 world financial crises, the General Assembly adopted Resolution A63/303 on the *Outcome of the Conference on the World Financial and Economic Crisis and its Impact on Development* in order to undertake further collective actions to alleviate negative impacts of the current world financial crisis on development by designing effective collective economic strategies. The ECOSOC must consider this precedent carefully.

One of the UN's functions is a forum for negotiation of treaties and other international agreements to enhance coordination and promote member states' policies in the environmental area. It also serves as a forum for exchange of knowledge and green technology for sustainable development. As an example, Israel, through its Permanent Representative to UN, sent its report addressed to the Secretary General on the implementation of General Assembly resolution 62/190 on agricultural technology for development (A/64/301), where it listed numerous initiatives and projects undertaken by the Israeli government and its private sector called to appreciate agricultural output in different parts of the world through sharing new technology, knowledge and efficient methods of production organization.

ECOSOC could contribute by setting new and encouraging compliance of its member-states to previously adapted international normative acts in the sustainable development issue area such as the Rio Declaration of 1992, Quito Declaration 1997, UN Millennium Goals of 2000 etc. For instance, Principle 9 of the Rio Declaration says "States should cooperate to strengthen capacity-building for sustainable development by improving scientific understanding through exchange of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies."

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