



UN commission deadlocks on climate change and clean energy

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IN its report of April 2007, the Intergovernmental Panel on Climate Change (IPCC) warned that climate change would have devastating and multiple impacts on the natural and human environment. Among other things, it noted that by the year 2020 between 75 and 250 million people in Africa would be affected by increased water stress due to climate change. Small island states could be submerged by rising sea levels resulting from the polar ice caps melting, and vulnerable coastal regions would be pounded by extreme weather events.

Despite these warnings, government representatives participating in the Fifteenth Session of the UN Commission on Sustainable Development (CSD 15)¹ in May 2007 failed to agree on a global strategy for dealing with climate change and developing sources of energy other than fossil fuels. Rather, the bickering at CSD 15 revealed the combination of energy politics, power, and self-interest that is preventing the emergence of a global consensus on how to address the challenges of climate change within clear time frames.

This study examines some of the political dynamics that precipitated the stalemate at CSD 15. It focuses on the role this high-level forum (in UN parlance) in promoting energy for sustainable development in the context of climate change mitigation, changing consumption and production patterns, developing renewable energy resources, increasing energy efficiency, and providing access to clean and affordable energy. It reveals some of the global energy politics played out between developed, developing, and least developed countries. It also critically examines emerging strategies for promoting renewable energy, especially the growing interest in bioenergy in many countries, and their implications for the liberalisation of energy services. It concludes by setting out some policy issues central to climate change mitigation.

THE CSD'S RECORD UNTIL NOW

The CSD emanated from Agenda 21, the global programme of action for sustainable development adopted at the UN Conference on Environment and Development (UNCED), popularly known as the 'Rio Earth Summit', in June 1992. The CSD was established to:

- review progress made at the international, regional and national levels to implement the recommendations and commitments contained in the final UNCED documents, namely Agenda 21 and the Rio Declaration on Environment and Development;
- devise policy options for implementing the Johannesburg Plan of Implementation; and
- promote dialogue and build partnerships for sustainable development with governments, the international community, and the groups identified in Agenda 21 as key actors outside central government in the transition towards sustainable development. These groups include women, youths, indigenous people, non-governmental organisations,

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local authorities, workers and trade unions, business and industry, the scientific community, and farmers.

CSD 11, held in 2003, set out a multi-year programme for the period 2004–17. It comprises a number of two-year cycles, with each cycle focusing on a thematic cluster as well as on cross-cutting issues such as gender, finance, capacity-building, and sustainable production and consumption. Each cycle consists of a non-negotiating review year, and a policy year. The overarching goal of these commitments is to eradicate poverty by means of sustainable development.

At the Rio Summit, governments set themselves some ambitious goals – specifically Agenda 21 – for moving towards sustainable development. While Agenda 21 did not have a specific chapter on energy, the chapter on protecting the atmosphere emphasises that current patterns of energy generation and consumption are unsustainable. It recommends a series of actions to be taken in respect of renewable energy, energy labelling², new and innovative technologies, and technology transfer from North to South. It also calls for co-ordinated regional energy plans and the integration of energy with environmental and economic policy. Its more specific recommendations included the development of public transport systems and urban plans with a reduced environmental impact, and a reduction in emissions from motor vehicles. Agenda 21 led to the adoption in May 1992 of the UN Framework on Climate Change (UNFCCC), a multilateral agreement setting out a framework for intergovernmental efforts to tackle climate change by reducing greenhouse gas emissions.³

In May 1997, in an attempt to give ‘teeth’ to the UNFCCC, participating countries adopted the Kyoto Protocol which contained mandatory targets for the reduction of greenhouse gases. In terms of the protocol, assessments, debate and negotiations take place at Conferences of Parties (COPs) involving all countries party to the UNFCCC. The next COP will take place in Bali later this year, and will debate the climate change regime beyond 2012.

CSD 9 of 2001 focused on energy, and paid attention to energy efficiency, the development of renewable energy sources, and advanced fossil fuel systems. Importantly, it also emphasised making markets work for sustainable development. However, despite these commitments, no consensus was reached on energy efficiency codes, the phasing out of harmful subsidies in developed countries, reducing atmospheric pollution, and developing policies supporting energy for sustainable development. Therefore, while some progress has been made since 1992 towards dealing with issues sur-

rounding climate change, there is still little agreement on how the agreed goals are to be achieved.

THE CSD AS AN INSTITUTION

During CSD 15, some – mostly European – countries expressed their concern about its inability to fulfil its mandate. Switzerland argued that it was not living up to expectations, and that the policy session in 2007 should have added new or additional priorities rather than simply repeating previous commitments.

Part of the problem is that the CSD is riddled with weaknesses that affect its ability to promote the implementation of sustainable development⁴ goals. To begin with, there is a lack of common understanding of sustainable development.

For example, even after 15 years of deliberations and discussions, analysis and debates still do not reflect a clear understanding of sustainable development in terms of redistribution, equity, socioeconomic justice, access to productive resources, fair trade, and development within ecological limits.

During CSD 15, the United States continued to stress the implementation of agreed goals through partnerships and projects. It saw the CSD’s role as one of promoting action on the ground rather than focusing on policy negotiations. It emphasised that ‘the CSD should not interfere with the mandates and missions of organisations with their own governing bodies.’⁵ In effect, what this means is that the CSD has a limited mandate and capacity to address the conflicts between social/human rights on the one hand and economic priorities on the other. It is clear that the commission lacks the power to challenge dominant or hegemonic economic policies that are at odds with sustainable development goals.

Another weakness of the CSD is its relative inability to assess and co-ordinate the sustainable development approaches of other UN agencies such as the UN Environment Programme (UNEP), UN Development Programme (UNDP), the Food and Agriculture Organisation of the UN (FAO), the UN Human Settlement Programme (UNHABITAT), and the UN Commission on Trade and Development (UNCTAD). These organisations have their own agendas and governing structures. While they recognise sustainable development as a basic principle, their efforts in this respect remain fragmented, as they seem to have no common core of gravity. However, some collaboration exists; for example, UN-Energy was meant to build a framework of



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all UN bodies contributing to energy solutions. At CSD 15, UN-Energy released a document that draws attention to the economic, social and ecological sustainability issues emerging from the rapid development of liquid biofuels, biogas and solid biomass for heat and power generation in small- and large-scale applications.

Besides the issue of co-ordination, questions remain about the ability of government representatives to interrogate and absorb multilateral debates, and align their domestic policies and strategies with multilateral programmes. At the national and local level, there seems to be no filtering mechanism for assessing the implications of policies and strategies aimed at driving sustainable development commitments. This is the case despite the fact that Agenda 21 committed governments to developing national strategies for sustainable development (NSSDs), as well as local institutional mechanisms to ensure the implementation and monitoring of agreed goals. This approach is not only aimed at securing national co-ordination, but also at guiding UN-based mission officials who are not at the coalface of the implementation process at the local level.

Yet another cause for concern was the lack of participation of regional bodies in CSD 15. African regional and sub-regional bodies such as the African Union (AU), the Southern African Development Community (SADC), and the Economic Community of West African States (ECOWAS) were absent, with the result that regional reports and plans were handled by regional UN agencies. This made it difficult to ascertain whether any co-ordinated regional initiatives and plans have been undertaken on energy, climate change, industrial development, and air pollution on the continent. The Zimbabwean representative stated that the efforts of the African Development Bank (ADB) and Economic Commission for Africa (ECA) were laudable, but pointed out that their impact on the ground was negligible.

Other countries such as Senegal argued that, while Africa was not responsible for climate change, it would be very badly affected, and should therefore benefit from climate change mitigation projects.

By contrast, the presentations by Asian and Latin-American UN agencies were focused and goal-oriented. The Economic and Social Commission for Asia (ESCA) emphasised the need for a fundamental paradigm shift and a synergy between environment and sustainable development. ESCA focused on two important goals: energy security, focusing on low-carbon strategies; and the internalisation of ecological costs in fiscal policies. Latin America underscored

the need for South-South co-operation and for learning from successful biofuel initiatives in Brazil.

While the CSD should be at the centre of sustainable development solutions, it remains weak, largely because of differences between members, among other factors. Also, a lack of political will and interest by governments explains the general weakness of environmental departments, particularly in developing countries. General fragmentation and competing interests among countries are other sources of weakness of the CSD.

THEMATIC APPROACH TO ISSUES

Throughout CSD 15, very little attention was paid to sustainable production and consumption. There was also no awareness of the fact that environmental degradation arises from wasteful consumption by the middle and upper income groups and the production systems necessary to meet their needs, and that this contributes significantly to climate change.

At a side-event hosted by the Swedish Ministry for the Environment, the Swedish Environmental Advisory Council presented a report illustrating the importance of gender issues for sustainable lifestyles and consumption patterns. The study showed that rich men accounted for the greater part of energy use and carbon dioxide emissions, as they commonly set infrastructure and political trends in countries while women in general left a smaller ecological footprint, and therefore contributed less to climate change. The study not only highlighted the need for a change in the lifestyles of middle and upper income groups, but also stressed the importance of paying attention to gender issues.

OBSTACLES TO PROGRESS

Conflicting interest among countries

Proposals recommending the phasing out of global dependence on fossil fuels encountered strong resistance from Middle East oil-producing countries. Saudi Arabia argued that energy security was not only dependent on supply, and that demand had to be taken into account as well. Its representative pointed out that oil producers were continually being asked to increase oil supplies in order to meet growing global demand, and asked to attend to demands for abolish-

ing fossil fuels at the same time. Such mixed messages caused confusion about investment in the oil sector. Similarly, Iran expressed concern about one-sided interpretations of the phasing out of fossil fuels – ie, singling out the supply side and ignoring the demand side. Not surprisingly, Saudi Arabia expressed its support for carbon capture and storage technology (CCS). This is a process for separating carbon dioxide (CO₂) from emissions by industrial and energy sources, and storing it in deep ocean and geological structures (Ong and Daño 2007). These methods are already in limited use in the gas and oil-producing sectors. The adoption of carbon capture strategies could make a dent in overall CO₂ emission reduction if they are extended to the industrial and construction sectors. However, their very high costs remain an obstacle. Moreover, the environmental consequences of carbon capture still have to be fully assessed. This includes its possible effects on marine biodiversity, as well as the problem of accidental leakages of stored CO₂, which could have widespread environmental consequences (*ibid*).

It emerged during CSD 15 that the EU supports renewable energy and energy efficiency on the supply side. It has set a target of reducing greenhouse gas emissions by 2020 by at least 20 per cent, compared with 1990 levels.⁶ In fact, Germany, on behalf of EU members, rejected the chair's concluding summary of the proceedings, including proposals for action, because agreement could not be reached on time-bound targets for renewable energy, the integration of energy policies into national planning by 2010, the formal review of energy issues at the UN, and an international agreement on energy efficiency.

The hype over biofuels

The debate about biofuels generated a lot of interest. A key issue was the implications of expanding biofuel production across the globe. The EU has set itself a target of replacing 10 per cent of transport fossil fuels with biofuels by 2020. Since the EU does not have the agricultural resources to produce the additional biofuels itself, it has to depend substantially on imports. The discussions highlighted the current negative impacts of expanded biofuel crop production on food security, notably the production of fuel at the expense of staple foods, and its tendency to increase food prices. Other negative impacts cited include detracting from biodiversity as a result of clearing land to grow biofuel crops; the adverse energy balances⁷ of biofuel crops; and the export-oriented

focus of producing countries at the expense of local energy and food needs. The sustainable use of biofuels was also debated, and ideas for sustainable criteria were put on the table as measures to evaluate the impact of biofuels. Issues raised included greenhouse balance (for example the carbon fuel requirements for the production and transport of biofuels compared to that of fossil fuels), land use for biofuels production competing with food production, biodiversity, and human welfare; and the environmental consequences of producing biofuels. These considerations were explored to provide some tools for the beneficial production of biofuels.

The biofuels debate is extremely complex, and a detailed discussion is beyond the scope of this report. Suffice it to say that the potential use of biofuels as a source of renewable energy are receiving massive attention. The key issue is that any strategy for reducing a dependence on fossil fuels and switching to renewable energy must incorporate a holistic approach. For instance, using biofuels instead of fossil fuels in motor vehicles without establishing efficient public transport systems or ensuring access to energy for the poor may have more negative than positive consequences. So renewable energy and energy efficiency must go hand in hand with changes in consumer behaviour and the production of consumer goods, and support sustainable production and consumption patterns. Renewable energy technologies must also be accessible to the poor.

The role of the WTO in energy security

The Swiss Federal Office of Energy emphasised the need for the liberalisation of energy markets, the creating of new markets, emissions trading, and the need to overcome energy barriers. Business and industry representatives also emphasised the importance of trade liberalisation and of trade-related intellectual property rights (TRIPS) for energy efficiency.

The growing crisis surrounding climate change and the looming exhaustion of the world's oil reserves makes energy security a top priority for all governments. Menotti (2006) states: 'In the context of today's political moment of "energy anxiety", all governments, whether to maximise the benefits of their energy export or reduce their reliance energy imports, must maintain full flexibility to decide on their own energy future and not become subordinate to onerous new discipline under the WTO.' He adds that the General Agreement on Trade in Services (GATS) under the WTO has become 'increasingly important for developed nations as their econo-

mies become more based on services ...' (*ibid*). GATS covers all service sectors, including transport, finance, and telecommunications. The category of environmental services, which is still being debated by the WTO's trade and environment committee, could be expanded to include energy services. However, as Menotti points out, the WTO is already in the oil services arena because commitments by individual countries in the transport and information service sectors sometimes intersect with the energy sector.

GATS in its current form has huge implications for the rights of governments to choose and regulate services (Pressend 2006). Through the legal concept of national treatment in GATS, foreign service suppliers are meant to be treated in exactly the same way as domestic service suppliers. Furthermore, under GATS all domestic regulations have to facilitate market access by complying with GATS rules. This means that domestic regulations must not create unnecessary barriers to trade, and new domestic laws or regulations contemplated at the time of making a commitment to liberalise a given service sector must be declared, or else countries may be seen to violate GATS and disputes could be declared against them. GATS is aimed at removing barriers to free trade in services.

Energy-importing nations (notably the United States, the EU, and Japan) as well as several major energy exporters (including Saudi Arabia, Norway, Australia, and Canada) have formed a group of *demandeurs* that has made a collective request to a group of developing countries (including many OPEC nations) to offer specific commitments to liberalise their energy sectors (*ibid*). The group includes seven Latin American countries except Venezuela, and nearly every major developing nation with growing energy needs, including China, India and South Africa (*ibid*).

Liberalising energy services under new WTO rules and allowing national energy sectors to be controlled by foreign companies will have dire consequences for developing countries with high levels of unemployment and poverty. The ability of those countries to diversify their economies will be compromised. In addition, some governments use state-owned enterprises to cross-subsidise other strategically important industries, and allowing GATS to dismantle these revenue-generating enterprises could endanger the other sectors dependent on them.

Given the growing climate change crisis, Menotti points out that progressive governments may increasingly acknowledge the impact of carbon fuels on the environment, and begin implementing policies for phasing them out. Workers

and governments who rely on oil revenues need maximum flexibility and 'policy space' to manage the transition from carbon-based economies to alternative economic activities. WTO disciplines in the energy sector could reduce the flexibility and 'policy space' needed by countries to make an effective transition from a dependence on fossil fuels to cleaner and more renewable energy sources.

CONCLUSION

At CSD 15, developed countries strongly emphasised the energy inefficiency of developing countries, seemingly forgetting that they themselves are the major cause of pollution that has led to climate change.

Developed countries need to assume full responsibility for their role in consuming fossil fuels and causing climate change, as well as the massive impact this will have on poor and otherwise vulnerable countries. Therefore, they have to honour their commitments to transfer technology and finance sustainable development, and allow developing countries to retain the right and policy space to diversify their economies.

At the same time, middle-income developing countries also have a responsibility to reduce carbon emissions. Due to its extensive use of low-grade coal for electricity generation, South Africa has one of the highest levels per capita of CO₂ emissions in the world (Wakeford 2006). Moreover, the siting of aluminium smelters in South Africa, which its government is encouraging, will contribute significantly to carbon emissions – for example, the Coega smelter will consume half of the electricity of the City of Cape Town.

Industrialised developing countries have reached a turning point regarding their energy technology choices and their contribution to climate change mitigation. In the course of diversifying their economies, they need to promote the sound use of appropriate renewable energy technologies. Since developed countries are largely responsible for global warming, they need to step up foreign aid to developing countries to help them cope with climate change.

The problem is that many countries seem stuck in unsustainable technology choices (Fig 2007). The South African government, for example, supports the development of pebble modular nuclear reactors, but has set aside few resources for renewable energy development. South Africa's technology choices highlight why development plans need to be far more holistic.

At CSD 15, Germany, on behalf of the EU, commented on the need for developed nations to make and achieve some national commitments in order to give them more credibility during discussions with emerging economies. However, developed countries that are the leaders in renewable energy technology and hold the key to climate change mitigation are still divided on making concrete commitments. The stalemate at CSD 15 and at the Group of Eight (G8) Summit in Germany in June – where the United States rejected a commitment to ensure that the earth's temperature did not rise more than 2 degrees Celsius – reflects a lack of global consensus on climate change issues.

POLICY PRIORITIES

Beyond the Kyoto Protocol: shifts towards a low-carbon society

Climate change and the depletion of fossil fuels demand a shift to sustainable production and consumption patterns. While there are still some oil peak sceptics, analysts overwhelmingly agree that fossil fuels will run out in the foreseeable future, and that current consumption patterns are therefore unsustainable. Continued use of fossil fuels will exacerbate climate change, and the resultant natural disasters will destroy many national economies in any case.

So nations must make the transition to becoming low-carbon societies. A low-carbon society is one based on innovation, co-benefits, and sustainability (Shulka 2007). Market-based initiatives alone will not be sufficient to reduce emissions. A range of steps need to be taken, including using renewable energy to generate electricity; designing ecologically friendly buildings, and adopting energy-efficient construction methods; adapting urban planning; reducing industrial pollution; and using energy-water co-operation.

Climate change needs to be mainstreamed in national development, and the transition to a cleaner economy needs to be planned in such a way that it protects existing workers and creates new job opportunities. Government also need to put in place the policy framework and the necessary incentives to encourage renewable energy and energy efficiency such as fuel efficiency standards, fuel tax, and effective public transport systems.

Improving conditions for clean technology transfer to developing countries

According to Marland, Boden, and Andres (2007), since 1751 roughly 315 billion metric tons of carbon have been released into the atmosphere – largely from the burning of fossil fuels – and half of these emissions have occurred since the mid-1970s. Furthermore, they claim that the estimate for 2004, namely 7 910 million metric tons, represents an all-time high, and a 5,4 per cent increase over 2003 levels.

While climate change is largely attributed to excessive carbon emissions by developed economies, more industrialised developing countries also have a responsibility to reduce their emissions. As noted earlier, although South Africa is a middle-income country, it has one of the highest levels of CO₂ emissions per capita in the world. Also, China, which is still classified as a developing country, is one of the world's leading oil consumers and importers (Wakeford 2006), and, according to recent reports, has overtaken the United States as the world's top producer of carbon dioxide emissions.⁸ Newly industrialised countries must also reduce their dependence on fossil fuels; however, developed countries must provide them with the necessary assistance and support.

Phasing out subsidies and financing of fossil fuel industries

Phasing out subsidies to and the financing of the fossil fuel industry and promoting investment in renewable energy is vital for climate change mitigation. Yet, international donor agencies continue to subsidise the oil and gas industry.

In 2005 the World Bank Group and American agencies such as the Export-Import Bank and Overseas Private Investment Corporation provided finance of more than US\$3 billion to the international oil and gas and industry (End Oil Aid, Fact Sheet, 2007). Even though the World Bank's Extractive Industries Review recommended ending the financing of oil projects by 2008, the its financing of the fossil fuel industry rose by 93 per cent in 2006 (*ibid*).

Foreign aid to developing and underdeveloped countries should be structured in such a way that it promotes appropriate technology transfers, investment in renewable energy, and energy-efficient production methods. This is vital to curbing climate change. For example, most southern African

countries have abundant solar energy resources. However, the ability to convert these resources into usable energy is limited by a lack of investment and affordable technology (Wakeford 2006).

Access to energy for the poor

Renewable energy needs to ensure energy access to the poor, and not be dominated by market initiatives such as carbon trading. Providing the poor with access to energy requires considerable public investment. Renewable energy technologies must go hand in hand with fundamental changes in production and consumption patterns rather than quick-fix solutions aimed at maintaining the unsustainable lifestyles of the wealthy. Biofuels have the potential to give the poor increased access to energy, and provide rural households with new sources of income. However, many developing countries now see biofuels as a new export commodity. Besides threatening food security, poor farmers may be pressurised into growing export biofuel crops while they themselves still have no access to energy (Jhantani and Daño 2007). In Mexico the diversion of maize – a staple food – to biofuel production has led to a massive increase in maize prices, with negative consequences for the poor. If biofuels (or any other renewable energy technology) are driven by market fundamentalism, the poor will continue to be marginalised.

Encouragingly, governments seem increasingly concerned about the global energy and climate change crisis. However, rather than emphasising one technical solution, they should look into subsidising the local production of all clean energy sources such as wind, solar, hydro power and biogas, thus increasing access to energy and providing new livelihood opportunities to the rural poor, especially women.

Assessing the impact of trade liberalisation in energy services

As noted earlier, liberalisation of energy services under GATS will have a major impact on countries' energy sovereignty and hamper their future energy choices, especially their transition to sustainable energy. Governments should refrain from submitting any offers to liberalise their energy services sectors if they want to maintain full flexibility to regulate their services sectors and policy space.

Developing countries, in their quest to gain greater access to agricultural markets in developed countries, may be tempted to offer environmental services such as energy services under the WTO's GATS. However, governments need to ensure that they fully understand the consequences of binding any part of their energy sectors to the WTO rules (Menotti 2007).

NOTES

- 1 CSD 15 themes were energy, climate change, industrial development, and air pollution.
- 2 Energy labelling is the labelling of products based on their carbon intensity. This is a potential non-tariff barrier to the production of high coal-intensity goods.
- 3 Greenhouse gases are those that occur in the lower atmosphere and cause the greenhouse effect, or global warming. Greenhouse gases include ozone, methane, CFCs, carbon dioxide, water vapour, and nitrous oxides. Key sources are electricity generation, manufacturing industries, agriculture, and transportation.
- 4 'Development that meets of the present without compromising the ability of future generations to meet their own needs.' – Definition adopted by the CSD.
- 5 Darlene Williams, Assistant Secretary for Policy Development, US Department of Housing and Urban Development, Remarks on Industrial Development at the 15th Session of the UN Commission on Sustainable Development, USUN Press release #099 (07), 1 May 2007.
- 6 Summary and Conclusion from the Ministerial Conference under the German Presidency of the EU: Renewable Energy and Energy Efficiency – Innovative policies and financing instruments for the EU's southern and eastern neighbours, 19 April 2007, Berlin.
- 7 The energy balance of a given crop consists of all the fossil and other energy (except sun energy) to produce it and drive the manufacturing process (Sugrue 2007).
- 8 USA Today, China No 1 in carbon dioxide emissions, http://www.usatoday.com/news/world/environment/2007-06-20-china-emissions_N.htm

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