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Expert Meeting on the Participation of Developing Countries in New and Dynamic Sectors of World Trade: Review of the Energy Sector
Geneva, 29 November – 1 December 2006

REPORT OF THE EXPERT MEETING ON THE PARTICIPATION OF DEVELOPING COUNTRIES IN NEW AND DYNAMIC SECTORS OF WORLD TRADE: REVIEW OF THE ENERGY SECTOR

Held at the Palais des Nations, Geneva,
from 29 November to 1 December 2006

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Chapter I

CHAIRPERSON'S SUMMARY

A. Introduction

1. The São Paulo Consensus assigned to UNCTAD the mandate to conduct sectoral reviews of dynamic sectors of world trade (São Paulo Consensus, para. 95). At its ninth session (March 2005), the Commission on Trade in Goods and Services, and Commodities decided to conduct annual reviews under the aegis of Expert Meetings on promoting participation of developing countries in new and dynamic sectors of world trade.[1]

2. The expert meeting, which was held from 29 November to 1 December 2006, undertook a review of the energy sector. Mr. Abdou Aziz Sow, Minister for NEPAD of Senegal, and Mr. Supachai Panitchpakdi, Secretary-General of UNCTAD, made statements at the keynote segment.

B. Adjusting to the changing energy economy

3. In recent years, dramatic changes had taken place in world energy markets. Oil prices had increased sharply, along with concern about the security of energy supplies, with the possibility that both those effects would remain an integral part of the macro-environment for some time to come. The implications of those changes for economic growth and development were potentially serious, particularly for least developed countries (LDCs) and Africa. However, the new situation also offered opportunities for developing countries in terms of accessing new markets and reducing poverty.

4. It was noted that the recent oil price increases differed from previous oil price shocks in the sense that they had not led to recession. That was because world dependence on oil had decreased, particularly in OECD countries, where oil imports currently corresponded to eight per cent of exports, as compared with 24 per cent in 1980.

5. There were three reasons behind that development: First, major reductions in oil consumption had resulted from replacement of oil with other energy sources. Second, technological development had led to energy savings in industrial processes and transport. Third, and most important, energy-intensive sectors such as manufactures production accounted for a smaller share of GDP in developed countries today than 25 years ago, while sectors using relatively little energy, such as services or information technology, had played a much more important role. In developing countries, however, the energy intensity of GDP was still relatively high.

6. The impact of higher and more volatile crude oil prices was different for oil-exporting and oil-importing countries. At the macro level, the more deleterious impact would hit oil-importing countries in which rising import bills could trigger knock-on effects that hit every sector of the economy, with increases in inflation, unemployment and external debt. It had been estimated that, on average, a US$ 10 per barrel increase led to a 1.5-3 per cent decline in

[1] The dynamic and new sectors of world trade and their products fall into three broad product categories: (a) those that have displayed consistently high growth and increased share in world trade, including ones in which developing countries have already achieved some export presence; (b) sectors and items already in existence but new on the list of export activities of developing countries; and (c) altogether new areas of trade in which developing countries have potential comparative advantage.

GDP in developing countries. One result had been deeper indebtedness, as developing countries had increased external borrowing to finance food and petroleum imports.

7. Oil exporters might have to address the problem of pressure on the real exchange rate that could lead to "Dutch Disease", as well as deciding how to invest windfall revenues. For example, in 2004 and 2005, the Governments of nine oil-exporting African countries had captured more than US$ 15 billion in windfall revenues. On the other hand, it had been noted that the depreciation of the US dollar had reduced the positive effect on terms of trade for oil-exporting countries, and experts from such countries had estimated that since populations had grown in the interim, real oil revenues per capita were actually lower at present than in the 1970s.

8. At the micro level, effects were similar in both exporting and importing countries and included falls in household income, fuel shortages and cost increases that hampered the operations of businesses and undermined export competitiveness. In particular, highly indebted, net food-importing and land-locked countries in Africa faced serious problems, with oil price increases reducing the resources available for Government activities, including poverty reduction programmes.

9. Several possible ways of addressing the problems facing developing countries were discussed, with particular emphasis on measures intended to alleviate effects on oil-importing countries. It was also recognized that dialogue between oil exporters and importers and cooperation between different groups of countries, including on a regional basis, would be crucial ingredients in any policies to be developed.

10. Experts noted the positive impact that rising oil prices had had on the development of alternative sources of energy, particularly renewable forms of energy such as biofuels, wind energy, tidal and wave energy, and solar power. They emphasized the importance of a level playing field in the area of production and trade of biofuels, including the need for reducing and eliminating trade barriers and phasing out trade-distorting subsidies.

11. The following broad set of actions was recommended during discussions:

- It was necessary to define the total energy portfolio mix at all levels – national, regional, continental, and international;

- A World Energy Policy that fostered cooperation and dialogue between producers and consumers should be designed at a multilateral level;

- Energy portfolios should be differentiated according to local and regional resource endowments;

- An Oil Stabilization Fund could be established and a system with differentiated oil pricing reflecting countries' economic circumstances could be introduced, to operate during periods of crisis;

- The facilities for compensatory financing extended by international financial institutions should be made more user-friendly so that oil-importing countries could rely on them more extensively;

- An African Oil Fund could be created to help mitigate the effects of high oil prices on poor oil-importing African countries, and other forms of mutual support among developing countries could be considered;

- Producer–consumer dialogue that was mutually inclusive, transparent and played out on a level playing field should be encouraged.

- The enterprise sector could have a role to play in devising innovative technical and organizational responses to developing countries' energy challenges.

C. Biofuels

12. With current oil prices substantially above those of the past years and global warming fears intensifying, policymakers and consumers were more interested in finding alternatives to petrol than at any time since the mid-1970s. Biofuels – fuels derived from biomass – might offer a promising supplement. It was recalled that positive economic, social and environmental objectives might be fulfilled by increased production, use and international trade of biofuels. Those included reduction of the oil import bill, better energy security and diversification of energy sources, diversification of agricultural output, accelerated development of rural areas, better employment, contribution to climate change mitigation, and opportunities to export energy commodities.

13. The experts recommended that, before putting in place national biofuel strategies, countries take some crucial decisions, for instance, whether biofuel production was intended for transportation fuel security or for broader energy replacement; what would be the land requirements; and which conversion technology scale was desirable. They had also to think about the economic and environmental impacts; the compatibility of biofuels with existing fuel delivery/use infrastructures; and competing uses for biomass.

14. Several developed and developing countries were implementing fuel blending targets and providing different kinds of subsidies and incentives to support nascent biofuel industries. Those developments would spur a sustained worldwide demand and supply of biofuels in the years to come. That, in turn, might trigger a profound change in the world agricultural economy.

15. Tariffs, volumetric subsidies and tax rebates to biofuel production, support for construction of refineries, and support for production of feedstock were major instruments used by several developed countries at the national, subnational and even local government levels to make it possible for the domestic biofuel industry to exist and prosper. Support measures in developed countries had implications for developing country producers and consumers.

1. Biofuels and food security

16. A major preoccupation addressed during the meeting was that rapid growth in demand for energy feedstocks – such as corn, sugar cane and oil beans – could divert too much cropland to fuel crops and imperil food security. Energy prices above US$ 30-35/bbl directly affected agricultural prices and made a number of agricultural feedstocks economically viable sources of energy supply. However, there were significant differences in competitiveness across countries and feedstocks. Ultimately, the key policy challenge was harnessing benefits for agriculture renaissance without harming food security.

17. A related issue was the impact of rising prices of agricultural commodities, due to their use as energy feedstocks, on different segments of the population in developing countries. While the increase in agricultural prices could potentially benefit 2.5 billion people whose livelihood depended on the agricultural sector, small landholders, rural landless workers and the urban poor could be at significant risk, at least in the short term. Implementation rules and temporary compensation measures might need to be considered. Some suggestions were proposed in that regard:

- Governments should continue to invest in distribution infrastructure to reduce transactions costs between farmers and the end market;
- Price increases could be captured mostly by the marketing system, and be of little consequence for rural areas if the reduction in marketing costs was not addressed;
- In the case of small landholders, the absence of clear property rights and enforcement mechanisms could lead to their displacement by large and powerful interests;
- A significant share of the new added value that was generated had to reach farmers and rural areas, as that would open up economic opportunities in other economic sectors;
- Enhanced opportunities for local ownership and the emphasis on sustainable development were key elements to ensure the participation of rural entrepreneurs;
- Government incentives, if implemented, should be biased in favour of ownership and scale that benefited rural communities.

2. World production and international trade

18. At present, ethanol featured as a very dynamic commodity with production and international trade recording strong growth. World production of ethanol had increased from less than 20 billion litres in 2000 to over 40 billion litres in 2005. International trade in ethanol had undergone strong expansion. Biofuel exports faced tariff and non-tariff measures in developed countries. Import tariffs of 14 US cents per litre applied in the United States and 0.19 euro per litre in the EU. Special US and EC preferential schemes did allow some duty-free ethanol imports. The competitiveness of domestic biofuels in the United States and the EC depended on subsidies and import tariffs.

19. Increased international trade in biofuels and related feedstocks provided win–win opportunities to all countries. A more liberal trade regime would greatly contribute to the achievement of the economic, energy efficiency, environmental and social goals that countries were pursuing through enhanced biofuels production and use.

20. With a considerable increase in trade in feedstocks and biofuels expected, sustainable production was becoming a key concern and was currently being considered as a possible requirement for market access. Certification and labelling of biofuels and feedstocks remained a complex issue. Experts noticed that unnecessary trade barriers could be avoided by a fair criteria–development process characterized by widespread participation, transparency and consideration of certification capacity-building in developing countries.

3. Unlocking finance potential

21. At the heart of the sustainability of biofuels production was the financing of biofuel projects, especially in developing countries. Preconditions for making the financing of biofuels attractive were the same as for traditional agricultural projects, but experience in the field was very limited. Experts stressed the potential of the clean development mechanism (CDM) of the Kyoto Protocol. It was pointed out that there was an almost complete absence of CDM projects involving liquid biofuels in the transport sector or the replacement of non-renewable energy by renewable biofuels in the household sector. That gap was largely due to the absence of approved CDM methodologies for such bioenergy project activities.

22. It was noted that there were methodological and other challenges to advancing biofuels projects, but it was stressed that those challenges were not insurmountable and that addressing them would allow investments in bioenergy and increase opportunities for developing countries to participate in the global carbon market.

23. Experts presented some promising examples of biofuels projects developed in Africa. Both concerned biodiesel production from jatropha trees. One business case involved only private financing from Malian and European investors associated in a joint venture. Many positive impacts were expected from that project: better income for farmers compared to the usual cotton cash crop; better land management; improved soil condition and contribution to climate change mitigation and job creation.

24. Also, the ECOWAS Bank for Investment and Development and the Ghanaian Government had developed a national strategy to finance the whole supply chain of biodiesel production, which proposed the creation of an African Biofuels Fund to enable and streamline financing biofuels supply chain development in Africa.

4. The technological dimension of biofuels

25. Discussions differentiated between first- and second-generation biofuels. First-generation fuels were biodiesel from rapeseed, soybeans, sunflowers, jatropha, coconut, palm, recycled cooking oil, pure plant oils; and bioethanol, from grains and from sugar crops. Second-generation biofuels were ethanol from lignocellulose (crop residues, grasses, woody crops) via enzymatic hydrolysis and thermochemical fuels.

26. First-generation biofuels had several limitations. They competed with food uses and plants had been optimized for food, not energy use. Only part of the plant was converted into biofuel. They brought only modest greenhouse emissions mitigation benefits, except for sugarcane ethanol. They bore relatively high costs – except for sugarcane ethanol in Brazil, due to high feedstock costs.

27. Second-generation biofuels had some clear advantages. Plants could be bred for energy characteristics, not for food, and a larger fraction of the plant could be converted to fuel. The “biorefinery” maximized plant utilization. There were substantial energy and environment benefits. These fuels had greater capital-intensity than first-generation biofuels but lower feedstock costs.

28. Participants also differentiated between thermochemical and biological second-generation biofuels. Thermochemical fuels allowed for complete utilization of the biomass and offered a high degree of feedstock flexibility. Conversion technologies were currently

available in the market. R&D breakthroughs were needed to improve conversion and reduce costs. Projected costs were somewhat less scale-sensitive than for thermochemical fuels.

D. Oil and gas in Africa and LDCs

29. Participants pointed out that the profile of the African oil and gas sector had been enhanced because of increased capacity, investment and trade, and also because of a greater focus by other regions on Africa, given their heightened concerns about the pursuit of energy security and the instability and security issues regarding traditional producer regions, such as the Middle East. The implications took three dimensions: pan-African regional cooperation; opportunities for South–South trade and investment flows, as reflected by rapidly increasing investment from China and India amongst others; and the strategic considerations of oil and gas in reconfiguring North–South relations, especially with the US, Europe and Japan.

30. The world had long had a stake in Africa, for peace, security, development, and now energy as well. Within Africa, building linkages between the energy and non-energy sectors was a priority for optimizing gains for producers and coping with possible problems such as the so-called resource curse, and for minimizing costs for importers. How Africa responded to that context would provide lessons to other regions, but Africa had also to learn lessons that other regions had already experienced. LDCs, which were mostly importers, were the most vulnerable despite the fact that they were the least energy-intensive – and therein lay the paradox for those countries.

31. A key issue was how to invest the windfall gains from high oil prices to secure future development requirements. There was no automatic positive link between revenue generated on the basis of natural resource exploitation and spending that would support economic diversification and increase social welfare – to the contrary. Good outcomes from oil reserves were contingent upon good governance and good institutions. Therefore, countries should improve governance and the quality of their institutions to undermine the negative political and economic impact that natural resource exploitation would otherwise have. Capacity-building could not help when there was no good governance or political will.

32. Also, Africa needed to take a more active investment stance, warranting fulfilment of certain conditions such as a safe and hospitable investment environment; a better regulatory framework; greater capability for domestic corporate finance and fund management; know-how and technology transfer; and a platform for mergers and acquisitions. To address that situation, a long-term (5-8 year) investment fund for managing oil revenues should be developed, using local talent that had migrated overseas and enabling the development of competences in non-energy sectors (e.g. telecoms, software, finance, tourism). Structures in Kuwait and South Korea were highlighted as useful best practice case studies.

33. It was pointed out that many African countries, especially LDCs, had been hit hard by high oil prices, which were believed not to reflect supply and demand fundamentals but to be the result of manipulation. The consequences were widespread, hindering development and depleting scarce funds that could otherwise have been used for development purposes, especially education. The ramifications had been seen in the large migration flows from Africa to Europe. Participants pointed to the potential of an international or regional system for making energy affordable to poor net oil-importing countries, with a kitty when price levels rose above certain benchmarks with a view to making oil more affordable for poor net energy-importing countries. There was also the need to exploit the potential of biofuels.

Some 80 per cent of African land was not cultivated at the moment and could be used for biofuel production, which could have great benefits, not just in terms of energy mix but also for employment and wealth generation. Something had to be done straight away to seize that opportunity.

34. While the oil and gas industry was among the most important wealth-creating instruments for Africa, there were few local entrepreneurs involved in the industry and few linkages existed to ensure spillovers into the broader economy. One key challenge was to improve local content capabilities in price, quality and technical competence. In some countries, such as Nigeria, an active local content policy had been turned into a policy to develop the oil and gas industry into a catalyst for job creation and national growth by developing indigenous capacity in-country and ensuring participation of Nigerians in oil and gas activities without compromising standards. The returns were a bigger share of the US$ 10 billion annual service contracts awarded to the industry, of which only US$ 1 billion went to local entrepreneurs. It was pointed out that there were severe impediments hindering local entrepreneurs competing with foreign counterparts, such as inadequate funds in local markets, the high cost of borrowing, and a lack of support from major oil companies that could enhance credit to local companies. Those could be overcome by a better understanding of structural financing techniques.

35. The participants identified five critical areas in which there was a need for building rigorous plans for development of the energy sector:

- Analysing trends in the changing oil sector to catalyse development and reduce poverty;
- Developing policies to assist importers in the context of high and volatile prices, including compensatory finance and importer/producer cooperation;
- Encouraging the development/oriented use of windfall gains;
- Avoiding resource curse impacts by increasing local content and developing linkages with other sectors;
- Building a level playing field in production and trade of biofuels by removing trade obstacles, barriers and subsidies.

36. The success of such plans would depend critically on support measures, including in the areas of spreading costs, regional cooperation through producer–cooperative dialogue, and price risk management, and would require the international community to set up compensatory financing arrangements that went beyond existing facilities. Steps would have to be taken to help overcome challenges posed by poor infrastructure, inefficient price determination, the high cost of financing, problems with refinery capacity and to develop higher local content provided by local service providers.

E. Role of UNCTAD

37. Participants urged UNCTAD to continue and strengthen its work in the area of energy, trade and sustainable development. In that regard, emphasis needed to be put on:

- Monitoring and analysing the trade and development implications of the changing energy economy and national and international energy policies, including the impact on economic growth and poverty reduction; export competitiveness; sectoral impacts; trade barriers; development and transfer of technology; access to energy services; and the role of competition policy issues;

- Fostering policy dialogue focusing on energy security, sustainable development and poverty reduction in developing countries;

- Helping developing countries fully exploit opportunities arising from renewable energy sources such as biofuels, wind and solar energy. Those alternative energy sources could help increase rural incomes in developing countries, improve income security through diversification, raise the quality of life in rural areas through access to affordable energy, and contribute to a development path that was less carbon-intensive;

- Highlighting issues facing energy-importing developing countries, including improvement and better use of compensatory finance facilities, as well as regional cooperation such as producer–consumer cooperation, including South–South and North–South cooperation, in reducing the impact of oil price fluctuations;

- Assisting energy-exporting developing countries in formulating policies and strategies for development-oriented use of windfall gains so as to capture the positive effects of high prices and make them sustainable. Some important issues that needed to be addressed included critical investments in energy and other related sectors, improvement of local content and better linkages with local industries, especially SMEs, and efficient energy product markets;

- Emphasizing the importance of a level playing field in the area of production and trade of biofuels, including the need for reducing and eliminating trade barriers and phasing out trade-distorting subsidies. Investors in prospective biofuels export facilities in developing countries needed to be assured that markets were going to be open and that there would be scope for large exports, allowing them to exploit economies of scale.

38. Participants also recommended that energy, trade and sustainable development issues be kept high on the agenda of UNCTAD XII, to be held in Ghana in 2008, which would offer an important opportunity for concrete follow-up on the work done during the present sectoral review. In addition, they called for the further enhancement of institutional arrangements within UNCTAD in dealing with energy issues, including biofuels.

Chapter II

ORGANIZATIONAL MATTERS

A. Election of officers

39. At its opening meeting, the Expert Meeting elected the following officers to serve on its bureau:

Chairperson:	Mr. Arsene Balihuta (Uganda)
Vice-Chairperson-cum-Rapporteur:	Mr. Antonio Simões (Brazil)

B. Adoption of the agenda and organization of work

40. At the same meeting, the Expert Meeting adopted the provisional agenda circulated in document TD/B/COM.1/EM.31/1. The agenda for the Meeting was thus as follows:

1. Election of officers
2. Adoption of the agenda and organization of work
3. Participation of developing countries in new and dynamic sectors of world trade: Review of the energy sector
4. Adoption of the report of the Meeting

C. Documentation

41. For its consideration of the substantive agenda item, the Expert Meeting had before it a background note by the UNCTAD secretariat entitled “Adjusting to recent changes in the energy sector: Challenges and opportunities” (TD/B/COM.1/EM.31/2).

D. Adoption of the report of the Meeting

42. At its closing meeting, the Expert Meeting authorized the Rapporteur to prepare the final report of the Meeting under the authority of the Chairperson.

Annex

ATTENDANCE*

1. Experts from the following States members of UNCTAD attended the Meeting:

Algeria
Angola
Argentina
Bangladesh
Bolivia
Botswana
Brazil
China
Colombia
Congo
Ecuador
El Salvador
Finland
France
Germany
Guatemala
Honduras
Hungary
India
Iran (Islamic Republic of)
Italy
Kuwait
Malaysia
Moldova
Mozambique
Pakistan
Peru
Philippines
Qatar
Russian Federation
Saint Kitts and Nevis
Saudi Arabia
Senegal
South Africa
Spain
Sri Lanka
Sudan
Syrian Arab Republic
Thailand
Trinidad and Tobago
Uganda
United States of America
Yemen
Zambia

2. The following intergovernmental organizations were represented at the Meeting:

African Union
European Commission
League of Arab States
Organisation for Economic Co-operation and Development
South Centre

3. The following United Nations agencies were represented at the Meeting:

United Nations Environment Programme
United Nations Framework Convention on Climate Change

4. The following specialized agencies were represented at the Meeting:

United Nations Food and Agriculture Organization
World Trade Organization

* For the list of participants, see TD/B/COM.1/EM.31/INF.1.

5. The following non-governmental organizations attended the Meeting:

General Category

BPW International
International Centre for Trade and Sustainable Development
International Confederation of Free Trade Unions
World Federation of Trade Unions
World Wildlife Fund

6. The following panellists attended the Meeting:

Mr. Marian Radetzki, Professor, Lulea University of Technology, Sweden
Mr. Nicolas Sarkis, President, Arab Petroleum Research Centre, France
Mr. Paul Sullivan, Professor of Economics, National Defence University, Adjunct Professor of Security Studies, Georgetown University, Washington DC, United States
Mr. Saeid Sirajmir, International Energy Forum, Riyadh, Saudi Arabia
Mr. Hussein El Hag, Executive Director, AFREC, Algeria
Mr. Ahmad Irej Jalal, Planning and Economic Studies Section, Department of Nuclear Energy, International Atomic Energy Agency (IAEA), Austria
Mr. Steven Koonin, Chief Scientist and Coordinator of the Energy Bioscience Institute, BP, United Kingdom
Mr. Olivier Giscard d'Estaing, INSEAD Foundation, France
Ms. Eva Rehfuess, Head of Public Health and Environment Programme, WHO, Geneva
Mr. Mauricio Tolmasquin, President, Energy Research Group, Ministry of Mines and Energy, Brazil
Mr. Corrado Clini, Director-General, Ministry for the Environment, Land and Sea, Italy
Mr. Ron Steenblik, Director of Research, Global Subsidies Initiative, International Institute for Sustainable Development (IISD)
Mr. Alexander Muller, Assistant Director-General, Sustainable Development Department, FAO, Italy
Mr. Andre Faaij, Associate Professor, Coordinator of Research Energy Supply and System Studies, Copernicus Institute, Utrecht University, Netherlands
Mr. Daniel De La Torre Ugarte, Associate Director, Agricultural Policy Analysis Center, University of Tennessee, United States
Mr. John Christensen, Director, UNEP-Risoe Center
Mr. Thierno Bocar Tall, Director of Strategic Planning and in charge of NEPAD and Cooperation, ECOWAS Bank for Investment and Development, Togo
Mr. François Falloux, Vice President, Eco-carbone, France
Mr. Eric Larson, Research Engineer, Energy Technology Assessment/Energy Policy Analysis Group, Princeton Environmental Institute, Princeton University, United States
Mr. Amilcar Guerreiro, Director, Energy Research Group, Ministry of Mines and Energy, Brazil
Mr. Lew Fulton, Programme Officer, Sustainable Transport, Division of GEF Coordination, UNEP
The Honourable Mr. Felix Mutati, Minister of Energy, Zambia
H.E. Mr. Abdou Aziz Sow, Minister of NEPAD, Senegal

Mr. Paul Stevens, Professor of Petroleum Policy and Economics, Centre for Energy, Petroleum and Mineral Law and Policy, University of Dundee, United Kingdom
Mr. Francois Casanova, CEO, Strategic Risk Management, France
Mr. Victor Eromosele, General Manager Finance, Napims (NNPC), Nigeria
Mr. Amadou Dioffo, CEO, SONIDEP, Niger
Mr. Gary Still, Executive Director, CITAC, United Kingdom
Ms. Elitsa I. Georgieva, Manager Consulting Services, CITAC, United Kingdom
Mr. Antonio Simões, Director, Energy Department, Ministry of External Relations, Brazil

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