



Third World Network  
**Accra News  
Updates and  
Climate Briefings**

**TWN**

Third World Network

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**ACCRA NEWS UPDATES**  
AND  
**CLIMATE BRIEFINGS**

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## **NOTE**

This is a collection of the 11 News Updates and three Briefing Papers prepared by the Third World Network for and during the United Nations Framework Convention on Climate Change (UNFCCC) meeting in Accra, Ghana from 21 to 27 August 2008.



# **Accra News Updates**



# TWN

## Accra News Update

# 1

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22 August 2008

### **Differences emerge over “sectoral approaches” as Accra climate talks start**

Accra, 22 August (TWN) – Significant differences emerged between some developed countries and a majority of developing countries that spoke on “sectoral approaches” during the opening days of the UN Framework Convention on Climate Change (UNFCCC) meeting in Accra. The discussion took place on 21-22 August at a workshop as part of the 3<sup>rd</sup> session of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA).

Japan, the main proponent of the “sectoral approach”, implicitly responded to criticisms by stating that its approach would not replace national overall targets (for Annex I countries) nor would it lead to trade restrictions. But it reiterated that for sectors such as coal-fired power generation, iron and steel, cement and road transport, the emissions or energy per unit of production could be evaluated, and compared between countries.

This seemed in line with its paper, submitted on this topic, calling for sectoral benchmarks in major developing countries as a method to measure their mitigation actions. The controversy on the “sectoral issue” derives from the fear that Japan wants to use it to introduce a “level playing field in international competitiveness” into the UNFCCC discussion, which developing countries fear could lead to unfair trade measures against their products.

At the workshop, many developing countries, including the Philippines for the G77, India, China, Brazil, Bangladesh (for LDCs), Grenada (for small island states) and Saudi Arabia, spoke against the attempt to use “sectoral approaches” to set standards or benchmarks, which could be used unfairly against developing countries. They distinguished between “sectoral efforts” to combat climate change at the national level and international “sectoral agreements” involving targets, standards and comparisons between countries.

The workshop focused on “cooperative sectoral approaches and sector-specific actions, in order to enhance implementation of Article 4, paragraph 1(c), of the Convention” and on “the effectiveness of mechanisms and tools for technology cooperation in specific sectors”.

Luiz Machado of Brazil, **Chair of the AWG-LCA**, opened the meeting by noting that Article 4.1(c) states that “all Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors.”

He noted that some discussions of sectoral approaches have already taken place at the Bangkok and Bonn meetings of the UNFCCC, and that various Parties have emphasized that sectoral approaches should not replace national commitments, but could complement efforts to transfer technology.

Some of the issues discussed include coal-fired power plants, steel and cement, road transportation, energy efficiency, livestock and agriculture, international aviation and maritime transport and reduced emissions from deforestation.

Some Parties believe that these approaches could be stimulated and made effective through market based mechanisms and called for a broadening of the Clean Development Mechanism (CDM) and market based mechanisms. Others have said they should not form the basis of binding sector-specific commitments.

The Chair said he hoped to move towards a common level of understanding, to facilitate more concrete work later on the Bali Action Plan.

**The Philippines (represented by Bernarditas Muller), on behalf of the G77 and China,** opened the formal presentations by noting that the workshop's mandate is to focus on sectoral approaches and sector-specific actions "in order to enhance implementation of Article 4, paragraph 1(c), of the Convention".

Sectoral approaches must therefore be seen within the context of Article 4.1(c). Indeed, the Convention only mentions sectors in relation to the promotion and cooperation on technology issues and nowhere else.

For the G77 and China, technology development and transfer means realizing the full potential of technology. It requires establishment of mechanisms across the full technology cycle and an appropriate IPR environment. These mechanisms must cover both technology "hardware" and "software", including practices, processes and know-how.

Article 4.1(c) also covers all stages in the development of these technologies, including "development, application and diffusion, including transfer". And it focuses on a wide range of technologies including those that "control, reduce or prevent greenhouse gas emissions".

The group noted that Article 4.1(c) is further elaborated in Article 10(c) of the Kyoto Protocol, which emphasizes the absence of new commitments under the Protocol, but rather calls for full implementation of the Convention through efforts to transfer technologies that are publicly owned or in the public domain or held by the private sector. These include technologies both for mitigation and for adaptation.

It noted that under the Bali Action Plan we have heard differing understandings of the meaning of "sectoral approaches". There is a need to distinguish between sectoral discussions within the AWG-LCA (which is focusing on technology development and transfer) and the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) (which is focusing on means for Annex I Parties to reach their emission reduction targets including "possible approaches targeting sectoral emissions").

Discussions within the AWG-LCA should not form a pretext for a broader approach to targeting emission reductions for Annex I Parties, as this is being addressed in the AWG-KP. We must also distinguish between sectoral "measures" and sectoral "agreements". Sectoral agreements have been proposed by some Annex I Parties to establish global

sector-specific agreements or standards for the mitigation of emissions.

For developing countries, what is required is clear. Within the AWG-KP, sectoral efforts can contribute to, but not replace, legally binding targets for Annex I countries. Issues of "leakage" and "competitiveness" should also be dealt with elsewhere. For developing countries, sectoral approaches should not be used to impose targets on developing countries. They are merely one option among others to achieve national goals. Within the AWG-LCA, sectoral approaches call for enhanced efforts to implement the Convention's technology obligations.

Muller concluded by noting that discussions of sectors should not be used to justify trade measures, standards, or other measures against developing countries. We must not in our discussions undermine the founding principles of the UNFCCC, including common but differentiated responsibility. It is therefore essential that negotiations within the AWG-LCA focus specifically on the terms of Article 4.1(c).

In a second workshop presentation, the **European Union** said that it sees sectoral approaches as a common sense approach to designing national measures. It suggested as "principles" that sectoral approaches: 1) should be developed in relation to the principle of common but differentiated responsibilities and capabilities; 2) should not replace economy-wide targets for developed countries; 3) should be consistent with progress towards a fully fledged global carbon market; and 4) should deliver what they promise by ensuring measurable, reportable and verifiable approaches.

The term "sectoral approaches" means different things to different people. In defining the term more carefully we can look at the "scope" of approaches including those linked to the carbon market or those focused more on technology cooperation. We can look at the "nature" of obligations in terms of binding or optional. We can also look at specific sectors such as transportation, housing, maritime and aviation and so on.

According to the EU one major type of sectoral approaches includes technology and policy cooperation, and other such approaches not linked directly with the carbon market. Examples include national policies and measures for emission reduction and technology agreements. This type offers the advantage of targeting of specific barriers, enhancing private investment, and supporting technology diffusion, deployment and transfer in various sectors.

A second major category of sectoral approaches builds more directly on the carbon market. Emission trading on a sectoral basis would allow entry of

developing countries into the carbon market without taking on economy-wide targets. Another concept is sectoral no-lose approaches or sectoral crediting mechanisms. These approaches can provide incentives for developing countries to reduce emissions and allow differentiation between different countries with different objectives.

According to the EU, sectoral approaches are common sense, logical and pragmatic tools. In light of their advantages, the EU feels that the necessary incentives exist to further explore the issue of sectoral approaches and to lay a solid basis for progress on the road to Copenhagen.

**India** emphasized that Article 4.1(c) addresses the full technology cycle, but provides no basis for discussion of mitigation targets or benchmarks. Within the Bali Action Plan, one area to focus on is cooperative sectoral approaches in the area of technologies for energy efficiency. Like other developing countries, India faces challenges in improving energy efficiency. Technology development and transfer to address these issues is required.

At the same time, prescribing specific standards for these sectors would not be appropriate. The efficiency of different facilities differs markedly – some are highly efficient and others use twice the level of energy. This is true in any number of sectors. Diversity of plants renders each plant in each country unique. It is not possible to set a standard for each facility, nor do many developing countries have the capacity to inspect each plant.

Nor is it appropriate to establish standards prescribing particular technologies as this could lead to the creation of cartels or to the stifling of innovation. Technologies should be selected by the private sector. For these reasons, India feels extremely uncomfortable with the way “sectoral approaches” has been presented.

India then spoke on feasible approaches, which could be taken at the national level. In developing national level sectoral approaches, and cooperation on technology transfer, we need to look at the whole technology cycle. Collaboration on research and development with concessional working or sharing of ownership of IPRs in developing countries is one area of cooperation. India also mentioned compulsory licensing and royalty payment by a multilateral fund.

**Japan**, which is regarded as the main proponent of the “sectoral approach” (and whose previous promotion of international targets for developed and developing countries gave rise to serious concerns about the potential use of trade measures), noted that the basic concept of sectoral approaches is embedded in the Kyoto Protocol and the

UNFCCC.

Implicitly addressing criticisms about the approach it had previously presented, Japan said sectoral approaches should not replace national targets and should be compatible with common but differentiated responsibility. They should not lead to trade restrictions.

To Japan, sectoral approaches provide a means to establish feasible national emissions reduction targets for developed countries. For Annex I Parties, economy-wide emission goals would be estimated by accumulating sector-based mitigation potentials that could be achieved by implementing best available technologies and best practices.

Sectoral approaches also provide a means to facilitate technology cooperation with developing countries by identifying best available technologies and practices, while ensuring measurable, reportable and verifiable actions. These would form part of an “internationally cooperative sectoral approach” with developing countries, supported by cross-border sharing of best available technologies and best practices.

In the sectors identified by Japan, developing countries would identify mitigation capabilities and technologies. These sectors are suitable as they are internationally comparable and their contribution to greenhouse gas emissions is collectively over 50%. Indicators, such as sectoral energy intensity targets, could be established. Many such approaches are “no regret” as they have national benefits including pollution reduction.

Japan proposes focusing initially on key “sub-sectors” including coal-fired power generation, iron and steel, cement and road transport. In each sector emissions or energy per unit of production could be evaluated, and compared between countries. Sectors such as residential and housing are affected by national circumstances and so are not suitable for international comparison. In response to questions, Japan confirmed that sectoral approaches are not a “conditionality” for finance under their Cool Earth Partnership, but that they will “facilitate consideration” of providing funding.

For the Poznan meeting, Japan suggested collecting information from major Parties on sectoral emission reduction potentials. Information on best available technologies could also be collected with the goal of securing agreement on a sectoral approach at the Business Roundtable proposed for the Poznan meeting.

**Bangladesh on behalf of the LDCs** commenced by asking why we need sectoral approaches and what are the key problems they seek to address? If total emissions are critical to addressing global

warming, then sectoral approaches are not a substitute for national emissions targets. Sectoral approaches that cut across different nations are also problematic as countries differ widely in national circumstances and constraints. Moreover, in some countries efforts to mitigate may be made on the supply side, whereas in other countries they may be on the side of demand or consumption.

Sectoral approaches can, on the other hand, contribute to technology development and transfer. They can help to develop tools, methodologies and technologies to identify emission reductions that can be realized cost effectively. Sectoral approaches may also help in identifying barriers in specific sectors. They may also be helpful in sectors that are global and all countries have a role – such as marine and aviation. Sector specific technology and best practices should be made available to LDCs on a priority basis. There is also a need to develop mechanisms for technology transfer where intellectual property rights are involved – ensuring access to LDCs.

**China** said that there are confusing and different interpretations of cooperative sectoral approaches. It is therefore important to recall the mandate in Article 4.1(c). China understands that cooperative sectoral approaches are those that facilitate and promote “the development, application and diffusion, including transfer, of technologies practices and processes”, in accordance with Article 4.1(c).

Capacity building and financing in developing countries should be implemented with cooperative approaches and sector-specific actions. However, these actions need to consider a number of barriers:

- Sectoral restructuring and diffusion of environmentally sound technologies may lead to major costs including social costs associated, for example, with changes to the job market and employment.
- There is at the same time a lack of human resources required to implement new technologies, so efforts to train human resources are a precondition to any sectoral approach.
- Weak infrastructure for policy enforcement can also compromise the effectiveness of sectoral policies (e.g. information unavailability, different statistical terms, ineffective monitoring etc).

Sectoral approaches to implement Article 4.1(c) need to characterize efforts in the context of specific countries and regions. They need to be guided by specific strategies, programmes and policy instruments, and by efforts to identify needs for environmentally sound technologies, financing and capacity building. Among other things, financing for the restructuring of sectors will be important.

China concluded that discussions regarding “sectoral approaches and sector-specific actions” should strictly concentrate on enhancing the implementation of Article 4.1(c). They should be considered within the context of development and match the stage and level of economic development of each country. At different stages of development, countries have different structures of sectors, with services being predominant in developed countries while in developing countries the services and manufacturing sectors are predominant. Agreeing with India, it said that developing standards or benchmarks (in a sectoral approach) is complicated and problematic. Capacity building, the development and transfer of technology and appropriate financing should be a key part of any effort. It is these issues that should be addressed within the context of the Bali Action Plan.

**The Chair** noted the value of sectoral approaches for national actions. However, when discussions move to the international level questions arise. One of the advantages of the Convention and Kyoto Protocol is that they do not tell countries where they need to make efforts. It is up to Parties to determine where they apply their efforts. In what manner, and to what extent, may a sectoral approach subvert this freedom to address priorities according to their national circumstances?

**Indonesia** reiterated that sectoral approaches should be considered as an approach to implement Article 4.1(c). They provide a means to strengthen technology cooperation, cross-border sharing of best available technologies and practices, and financial support. Sectoral approaches must take into account different social and economic conditions. They are not required for the quantification of national targets. Indonesia agreed with other delegations that a range of different questions remain to be addressed.

**South Korea** recommended making sectoral approaches operational by engaging non-Annex I countries through the provision of incentives. Linking sectoral discussions to its broader recommendation of providing carbon credits for “nationally appropriate mitigation actions”, Korea suggested the identification of simple baselines using levels of carbon intensity (rather than production or energy efficiency) in 2012 as a baseline. Developing countries would get credits for voluntary efforts to reduce carbon intensity. The mechanism would engage the carbon market and would go beyond offsetting to provide real reductions if developed countries were willing to take on deeper commitments.

It noted that the President of South Korea has said it will establish its own mid-term target for 2020. In an exchange with Japan, Korea asked who is go-

ing to pay for the technology? Will the Japanese steel industry give the Indian steel industry free technology? The costs need to be covered. We need to go beyond talking about technology cooperation to identifying means of paying for technology transfer. Korea will also initiate the East Asia Climate Partnership with USD200 million dollars to support East Asian countries.

The workshop, when it resumed on 23 August, held a general discussion. **Algeria** asked “who will pay” for the transfer of technology under a sectoral approach. Japan responded that trade will occur primarily on commercial terms as a commercial transaction. It can also be supported by various bilateral and multilateral funding mechanisms such as the Clean Technology Fund announced at the recent G8 meeting. Sectoral crediting mechanisms could fund transfer through existing or new market mechanisms.

**Qatar** said cooperation must be based on Article 4.1(c) and must include development of a mechanism for technology, finance and capacity building and must not compromise the principle of common but differentiated responsibility (CDR). There will always remain the question of “who will pay” as most developing countries will not be able to implement such an approach.

**Colombia** emphasized that the right to development and Article 4.7 of the Convention which mandates social and economic development and reduction of poverty are the main goals of developing countries. Developing countries’ response to climate change will depend on the effective implementation of commitments by developed countries under the Convention.

**Saudi Arabia** reiterated that the Convention does not mention sectoral approaches. Indeed these words do not arise together in either the Convention or the Kyoto Protocol. Sectors are identified as areas where countries can reduce emissions at the national level. It remains with each country to evaluate this within their national goals. The Convention and Protocol are flexible to give each country the sovereignty to choose which sectors work for them and in what percentages.

It asked why are we discussing sectors? The Bali Action Plan includes sectors to ensure effective implementation of Article 4.1(c). The issue is which technologies, practices and processes are to be transferred? In which sectors? Combined cycle generation can help countries using outdated technologies. Countries with modern steel technologies can help those who want new technologies.

Sectoral approaches are not about measuring sectoral emission reduction potentials, or setting

benchmarks or standards. They are definitely not a vehicle for migrating some of the Annex I countries’ national emissions obligations to other countries. Cooperation is required because it is lacking. If there were more cooperation than competition between wind turbine producers then there would be more affordable technologies. These are the issues we need to address to implement Article 4.1(c).

The **United States** suggested that the emphasis has to be on Article 4.1(c), where the focus is on the promotion of cooperation. Discussions under the AWG-LCA are not a target-setting exercise. Certainly Parties are free to establish their own national goals and actions using such an approach, which is the way that countries usually evaluate their economies.

It said that engaging industry in the process is important in terms of identifying technologies and solutions. The US would support the inclusion of some reference to sectoral approaches in any agreed outcome, both so Parties could capitalize on win-win opportunities, and so they can take advantage of flexibilities in implementing the Convention.

According to the US, the Asia Pacific Partnership on Clean Development and Climate provides one model for international cooperation. The seven countries involved in that partnership have formed eight sectoral taskforces covering a number of sectors – including power, industry and others. Each has developed an action plan of its own, identifying strategic opportunities to develop and deploy technologies. They are implementing over 120 projects to implement technologies which contribute to GHG reductions and multiple benefits such as energy efficiency, security and other benefits.

It said that many countries are concerned about competitive and leakage issues. This is not the focus of the US. Rather, the focus is on advancing the rapid deployment of clean technology to support the Convention and implement 4.1(c) which applies to all Parties.

The US mentioned three roles for the Convention – to catalyze international cooperation and accelerate technology development, deployment and transfer; to analyze the mitigation potential in different sectors, and to support some form of recognition of regional or multilateral cooperation.

Following interventions by a number of other participants, the **Chair** noted that participants seem to agree that sectoral cooperation is an important tool that would foster exchange of best practices, deployment of technology, and technology transfer. This potential was highlighted by a number of delegations. There was also a clear signal that sectors are

important for national actions, which are taken in sectors. But it is up to countries to determine what actions to take and in which sectors. This issue is concentrated on Article 4.1(c), which speaks to cooperative actions.

**France** said we need to consider all means for mitigation. But it expressed concern about the “bottom up” approaches to evaluating Annex I country targets. The EU’s experience suggests that focusing only on a bottom up approach according to mitigation potential leads to a disproportionate burden on poorer states. We should be cautious about focusing only on bottom up approaches.

**Norway** said that we need to reduce emissions in all sectors all the way to 2050 and beyond. Expansion of the carbon market with the same marginal cost in all sectors should be the goal. Sectoral approaches should be a transitional arrangement. International aviation and maritime transport must be part of the post 2012 regime.

**The Philippines** emphasized that IPRs should be evaluated to ensure that they are not a cost barrier, and that they may need to be relaxed. A variety of means, including compulsory licenses, are available to developing countries. Technology transfer, including ODA, should not be a means to transfer obsolete technologies.

**China** said that we require consensus that discussions are to promote the implementation of Article 4.1(c) and not to identify the mitigation goals of different countries. Countries face different situations and historical responsibilities which must be taken into account. Sectoral approaches must be used to promote technology transfer, including the funds and mechanisms required to promote technology transfer.

**New Zealand** said that discussions remain at a high level of generality. A “smorgasbord” of options has been presented. Yet many delegations are concerned that some of the dishes may be poisoned. Given the timetable, we need to seek clarification to narrow down to what extent we might want to use the approach. Sectoral approaches would need to ensure a net benefit to the global climate – this should be a principle.

**Grenada for AOSIS** said sectoral approaches are a useful means for transferring technologies; but not a basis for nation-wide targets or for setting standards. The sectoral approach should also not create trade barriers based on embedded commodities, efficiency or other bases. The question of who will pay for technologies remains to be answered. This is an issue that requires further clarification before any negotiations can begin on this topic or decisions can be taken.

**Brazil** said that the AWG-LCA should take advantage of a mandate on Article 4.1(c). The Bali Action Plan seeks to enhance the enabling conditions of financing and technology. Article 4.1(c) adds a focus on needs in specific sectors. Second, the Bali Action Plan is about implementation of the Convention, including common but differentiated responsibility.

The establishment of a uniform target in sectors for all countries is therefore unacceptable, stressed Brazil. Uniform technical standards are also unacceptable – the Preamble notes that standards in some countries are unacceptable to others. It suggested that discussion of sectoral approaches to define targets for Annex I countries is valid. But this must take place in the AWG-KP. The two working groups have distinct legal and political contexts which make it inappropriate to shift issues from one to the other.

It agreed with the US that the climate negotiations do not have as their objective the resolution of competitiveness issues, nor does the Convention seek to adjust for competitive differences. When evaluating competitiveness, current competitive advantages lie with developed countries in part as a result of the infrastructure developed during the past, with the result of significant historical emissions. This is one reason for Annex I countries to refrain from focusing on competitiveness issues in this discussion. A focus on competitiveness also provides the conditions for protectionist discussion and we should heed Article 3.5, which calls on all Parties to “promote a supportive and open international economic system” and ensure measures do not constitute a “disguised restriction on international trade”.

**Argentina** called for a development-oriented approach to implementing the Convention focusing on key sectors or areas of relevance when mitigating and adapting to climate change. This approach focuses on enhancing developing countries’ capacity to implement nationally appropriate and nationally determined actions to support sustainable development. It does not involve the creation of formal sectoral targets or supporting industry-level approaches to reducing emissions.

Argentina said that any negotiation must include reference to instruments and institutions. A multilateral technology transfer fund or mechanism, including technical committees and panels and financial support is one option. Discussions should focus on specific text of Article 4.1(c) and should not serve as a pretext for introducing discussions of ways to reduce emissions, which are to be addressed in the AWG-KP.

**The Chair**, Luiz Machado, offered a number of clarifications during the discussions. He noted that a number of Parties had referred to the carbon market and to market approaches in the AWG-LCA. However, we are dealing with implementation of the Convention, which has no provision for any kind of market. Are those speaking about the market thinking about a possible amendment to the Convention? Or they may be thinking about debates pertaining to the other AWG? We need to be very clear about what we're talking about.

He also noted that a number of delegates referred to the "post-2012 regime". This is pertinent to the AWG-KP, which is seeking to agree on targets for Annex I for a second commitment period. It is

not pertinent to the AWG-LCA which is focused on enhancing implementation of the Convention. The year 2012 has no specific bearing to this particular meeting.

Finally, he reminded Parties of the specific mandate of the working group. We are not here to discuss actions on mitigation for Annex I countries or non-Annex I countries. We have another AWG-KP which is discussing mitigation actions for Annex I Parties to the KP. So let's not confuse matters and lose time with matters that do not pertain to this workshop, said the Chair.

The Chair concluded by noting that the focus of Article 4.1(c) is on cooperative actions to promote technology transfer.

### **Accept Ambitious Reduction Targets, Annex I told at Kyoto Group Meeting**

Accra, 22 August (Lim Li Lin) – Developing countries and their groupings have called on developed countries to agree to ambitious targets for cutting greenhouse gas (GHG) emissions in the second commitment period (for Annex I countries).

The Least Developed Countries Group and the small island states called for a target of keeping the carbon dioxide concentration in the atmosphere at “well below 2 degrees Celsius”. The LDCs said the emission reduction target for Annex I Parties should be 45-50% by 2020, while the Africa Group mentioned the 25-40% reduction called for by the recent Intergovernmental Panel on Climate Change (IPCC) report.

The G77 and China stressed that the Kyoto Protocol Working Group should stick to its mandated issues and not raise extraneous issues that divert attention. Several countries also emphasised the important need to address the potential consequences and spillover effects of actions by Annex I Parties on developing countries.

These issues emerged at the opening plenary of the 5<sup>th</sup> session of the Ad hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), held in Accra.

The AWG-KP plenary was the first business item after an opening ceremony that heard speeches by the President of Ghana, the Minister of Local Government, Rural Development and Environment of Ghana, the Minister of Climate and Energy of Denmark, and the State Minister of Environment of Indonesia.

The AWG-KP is one of the Working Groups of the UNFCCC meeting in Accra from 21-27 August 2008. The other is the Ad hoc Working Group on Long-term Cooperative Action (AWG-LCA). The AWG-KP’s work is to negotiate the further commitments of Annex I (developed countries) Parties, to follow the first commitment period (2008-2012).

**Ambassador John Ashe, speaking on behalf of the G77 and China**, emphasised that as the AWG-KP deliberates over means (to reach emission reduction targets and identification of ways to enhance their effectiveness and contribution to sustainable development), methodological issues and “spillover” effects, it should not be forgotten that the focus of the AWG-KP’s work is the legal mandate of Article 3.9 of the Kyoto Protocol, which is specifically to set further quantified emission reduction commitments for Annex I Parties for the second and subsequent commitment periods.

He urged all Parties to not go beyond this legal mandate of the AWG-KP, and avoid introducing extraneous issues which could distract and delay from final agreement. He stressed that the AWG-KP must conclude on the means available to Annex I Parties to reach deeper Quantified Emissions Limitation and Reduction Objectives (QELROs) and the consideration of the relevant methodological issues, and urgently complete the negotiations for Annex I Party commitments as scheduled by 2009.

A new issue on the agenda for the AWG-KP at this meeting is the consideration of information on potential environmental, economic and social consequences, including “spillover effects”, of tools, policies, measures and methodologies available to Annex I Parties for meeting their emission reduction targets.

**Grenada, speaking on behalf of the Alliance of Small Island States (AOSIS)**, outlined some key principles in arriving at conclusions. It said that in the deliberations on any new instruments, environmental integrity must be preserved. There should be substantial reductions in emissions in order to ensure that temperature increase is kept well below 2 degrees Celsius. There should be accounting principles which are simple and achievable, and not a new set of rules which are complicated.

Referring to the Secretariat's technical paper on possible means to reach emission reduction targets and relevant methodological issues, it said that it provides a useful guide. Nevertheless, it does not address all of the issues, and some of the issues should not be lost.

It stressed that extending the share of the proceeds to support adaptation, should be part of the discussions in the AWG-KP. On emissions trading, it said that the current rules give assurance to the market. Many of the proposals on the rules could undermine environmental integrity.

It opposed the inclusion of nuclear power as one of the possible means to reach emission reduction targets. It stressed that the sectoral approach should not be a substitute for national emission reduction targets.

On LULUCF (land use, land use change and forestry), it said that there was little need for significant change, and that minor changes could be made, but that there was no need to add new proposals. Forest degradation should be included to balance the accounting.

**Australia, on behalf of the Umbrella Group**, stressed that the AWG-KP's work has relevance to other UNFCCC processes such as the AWG-LCA, the Article 9 review of the Kyoto Protocol, and the REDD (reducing emissions from deforestation and forest degradation in developing countries) discussion.

**France, speaking on behalf of the European Union**, stressed that Annex I Parties should continue to show leadership in committing to ambitious emission reduction targets, and that the work on "means" can greatly contribute to increased confidence that those targets can be reached in a cost effective manner. This work will be a key basis for the further work on the scale of emission reductions to be achieved by Annex I Parties and the allocation of the necessary efforts among Annex I Parties.

It stated that the work in Bonn confirmed that a carbon market is a key instrument in achieving mitigation activities. "We believe that a post-2012 regime should create the conditions for the emergence of a liquid global carbon market with a broad coverage and deep emission cuts to create a robust carbon price signal, as a key means to deliver cost-efficient GHG emission reductions and a transition towards a low-carbon economy."

**Algeria, speaking on behalf of the African Group**, emphasized that it is important that Annex I Parties take on ambitious QELRO's in the second commitment period, at least in the range of 25% to 40% below 1990 levels by 2020 as suggested by the

IPCC, as ambitious legally binding commitments after 2012 by all developed countries would send a concrete signal on the continuation, strengthening and stabilisation of the carbon market.

It stressed that the focus of the work of the AWG-KP is on setting further commitments for Annex I Parties for subsequent commitment periods, in accordance with the Article 3.9 mandate, and as such, these negotiations are not linked to discussions on other issues. This session of the AWG-KP should only focus on means, methodological issues, and spillover effects.

On emissions trading and project-based mechanism, it said that this session should prepare the appropriate recommendations to the COP-MOP to give further guidance to the Executive Board of the Clean Development Mechanism (CDM), with the view to improving procedures, rules and methodologies to ensure an equitable geographical distribution of CDM projects.

The African Group was also concerned that many of the proposals made by Parties, although directed at improving the "means" available to Annex I Parties, will have either a direct or indirect impact on and/or implications for non-Annex I Parties.

He stressed that LULUCF is one of the most important key issues to effectively address climate change, and is a high priority for the African Group. It is the position of the African Group that REDD should be considered under the project based mechanisms, in order to have future equity in this process.

On international transportation, the African Group would like to have more and clear information and analysis of the implications of the decisions that could be taken by Annex I countries on developing country economies.

On behalf of the **Least Developed Countries (LDCs)**, Maldives appealed for deep and ambitious GHG reduction commitments by the Annex I Parties and reiterated the urgency of completing the negotiations at the latest by 2009. It expressed deep concern on the slow progress in the AWG-KP. The AWG-KP should agree on firm reduction commitments. Without this, effective adaptation measures cannot be designed along with funding and technology development and deployment.

It emphasised that long term temperature increase must be limited to well below 2 degrees Celsius over pre-industrial levels, and global GHG concentration must be stabilised at well below 450 parts per million. Ambitious quantified emission reduction commitments for Annex I Parties in the second commitment period should be at least 45-50% by 2020.

It said that the most vulnerable countries, the LDCs and small island developing states (SIDS), are already experiencing the earliest impacts of climate change and continue to suffer from these impacts. Like AOSIS, it called for a discussion on extending the share of proceeds from the Kyoto Protocol mechanisms in the AWG-KP.

The LDCs also expect the flexibility mechanisms to provide a share of proceeds that is practical and effective to the adaptation fund. Procedures and rules under the CDM should be revised to increase foreign direct investment in LDCs.

It called for the CDM LULUCF activities to be broadened to allow greater access for LDCs to the CDM, noting however, the importance of maintaining the principles of environmental integrity of the Kyoto Protocol. It also expressed deep concern that measures and actions to reduce GHGs should not compromise present and future food production and food security.

The **Chair of the AWG-KP**, Harald Dovland from Norway, established 3 contact groups, on (1) emissions trading and the project based mechanisms; (2) LULUCF; and (3) Other Issues — GHGs sectors and source categories, possible approaches to targeting sectoral emissions, consideration of rel-

evant methodological issues, and consideration of information on potential environmental, economic and social consequences, including spillover effects, of tools, policies, measures and methodologies available to Annex I Parties.

Emission trading and the project based mechanisms, LULUCF, GHGs sectors and source categories, and possible approaches to targeting sectoral emissions are all part of the analysis of “means” to reach emission reduction targets and identification of ways to enhance their effectiveness and contribution to sustainable development.

The three contact groups will meet over the course of the week. The next plenary will be on the last day of the meeting, 27 August, to consider the draft conclusions from the contact groups and other informal meetings. The Chair emphasised that he would like to see some clean text, some square brackets (indicating a lack of consensus) or some options for adoption in the final plenary so as to have something on paper that could be the basis for agreement at the next meeting in Poznan in December.

He advised that priority should be given to issues which are important for target setting or reduction objectives.

### Wide-Ranging Discussion on Forest Issues at REDD Workshop

Accra, 23 August (Meena Raman) – The Ghana climate meeting held a wide ranging discussion on a complex cluster of forest issues, with many countries voicing their positions on deforestation, forest degradation, avoided deforestation, forest conservation and enhancing forest stocks.

The discussion took place at a workshop on policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries (REDD) and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. This was held on 22 August as part of the meeting of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) under the UNFCCC.

The AWG's Chair, **Luiz Machado of Brazil**, chaired the workshop. He said that the objective of the workshop was to build and deepen understanding and to clarify the elements contained in paragraph 1(b)(iii) of the Bali Action Plan (BAP) regarding enhanced national and international action on mitigation through the consideration of policy approaches and positive incentives on issues relating to emissions from deforestation in developing countries.

He stressed that the AWG-LCA addresses policy approaches and will group different ideas and proposals and identify relevant elements for follow up. The workshop thus provides a transition to more concrete work under the BAP. He suggested that Parties share a common understanding that REDD is a mitigation issue and is closely related to paragraph 1(b)(ii) of the BAP (which addresses mitigation actions by developing countries).

Several countries made presentations on a range of substantive and methodological issues. Substantive issues included the provision of financing for forest related initiatives – whether through market or non-market mechanisms. Also raised was the

need for equal treatment in the provision of incentives for activities to reduce emissions from deforestation and avoided deforestation, including forest conservation, sustainable forest management (SFM), enhancement of carbon stocks. A number of presentations emphasized that reforestation and afforestation activities, and international support for these activities, should not merely serve as an offset for emissions by Annex I countries, and a means for them to avoid reducing their domestic emissions. Methodological issues were also raised including the determination of baselines of forest cover, and ways to address problems of leakage (i.e. deforestation moving from one area to another) and permanence (i.e. forests being converted for other uses later).

(Discussions of REDD address a variety of means to reduce emissions from deforestation and forest degradation in developing countries. Presently, only reforestation and afforestation activities are included as part of the Clean Development Mechanism under the Kyoto Protocol. Avoided deforestation does not qualify under the CDM as presently defined).

**China** said that equal importance should be given to policy approaches and positive incentives on REDD as well as to increasing carbon stocks through conservation, SFM and enhancement of forest cover in developing countries. It identified several challenges which include new and increasing driving forces for deforestation and degradation and difficulties in methodology.

China identified the following challenges in addressing the effectiveness of policy approaches and positive incentives: whether compensation will be bigger than the opportunity cost of deforestation and degradation. Can the compensation available reach the real target groups and how to ensure that the recipient of the compensation will not return to deforestation and degradation?

In finding solutions to methodological issues, China stressed the importance of ensuring flexibility. The use of national available data, including data from national forest inventories, should be allowed. It also encouraged the implementation of pilot projects at the national and sub-national levels by following the principle of voluntary and no-regret approaches. Environmental integrity should not be compromised when dealing with the issue of flexibility.

China emphasized that in identifying policy approaches and positive incentives there must be maximum participation of developing countries. There is a need to recognize existing achievements as an incentive. Approaches and incentives should provide multiple benefits including through the payment for environmental services. Developed countries should increase financial and technical support to developing countries and implementation should be integrated into national sustainable development strategies. The poverty and livelihoods of people relying on forest resources in developing countries should also be addressed.

**Brazil** stressed the importance of conservation and SFM in achieving the objectives of the Convention. Forest conservation is important so as not to aggravate the release of GHG emissions. In the short term, the carbon mitigation benefits of reducing deforestation exceed those from afforestation. But in the long term, maintaining carbon stocks through sustainable forest management or increasing forest carbon stocks will generate the largest sustainable mitigation benefit. Brazil said that regardless of the mitigation potential of the different forest related activities (REDD, SFM, forest conservation and enhancement of carbon stocks) all activities should be enabled through financing. Forest mitigation activities under the Convention should not be discriminated against vis-à-vis the treatment of other non-forest mitigation activities.

**The EU** outlined its views on critical elements for all policy approaches. These include: rewards for real reductions in emissions from deforestation consistent with long-term sustainable land management; the recognition of existing commitments; simplicity, flexibility and practicability; consistency with existing monitoring and accounting approaches; linkages to national programmes; and promotion of synergies and encouragement of early action. It stressed the need to recognize the rights of indigenous peoples.

It suggested the creation of a performance-based mechanism supported by diversified funding sources, including carbon market-linked approaches.

The focus should be on reducing the loss of forest carbon stocks and consideration of ways to address conservation and enhancement of forest carbon stocks. It called for ambitious emission reference levels, taking into account national circumstances. The following can be taken into account: historical emissions, current trends and developments in land use, existing policies and initiatives and national circumstances. Emissions reference levels should be negotiated and revised periodically. International support of REDD initiatives is raising new hopes and expectations and opens a new door for tropical forest conservation. Public financial flows remain essential for assisting countries to fulfill the requirements for a performance-based mechanism.

**Ghana**, in presenting two case studies, emphasized the need for financial support on a sustainable basis for undertaking REDD initiatives.

**India** advocated the concept of 'compensated conservation'. It supported the two major policy options: (1) conservation, SFM and increasing forest cover through afforestation and reforestation to add to carbon stocks, and (2) reducing deforestation and degradation rates to save carbon stocks. It supported the development of a common methodology for all policy approaches, based on remote sensing and minimum ground verification to achieve the defined confidence level.

India said that both policy options should receive the same basket of financial incentives. Payments under the two approaches – i.e. for enhancing carbon stocks through conservation or for reducing deforestation – should be at the same rates. For maintaining baseline carbon stocks, there should be annual payments on a separate scale to compensate for opportunity and management costs incurred, as this provides an insurance for keeping baseline stocks. It said that we are dealing with two kinds of financing – for changes in carbon stocks and for maintenance of carbon stocks. Such financing involves both the market approach, which is part of the carbon market, and the non-market approach. For the non-market approach, financing could come from a levy on the carbon market.

**Indonesia** said that if deforestation is considered as generating 20% the global GHG emissions, then avoided or reduced deforestation could provide 20% of the solution. In developing policy approaches, lessons learnt from demonstration projects and voluntary market initiatives could be relevant and useful. While focusing on REDD, there was a need to enhance policy approaches for conservation, SFM and enhancement of forest carbon stocks to complement REDD. In funding such efforts, Indo-

nesia called for simplicity in procedures, transparency in resource allocation and fair distribution of resources at the multilateral level. It also supported bilateral efforts including for capacity building and technology transfer. Governance issues will be dealt with at the national level according to national laws and circumstances. It also supported the role of the private sector through market-based mechanisms.

**Mexico** said that different national circumstances require different positive incentives. Any scheme should be progressive, support capacity building and lead to institutional strengthening and an enabling environment. It acknowledged the need to respect forest owners and indigenous peoples. Criteria should be developed on how to configure grouping of countries and examine similar objectives. Financial schemes should take into account national circumstances.

**New Zealand**, focusing primarily on REDD, noted that a key issue is how financial incentives might be provided. Two main approaches have been raised – a fund paid to those developing countries that meet performance objectives, or a Kyoto Protocol-type market mechanism designed to create tradable ‘emissions units’. Both approaches have positives and negatives, and either could work provided key challenges are addressed. Either approach is likely to require other funding for capacity building, technology transfer, assisting governance and enforcement, related economic development programmes (e.g. forestry and agricultural projects), demonstration projects etc.

For many developing countries, the opportunity cost of retaining their current area of forest is higher than the marginal benefits of retaining that area. Without an incentive mechanism, forest area will continue to decline until a country reaches a socially optimal forest area cover where its national-level marginal cost of retention is equal to its national-level marginal benefit of retention, it said. Monetizing external global benefits of forest retention to the climate system should be the focus of REDD discussions. The REDD mechanism must provide compensation to a country in return for that country retaining forest cover at a level higher than optimal for them. If funding stops, deforestation will probably return to pre-REDD mechanism.

It said that a market-based approach is likely to be more durable and economically efficient than a fund-based approach, but both approaches have benefits and drawbacks. A market-based approach comes with significant risks. It could flood the carbon market and therefore reducing focus on fossil fuel abatement. Alternatively ‘avoided deforestation

credits’ may not materialize and countries could be forced into far more costly abatement options. Some matching of supply and demand could help – but this is likely to be very difficult in the absence of any market evidence. It should not be presumed that only Annex I countries provide funds to address REDD. A national-based mechanism (be it market or funds based) is likely to be significantly superior to a project-based mechanism. A REDD mechanism should have maximum potential for global coverage to address inter-country leakage. An international financially based mechanism does not mean that domestic policies need to be economic instruments. Domestic policies are up to sovereign governments applicable in their circumstances, it said.

**Norway** said that it had launched a climate change forest initiative in Bali with USD600,000 million annually from now till 2012. Its goal was to ensure early actions. It is important to ensure national actions for the protection of biodiversity and indigenous peoples. In establishing a REDD regime, it said that both market and fund-based approaches are needed.

**Papua New Guinea** said that developing countries have different national circumstances as regards forest cover. Only one tool was created that relates to damage to forests (referring to the CDM under the Kyoto Protocol) and this is unacceptable. This is a failed policy, it stressed. There is a need to have incentives to keep forests and to slow down deforestation. Expanding the Clean Development Mechanism is important. It said that the use of market mechanisms is one tool. It suggested different levels of financing depending on the REDD-readiness of countries.

**Tuvalu** proposed an international REDD fund, with revenue sources coming from voluntary contributions and non-offset market arrangements. There should be shared revenue for REDD and for an Adaptation Fund under the Convention. In relation to non-offset market arrangements, it said that sources of funds could come from a levy on the international aviation and marine sectors; from auctioning of allowances under a self-contained cap and trade regime for international transport; and/or from a pledge of a certain percentage of national auctioned emissions trading allowances and a percentage of AAUs (assigned allowable units) auctioned in the international market.

The potential for revenue from levies on international transport was estimated at about USD24 billion, while a percentage of national auctioned emissions trading allowances could be tens of billions of dollars per year. Tuvalu proposed that the

REDD fund be under the management of the UNFCCC. In highlighting the advantages of a non-offset international REDD fund (IRF), it said that equity allows equitable distribution of funds for REDD and ensures quick start up and higher environmental integrity. A non-offset IRF would not draw on existing ODA, while ensuring sovereignty as it does not divest land ownership to the international market and buyers and has a greater chance of protecting indigenous peoples and local communities. It also ensures market stability as there will not be a flooding of new carbon credits, it added.

**Malaysia** recognized the importance of tropical forests in mitigating the adverse impacts of climate change. It said 60% of its land area is under natural forest cover. It viewed the potential of REDD as being advantageous as there are real opportunities for incentive for conserving the forests. In addition to deforestation, it stressed that SFM should be included in REDD. Perverse incentives should be avoided especially in the determination of baselines to estimate deforestation rates. Consequently, a development adjustment factor when assessing reference emission levels may be applied to countries with low deforestation rates.

There is a need to develop a flexible mechanism that is fair, equitable and maximizes participation of developing countries. Aspects of this mechanism are that (1) it should not be disadvantageous to countries with large forest areas and low deforestation rates; (2) incentives should be maximized for developing countries which are able to retain large areas of natural forests as the opportunity costs to maintain their forest are much higher than countries with low forest covers; (3) the need for supplementary funding for capacity building to ensure developing countries are able to implement measures to reduce deforestation; (4) implementation of incentives must be voluntary and countries have a right to exploit their own resources; (5) a range of incentives of both market and non-market types should be provided; (6) Annex 1 countries may use REDD to meet their commitments; and (7) emissions reduction units earned under REDD must be fully fungible and equal to prices earned by Annex 1 countries.

**The United States** said that the protecting of forests is a priority. In highlighting several principles, it said that flexibility is essential which allows for a variety of tools. This involves international and domestic policies. It mentioned the importance of having a rigorous inventory, and the issue of MRVs (measurable, reportable and verifiable). There is a need to improve governance and not undermine

biodiversity and local communities. It said that the World Bank's Forest Carbon Partnership encouraged pilot projects.

**Australia** expressed support for REDD efforts. It said that a fair, environmentally effective market-based mechanism provided huge potential which requires the involvement of the private sector. It acknowledged the need for incentives to developing countries and for flexibilities in developing REDD. Issues of permanence, leakage and additionality have to be dealt with. There was a need for national and international institutional frameworks and need for adequate monitoring.

**Guyana** said that countries with low deforestation rates and with vast wealth of forests should be compensated for avoided deforestation. **Russia** said that all REDD related activities should not be subjected to discrimination.

**Saudi Arabia** expressed support for REDD and said that there are many complex issues on methodologies. In maintaining sinks, there is a need to leverage more financial resources for REDD and SFM. In this regard, the drivers that exacerbate deforestation should be addressed by imposing a levy on logging and on the timber industry.

**Venezuela** stressed the importance of REDD and noted with concern the orientation towards the market approach. It said that it was important to recognize the wider systemic role of the forests as well as the rights of indigenous peoples and local communities over the forests.

**The Indigenous Peoples Forum on Climate Change** (an observer) said that they had many concerns, especially the inclusion of forests in the market-based mechanism. Whatever form the mechanism takes, it must be implemented with strict respect for the UN Indigenous Peoples' Declaration and all other relevant Conventions. The respect for full, free and prior informed consent of indigenous peoples and timely access to information on REDD is critical, they said. Further, the integral link of indigenous peoples to their forests and their role as protectors must be recognized. The indigenous peoples' right not to be displaced must be respected. The indigenous peoples demanded full and effective participation at all discussions of the UNFCCC in this regard.

**The Chair of the AWG-LCA** in conclusion said that a number of issues were clarified and that he will prepare a summary of the main points of the workshop and, with the help of the secretariat, will produce a conference room paper which will provide input for further work.

### **Talks on Long-Term Cooperative Action Start After Differences Over Technology and Finance**

Accra, August 24 (Lim Li Lin and Matthew Stilwell) – Controversy arose at the climate talks in Accra when the Umbrella Group suggested eliminating a proposed contact group on institutional arrangements for finance and technology (two of the four “building blocks” of the Bali Action Plan) by rolling these topics into contact groups on adaptation and mitigation.

This was a marked difference in view from all other countries, in particular the G77 and China, which strongly supported a specific contact group on the issues of technology and finance which are of highest priority to them. China emphasized that the Bali Action Plan has four elements, and so establishing only three contact groups (by combining technology and finance) is already a compromise.

A proposal by the G77 and China for the third contact group to focus on “delivering on technology and finance including consideration of institutional arrangements” was ultimately accepted by all Parties after the Chair suspended the meeting to reconcile the different views. The agreement of a separate contact group is important as technology and finance are crucial to enabling implementation of the Convention and a successful outcome to the ongoing negotiations in Copenhagen in 2009.

Statements by Parties also reflected differing views on a range of issues including on the sharing of responsibility for mitigation, and on the elements of the Bali Action Plan, which launched the negotiations on long-term cooperative action under the UN Framework Convention on Climate Change (UNFCCC).

These discussions took place at the third session of the Ad-Hoc Working Group on Long-term Cooperative Action (AWG-LCA). The Chair of the AWG-LCA, Luiz Machado from Brazil, opened the plenary session on Saturday, 23 August by outlining his proposal for the work of the AWG-LCA at this session.

In a scenario note, he had proposed the establishment of three contact groups: (1) enhanced action on adaptation and the associated enabling and supporting action on technology development and transfer and on the provision of financial resources and investment; (2) enhanced action on mitigation and the associated enabling and supporting action on technology development and transfer and on the provision of financial resources and investment; and (3) institutional arrangements for delivering enhanced cooperation on technology and financing for adaptation and mitigation.

Explaining the rationale for the three contact groups, he said that all the issues (mitigation, adaptation, technology and finance) are interlinked and should not be considered in isolation. The focus of the first two contact groups would be on mitigation and adaptation respectively, with consideration of the enabling and supporting action on technology and finance – the “what”. The third contact group would consider practical aspects and proposals for delivering enhanced cooperation on technology and finance – the “how”.

At the last session of the AWG-LCA in June in Bonn, four contact groups were held – on enhanced action on mitigation, adaptation, technology and finance, which reflect the four elements of the Bali Action Plan. Developing countries have been consistently calling for a bottom up approach, to focus on technology and finance for adaptation and for enabling mitigation action.

Australia, speaking on behalf of the Umbrella Group (comprising also Canada, Iceland, Japan, New Zealand, Norway, Russia, Ukraine and the United States) took the floor to say that it fully supported the first two contact groups, and that appropriate institutional arrangements could also be discussed in these contact groups. It said that the third contact group was not necessary.

Antigua and Barbuda, speaking on behalf of the G77 and China, supported all three contact groups and proposed to modify the name of the third contact group to: “delivering on technology and finance including consideration of institutional arrangements”. It also stated that since contact groups are established only for that particular session, it would reserve comment on future contact groups of the AWG-LCA.

Algeria, speaking on behalf of the Africa Group, stated that the process outlined by the Chair of the AWG-LCA provided an excellent basis for furthering the discussion, and that it is important to start developing very practical efforts and to discuss the cross cutting issues of technology, finance and capacity building to support adaptation and mitigation programmes.

It stated that the view of the African Group is that the role and formulation of institutional arrangements for technology and finance should be given the highest priority, and precede discussions of the other issues of the Bali Action Plan. Africa is looking to see new and additional technical, technological, and financial support from the developed world to support the developing countries.

On adaptation, it emphasized the importance of promoting coherence in the way that adaptation issues are addressed under the Convention. It said that Africa needed a much improved assessment of the costs of adaptation and appropriate funding from all developed countries for implementation of adaptation that goes beyond the mainstreaming of adaptation into the development process, and which should include stand-alone adaptation projects.

On mitigation, it stressed that a firewall must be maintained between mitigation commitments for all developed countries and nationally appropriate mitigation actions for developing countries as clearly set out in the Bali Action Plan.

It said that adaptation as well as mitigation should be fully supported by the widest range of technologies, combined with sufficient funding and appropriate capacity building to ensure long term co-operative action to address climate change.

Switzerland, on behalf of the Environmental Integrity group, the Philippines, Barbados on behalf of the Alliance of Small Island States (AOSIS), France, on behalf of the European Union (EU) and Maldives, on behalf of the least developed countries (LDCs), all spoke up in support of the Chair’s proposal for the three contact groups.

The Chair then put forward the proposal of the G77 and China to amend the name of the third contact group to “delivering on technology and finance

including consideration of institutional arrangements”.

Australia, on behalf of the Umbrella Group, spoke up to again register its opposition to the third contact group. It reiterated that priority should be given to the first two contact groups, and other issues including institutional arrangements could be folded into the first two contact groups.

The Chair then suspended the meeting in order to conduct informal consultation with the major negotiation groups in order to find a compromise. After the informal consultations which took close to an hour, the meeting resumed with the Chair announcing that the issue had been resolved and that there would be three contact groups, with the name of the third contact group amended according to the proposal by the G77 and China.

The meeting then heard opening statements by negotiating groups, individual countries as well as from the International Civil Aviation Organisation and other observers.

**Ambassador Byron Blake for Antigua and Barbuda on behalf of the G77 and China** stated that the G77 and China consists of over 130 countries, most of whom are already experiencing the devastating effects of climate change. He therefore expressed disappointment with the slow pace of the negotiations. New figures suggest we may face temperature increases of 4°C if appropriate action is not taken. Each day of delay in mitigation increases exponentially the costs of adaptation. Science shows that climate change threatens the sustainable development, livelihoods and very existence of many developing countries.

The G77 and China share a common vision of reversing climate change for the benefit of all nations, and a clear position in these negotiations. The AWG-LCA and Ad hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) are complementary parallel processes which, like parallel lines, never meet. The AWG-LCA builds on but does not replace other processes under the Convention and works towards full, effective and sustained implementation through co-operative action now, up to and beyond 2012.

The AWG-KP, by contrast, is to ensure that Annex I Parties deliver on their existing legal commitment for their historical impact. These countries cannot now assert that if developing countries do not share this burden, then developed countries will not address their acknowledged historical responsibility.

The G77 and China will continue to cooperate in accordance with the provisions of the Conven-

tion, including the principle of common but differentiated responsibilities and respective capacities, and looks forward to a new understanding in Ghana of our common destination and roles, and of the enabling means to get there.

**Australia** on behalf of the Umbrella Group stated that the 14<sup>th</sup> Conference of the Parties (COP) to the UNFCCC in Poznan should serve to take stock and will be a vital stepping stone to the 15<sup>th</sup> COP in Copenhagen. It stressed the importance of progressing on elements of the Bali Action Plan that were not addressed by the workshops in 2008 to increase the collective understanding of the challenges ahead. It urged that the work should take an iterative approach, and to ensure that the work of the AWG-LCA contact groups does not overlap.

**France on behalf of the EU** stated that they were determined to do their share of the work as developed countries have greater responsibility and capability to act and will have to continue to act first in reducing their own emissions. At the same time it stated that this will not be sufficient. Member states of the EU are developing legislation to implement the EU target to reduce emission by 20% by 2020. The EU intends to adopt a climate-energy package by the end of the year and will include aviation within its emissions trading scheme, with a percentage of allowances to be auctioned from 2012 to provide funds for climate purposes, including at an international level.

It expressed concern that time is running out, and urged that the work move from discussions to negotiations, taking stock of the proposals put forward by Parties. It stressed that all means must be included, including the carbon markets, and that Activities Implemented Jointly (AIJ) is underused.

**Switzerland on behalf of the Environmental Integrity Group** informed the meeting that all three of its members – Mexico, Korea and Switzerland – had tabled proposals on financing, and would like to present them at the appropriate time. It expressed that it would like to have these proposals in the discussion for the agreement in Copenhagen.

**Maldives, on behalf of LDCs**, supporting the G77 and China, stated they expect to see all elements of the Bali Action Plan reflected in future contact groups and other aspects of the work programme. A shared vision is required and should include a global target to maintain temperature increases well below 2°C and fast action to reduce emissions commencing now, through to and beyond Copenhagen.

Funding for adaptation is fragmented and inadequate and a new Adaptation Framework is required to protect livelihoods and ensure food, energy and water security in vulnerable countries.

Annex I countries must also fulfill their commitments to provide full incremental costs for finance and technology and provide the capacity building required by developing countries, particularly LDCs. They must also fulfill their technology transfer obligations under Article 4.5, giving special consideration to LDCs as per Article 4.9. To achieve these goals, new mechanisms for technology are required. LDCs also endorse the G77 and China's statements on the need for an enhanced financial mechanism accountable to the COP, with balanced representation of all Parties, direct access to finances, and developing country involvement in all stages of funding and implementation.

In terms of the process, LDCs expect to discuss and agree on topics of future workshops and contact groups, which must give full and equal treatment of all elements of the Bali Action Plan.

**Grenada, on behalf of AOSIS**, thanked the Chair for his summary of the second session of the AWG-LCA which was useful and had highlighted the areas of convergence and divergence. It said that small island developing states are already experiencing the adverse effects of climate change and urged that a new sense of focus be brought to the deliberations given the enormity and complexity of the situation, and the limited time available. It urged an ambitious and comprehensive outcome, which is within reach. The science is clear, and needed to be translated into action.

It suggested that the AWG-LCA should draw upon the lessons from the AWG-KP which had set objectives, targets and concrete milestones. It stressed that the Bali Action Plan does not limit the scope of the action for implementation to the period beyond 2012 only, but covers "now, up to and beyond 2012".

On enhanced mitigation action, it said that any particular level agreed by Annex I countries would imply an impact on the South, in other words, less mitigation will require more adaptation. Any deal must be sufficient to ensure that temperature increase stays well below 2 degrees Celsius.

On enhanced adaptation, it stressed that this is a major priority and must be accorded equal attention and focus. The provision of financial resources for adaptation cannot be counted as ODA (overseas development aid), and financial resources provided outside of the Convention could not be supported.

On technology, it said that clean technology is essential for reducing emissions and achieving sustainable development. Renewable energy is a central pillar, and expanding access to it will help to engage developing countries in mitigation efforts. It stressed that for adaptation technology there should

be significant access, and it should be appropriate to the needs and priorities of the small island developing states.

On financing, it reiterated the proposal of AOSIS for a Convention Adaptation Fund linked to greenhouse gas (GHG) emissions, and the Polluter Pays principle.

**Japan**, as chair of the G8 Hokkaido Toyako Summit and the Leader's Meeting of Major Economies on Energy Security and Climate Change (MEM), noted that G8 countries agreed to "seek to share with all Parties to the UNFCCC the vision of, and together with them to consider and adopt in the UNFCCC negotiations, the goal of achieving at least 50% reduction of global emissions by 2050". According to Japan, this vision was "also supported by several non-G8 countries" at the subsequent MEM meeting, but did not name these countries in its presentation. On behalf of G8 countries and countries that have supported the vision, Japan proposed that UNFCCC Parties adopt the goal of "achieving at least 50% reduction of global emissions by 2050 as the shared vision among all Parties".

Reflecting the developed countries' intention of differentiating among developing countries and of creating a new category of "major economies", it quoted the MEM leader's statement calling on "developed major economies" to "implement, consistent with international obligations, economy-wide mid-term goals and take corresponding actions in order to achieve absolute emission reductions and, where applicable, first stop the growth of emissions as soon as possible, reflecting comparable efforts among them". It noted at the same time, that "developing major economies" will pursue "nationally appropriate mitigation actions, supported and enabled by technology, financing and capacity building, with a view to achieving a deviation from business as usual." It called on efforts in the UNFCCC to discuss how to ensure comparable efforts among developed countries as well as nationally appropriate mitigation actions by developing countries.

Japan said it is driving policies towards at least 50% reductions by 2050 globally, and had adopted an "Action Plan for the Establishment of Low Carbon Society" including its own long-term goal of 60-80% reductions by 2050. It will announce its own quantified target next year, taking into account the evaluation by various countries of "the bottom up sectoral approach as well as the establishment of a common methodology".

On sectoral approaches, Japan said the G8 and MEM meetings had "deepened the understanding of the concept". It noted that MEM leaders agreed to work together "to promote the exchange of miti-

gation information and analysis on sectoral efficiency" and to "consider the role of cooperative sectoral approaches and sector-specific actions, consistent with the Convention". It expressed concern about the different pace of progress in the AWG-LCA and AWG-KP and said we must accelerate the work in particular at the AWG-LCA to ensure a comprehensive outcome at Copenhagen.

**India** stressed that all four elements of the Bali Action Plan must be building blocks, and which had important linkages between them. There was a need to ensure that there is no attempt, in any manner, to dilute the focus. They must remain the basis of the deliberations, and be accorded equal status. It also emphasized the commitment of developed country Parties on financing, the principle of common but differentiated responsibility and that the right to development must be fully respected.

**China** emphasized that the work of the AWG-LCA should abide by the principles of the Convention, and the Bali Action Plan which has four elements (mitigation, adaptation, technology and finance). The decision to establish only three contact groups is not an ideal arrangement to take care of all four elements but was a good compromise in order to further the negotiations. Technology and financing would require full attention in future negotiations, as they are important parts of the future Copenhagen agreement.

**Venezuela** outlined four urgent priorities: (1) the implementation of the Convention, in particular to achieve its objective of stabilizing GHG concentrations in the atmosphere; (2) progress in implementing the model of sustainable development; (3) that Annex I Parties must meet their commitments expeditiously and in an intensified manner; and (4) the transfer of financial resource to developing countries which is a commitment under the Convention and the Bali Action Plan.

**Russia** urged for elaboration and finalization by 2009 of the draft document on international cooperation for beyond 2012, and to strengthen the constructive cooperative basis in the climate regime. This would imply a fair burden sharing among countries taking into account special circumstances and national specifics. A regime for the period beyond 2012 can only be effective if we elaborate a global agreement that provides for the participation of "all major emerging countries". There had to be participation by all of them, according to Russia.

**Uruguay** referred to the technical paper that was being prepared by the Secretariat on challenges and opportunities for mitigation in the agricultural sector, which would be tabled for consideration by the fourth session of the AWG-LCA, as well as to

the submission made by it and other countries providing a number of suggestions on the content. It also referred to a recent workshop of the livestock emissions network that was jointly organized by New Zealand and Uruguay, which addressed the scientific quantification of emissions from livestock. It suggested that a workshop should be held in Poznan on mitigation in agriculture.

This suggestion was supported by New Zealand, which suggested that the workshop could be in Poznan or soon after. The Chair of the AWG-LCA indicated that it would be difficult to organise such a workshop in Poznan.

**Mexico** informed the meeting that its national programme to reduce emissions had achieved a total reduction of 114 million tons of carbon dioxide. This would enable it to reach the same level of emissions in 2006, despite its economic growth of 3.5% annually.

**Bangladesh** said that there has been progress on a shared vision, which needed to be translated into shared action. The adaptation framework incorporated in future negotiations and decisions should be guided by the recognition of the inviolate rights of developing countries, especially the LDCs, to sustainable development, food security etc. There should be a coherent and holistic approach to adaptation and financial resources are important.

It proposed to establish an international adaptation research and technical support centre in Bangladesh. It also proposed that a workshop of microinsurance should be held at or before Poznan. It informed the meeting that Bangladesh had set up a climate change endowment fund of US\$45 million from its own resources, and was developing a climate change action plan to chart its climate resilient development path.

**New Zealand** emphasized the possible crossover with other work, such as in the AWG-KP. One such issue is the role of the carbon market beyond 2012. It stressed that there should be more emphasis on the shared vision including the long-term global goal. It said that in the Kyoto Protocol track, a shared vision was agreed in Nairobi. It argued that the shared vision in the AWG-LCA needed to be consistent with that. It was important to make progress on the shared vision, and at least a working hypothesis was needed. A short and medium term global goal is also needed, and this should be consistent with the findings of the Intergovernmental Panel on Climate Change. It argued that the long-term global goal was included in the Bali Action Plan so that it would not have to be deduced.

New Zealand highlighted market and non-market approaches, and urged for new market ap-

proaches for mitigation. It also stressed the need for better measurement, including inventories, which would help to establish accurate baselines, and monitoring and verification, which in turn would enable financial flows.

**Australia** stated that it was looking forward to a strong outcome for the “post-2012” agreement, that would combine both the AWG-LCA and the AWG-KP. It outlined some thoughts which included: an ambitious long term global goal and a shared vision which it considers to be critical. It underlined that this is the first of the *five* elements of the Bali Action Plan (Developing countries are of the view that there are only four elements of the BAP - mitigation, adaptation, technology and finance – while developed countries are generally of the view that the shared vision is also an element of the BAP).

It also said that there is a common responsibility, and a differentiated responsibility as some Parties are more advanced; that all Parties should make national contributions; that there is a wide array of policies and measures, and that there should be broad participation. It stressed on the need for comparability of efforts as well as for comprehensiveness.

On adaptation, it said that this was a core component, and there should be a strong agreement on this, in particular for LDCs and small island developing states and especially for the Pacific islands. International financing needs to be scaled up, new sources of financing need to be identified, and the recipients prioritized. It highlighted the carbon market as an instrument achieving effective mitigation at the lowest cost.

**South Korea** urged for work on how to recognize and incorporate voluntary actions by all Parties, comparable to their capacities. It said that it was setting its own mid-term target for emissions reductions by 2020. It also asserted that most of the technology and finance is in the private sector and therefore it is not realistic to expect governments to be able to transfer them.

**Turkey** stated that the world today is different from the time when the Convention was being negotiated. It suggested that there should be a reconsideration of common but differentiated responsibilities. The new regime should be flexible enough to reflect the changes and the dynamic structure of the international system.

**The International Civil Aviation Organization** (ICAO) said that international aviation is an integral part of discussions on sectoral approaches and sector-specific actions to implement Article 4.1(c) of the Convention under the AWG-LCA. It said that the absence of clear consensus on this topic in the AWG-KP, where there is a mandate to address

the aviation and marine sectors, suggests it should also be treated in close coordination with the AWG-LCA.

It stated that “ICAO already provides an official and effective international forum that has demonstrated its effectiveness in developing globally harmonized standards”. It is also “in the best position to ensure optimum compatibility between environmental sustainability and the safety, security and efficiency of the global air transport system”.

In ICAO’s view “an effective solution for aviation emissions will involve a global framework encompassing a basket of measures of a technologi-

cal, operational and market based nature”. It outlined its recent achievements and noteworthy efforts including the creation of the “Carbon Calculator” and said it is “preparing an aggressive programme of action to be presented at end of 2009”, calling for close cooperation between UNFCCC and ICAO.

It concluded by suggesting that discussions of international aviation under sectoral approaches and sector-specific actions might benefit from a clearer understanding on the specificities of international aviation, and of “potential conflicts with existing legal frameworks and current practices”.

### Clash Over “Differentiation” of Developing Countries at Mitigation Contact Group

Accra, 24 August (Meena Raman) – Developed and developing countries clashed over a range of issues relating to mitigation actions needed to address climate change at the climate talks in Ghana. The issue of ‘differentiation’ proved to be a key flash point, when developed countries, led by the EU, began to differentiate developing countries in relation to mitigation actions according to “advanced developing countries” or “major economies” and other developing countries, including the least developed countries (LDCs). Some countries called for the development of a matrix or list of parameters to enable such differentiation among developing countries.

The principle of common but differentiated responsibilities and respective capabilities was being given a new twist with the assigning of “differentiated responsibilities” among groupings of developing countries. The stance of the developed countries, particularly the EU, gave rise to spirited and strong responses from several developing countries, including the G77 and China, Brazil, India and Cuba.

Developing countries said that the different nature of obligations of developing and developed countries was very clear under the Bali Action Plan. The call for differentiation of developing countries implied a change in the provisions of the Convention, and is beyond the mandate of the Ad-Hoc Working Group on Long-term Cooperative Action (AWG-LCA) which comes under the Bali Action Plan, and which itself does not call for differentiation.

“If parties wish to renegotiate the Convention or the Kyoto Protocol they can do so but in an appropriate forum,” said the Chair of the G77 and China, Ambassador Byron Blake. “The Bali Action Plan is for closing the implementation gap, and that is our basis ... Any attempt to discuss amendments to the Convention or Protocol cannot lead to effective work.”

The mandate of the BAP was also an issue as developing countries perceived the moves by developed countries to renegotiate the architecture of the

UN Framework Convention on Climate Change (UNFCCC), instead of addressing the implementation gaps of the Convention.

The intense exchange took place at the contact group on enhanced action on mitigation and the associated enabling and supporting action on technology development and transfer and on the provision of financial resources and investment held on 23 August under the AWG-LCA.

The AWG’s Chair, **Luiz Machado of Brazil**, chaired the contact group and emphasised that the task at hand was complex and that it related to elements of the Bali Action Plan (BAP) in sub-paragraphs 1(b), 1(d) and 1(e) as they relate to enhanced action on mitigation of climate change. (Sub-para 1(b) relates to mitigation commitments or actions of developed countries and mitigation actions by developing countries; sub-para 1(d) relates to enhanced action on technology development and transfer to support action on mitigation and adaptation; and sub-para 1(e) deals with enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation).

Ambassador Machado stressed that actions on mitigation should be examined along with the identification of the needs of implementation. The contact group is to start doing this with a focus on answering the “what” question (i.e. what needs to be done on enhancing mitigation actions). He said that answering the “how” question, including the generating of resources for delivery of these means of implementation, will be dealt with by the third contact group on ‘Delivering finance and technology, including the consideration of institutional arrangements’.

(Three contact groups were established in Accra under the AWG-LCA – the first dealing with enhanced action on mitigation; the second with enhanced action on adaptation; and the third with delivering on finance and technology, as above.)

For an agreed outcome at the COP 15 in Copenhagen, Ambassador Machado said that there was a need to identify issues and questions, with a view to identifying the common elements and areas for further work. He said that there was a good basis of work done and good proposals on the table from the previous meetings (held in Bangkok and Bonn).

He listed a series of issues from the BAP that relate to enhanced action on mitigation and the related means of implementation. The list was not exclusive but was identified as being pertinent to discussions. Issues identified were:

- nationally appropriate mitigation commitments or actions by all developed countries;
- the comparability of efforts among the developed countries taking into account their national circumstances;
- nationally appropriate mitigation actions by developing countries in the context of sustainable development;
- measurable, reportable and verifiable actions and associated support in technology and financing;
- policy approaches in the forestry sector;
- cooperative sectoral approaches and sector-specific actions;
- approaches to enhance cost effectiveness of mitigation actions;
- economic and social consequences of response measures;
- ways to strengthen the catalytic role of the Convention;
- technology development and transfer to support mitigation action; and
- financial resources and investment to support action on mitigation.

Speaking for the **G77 and China**, Bernarditas Muller of the Philippines said that the Group would like to ensure clarity as regards mitigation. She underlined that developed and developing countries have distinct and different obligations. Developing countries do not have commitments for quantified emissions reductions, whilst developed countries do and these are measurable, verifiable and reportable. Developed countries must also ensure a comparability of efforts and compliance. In relation to the developing countries' mitigation actions it is necessary to recognise that many countries have undertaken national mitigation plans of action. Here we are examining the additionality of efforts needed to address climate change and its adverse effects and for this financial and technology resources are needed, said Mueller. She also stressed that mitiga-

tion and adaptation cannot be separated. She said that the G77 and China has developed positions and intends to make specific proposals on technology and financing for mitigation actions. She stressed that the negotiating positions of the Group are premised on the principle of common but differentiated responsibility as well as Article 4.7 of the Convention (which provides that the extent to which developing countries undertake measures will depend on the extent to which technology and financial resources are provided by developed countries). She also said that the economic and social consequences of response measures including impacts on developing countries are also an important consideration.

The **European Union** stressed that on mitigation, one important point of discussion which is "unmentionable" is that of differentiation. While it reconfirmed the principle of common but differentiated responsibilities and respective capabilities, it said that a key issue to explore is what this principle means for nationally appropriate mitigation actions between developing country groupings. On mitigation, it acknowledged that developed countries will have to take the lead. It said that there should be actions to reduce GHG emissions by 30% by 2020 compared to 1990 levels for Annex I countries as a whole and this has to be done with a comparability of efforts among developed countries.

The EU said that it would like to discuss how further action could be undertaken by different developing countries. Actions include developing countries having national low carbon plans; increased participation in the carbon market through sectoral trading and the sectoral mechanisms; the putting in place of sustainable development policies and measures; how such actions can be measured, reported and verified. It asked for consideration of how actions will be differentiated between developing countries and among sectors. Such actions should be appropriately supported by technology, finance and capacity building by developed countries and the global carbon market. It said that such support should be given to countries most in need of finance and technology.

In dealing with the issue of differentiation, it said that actions by advanced developing and major economies are needed to achieve substantial deviation from baselines in line with the findings of IPCC reports. Due to their special circumstances and limited capabilities, LDCs should not have to take any mandatory action, said the EU. They could however, be encouraged to participate in an improved Clean Development Mechanism to adopt sustainable development policies and measures. The EU invited reactions from Parties in this regard.

The **United States** echoed the EU on the issue of differentiation among developing countries. It said that an outcome in Copenhagen has to be simple, effective and attractive to all Parties – simple enough for a 2009 deadline; and effective so that all countries act according to their capabilities. The outcome should be sufficiently flexible and be supportive for maintaining aspirations for economic growth and to reflect changes in national circumstances, it added. It also ascribed to the principle of common and differentiated responsibilities but said that it was important to note that the principle's application has changed, as responsibilities and capabilities have evolved. It said that there were common features in paragraph 1(b)(i) and 1(b)(ii) of the BAP and these include the need for 'nationally appropriate mitigation actions' which would progress over time. It said that the legal character of the actions would be the same. As regards differentiation, it said that the more advanced developing countries need to reflect a greater level of efforts than least developing countries. Whilst the US would do more and earlier, there are higher expectations from major economies. It said that differentiation among developing countries should be supported and that the support to be provided should also be differentiated to reflect the changes in the economies of developing countries. The nature and level of assistance would reflect different levels of capability among developing countries. It also identified 'MRVs' as a central question which will be dealt with at a workshop in 2009.

**Japan** said that a 50% reduction in GHG emissions by 2050 was quite difficult to achieve and that developed countries should nevertheless take the lead. It also called for positive mitigation actions from developing countries. Instead of having specific targets, it said that sectoral targets can help. It said that the sectoral approach is like a technology needs assessment process. Whenever developing countries submit technology needs assessments, they identify sectoral needs. If we implement this sectoral approach on a cooperative basis, we can identify technology needs and it is much easier to then offer technology, it said.

**Turkey** also supported the need for differentiation and said that it forms a vital component of the Bali Action Plan. It suggested a list of parameters to make differentiation possible and for defining future mitigation actions such as GDP per capita, energy use per capita, emissions per capita, the human development index etc. It said that the contact group was the right platform to discuss this issue to enhance implementation of mitigation actions.

**Australia** supported the EU on the need to work on differentiation. It also suggested the need

for a matrix to look at differentiation. It said that the LDCs should not have the same sort of matrix. In saying that any number of figures could be used, it compared the GDP per capita of Ukraine to that of developing countries and said that 45 countries in Non-Annex I have higher GDP than Ukraine.

**New Zealand** said that the mandate of LCA is for actions now, up to and beyond 2012. In the case of mitigation, it is the beyond 2012 that is critical. The 'what' of the mitigation component is to ensure action on mitigation beyond 2012 is sufficient for the emissions pathway to achieve a long term global goal. A substantial component of that is work on the Kyoto Protocol track, it said. What cannot be delivered there will need to be achieved under the BAP. It also supported the idea of differentiation among developing countries.

**The Philippines** in response to the EU emphasised the distinction between mitigation obligations between developing and developed countries. It referred to various articles of the Convention and stressed the commitments made by developed countries. In looking at the issue of common but differentiated responsibilities, it said that it was also important to take into account the historical emissions and responsibilities of developed countries. In referring to the EU target of 20% reductions by 2020, it said that in 1996 the EU was already talking about a 20% reduction in emissions and two decades later, not much has changed. On the issue of developing countries undertaking of a clean development pathway, it asked where has there been implementation of support to be given to developing countries by Annex I parties. It further stressed that such support cannot be regarded as "assistance" but as commitments. It said that thus far, there has been no provision of financial resources other than voluntary contributions. It wanted to see new and additional resources over and above ODA. It said that developing countries have been waiting for 13 years for the developed countries to meet their commitments on finance and technology transfer. It expressed fear that the BAP process was going to delay urgent action that is needed.

**Cuba** in supporting the G77 and the Philippines said that the EU's intervention was provocative. In relation to the issue of international support, it asked the EU what it meant by referring to countries needing more support than others when the BAP talks about support for all. It also enquired what was meant by LDCs not needing to take mandatory action, which implied that those who are not LDCs need to undertake mandatory actions. This it said was a deviation from the BAP.

**China** said that in order to go forward, it is

important to make clear that the obligations of developed and developing countries under the BAP are totally different. Developed countries have commitments and responsibility for binding targets. Unfortunately, no targets have been set and so comparability of efforts among developed countries cannot be discussed, it said. In relation to nationally appropriate mitigation actions by developing countries, it said that many countries have made great efforts, including China through its National Climate Change Action Plan which involves reducing energy intensity levels as well as investment in renewable energies. It said that some developed Parties do not like to see China's efforts on mitigation actions. It stressed the need to build effective mechanisms to link developing country actions with the means of implementation.

**India** in response to the EU expressed its deep concern about irresponsible statements being made. It said that there was a need to be respectful of the Convention in its principles in letter and spirit. It said that Parties were not here to re-interpret the principles which are central to the process. India highlighted that the historic emissions of the UK and US per capita are around 1,100 tonnes while India's historical contribution is only 23 tonnes per capita. It asked if there was anyone in the room who did not understand the development imperative. It stressed that India needs development for improving the lives of its people, and this means rising GHG emissions. It emphasised that securing resources to undertake adaptation efforts is an absolute must for developing countries. It recalled that the largest share of contributions to GHG emissions is from the developed world and that the developing countries bear a disproportionate burden of the impacts. Reduction of GHG emissions by all developed countries is important. For developing countries, mitigation actions are determined nationally. As for the mitigation commitments in developed countries, the issue of comparability of efforts requires international negotiations. All developed countries need to develop quantified emission reduction targets. In this regard, it does not matter whether one calls it a commitment or action, India said. Instead of achieving sharp declines in GHG levels, developed countries have increased their emissions by 2.6%. Moreover, their per capita emissions have risen, said India. Based on IPCC scenarios, reductions of at least 25-40% by 2020 based on 1990 levels are required. However, this excludes the consideration of lifestyle changes which are also important.

**Brazil** said that mitigation efforts by developing countries thus far have not received much recognition and that this must change. It cited efforts

by the country to use ethanol as renewable energy and at combating deforestation. It said that the challenge is not getting everybody on board but on how to enhance action on mitigation with the enabling of finance and technology. In this regard, it said that it is necessary to consider a deficit in compliance with the commitments and obligations under the Convention. The Convention and the BAP are clear as regards the differences in the quantity and quality of the mitigation actions between developed and developing countries. For Annex 1 countries, it is the absolute reduction of quantified emission targets as well as a comparability of efforts among them. For Non-Annex 1 countries, it is the reduction in the rate of emissions growth, said Brazil. In relation to 'MRVs' for Annex I countries, the nature of mitigation includes the quantified emission limitation and reductions objectives. For Non-Annex I countries, the MRV relates to mitigation involving the reduction of the rate of emissions growth.

Brazil stressed that the work and mandate of the LCA relates to the enhanced implementation of the Convention. It is a very distinct mandate from an amendment of the Convention. If implementation of the existing commitments of the Convention is already a major challenge, then it is seriously worrying for this process to consider proposals and options that would lead to amendments to the Convention.

The **EU** in response to the G77 and other developing countries said that no matter how much one quotes from the Convention, the issue of differentiation among developing countries and groupings in a future regime remains, as it was important to its political constituencies.

In response to the various exchanges, Byron Blake of **Antigua and Barbuda**, who serves as Chair of the G77 and China, said that the international community works on the basis of decisions and mandates. He said that the meeting was being held under the decision of the COP and the mandate of the BAP. If parties wish to renegotiate the Convention or the Kyoto Protocol, they have the sovereign right to do so in an appropriate forum. The BAP was set to address major implementation gaps since the existence of the Convention, he said. The present process is to look over and see how we can close the implementation gap, said Blake. "That is the instruction and that is our basis. If not, we cannot participate without an instruction. Any attempt to discuss amendments to the Convention or Protocol cannot lead to effective work," he said. He urged parties to do what is in the mandate.

The contact group will be meeting again.

### G77 and China Propose Enhanced Financial Mechanism for UNFCCC

Accra, 25 August (Matthew Stilwell) – The G77 and China have proposed an enhanced financial mechanism to ensure the effective implementation of the Climate Change Convention. The G77 and China announced the proposal at the first contact group on “delivering on technology and financing, including consideration of institutional arrangements” taking place on 25 August at the climate talks in Accra, Ghana.

The proposal calls for enhanced financial resources and investment to support action on mitigation and adaptation as well as the development and transfer of technology, as required by the Bali Action Plan. The contact group on technology and financing is one of three contact groups established at Accra under the Ad hoc Working Group on Long-term Cooperative Action (AWG-LCA), which is mandated under the Bali Action Plan to enable “the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012”. An agreed outcome is expected at the 15<sup>th</sup> Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) in Copenhagen.

The proposal, supported by more than 130 countries of the G77 and China, builds on the experience of other relevant funds such as the Multilateral Fund established under the Montreal Protocol, which deals with the phase-out of ozone depleting substances. Specific proposals were also presented by Mexico, Norway, South Korea and Switzerland.

Introducing the proposal, **Bernarditas Muller for the Philippines on behalf of the G77 and China** stated that it would operationalize an effective financial mechanism under the Conference of Parties with the goal of ensuring the full, effective and sustained implementation of the Convention’s obligations relating to financial resources. The proposal aims to bring about coherence in the global financial architecture for financing under the authority

and governance of the Conference of Parties.

The proposal identifies five **principles** to guide an enhanced financial mechanism under the Convention. It must: 1) be underpinned by the principle of equity and common but differentiated responsibilities; 2) operate under the authority and guidance of, and be fully accountable to, the Conference of Parties; 3) have an equitable and geographically-balanced representation of all Parties within a transparent and efficient system of governance; 4) enable direct access to funding by recipient countries; and 5) ensure recipient country involvement during all stages of identification, definition and implementation, rendering it truly demand driven.

The main **aims** of an enhanced financial mechanism would include recognizing, promoting and strengthening engagement at the country level, to ensure a country-driven approach and direct access to funding. It would enable a shift from a project-based approach to a programmatic approach to help optimize and scale up implementation. It would facilitate linkages between various funding sources and funds to promote access to a variety of available sources and reduce fragmentation. It would ensure activities relevant to climate change undertaken outside the framework of the financial mechanism (including those related to funding) are consistent with the Convention and relevant Conference of Parties decisions.

The main **source of funding** will be the public sector through implementation by developed countries of their commitments under Article 4.3 of the Convention. Funding will be “new and additional” and over and above overseas development assistance. According to the proposal, any funding pledged outside of the Convention shall not be regarded as fulfillment by developed countries of commitments under Article 4.3 of the Convention, or commitments to provide measurable, reportable and verifiable finance, technology and capacity-building as required

by the Bali Action Plan.

The proposal calls for predictability, stability and timeliness of funding. Resources shall be essentially grant-based (particularly for adaptation), without prejudice to concessional loan arrangements. The level of the new funding is proposed at 0.5% to 1% of the gross national product (GNP) of Annex I Parties. The mechanism would address quantified commitments by developed countries to adequate and predictable funding for mitigation and adaptation. According to the proposal, a Board will decide and periodically review funding allocated to adaptation or mitigation, taking into account historical imbalances and the urgency of funding for adaptation.

The proposal sets out a range of **activities to be funded**. It would fund the agreed full incremental costs for the implementation of developing countries' commitments under Article 4.1 of the Convention, including: 1) mitigation; 2) deployment and diffusion of low-carbon technologies; 3) research and development for technologies; 4) capacity-building; 5) preparations of national action plans and their implementation; 6) patents; and 7) adaptation in accordance with Articles 4.4 and 4.9. The mechanism will also fund the agreed full costs for the preparations of national communications.

The proposal states that in accordance with Article 4.3, developing countries would receive new and additional financial resources, including for the transfer of technology. Funding can be used for: 1) adaptation and its means of implementation; and 2) mitigation and its means of implementation. Meeting these two objectives may include technology development, deployment and transfer, capacity building and risk management, including insurance, and so on. The mechanism will also finance action programmes developed under the Convention, such as the national adaptation plans of action (NAPA) and technology needs assessments (TNA).

The proposal sets out the **design and structure** of the enhanced financial mechanism's institutional arrangements. The mechanism will operate under the authority and guidance of the Conference of Parties, which will decide on policies, programme priorities and eligibility criteria for funding. The Conference of Parties will appoint a Board, which shall reflect an equitable and balanced representation of all Parties within a transparent and efficient system of governance. The Board, in turn, shall be assisted by a Secretariat of professional staff contracted by the Board.

The Conference of Parties and Board shall establish specialized funds and funding windows as well as a mechanism to link various funds. The funds

would be administered by a Trustee or Trustees selected through a process of open bidding. Each of the separate funds may be advised by an expert group or committee, which could also be supported by a technical panel or panels addressing specific issues addressed by the fund. To ensure transparent and efficient governance, other possible components of the structure include a consultative/advisory group of all relevant stakeholders, and an independent assessment panel. Modalities for determining the role of existing funds and entity or entities for the operation of the financial mechanism will have to be worked out.

At the contact group a number of other delegations also put forward proposals designed to deliver on technology and financing. **Norway** suggested that financing for adaptation is primarily an issue of funding and that financing for mitigation is primarily an issue of incentives, such as carbon trading, other market approaches and direct regulations. It emphasized the need to understand how these elements fit together at the national and international level. According to Norway, we need to build on relevant elements at the international level so that the carbon price provides appropriate signals to investors.

As a means to raise funds, Norway proposed auctioning a share of assigned amounts. It suggested a range of criteria for evaluating its proposal. Norway suggested that its approach would be sufficiently predictable, offering the development of a national budget as a suitable reference point for evaluating predictability. It would also be sufficiently reliable and sustainable, as income would be sourced from the international (not national) level – it would therefore be as reliable as the Parties want it to be. Ensuring the adequacy of funding would be supported by drawing on a large base including the amounts assigned to all countries participating in emissions reductions as agreed in Copenhagen. Accordingly, the scale of funding is similar to the scale of needs. Norway also suggested that the proposal was administratively simple. It proposed establishing a fund to buffer uncertainty in funding, with operation of the fund tendered to a financial institution with a relevant geographical basis. Concerns that the mechanism would “water down” emission reduction commitments could be handled when developing the level of commitments, it said.

**Mexico** noted that it has also submitted a proposal for new financial arrangement for the Convention and Kyoto Protocol. It said that the current approach to financing is limited in scope and inadequate in terms of governance. The Clean Development Mechanism (CDM) is insufficient and inadequate to promote and incentivise developing coun-

tries to commit extra efforts to mitigate and enhance adaptation. So we need to find a way to build a new mechanism for the Convention and Protocol, it said. Citing a paper by the Secretariat on the financial needs for mitigation and adaptation, Mexico emphasized that the Convention's financial requirements are huge. The actual funds available are insufficient to allow all Parties to face climate change. Mexico thus believes we need a new financial instrument supporting the objectives and principles of the Convention and Protocol.

The new instrument's objectives would be: to scale up funds for mitigation actions; to support efforts to adapt to the adverse effects of climate change and the impacts of response measures; to provide technical assistance and promote the transfer and diffusion of clean technologies; and to contribute to the financial underpinning of the new global climate change arrangement based on the Convention.

The Mexican proposal calls on countries to contribute to the fund "in strict accordance with the principle of common but differentiated responsibilities and respective capabilities". But it also proposes that "all countries" would contribute and that contributions would be based on indicators such as greenhouse gas emissions, population and gross domestic product (GDP), implicitly supporting differentiation of non-Annex I countries. According to the proposal "developing countries that choose not to join the Fund would be excluded from its benefits, without any penalty".

Mexico suggested that in terms of the distribution of resources, all countries including developed and developing countries could benefit from the fund. It said that developing countries would have extra access to resources of financial instrument, and that the instrument could have an important link with other financial instruments. Mexico confirmed that now is not the moment for the private sector to participate in this instrument; this could be an issue for future discussion. Mexico agreed with the G77 and China that major new public resources are required for adaptation and transfer of technology.

In terms of governance, Mexico stated that many of the existing institutions are not satisfactory for all Parties. We would therefore need one financial instrument that will be acceptable for every Party, it said. Mexico looks forward to hearing comments and criticism of its proposal.

**Australia** said that the architecture of any future mechanisms should contain criteria for contributions by Parties and non-state actors. Contributions should be determined in accordance with national capabilities and circumstances. Criteria for spending should also be adopted with the goal of

maximizing the effectiveness of national and private sector funding. The coverage of the carbon market should also be expanded. It said that the AWG-LCA should identify new and better sources of funding for Parties in need. It stated (implicitly suggesting differentiation of non-Annex I countries) that 15 developing countries are today wealthier than Portugal, which was used as the benchmark for determining participation in Annex I of the Kyoto Protocol.

In response to the G77 and China, Australia agreed on the need for direct access to funding, on adopting a demand-driven financial mechanism, on the need for coherence in any financial architecture, on funding to be new and additional (provided it is considered as ODA), on a transparent governance, and on independent assessment. It said, however, that the proposal should recognize that Article 11.5 of the Convention provides for implementation through bilateral, regional and multilateral channels.

Australia noted that it is undertaking careful modeling of what it needs to do to implement the Convention. It would therefore welcome an opportunity to see the analysis behind the G77 and China's proposal.

**Switzerland** said it is crucial to find a solution to address financial needs, and to guarantee a successful conclusion of the process under the Bali Action Plan. Switzerland noted it had offered a proposal at an in-session workshop in Bonn, and had since tabled a formal submission. It said the Swiss proposal is founded on two principles. The "polluter pays principle" is underpinned by a global CO<sub>2</sub> tax designed to raise revenues. A "global solidarity principle", based on common but differentiated responsibility, would ensure that funding derives mainly from developed countries and mainly goes to developing countries. It said that revenues from the global CO<sub>2</sub> tax would go mainly to adaptation in two main areas: to fund a pillar relating to prevention of disasters; and to fund a pillar relating to insurance and responses to adverse events. In response to the proposal by the G77 and China, Switzerland agreed that we should do everything possible to reduce the fragmentation of resources, and should try to work with existing institutions.

**Japan** said that adaptation and mitigation requires significant financial resources. Unfortunately, the financial sources available are not sufficient to respond to the needs that have been expressed by Parties. It noted that the Japanese funding scheme, known as the "Cool Earth Partnership", had pledged USD10 billion for the next 5 years (most of which will be in loans rather than grants). It announced that 35 countries are now partners under the Cool Earth

Partnership. Japan said it is important that existing sources of finance are used in an effective manner, including funds from the private sector and from international organizations.

In response to the G77 and China, Japan suggested that the Cool Earth Partnership is consistent with Article 11.5 of the Convention, which refers to bilateral, regional and multilateral funding. Japan expressed interest in the Mexican, Swiss and Norwegian proposal. It also highlighted regional cooperation, such as the Asia Pacific Partnership on Clean Development and Climate Change, suggesting that financing can also coincide with the “sectoral approach” proposed by Japan as a means to reduce emissions in sectors such as coal-fired power generation, steel, cement and road transportation. Japan said that a sectoral approach could be used to identify technology needs on a sectoral basis, along with associated financial needs. Japan noted that the Expert Group on Technology Transfer is conducting work on scaling up resources for technology development and transfer, and that the results of this work could be reviewed in Poznan.

Proposing differentiation of developing countries, Japan said that since 1992 many countries have grown significantly. Some have joined the OECD and others have applied for membership. A number of countries are now wealthier than Portugal. Today, in terms of the polluter pays principle, the ratio of emissions by Annex I and non-Annex I countries is almost one-to-one, it said.

**The European Union** welcomed proposals by others and regretted that it could not offer its own concrete proposal at this stage. It said it was committed to scale up finance and investment flows and optimize the existing ones as part of a comprehensive Copenhagen agreement. The EU proposed that the AWG-LCA develop a toolbox of measures to finance mitigation and adaptation. In this session and the next one we could concentrate on the “how” of financing, it said.

On adaptation, the EU said that public resources remain important but it is clear that this is not enough and we will need to identify how to generate sufficient private resources as well. Funding should be reserved for the poorest countries and those with the least resources. It said that existing mechanisms should be supported with finance, such as the CDM levy. National policies and the polluter pays principle will also play a key role in attracting private investment and optimizing the use of resources.

On mitigation, the EU suggests the following elements of the toolbox. It said that the carbon market has potential and should become a key vehicle for enhancing mitigation for all Parties. The EU’s

energy and climate package may leverage considerable resources to finance mitigation. Innovative financing mechanisms are equally important. The EU is considering allocating 15% of the EU aviation allowances to be auctioned to provide financing for climate efforts. Some of these could be used to finance adaptation.

In response to the G77 and China, the EU asked a number of questions. Citing the Secretariat’s paper on financial needs, it asked how the mechanism would catalyze private investment and link to other instruments including the carbon market, national policies, and innovative financing instruments. How does the G77 and China envisage the linkages to the existing mechanism such as those currently administered by the Global Environment Facility? How would finance be scaled up when overseas development assistance amounts to a fragment of overall financial flows? What would the funds concretely deliver? It concluded by noting it was encouraged to hear the G77 and China’s proposal, the Mexican proposal and proposals by others.

**South Korea** said that it tabled a proposal at the Bonn climate talks, which called for carbon credit to be provided for mitigation undertaken through nationally appropriate actions by developing countries under the Bali Action Plan. It said that mitigation and adaptation requires a lot of money, and suggested that funds from governments (public funds) have a limited role in meeting the large needs of developing countries for financing and technology.

It said we therefore need new and innovative ideas. Referring to its proposal, it said if we offer credits for national actions, then technology and finance will flow to developing countries through the carbon market and we can enhance the engagement of the private sector. According to South Korea, this does not mean that governments would pass on responsibility to the private sectors. Rather, the Parties would be correcting a market failure by giving a price to carbon through the provision of credits for national actions.

It said that many countries have suggested that national actions should be incentivised, and called for an enhanced role for market mechanisms. Some Parties have proposed an expanded Clean Development Mechanism. South Korea’s proposal would provide finance from the private sector which can flow to developing countries. This does not mean that poorer countries would miss out, as these would be supported by public sector finance from other sources, it said.

Methodologies for providing credits for national actions could be built on those already existing for mitigation actions under the Clean Develop-

ment Mechanism, and a proportion of funding could also be made available for adaptation. According to South Korea, its proposal would require deeper cuts by Annex I countries to ensure its scheme does not allow developed countries to avoid reducing emissions domestically. This should not be a burden, as developed countries had already agreed that actions in developing countries would be enabled by financial support and technology transfer, it said.

**India**, associating itself with the proposal by the G77 and China, said that technology and financing are interrelated and that financial transfers to developing countries are critical drivers in addressing climate change. Financial contributions should be new and additional and not detractions from development finance and overseas development assistance. Nor should they result in conditionalities. It said that investments made so far by multilateral financial institutions – such as those to improve access to electricity which have helped to address pov-

erty and achieve the Millennium Development Goals – could themselves become vulnerable to the effects of climate change.

India said that the UNFCCC must provide oversight in management of additional flows and all funds under the Convention. Proactive oversight by the Conference of Parties should be transparent and unambiguous. India called for an emphasis on technology research and development, and on collaboration between institutions in developed and developing countries supported by the sharing of intellectual property rights. The transfer of intellectual property rights should set a more appropriate balance between holders and the public good, it said. It said that a number of references had been made to the carbon market, and suggested that a key driver of the market is the commitment of developed countries to fulfill their own commitments. It is their enhanced commitments that will create demand and spur the market.

### Developing Countries Submit Proposals for Comprehensive Adaptation Framework

Accra, 26 August (Meena Raman) – Developing countries submitted proposals for a comprehensive framework on adaptation to ensure they are able to cope with and adapt to the effects of climate change. The Africa Group and the Alliance of Small Island States (AOSIS) submitted their views covering national planning for adaptation, streamlining and scaling up financial and technological support, enhancing knowledge sharing and institutional frameworks for adaptation.

The proposals were presented at a meeting of the contact group on adaptation and its associated means of implementation, which was chaired by Michael Zammit Cutajar of Malta, held on 26 August under the Ad-hoc Working Group on Long-term Cooperative Action (AWG-LCA). Mr. Zammit Cutajar (who is also Vice Chair of the AWG-LCA) asked parties to build on the Bonn discussions in June 2008 on adaptation, which converged around the idea of a framework to support, facilitate and implement adaptation actions.

**South Africa speaking for the Africa Group** submitted a proposal for a framework for a consolidated work programme on adaptation. The proposal said that “a consolidated work programme on adaptation must facilitate and shift in focus from vulnerability assessments to the implementation of the adaptation; be based on a much improved assessment of the costs of adaptation for developing countries; be based on the effective use of projection scenarios, early warning systems, vulnerability mapping, and risk assessment to identify priorities, for short-term and long-term adaptation; facilitate access to means of implementation (financing, technology and capacity building) for adaptation at a regional and national level; facilitate assessment and exchange of lessons learned and build on the knowledge base for adaptation.”

The programme must also “distinguish between, and balance the needs for (i) adaptation to

short-term climate shocks, due to increasing numbers of extreme events; this includes adaptation to the impacts of unavoidable climate change (ii) adaptation to long-term shifts in climatic conditions; distinguish between and balance the needs for finance for adaptation programmes that are (a) integrated with development planning; and (b) stand-alone programmes and therefore agreed full cost additional to development planning programmes; facilitate appropriate use of the knowledge on adaptation, from the Nairobi Work Programme, as well as new research on identified gaps; include an African regional adaptation implementation initiative, based on Africa’s adaptation priorities, providing a coherent and scaled up package of financial and technical capacity building and institutional support for adaptation in Africa. This should include the establishment of a network of African Centres of Excellence on climate change, and a regional information system on short, medium and long-term climate change risks in Africa.”

The proposal also covered technology, finance and capacity building. “**Technology support** for the consolidated work programme must recognise that adaptation technology is sector specific; address the need for research and development on appropriate technologies for adaptation; address the need for technology transfer and diffusion; include capacity building; and cover full costs for technology for stand-alone adaptation projects.

“**Financing** for the consolidated work programme must be massively scaled-up (by two or three orders of magnitude) and must redress the historical inequity in allocation of funds for adaptation; go beyond the integration of adaptation into the development process, and include stand-alone adaptation projects; include the mobilisation of new resources, beyond the existing funds under the Convention and its Protocol.

“**Capacity building** for implementation of

adaptation programmes must be a central element of the consolidated programme and must include a package of assistance to support implementation of the NAPAS (National Adaptation Programmes of Action) including financial, technical, capacity building and institutional support; include a 3-year pilot phase of “Adaptation Activities Implemented Cooperatively”, launched to catalyse rapid learning about adaptation “good practices” by supporting enhanced implementation of demonstration projects, programmes and policies in vulnerable countries and communities.

“**The institutional framework** for the implementation of adaptation must facilitate access to means of implementation (finance, technology and capacity building) for adaptation at regional and national level; promote coherence in the way that adaptation issues are addressed under the UNFCCC (UN Framework Convention on Climate Change); facilitate linkages with other international, regional and national bodies and stakeholders that are implementing adaptation and related activities.”

**Barbados speaking for AOSIS** also presented an outline for a framework on adaptation and will submit a more detailed proposal later. AOSIS said the framework should facilitate and implement adaptation actions; should address the timely flow of new and additional resources to support immediate and urgent national adaptation activities in particularly vulnerable developing countries, as well as those adaptation activities that need to be implemented over a longer time horizon. The framework must also support efforts to enhance national capacity to incorporate adaptation concerns into the national development process. The outcomes of the implementation of this framework should enable Parties to (i) know what to expect from climate change; (ii) build resilience to the anticipated negative impacts of climate change; and (iii) develop measures to address the impacts for which it is difficult to build resilience, it said.

With respect to national planning for adaptation, the framework should include (i) rapid risk assessments – a NAPA-like process for small island developing states (SIDS) and least developed countries (LDCs) to prioritise and respond to needs at the national level, with timely support for implementation guaranteed under the Convention; (ii) enabling environments – a process to support the enhancement of enabling environments to support adaptation, through regulatory policies, legislative changes, national capacity building and environmental impact assessments; (iii) enhanced systems for the collection, management and sharing of data including through strengthening systematic observation net-

works and improved data management systems; (iv) enhanced access to analytical tools to enable scenario generation and impact assessments, and build endogenous capacity to apply these tools to facilitate vulnerability assessments for use in national planning. These could be achieved through regional centres, the use of web portals, etc.; (v) provision of financial and technical support for capacity building to enable national planning on adaptation, including for more rigorous vulnerability and adaptation assessments, in particular with respect to sectoral impacts, hazard mapping, strengthening of national and regional centres; (vi) support for the establishment and functioning of national-level climate change teams (lessons could be drawn from the experience of the Montreal Protocol); and (vii) provision of financial and technical support for pilot projects and learning by doing.

The proposal added that, “the framework should include new, additional, adequate and predictable resources made available in a timely manner for the implementation of adaptation planning, projects and activities, including priorities identified through the NAPA-like process; a Convention Adaptation Fund, linked to greenhouse gas (GHG) emissions, based on a ‘polluter pays’ principle, with criteria established for contributions and for prioritization of resources. A share of the proceeds from auctioning assigned allowable units (AAUs) could be used for this purpose; an International Insurance Mechanism, to help fund financial resilience to the impacts of extreme weather events; and solidarity funds to address catastrophic risk and collective loss sharing mechanisms to address the unavoidable impacts of climate change.”

“The framework should strengthen Regional Centres of Excellence to act as focal points for research and knowledge exchange, support for public information and awareness; publication of documents/journals; establishment of databases and repositories of adaptation-related information; availability of professional development opportunities, through scholarships, fellowships and other forms of access to training; strengthening of information networks, e.g. Sidsnet; preparation and dissemination by UNFCCC of compilations and syntheses of best practices; strengthening Regional Centres to coordinate and disseminate information on best practices; and study visits and professional exchanges between technical personnel from different countries and regions.

“The framework should fund the most urgent needs of SIDS and LDCs as the most vulnerable countries, and a mechanism for delivering resources and technical support for addressing these priority

needs. The purpose of this framework is to assist developing countries, in particular the most vulnerable, in identifying and addressing their adaptation needs.”

**The G77 and China** said it is coming up with a proposal on adaptation. **Maldives**, for the **LDCs**, supported the African Group and AOSIS. It said that both the LDCs and the SIDs are in the same boat when it comes to the issue of adaptation in terms of their vulnerabilities. It stressed the need for immediate steps to stem the adverse effects of climate change by the implementation of adaptation plans in the LDCs.

**Brazil** said that one important issue is the capacity of developing countries to translate information to be used for action. It stressed the importance of vulnerability mapping in the light of economic and social indicators, and the establishment of national and regional centres of vulnerability. It reiterated that financing for adaptation should be increased.

**Bangladesh** proposed an International Adaptation Research Centre (IARC) in Bangladesh. It said that there was no single institution dealing with adaptation to climate change holistically as well as facilitating decision-making at different levels of the UNFCCC process including international negotiation, conducting research on adaptation activities on the ground. Consequently, it was necessary to enhance capacity of the vulnerable countries for informed decision-making in planning, designing, implementation, monitoring and evaluation of adaptation activities. The main objective of the IARC is to support all the vulnerable developing countries in general and the LDCs and SIDs in particular, said Bangladesh. The specific objectives are for planning, designing, implementation, monitoring and evaluation of adaptation activities; to facilitate informed decision-making at different levels; to facilitate development, deployment and transfer of technologies, in relevant sectors and ecosystem specific adaptation activities; and to support developing country parties in enhancing their capacity to undertake adaptation research and implementation of activities in their respective countries.

The scope of work would include the carrying out of adaptation research, including impacts, vulnerabilities and adaptation assessment supported by appropriate modelling exercise; support the development and dissemination of methodologies and tools for impacts, vulnerability and adaptation needs assessment; share data and information to facilitate the implementation of adaptation activities; act as a knowledge hub on adaptation research and best available practices, including indigenous knowledge

throughout the world; establish partnership with other such institutions which deal with adaptation activities. The IARC will function under the guidance of the Conference of the Parties (COP), which will be administered by a Board with equitable and balanced representation of all parties, including LDCs and SIDs. Even Regional Centres such as the one recently established in Samoa for the Pacific Region, with support of UN bodies can work under the proposed IARC. Bangladesh said that it will place a detailed proposal of the proposed IARC during the 14<sup>th</sup> COP at Poznan.

Bangladesh also stressed that there cannot be any adaptation plan if there is no clear vision of the climate change scenario. It said there was a need for such a vision that fixes what the global temperature rise and the level of GHG concentrations should be so that countries are able to assess their vulnerabilities accordingly. It said that this is key for an adaptation framework.

**Mexico** said there was a need for a coherent framework to scale up finance and technology for adaptation and referred to its proposal for a new financial arrangement under the Convention (see TWN Accra News Update 6). It also stressed the need to mainstream adaptation into development planning to create the relevant synergies and co-benefits from such an approach.

**Peru** drew attention to the melting of the glaciers in the Andean region, which it said was receding at an alarming pace. The consequences of this are yet to be fully understood, it said, but emphasised that water from seasonal melting of the Andes is critical for Peru. Consequently, it is now recovering the knowledge of local communities engaged in water harvesting. It stressed the need for external financial support to support adaptation efforts in developing countries.

**Argentina** said there are examples of low-cost and no-cost options to adapting climate change. It stressed the need to look for solutions at the global level to cull experiences that can be shared. It said that it was important to think of the need for information clearing houses and focus on sectoral topics.

**The Philippines** highlighted the need for information sharing of the lessons learnt in adaptation among countries. It said that awareness raising with the full participation of all relevant stakeholders at the local level is key to ensure success of adaptation efforts. It also said that flexibility in the use of funding and the lack of conditionalities on such use is also important. It stressed the importance of home-grown solutions with the use of local resources and technologies for adaptation.

**India** said that adaptation to climate change is a high priority for the country and this was reflected in the National Action Plan on Climate Change. It said that a substantial portion of its GDP is being spent on measures to adapt to climate variability which will be exacerbated by climate change impacts. It stressed that adaptation cannot be treated as a domestic matter. Global cooperation should result in obligatory action. New and additional financial resources are needed under the Convention as well as the transfer of climate friendly technologies.

**New Zealand** said that concrete proposals on adaptation could end up with a renewed framework on adaptation. It stressed the importance of the role of the Nairobi Work Programme (on adaptation, impacts and vulnerability) for informed decision on the issue. It said that there is a greater awareness of the diverse needs of countries. It said that there was a need to separate the debate about conditionalities for funding from the issue of not relaxing the standards and rigour needed in MRV (measurable, reportable and verifiable actions). It also said that removing adaptation for ODA should also not be an option.

**The EU** identified areas where a common understanding is emerging. It suggested some areas that the Chair could consider as areas of agreement that could be elements for a framework. These include

the following – adaptation should be country driven; integration of adaptation in all decision-making; there are additional costs when adaptation is mainstreamed in the short-term but these costs would be reduced in the long-term; agreement to scale up resources significantly; on enhanced knowledge, there is a need to improve means of sharing; and build on the Nairobi Work Programme and make use of existing institutions and networks at regional levels.

Important elements could be capacity building, coordinating resources, experiences and best practices and link decision-makers and local communities; how to enhance the role of the regional centres; need to facilitate access to means of implementation; how to support LDCs to enable them to formulate adaptation plans and programmes consistent with their plans; technologies which are sector-specific eg. water and agriculture – seek contribution by international agencies like the FAO to engage and how to build and enhance existing institutions to scale up resources and work with the private sector to mobilise financial resources both within and outside the UNFCCC process.

**Michael Zammit Cutajar**, at the conclusion of the meeting, said that the discussions were rich and full of new proposals which will feed into the summary report of the Chair of the AWG-LCA.

### Heated Debates on Technology and Finance at UNFCCC

Accra, 28 August (Lim Li Lin and Matthew Stilwell) – Heated debates took place on financing and technology during the final days of the UN Framework Convention on Climate Change (UNFCCC) meeting in Accra. A large number of developing countries responded to attempts by developed countries to distinguish between or “differentiate” developing countries, and commented on the historical responsibility of developed countries for causing climate change.

Delegates also debated the various financing proposals that had been presented by countries. Many developing countries spoke out in support of the G77 and China’s proposal on an enhanced financial mechanism operating under the Conference of Parties, and highlighted the urgent need for improved institutional arrangements to support technology, finance and capacity building to developing countries.

The discussion took place on 26 and 27 August at the second and third sessions of a contact group on Delivering on Technology and Financing, including Consideration of Institutional Arrangements as part of the 3<sup>rd</sup> session of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA).

At the contact group, a number of developing countries including India, Qatar and Singapore spoke out against attempts by a few developed countries to divide developing countries into different categories for the purposes of assigning them new emission reduction obligations or establishing new obligations relating to finance and technology. They pointed out that developed countries have so far largely failed to implement their mitigation, technology and finance obligations under the Convention and its Kyoto Protocol and that it is unfair to now attempt to pass this onto those countries who have contributed little to causing climate change and are most vulnerable to its impacts.

In particular, they responded sharply to at-

tempts to reframe the principle of “common but differentiated responsibilities and respective capabilities” as a means to differentiate among developing countries, when the principle was included in the Convention and Kyoto Protocol principally to distinguish between developed and developing countries according to their historical responsibility for causing climate change. India, for instance, noted that its historical contribution to climate change since the industrial revolution is a mere 27 tonnes of CO<sub>2</sub> per-capita, whereas the United Kingdom and United States have each contributed around 1,100 tonnes per-capita.

Parties also discussed proposals on financing and technology, with many countries speaking out in support of the G77 and China’s proposal for an enhanced financial mechanism operating under the Conference of Parties. Developing countries also highlighted proposals for specific funds, such as a Convention Adaptation Fund proposed by AOSIS. A number of countries also asked questions and commented on the finance proposals of Mexico, Norway, South Korea and Switzerland.

**Chair of the contact group, Luiz Machado of Brazil**, opened the meeting by explaining that this is the “how” part of the exercise – i.e. how to enhance delivery of financing and technology for both adaptation and mitigation. He summed up the discussion of the previous day as having touched on issues of public funding, the role of the private sector, the role of markets, links with other institutions and mechanisms that deliver finance, and the issue of fragmentation of finances.

**Barbados** on behalf of the Alliance of Small Island States (AOSIS) highlighted the special and unique challenges that they face. These include insufficient funding for adaptation and mitigation technology, burdensome criteria to access the funding, limited access to funding, difficulty in measuring the true economic cost associated with adaptation, lim-

ited access to foreign direct investment because of their small markets, the additional burden of climate change to the overall development challenge, and limited capacity because of their small size. In addition, priority is given to mitigation and adaptation is seen as peripheral.

On the scaling up of financial resources, it said that sources must be stable, predictable, and able to deliver on the scale required. There should be core mandatory contributions as well supplementing flexible market mechanisms and other innovative sources.

It highlighted the Convention Adaptation Fund that AOSIS has proposed. It said that there should be a link between greenhouse gas (GHG) emissions and contributions from non-Annex I Parties, and this was its preference for mandatory financial commitments. It expressed that there is merit in the proposal by the least developed countries (LDCs), and China to set the level of contribution by Annex I Parties to a fixed percentage of GNP, which is over and above the 0.7% ODA (overseas development assistance) commitment.

Commenting on some of the proposals, it suggested that the Norwegian proposal is more relevant for the AWG-KP (Ad hoc Working Group on the further commitments by Annex I Parties under the Kyoto Protocol) discussion. On the Swiss proposal for a global carbon tax, it stated that this should be consistent with the principles of the Convention, and asked, who will collect the tax, and what would be the institutional framework for government disbursement?

It said that the adaptation needs of developing countries are not based on market forces. For adaptation, a link must be clearly established for any new work on adaptation and a new financing mechanism. Priority must be given to the most vulnerable – the small island developing states (SIDS) and the least developed countries (LDCs).

There need to be enabling environments at the national and international levels, and the issue of capacity building is vital, in addition to strengthening regional centres of excellence. Access to financial resources should be direct and simplified. A different and new approach to governance is needed.

It said that the AOSIS has made specific proposals to address the challenges identified. The proposed Convention Adaptation Fund should complement the Kyoto Protocol Adaptation Fund and should fall under the overall financial mechanism that has been proposed by the G77 and China. Funds would be devoted specifically to adaptation. A proposal has also been made for an insurance mechanism. This will be the subject of a workshop at the 14<sup>th</sup> Confer-

ence of the Parties (COP) in Poznan in December this year. It suggested that there should be a technical paper as well, and that technical experts should be on hand to address any concerns or questions that Parties might have.

**Indonesia** posed three questions that it considered necessary to address the “how” question that the Chair had posed: how to collect the funds, how to manage the funds (this relates to governance and institutional arrangements), and how to associate the collected funds with Parties’ obligations. It said that there is a huge gap between supply and demand, and new ways should be found, respecting the principles of “new and additional” funds, and “incremental cost”. The funds must be adequate, predictable, sustainable, and innovative in their design and their sources should include the public and private sectors including carbon investment.

It said that there are three tracks of funding sources: (1) Mandatory contributions from Annex I Parties (this must be above and additional to ODA and the level of contribution could be between 0.5-1% of GNP) which must be measurable, reportable and verifiable to ensure adequacy and predictability; (2) voluntary contributions by non-Annex I Parties. Mitigation activities and national efforts must be recognized as voluntary contributions, and there should be no differentiation in voluntary actions; and (3) the market, as public funds will not be sufficient. It said that the easiest way to get funds from market is to extend the scope of the Clean Development Mechanism (CDM). It said that the COP must manage the funding mechanism as a complement to existing financial mechanisms, and that there could be several windows of activities.

**South Africa** stressed that finance, technology and capacity building are all critical means of implementation, and a coherent architecture should address them all. On capacity building, it emphasized engagement at the country level to give effect to a country-level approach and direct access to funding. On finance, it said that there should be various funding sources and separate funds. On technology transfer, it said that a mechanism was important. There could be a subsidiary body, which must be focused on implementation, and supported by finance. It expressed interest in Norway’s proposal on auctioning of assigned amount units (AAUs) for adaptation funding. On public finance, it stressed the importance of assessed contribution towards fulfilling commitments of Annex I Parties to provide new and additional funds, and that it was critical that this was under the guidance and authority of the COP. Commitments by Annex I Parties can only be considered measurable, reportable and verifiable if they

are under the guidance and authority of the COP.

**China** stressed that the transfer of financial resources and technology is critical, and that the transfer of financial resources is the responsibility of the developed countries, and the resources should be “new and additional”. New financial and technology transfer mechanisms should be an important part of the future Copenhagen agreement. The technology mechanism should include an executive board to develop strategies, policies and an action plan. An effective technology mechanism and a technology fund to support the technology transfer to developing countries to ensure its affordability is essential. It should also cover costs of technology diffusion in developing countries, joint research and development for future technologies, and costs of capacity building on technology.

It said that developed countries should show their political will to overcome barriers to technology transfer such as intellectual property rights and other policy constraints.

There is a huge financing gap to implement the Convention, it said. In China for example, 2000 billion RMB will be needed to meet its own targets on renewable energies. It said that for the financial mechanism, a board under the COP should be established, to support different activities and actions, including mitigation, adaptation, technology transfer, capacity building and so on. The financial mechanism must have a transparent governance system and a reliable trustee. It emphasized that establishment of funds should follow the principle of common but differentiated responsibilities, and the funds should come from the public sector, and from developed countries. They should be new and additional to ODA, sufficient, expandable, and sustainable. How and to what extent market mechanisms can play a role depends on the further commitments of developed countries to their emissions cuts.

**Argentina** said that non-Annex I countries could adopt sustainable development policies and measures to contribute towards mitigation and adaptation. This needs to be properly incentivised, through international cooperation on research, support, and funding. It said that it is open to all means of financing mechanisms — international cooperation as well as market mechanisms. There needs to be full cost support for capacity building to create the enabling environment, and full incremental cost support for the commercialization of new and emerging technologies, joint technology development and the acquisition of low emissions technology. It stressed that the work of the Experts Group on Technology Transfer (EGTT) can make important contributions.

**The United States** stressed that it remains committed to continuing to meet its finance and technology obligations under the Convention. Mobilizing funds and promoting technologies are not end goals under the Convention, but means to the end which is the achievement of the ultimate end of the Convention. It asked how would the various proposals help to achieve this objective, and how effective will they be in mobilizing investments from the private sector? It stressed that this is not to absolve the public sector, but to emphasize that the critical role for the public sector is in creating the legal framework for private sector involvement, as when it comes to attracting private investment, the most critical institutions are the national ones. It asked how would any new finance or technology related proposal build on the capacity of the host country?

It stated that we are in a different world from 1990, when the financial architecture of the Convention was first negotiated. Major economies and non-Annex I countries have a level of technological capacity far greater than 20 years ago. It also asked what national governments can be reasonably expected to do with their own policies and measures, and at what point beyond that does it become reasonable for other countries to share in that effort.

It said that it was also concerned about the practical considerations of how new efforts under the Convention would relate to the substantial and growing level of activity beyond the Convention, and what is politically achievable in their own national context – whether these proposals put forward could be supported by the US congress and public, who need reassurance that their resources will be channeled to the highest priority actions and obtain outcomes that are measurable, reportable and verifiable.

**Turkey** stated that there are some international funds for adaptation, and that the effectiveness, adequacy, and accessibility of these funds need to be examined. It said that an analytical note on their weakness in order for improvement is needed. It stated that they face the challenges of climate change and sustainable development goals, and would like to benefit from these funds as a Party to the Convention. It said that funds for adaptation should be provided to Parties on the basis of vulnerability, level of associated risks, and technological and financial capacities to adapt to climate change. Precise information on vulnerability classification among all Parties is not known, and this should be studied.

**Brazil** fully supported the G77 and China’s proposal on financing that was presented at the previous day’s session, and stressed that predictability, stability, transparency, efficiency, and participation of all in the governance structure is a priority, and

this justifies the establishment of such a structure as proposed by the G77 and China, under the Convention. Commenting on statements made in previous sessions, it said that some delegations referred to the polluter pays principle. It agreed that it is an important orienting principle on financing, but stressed that it is important to consider its double context — full consideration of the specific responsibilities of countries under the Convention, as well as the time frame. It said that climate change is the result of cumulative emissions, and thus the emissions of the last 220 years need to be considered to get the correct picture. It also emphasized the need to consider in depth enhanced action in technology and finance, linked with mitigation and adaptation. The Bali Action Plan is comprehensive in its scope, and its objective is to implement the Convention.

**The Philippines** elaborated further on the financing proposal of the G77 and China. It said that the financing architecture is needed as the Bali Action Plan is about enhancing implementation of the Convention, and finance and technology transfer are lacking in implementation. It said that among the existing problems in implementation, the most prominent are multiple levels of governance, and institutions that deal with financing as a donor/donee relationship, whereas financing by developed countries is a legally binding commitment under the Convention.

It questioned the governance of the trustee of the existing operating entity of the financial mechanism. (The Global Environment Facility is currently the only operating entity of the financial mechanism under the Convention. It is also the trustee). Currently, the implementation is handled by implementing and executing agencies, all of them under different systems of governance, guidance and authority, and this involves administrative costs. Direct access to financing is necessary and possible, as ultimately it is the countries that implement these projects. It stressed the importance of a country-driven exercise that is not tied to loans, or otherwise used as “bait”.

It said that the Paris Declaration is a non-legally binding declaration of principles, and it is being used as conditionalities for climate change implementation projects. In the Philippines, two renewable energy projects have been held up because of this. The COP provides guidance year after year to the operating entity of the financial mechanism, but this guidance is not followed despite claims to the contrary.

On “incremental costs” it said that the Montreal Protocol’s Multilateral Fund examined this concept and how to implement it in practice. “Agreed full costs” in the Convention has never been really met,

and neither has agreed full incremental cost. It said that national communications are basic and important, without which national plans and mitigation action cannot be done. Developed countries have obligations to meet the agreed full cost for national communications by developing countries.

It said that it is very important to have less administrative costs. Every layer of governance is associated with increased costs. There should be open bidding for trustees, following the example of the Montreal Protocol’s Multilateral Fund. There, the World Bank’s bid was four times higher than what they went with.

The Convention allows for developed countries to provide financial resources through bilateral, regional and multilateral channels. According to the Philippines, this was forced into the financial mechanism because developed countries said that they had other sources for financing, but the language is of voluntary support, and does not impose conditionalities. Decision 11/CP.1, paragraph 2(a), stipulates that consistency should be ensured between activities including funding outside the framework of the Convention, and the guidance of the COP. It said that the Secretariat must report this; it must not contain new conditionalities. It said that in the Montreal Protocol’s Multilateral Fund, a certain portion of bilateral aid can go through this fund, and this is also possible in the G77 and China’s proposal for a financial mechanism.

The Philippines also said that the national adaptation programmes of action (NAPAs) need implementation. Out of 300 projects identified, only 11 were submitted to GEF, and only one was approved by the GEF. It said that the process of developing NAPAs themselves is part of capacity building. It asked how will vulnerability assessments be done outside the Convention, and on what basis will the funds be allocated? Outside of the Convention, the provision of financial resources is not legally binding, and the resources are merely donor resources.

On facilitating technology transfer, it said that the private sector has the most knowledge and resources, but the public sector should provide the regulatory framework to encourage the private sector to invest in or share their technology with developing countries.

It said that a Convention Adaptation Fund is needed that would address concrete adaptation projects, improve coherence, etc. Other mechanisms, such as venture capital, and insurance mechanisms are also needed. There is a need to involve host countries in this, as in many current projects there is host country participation. The flexibility that would be allowed through the proposed financial mechanism

could encourage local participation, since locals themselves will be developing and implementing the projects. It said that this could really enhance the implementation of the Convention, linking up with the sustainable development priorities of developing countries.

**France on behalf of the European Union** said that technology and finance are closely related to the mitigation and adaptation discussions, which is where the discussion should be starting from. It said that we are underestimating the need for finding new innovative ways of financing mitigation and adaptation in developing countries, especially adaptation in LDCs and SIDS. The huge amount of money needed has to be generated in a new way. It agreed that so far these multilateral funds have not served their purpose. It suggested a levy from high carbon activity and a levy from carbon markets. There might also be many other instruments, especially combined with a possible price for carbon dioxide that is as global as possible.

Commenting on the G77 and China's proposal on the financial mechanism, it said that the EU's and G77 and China's positions were not that far from each other. However, it said that their views might be different on which countries might be eligible for financing. It expressed considerable interest in the financing proposal of Mexico, as it suggests a new form of cooperation between developed and developing countries, attempts to enhance transparency in funding criteria, and provides good incentives for developing countries to improve mitigation action. It said that the Korean proposal on financing needs to be cost effective, consider the issue of "measurable, reportable and verifiable", and needs to go beyond the mere offsetting.

It said when it comes to actual proposals on technology transfer and diffusion, this area is the weakest. Great efforts are needed to be more concrete on what is meant by increased transfer of technology. The EU sees the need for an enhanced framework for technology cooperation, but does not yet know what form such an enhanced framework should look like. This issue is key to many of their constituencies and politicians, and must be taken more seriously than ever.

**Saudi Arabia** said that technology transfer is the main challenge, and has been a challenge for many decades. There needs to be political momentum and will to design a system that delivers, and that can break through government policies. The solution is not just a fund that subsidizes intellectual property rights in different countries. Technology transfer has not worked so far because of market and institutional problems and constraints. It said

that it was looking for an architecture that brings in facilitative funding that helps break through the institutional and IPR-like barriers, otherwise, no matter how much funds there are, it will not be enough.

**Bangladesh** said that adaptation and mitigation are functions of finance and technology. To limit finance and technology transfer means that there will be less adaptation and mitigation. This will limit the coping capacities of billions of people around the globe. It also limits development of various countries, especially LDCs and SIDS. It said that existing funds are scarce, like a drop in an ocean. The cost of our inaction is monumental - 4-5% of GDP annually, globally. It stressed the need for a new financial and technology transfer architecture, under the framework of the Convention, and under the absolute guidance of the COP. It should be guided by the Executive Boards, which should be balanced geographically, regionally, and include LDCs and SIDS. Finance and technology transfer needs to be scaled up globally, regionally, and nationally, and financing should be in the form of new and additional contributions, over and above ODA. There should be predictability, stability, and timeliness of the funding, and resources shall be essentially grant based. It suggested that new funding can be set at the level of 1% of GDP of Annex 1 Parties.

**Norway** stated that adaptation and the money transfers involved are in the order of tens of billions of dollars. It informed the meeting that it has a policy of keeping global temperature rise to no more than 2 degrees Celsius. This objective costs money, and it is not realistic unless there is a significantly higher transfer of resources from developed countries to developing countries than the figures that are being discussed for adaptation. On mitigation, it said that the key word is incentives systems for finance and the transfer of finance from one group to another, and this needs to be prioritized. On forests, it said that it is clear that there are developments at the national regional level, even though there are not so many tools at the international level. It warned that if we do not develop market mechanisms creatively and very soon at the international level, there will not be transfer of resources of the scale needed.

A the end of the meeting, the Philippines announced that G77 and China is developing a technology transfer proposal, and hoped to be able to present it at the meeting on the following day.

The CG on institutional arrangements continued its work on the last day of the Accra climate change talks.

**Singapore** responded to comments that it has a high per-capita GDP and should therefore be grouped with Annex I countries by saying it is a small

island with few natural resources or rivers and is thus dependent on fossil fuels and would have difficulty shifting to renewable alternatives. It noted that larger resource rich developed countries have exported their energy intensive industries abroad. If we are to agree on a viable climate agreement it is unhelpful to introduce criteria that distinguish between developing countries, it said.

**New Zealand** agreed that no single criterion should be used for determining actions that should be taken. On financing, it suggested that we will need to look to the private sector for around 80 percent of funding for climate efforts. It suggested that the Paris Declaration on Aid Effectiveness and the Monterrey Consensus on Financing for Development provide a satisfactory set of principles to guide financing, and allow Parties to avoid developing new principles. According to New Zealand, we should make use of existing instruments and principles, and minimize new institutions and not seek to force the UNFCCC into a role it is not suited to.

**Pakistan** supported the G77 and China and said it also agreed with the United States' remarks yesterday on the centrality of technology. It noted that there has, however, been very little practical transfer under the Convention – the operation of principles, mechanisms and actual transfer has yet to be effected. Barriers to transfer include intellectual property and monopoly pricing, which must be addressed. Patents should not be a barrier and compulsory licensing should be promoted to make technologies available. Jointly planned research and development with patent sharing is also desirable. Pakistan strongly supports the G77 and China's proposal for a technology mechanism dovetailed with a finance mechanism. Such mechanisms are crucial to success.

**Japan**, again proposing differentiation of developing countries, cited the polluter pays principle and noted that the contribution of Annex I and non-Annex I Parties to 2005 global emissions levels is almost the same (one to one). It cited a number of studies on the relative historical contribution of developed and developing countries to climate change. According to Japan, using per-capita emissions is unfair. It therefore seeks the right set of criteria to differentiate between developing countries. Responding to developing countries' concerns about intellectual property rights, Japan cited IEA statistics suggesting that developing countries' energy price subsidies constitute USD300 billion per year. In Japan's view, these could also be considered as distorting the market and thus a barrier to transfer.

**Australia** welcomed the debate on differentiation. On financing, it said that new and additional

financing is "open to discussion" but reminded Parties that if funding can be classified as ODA then it will be. Future approaches will need to recognize the total effort of all countries to implement the Convention. Australia also supported using the Paris Declaration as a model. It noted that a number of Parties have outlined principles that should guide development of future institutions.

**India**, supporting G77 and China, highlighted the importance of research and development, and of mechanisms for effective technology transfer. Clean technologies must be made affordable to fossil fuel-reliant developing countries. To ensure energy is not out of reach for the needy, we must develop and deploy new technologies. Markets represent one powerful instrument and these should be designed to reward investment. But this, in turn, should be balanced with the imperative of sustainable development.

India said that the current intellectual property regime should be amended to ensure availability on an affordable basis. Such an approach is already taking place in the pharmaceutical industry. To address climate change, demand-driven research and development supported by IPR sharing will play a key role. We also need a multilateral funding mechanism that provides venture capital for research, and that procures available technologies and makes them available to developing countries to accelerate technology adaptation and diffusion. Multilateral mechanisms must ensure that new resources are available without diluting overseas development assistance and development funding.

India responded to Japan by noting that energy subsidies to fuels in India are matched by taxes on these fuels, which ensure energy for the poorest. India reiterated that discussions on conditionalities and differentiation should not be pushed by developed countries. The UNFCCC is not the place for a discussion of conditionalities. Moreover, since the industrial revolution, India has contributed as little as 23 tonnes of CO<sub>2</sub> per capita, while the country that triggered the industrial revolution (the UK), and the world's richest country today (the US), have each contributed 1100 tonnes per-capita. Equality of all people across all times and places suggests an equal right to the benefits of the atmosphere.

**France** said the EU has proposed a technology diffusion plan with four parts: 1) institutional arrangements to support the delivery of national technology needs assessments, capacity building, information and awareness building, and measuring and monitoring actions; 2) enabling environments, in terms of national policies and measures; 3) technology oriented agreements to guide technology coop-

eration including country deployment schemes, demonstration projects and energy programmes; and 4) financial mechanisms and tools, based on the market and private sector to deliver much of the finance. The EU expressed interest in Norway's financial proposal. It also said it was encouraged by the G77 and China's finance proposal, which can provide a platform for our discussions. It asked the G77 and China how its mechanism will link to carbon markets and provide incentives for the private sector. Also, what happens to existing instruments under the G77 proposal?

**South Africa**, speaking for the Africa Group, supported the G77 and China's proposal on a financial mechanism. The Africa Group called for discussions to focus on the "means of implementation" of finance, technology and capacity building. Rather than remaining "siloed", these must come together to support the needs of developing countries. On finance, the major issue is the scale of funding and need for massive scaling up of new and additional finance, over and above ODA. There is also a need to shift from a fragmented, small scale project approach to a larger programmatic scale. Also important is strengthening country-level engagement in the financial architecture. The principles of a country-driven approach and direct access are important. Promoting a country-driven approach has implications for capacity at the country level – country offices are often not equipped to address implementation at the scale required. Responding to the EU's question on linkages to other funding sources, South Africa noted the role for a mechanism to facilitate linkages between the various funding sources. Program needs and funding must be matched carefully to facilitate access to resources.

**The Philippines for the G77 and China** said the group has prepared a comprehensive proposal on technology under the UNFCCC. The proposal sets out the rationale, criteria and institutional arrangements for such a mechanism, which include an Executive Body on Technology and a Multilateral Climate Technology Fund operating under the Conference of Parties. The proposal also describes a Technology Action Plan as well as the eligible activities and categories of costs that would be covered by the mechanism. These elements build on previous proposal under the Convention by the G77 and China.

Responding to the EU's questions on the G77 and China's finance proposal, the Philippines recalled the Chair's statement that we are not here to discuss the carbon market. It drew attention to those paragraphs of the finance proposal explaining linkages to existing financial mechanisms and said it

looks forward to working out the details with negotiating partners. It emphasized that we are not here in a donor-donee relationship. The provision of financial resources is a binding legal commitment under the Convention. We are here because there are specific responsibilities for Annex I countries. Yet the current financial mechanism is not functioning.

It agreed that Article 11.5 says that funding "may" be provided through bilateral, regional or multilateral institutions – but this is a conditional phrase. Indeed, the Conference of Parties has decided that activities outside the Convention, including those relating to funding, should be reviewed for consistency with guidance by COP and should not introduce new conditionalities. Yet the GEF and other implementing and executive agencies responsible for climate funding have largely failed to follow this guidance. Problems relating to access, disbursement, the project cycle, availability of resources and so on remain. We need to overcome these problems to enhance implementation of the Convention. How can we have a shared vision if we are not sure we can deliver on implementation of the Convention?

Supporting the views of many other developing countries, it said we are not here to debate the Paris Declaration – the application of the Paris Declaration to projects under the Convention is not acceptable. The impacts of aid and investments do, however, need to be assessed. Mining in the Philippines, for example, can have negative impacts. It asked whether developing countries are really getting the investments they need to help address climate change, protect the forests and improve people's lives?

**Barbados** said the selective use of per-capita GDP should be examined carefully. Some Caribbean countries have relatively high GDP per-capita. However their economies are really quite small. When a hurricane hit Grenada, for instance, the scale of damages was twice its national GDP (90 percent of the housing stock was destroyed). Viewed in this light, the use of per-capita GDP is grossly unfair and really not appropriate. Indeed, the Commonwealth has instituted programmes specifically to support small island states that are disadvantaged by programmes that use GDP per-capita to define support. Barbados agreed with other developing countries that application of the Paris Declaration or other frameworks developed outside to the Convention is inappropriate and counterproductive. Rather, the discussions have to take place within the Convention on the basis of a partnership.

**The Chair** suggested that Parties should avoid focusing on issues that are not covered by the Bali Action Plan. GDP per capita is one such extraneous issue, and discussions of it are robbing our time. He suggested that Parties focus on the Bali Action Plan and on delivering on what we have to for 2009.

**Cuba** asked why the EU proposal focuses so much on the market and so little on the public sector in financing technology cooperation. Experience since the Rio Earth Summit meeting, and since the adoption of the Convention and its Kyoto Protocol, suggests that market-based approaches have largely failed to deliver. We cannot afford to ignore the importance of mobilizing public sector resources to implement the Convention. Japan noted energy subsidies in developing countries – but forgot to refer to huge subsidies in the developed countries, it said. Merely cutting a third of agricultural subsidies in the North would yield resources required to implement the Convention. Cutting a third of military expenditure would provide even further resources. These are examples of how the public sector can be involved. Cuba confirmed that the Paris Convention is irrelevant to this process. Countries, of course, are welcome to sign the Convention. But nobody can pretend to impose on all countries something negotiated outside the UN framework.

**Qatar** supported G77 and China and expressed concern that some Parties are seeking to extend the Convention's central principle of common but differentiated responsibilities to differentiate between developing countries on the basis of their relative economic development. In Qatar's view, the principle was included in the Convention to draw the line between those who have historical responsibil-

ity, and those who do not. On differentiation, it said that developing countries, even those with relatively high GDP, are still developing. Levels of development can only be captured by an evaluation of human development, analysis of infrastructure, and so on.

**China** supported the G77 and China statement on technology and finance. It responded to Japan by noting that China has 1.3 billion citizens – ten times Japan's. Its emissions per capita are below the world's average level, which is one quarter of Japan's. China's historical per capita emissions since 1970 is 92<sup>nd</sup> in the world. One third of China's emissions results from products produced for consumption in other countries. As a developing country, China has done what it can to combat climate change. It will continue to make new contributions. With effective technology transfer and financial support the developing countries can do even more. This, according to China, is what long term cooperative action means.

**Brazil** congratulated Japan on bringing in the topic of historical emissions. Brazil expressed interest in reading the studies cited by Japan and suggested that the time-frame for considering historical emissions should extend to before 1900. We need to consider the effective permanence of emissions in the atmosphere. The impact of emissions over time is strong. According to one study, the CO2 emissions of the transport and energy sector of industrialized countries in 1888 are the same level as Brazil's in 2004, it said. Historical emissions can help to frame discussions in a way that is equitable, but should not be used as a means of establishing criteria for categorizing countries.

### **North Floats Idea of New Climate Regime, South Warns this Threatens Copenhagen Outcome**

Accra, 29 August (Meena Raman) – Attempts by developed countries to amend the UN Framework Convention on Climate Change (UNFCCC) to impose new obligations on developing countries to undertake mitigation commitments in reducing greenhouse gas emissions are counter-productive to achieving a positive outcome at the climate talks in Copenhagen in 2009. This warning was given by several developing countries in response to claims by some developed countries that the current discussions can lead to amendments to the Convention in which some developing countries have to undertake higher obligations.

Developed countries for the first time made explicit their intention to explore amending the Convention and having a new Protocol (suggested by the European Union), and to differentiate developing countries so that those above a certain per capita income could take on new commitments on limiting greenhouse gas (GHG) emissions.

The G77 and China strongly responded that it was against attempts to discuss differentiation, which it said was against the mandate. It warned against attempts to produce another Convention or changing annexes, which if done would change the whole basis of the principle of common but differentiated responsibilities. This cannot be the basis for negotiations. The discussions should stick to implementing the Convention, which is the mandate of the Bali Action Plan (BAP). Several developing countries and their other groupings spoke in the same vein.

The discussions on mitigation took place in the contact group on mitigation, one of the three contact groups at the Accra meeting of the Ad hoc Working Group on Long-term Cooperative Action (AWG-LCA) under the UNFCCC. The full name of the group is the contact group on enhanced action on mitigation and the associated enabling and supporting action on technology development and transfer

and on the provision of financial resources and investment.

At this contact group, the developed and developing countries had clashed especially over the issue of whether there should be ‘differentiation’ of developing countries in undertaking mitigation actions on the first day of the group’s meeting on 23 August (See TWN Accra News Update No. 5).

The clash over differentiation continued and intensified in the group’s meeting on 25 and 26 August.

At the 23 August meeting, the developed countries led by the EU, began to differentiate developing countries in relation to mitigation actions according to “advanced developing countries” or “major economies” and other developing countries, including the least developed countries (LDCs). Some countries called for the development of a matrix or list of parameters to enable such differentiation among developing countries.

Developing countries had countered that this call for differentiating developing countries implied a change in the provisions of the Convention, and is beyond the mandate of the AWG-LCA which comes under the BAP, and which itself does not call for differentiation.

The mandate of the BAP was also an issue as developing countries perceived the moves by developed countries to renegotiate the architecture of the Convention, instead of addressing the implementation gaps of the Convention.

In the 25-26 August meetings, in response to the views of the developing countries, **Australia representing the Umbrella Group** of countries (which include the US, Japan and Canada) said that it was the group’s expectation that discussions on mitigation actions by developing countries could lead to new legal obligations under the Convention. It hence suggested that for the work programme for 2009,

the AWG-LCA consider a component to deal with “legal issues” to discuss the work needed to be undertaken.

The **EU** said that the AWG-LCA’s mandate was to engage in a comprehensive process which did not exclude any procedural solution, nor amendments to the Convention nor even a new protocol.

**Australia** also named a list of countries that it said had a GDP per capita higher than that of Ukraine which is an Annex I country). Its list included South Korea, Qatar, Bahrain, Saudi Arabia, Singapore, Bahamas and it added that there were 45 countries in that category, suggesting that GDP per capita could be an indicator in dealing with the issue of differentiation. This led to an intense exchange on the issue.

**Bernarditas Muller** of the **Philippines** speaking for the **G77 and China** (as the coordinator of the group in the AWG-LCA) said that it was against any attempts to discuss the issue of differentiation. The only differentiation under the Convention and the BAP is the differentiated response between developed and developing countries under the principle of common but differentiated responsibilities, including the historical responsibilities of the developed countries for GHG emissions, it said.

In response to the Umbrella Group’s proposal to consider new obligations of developing countries, the group reiterated that this was outside the mandate of the Convention and the AWG-LCA, as is the issue of differentiation. It said that the work of the AWG-LCA is to ensure the full, sustained and effective implementation of the Convention.

The group stressed that in accordance with Article 4.7 of the Convention, the extent to which developing countries are able to undertake mitigation actions will depend upon the extent the developed countries meet their commitments related to financial resources and transfer of technology to developing countries. In addition, the overriding priorities of developing countries are their economic and social development as well as poverty eradication, said the group.

The **G77 and China** stressed that the work of the AWG-LCA is to enhance the implementation of the Convention and not to produce another Convention or how the annexes should be changed. It said that when one changes the annexes, it is not just about changing countries on the basis of their per capita income but it is about changing the whole basis of the principle of common but differentiated responsibilities in the whole Convention, in every article.

**Algeria** speaking for the Africa Group said that the group was against any sort of differentiation among developing countries. It said that it was im-

portant to maintain the firewall in the BAP between the obligations of the developed and developing countries in relation to mitigation efforts.

**Antigua and Barbuda**, represented by Ambassador Byron Blake (also the current Chair of the G77 and China), said that developed country parties are calling for a revision of the UNFCCC which was in place in 1992, and which imposed with the agreement of all Annex 1 countries, a legally binding agreement to individually and collectively reduce their carbon emissions.

He said that 16 years later, the Annex 1 countries have increased their individual and collective emissions. They are now saying that they will take action sometime in future and that has to be determined by whether developing countries undertake their share of the obligations. This does not make sense and this means renegotiating the Convention.

He said that the developed countries have continued their level of economic development based on high carbon emissions with technologies that have led them to the highest and longest sustained economic growth. The developed countries have benefited from not taking action in reducing their emissions. The Convention expects the developed countries to increase financial support to developing countries so that they can take action to reduce emissions and to allow access for developing countries to environmentally friendly technologies.

Instead of doing this, developed countries made it more difficult for developing countries to access technologies by tightening intellectual property rights in 1995, it stressed. On ODA, the developed countries have also failed to live up to their commitments. Now, developed countries are saying they will not move unless developing countries share responsibility in dealing with an intensified situation. This cannot provide the basis for negotiations, emphasized Blake. If productive negotiations are to result, then developed countries must do what they are legally obliged to do in meeting their commitments.

**Brazil** said that developed countries were historically and still are responsible for the lion’s share of causing the problem of global warming. This phenomenon by developed countries generates costs – environmental, economic and social — which are being paid for by developing countries. It stressed that developing countries face tremendous economic and social challenges and supported the **G77** position in rejecting the notion of differentiation among developing countries.

It reiterated that the principle of common but differentiated responsibility is still valid and there was no need for any re-interpretation. It does not agree with developed countries that the foundation

of the climate change regime must be changed. It asked parties to respect the negotiating mandate of the BAP, which is to ensure the full, effective and sustained implementation of the Convention. Discussions on amendments to the Convention would be counterproductive and make it difficult to achieve positive results in Copenhagen.

**India** said that the UNFCCC recognises two groupings of countries - developed and developing countries. It stressed that there are only two tiers of countries and that there was no mezzanine floor in the Convention. India has launched a national action plan on climate change whilst addressing the scale of efforts needed in meeting its development challenges and poverty eradication. These efforts cannot be undertaken without an increased use of energy. India is determined it will not exceed the per capita emissions of the developed countries even as it pursues growth. It also said that reinterpreting the Convention as regards the obligations of developing countries was counterproductive.

**China** said that there are factors which are dividing parties and preventing the process from moving forward. On the issue of differentiation, it said that it was clear from the Convention the only form of differentiation was that between Annex-1 and non-Annex 1 countries. The common but differentiated responsibility is a guiding principle. The 'differentiation' in the BAP is as regards the differing obligations between developed and developing countries — where the developed countries have quantified mitigation commitments with comparability of efforts between them, while developing countries are responsible in undertaking nationally appropriate mitigations actions which are supported with technology and finance from developed countries.

China added that whether developed countries give recognition or not, developing countries such as China, India, South Africa and Brazil have undertaken efforts in mitigation, without any support from the developed countries. It emphasised the need to focus on how parties can fulfill their commitments instead of spending time in categorizing developing countries.

**South Africa** reiterated that the Convention identifies the obligations of particular countries and the BAP is negotiated within an existing framework. The BAP echoes the distinction among Annex 1 and non-Annex 1 countries. Many developing countries have expressed that a great deal of work is already going on in addressing climate change in relation to what is possible for them, given their need to ensure economic growth and poverty eradication, it said. It is important to see what developing countries are really doing and what their contribution is in the

overall process of tackling climate change. This was a more meaningful way of looking at the issue of mitigation.

**Saudi Arabia** said that developing countries can meet the challenges and tasks ahead (in addressing climate change) if the proposals are within the boundaries of the BAP. On the differentiation issue, the concern is that many of the ideas which are surfacing are taking Parties beyond what is to be achieved under the BAP, it said. If Parties focus on the work to be done under the BAP, then a good outcome can be reached but if all other issues are explored, the work would not be able to be finished. Saudi Arabia stressed the need to focus on the issue of the impact of response measures, which is one area that needs enhanced action. Countries that experience impacts from response measures in relation to mitigation measures undertaken by Annex 1 Parties are wide ranging especially as regards the impact on trade, it said.

**Malaysia** said that the mandate of the BAP is to enhance the implementation of the Convention and the mandate should not be renegotiated. The only difference that exists both in the Convention and the BAP was the different obligations between developed and developing countries, it said. Hence, there should not be other forms of categorisation of countries.

**Egypt** urged developed countries to meet their commitments under the Convention and the BAP without linking their efforts to actions by developing countries.

**Mexico** referred to the suggestion that countries in the OECD should join Annex-1 and said that many things may be changed but the historical responsibility for GHG emissions by industrialised countries is not one of them.

**The Bahamas** said that any criterion based on per capita income discriminates against the small island developing states (SIDS). Many SIDS depend on service-based economies which are low-carbon in nature. Bahamas is totally dependent on imported food and oil and is among the many islands which are most vulnerable to climate threats.

**Ghana** stressed that the AWG-LCA's emphasis is on long-term cooperative action, which brings parties to a regime of working together to achieve a common goal. Therefore, there is a need to discuss means of implementation of mitigation and adaptation efforts. A major effort should be on capacity building. It was hence time to move away from the blame game and work in a cooperative way.

**Japan** said that while developed countries have a historical responsibility in contributing to the current levels of GHG emissions, it is important for the

international community to recognise that global warming is a global issue which is not just confined to developed countries in Annex 1 of the Convention. It said that looking at the ratio of emissions coming from energy sources, the ratio between Annex 1 and non-Annex 1 countries is almost 1: 1. The list in Annex 1 was drawn up in 1992 and since then, a different world has emerged where there have been changes to the economic and social development of developing countries, it said.

In relation to future emissions, it was necessary to differentiate countries according to their different stages of development. Japan said that some non-Annex 1 countries have reached OECD status, which is what the current Annex 1 members comprise of, and hence they should take commitments or actions corresponding to their level of development and become members of Annex 1 or another equivalent grouping. It said that LDCs and SIDS should not be required to take mitigation measures but should be supported to undertake adaptation measures. For other countries, Japan said that economic indicators such as the GDP per capita and share of global emissions can be used.

**France** speaking for the **EU** said that developed countries should take the lead on mitigation. However, Article 3 of the Convention referred to the obligation of Parties to protect the climate system on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. It stressed the words “respective capabilities” which it said made the case for differentiation. It said that there should not be a selective reading of the Convention.

It said that when the EU talks about the contribution of developing countries to mitigation efforts, it was not referring to LDCs or countries with limited capacities such as the SIDs. It said that developing countries are not identical as they are at different stages of development with different national circumstances and different opportunities to take action. There are the ‘advanced developing countries’ and ‘major economies’ but there are also differences between these two groups, e.g. between China and India.

While the mitigation actions are nationally driven, such actions can take different forms but there is a need for such actions to be consistent with the shared vision. There should be follow-up discussions on these issues as they will have to be part of any new agreement.

Regarding AWG-LCA mandate, the EU said that it was a comprehensive process which did not exclude any procedural solution, nor amendments to the Convention nor even a new Protocol.

The **US** said it saw a future climate regime in which all countries take action to address climate

change and the actions should be appropriate and span a broad range in accordance with countries’ national circumstances and capabilities, and such efforts would reflect the diversity. While it expressed respect for the development imperative in developing countries, it said that unchecked growth and emissions in developing countries will negate the efforts of developed countries in reducing their emissions.

It said that some parties had suggested that the Convention and the BAP require binding commitments or targets for developed countries and non-binding actions for developing countries. It said that the BAP left open the issue of whether developed countries would have binding commitments or actions. It stressed that the BAP does not contain an option for the form of the legal agreement that results and intentionally leaves the question open as to whether parties were looking at a new agreement or a set of decisions. The BAP refers to “developed” and “developing countries” as opposed to Annex-1 and non-Annex 1 countries, it said. What is a developing or developed country, what is common, what is different, how to differentiate between these groups are all important questions, it said. In relation to the issue of the mandate of the contact group, the US said that the BAP considerations are prefaced by the words “*inter-alia*” and if parties agree that something should be considered, then it should be considered, recognizing the need for sensitively dealing with the issues.

**Switzerland** also stressed the need for all parties to be involved in stabilising GHG emissions. It said that it was clear that developing countries are doing a lot but it was just a question of bringing them into an international forum.

In response to the discussions, **Ambassador Luiz Machado of Brazil**, who is the Chair of the AWG-LCA as well as the mitigation contact group, said that discussions were dividing parties instead of uniting them. He recalled that in Bali, everyone decided that they will act together under the principle of common but differentiated responsibility for the full implementation of the Convention. He cautioned that it was not productive to lose a lot of time discussing questions which are important for some but which do not help Parties from moving forward. He urged Parties to work in a collective and cooperative spirit. He also said that peeping at each other’s GDPs is not the mandate of this contact group.

Ambassador Machado also remarked that the issue of differentiation was not going to get parties anywhere in relation to progress of the work at hand. In conclusion, he said he will prepare a summary of the exchanges for further work at the next Conference of Parties in Poznan.

### **Final Plenary Agrees on “Full Negotiating Mode” in 2009**

Accra, 29 August (Meena Raman) – At the closing plenary meeting of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) in the Accra climate talks, Parties considered the work programme for 2009 and adopted the conclusions of the Chair of the AWG-LCA.

A major conclusion reached is that the AWG-LCA would in 2009 shift into full negotiating mode, advancing negotiations on all the elements of the Bali Action Plan in a comprehensive and balanced way. This was in view of the deadline for completion of its work in Copenhagen in 2009 at the 15th Conference of Parties (COP) of the UN Framework Convention on Climate Change (UNFCCC).

The text of the conclusions reached is as follows:

“Conscious of the approaching deadline for the completion of its work at the fifteenth session of the Conference of the Parties (December 2009), the AWG-LCA determined that it would shift into full negotiating mode in 2009 and organize its work accordingly, advancing negotiation on all elements of the Bali Action Plan (Decision 1/CP.13) in a comprehensive and balanced way. It further determined that any workshops organized during its sessions in 2009 should be limited to those that clarify issues that will form part of the outcome to be agreed at COP 15. It called upon all Parties to put forward further proposals regarding the content and form of the agreed outcome as early as possible, so that Parties might review and assess the scope and the progress of the negotiation at the sixth session of the AWG-LCA in June 2009.

“Further to the understanding reached at its first session and reflected by the Chair in the report on that session, the AWG-LCA requested the Secretariat, under the guidance of the Chair in consultation with Parties, to organize a workshop at its fifth session on paragraphs 1(b)(i) and 1(b)(ii) of the Bali Action Plan. This workshop should be organized in

two parts, each dealing with one of the above-mentioned paragraphs and together covering the substance of both paragraphs in their entirety. (Paragraph 1(b)(i) deals with the mitigation commitments of developed countries while paragraph 1(b)(ii) relates to nationally appropriate mitigation actions by developing countries).

“The AWG-LCA further requested the Secretariat, under the guidance of the Chair in consultation with Parties, to organize two additional workshops at its fifth session, one on economic and social consequences of response measures (paragraph 1(b)(vi) of the Bali Action Plan), and the other on opportunities and challenges for mitigation in the agricultural sector.

“With respect to the calendar of meetings for 2009, the AWG-LCA stressed the importance of avoiding schedule clashes with other important international meetings or events related to climate change, providing sufficient time between its sessions for work in capitals and contacts among delegations, and allowing time for the Group of 77 and China and other groups to coordinate their positions.

“The AWG-LCA invited its Chair to continue to make proposals for the organization of its work in 2009, taking into account the importance of the continuity and stability of the process, as well as of responding flexibly to the evolving needs of the negotiation.”

Further, following its session in Accra, the AWG-LCA invited its Chair to prepare, under his own responsibility, a document assembling the ideas and proposals presented by Parties on the elements contained in paragraph 1 of Decision 1/CP.13 (the Bali Action Plan), taking into account the ideas and proposals presented by accredited observer organizations. The ideas and proposals shall be those received by 30 September 2008 in response to the invitations contained in the Bali Action Plan and in the conclusions of the first and second sessions of

the AWG-LCA, as well as those that were presented during its first three sessions and in the in-session workshops of the AWG-LCA.

The document shall be prepared in accordance with the structure of paragraph 1 of the Bali Action Plan. The AWG-LCA further requested the Secretariat to make the document available before its fourth session (December 2008). It further invited the Chair to update this document before the closure of the fourth session of the AWG-LCA based on submissions received after 30 September 2008 and the ideas and proposals put forward during that session.

The LCA closing plenary also heard three oral reports from the Chairs of the contact groups on adaptation, mitigation and delivering on technology and finance, which had met during the Accra session.

Michael Zammit Cutajar of Malta, who chaired the contact group on adaptation (and who is also the Vice-Chair of the AWG-LCA) presented an oral report on the contact group's three meetings. The group focused on national planning for adaptation, streamlining and scaling up financial and technological support, enhancing knowledge sharing and institutional frameworks for adaptation. He said that there were new proposals from the Africa Group and the Alliance of Small Island States (AOSIS) on proposals for a framework on adaptation. (See TWN Accra Update No. 7 for details on the proposals). He said that he was impressed by the convergence among Parties on recognising the link between vulnerability to climate change and poverty. He said that at the 14th Conference of Parties of the UNFCCC in Poznan in December 2008, a workshop on adaptation issues related to risk management and insurance will be held.

As regards the contact group on mitigation, Ambassador Luiz Machado said he found the discussions constructive and useful, adding there were debates that were very difficult.

On the contact group on delivering on technology and finance, Ambassador Machado said that there were proposals on examining the need for new institutional arrangements. There were proposals on ways to scale up financing, given the significance of the scale of resources needed. In this context, the role of public based funding and the role of the markets in generating resources were discussed.

Ambassador Machado said that the AWG-LCA was successful with a number of specific proposals and suggestions put forward. He said there had been lively discussions and issues clarified. He will assemble the proposals, and Parties could make new submissions before 30 September. He said there was a need to build progress in Poznan and urged Parties to focus on concrete ideas so that they are able to

fulfill the mandate for a successful outcome. At Poznan, the three working groups set up in Accra would continue with an additional contact group being established on the issue of the 'shared vision'. He will prepare a scenario note for Poznan to guide Parties.

The **G77 and China** said that the discussions in Accra were productive, which the group hopes to build on. As the global climate change crisis intensifies, people watch with helplessness and look to the negotiators for the solution. While progress has been made and arrangements for future talks were significant, the group expressed no comfort in the road towards Copenhagen.

It said that there was a need to change the mindset with the focus on the AWG-LCA being on its mandate on the means to enable the full, effective and sustained implementation of the Convention through long-term of cooperative action from now, up to and beyond 2012. It emphasised the need for the process to be within the mandate of the Convention and that Parties must be careful to adhere to that. It called for Parties not to be distracted by suggestions that can lead the discussions astray.

It also said that there was a need to limit the number of formal contact groups by ensuring better coordination within the subsidiary bodies. Work in the contact group should be organised by specific issues and there is a need to ensure that the views of small delegations of developing countries do not become marginalised by over-lapping meetings.

The **G77 and China** group also said it was important to focus on proposals that were on the table. It said that the ODA target of 0.7% of GNP since 1970 for developing countries has yet to be met. Hence, any increase of up to 0.7 % of ODA cannot be for mitigation or adaptation but has to be over and above this. Another issue is the dependence by developed countries on the markets to deliver on providing financial resources, it said. There is a need to incentivise the market and to address how to correct the failures of the market. Other concerns include that of intellectual property rights and trade-related investment measures which increase the price of technologies, it said. It is important to see how these can be modified. The work until Copenhagen must urgently address how to protect the climate system for the present and future of humankind on the basis of equity and common but differentiated responsibility. It is the Convention mandate that the developed countries take the lead and it is essential this be demonstrated and substantiated in the process, it said.

The **EU** said that the issue of differentiation of developing countries is controversial and that it was

getting to the heart of the discussions.

**AOSIS** said that time is of essence for an ambitious outcome for the COPs of 2008 and 2009 for enhanced action. The survival of the small island states depends on actions taken. It is important for all parties to focus on the issues and for the AWG-LCA to have coherent objectives and for a clear and

agreed roadmap. More time is needed on specific agenda items.

**South Africa for the Africa Group** welcomed the deliberations under the BAP, and proposals on the institutional arrangements provided an excellent basis for further work and progress by the end of 2009.

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### **G77 and China Propose Comprehensive Technology Mechanism for UNFCCC**

Accra, 30 August (Matthew Stilwell) – The G77 and China have proposed a new technology mechanism to accelerate the development and transfer of technology and to support the effective implementation of the UN Framework Convention on Climate Change (UNFCCC). The G77 and China announced the proposal on 27 August, during the final day of the UNFCCC meeting in Accra, Ghana.

The proposal would implement provisions of the Convention relating to technology and finance. It builds on statements and proposals made by the Group in previous climate meetings, and seeks to address the shortfall in implementation by developed countries of their obligations to provide technology and associated finance and capacity building to developing countries to enable them to implement the Convention.

The proposal also seeks to advance the work of the Bali Action Plan, which calls for “enhanced action on technology development and transfer to support action on mitigation and adaptation” (paragraph 1(d)), and for nationally appropriate mitigation actions by developing countries in the context of sustainable development to be “supported and enabled by technology, financing and capacity building, in a measurable, reportable and verifiable manner” (paragraph 1(b)(ii)). It likewise seeks to operationalise paragraph 1(b)(iv) of the Bali Action Plan on enhancing the implementation of Article 4.1(c) of the Convention relating to technology transfer in all relevant sectors.

The proposal was announced during the third session of a contact group on Delivering on Technology and Financing, including Consideration of Institutional Arrangements, as part of the 3<sup>rd</sup> Session of the Ad-Hoc Working Group on Long Term Cooperative Action (AWG-LCA). The contact group was one of three contact groups established to advance the work of the AWG-LCA (the other two groups addressed enhanced action on mitigation and

on adaptation, and their means of implementation).

The AWG-LCA is mandated under the Bali Action Plan to conduct a process to enable “the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012”. An agreed outcome is expected at the 15<sup>th</sup> Conference of the Parties to the UNFCCC in Copenhagen at the end of 2009. The meeting in Accra is the third meeting of the AWG-LCA.

Announcing the proposal, **Bernarditas Muller of the Philippines** on behalf of the G77 and China stated that it sets out the rationale, criteria and institutional arrangements for a new technology mechanism, which include a new subsidiary body to the Convention, the Executive Body on Technology, as well as a Multilateral Climate Technology Fund, which, along with other funds would operate as part of an enhanced financial mechanism under the Conference of Parties. The proposal also describes a Technology Action Plan as well as the eligible activities that would be covered by the mechanism. These elements build on previous proposals under the Convention by the G77 and China.

The proposal (which has been formally submitted to the UNFCCC Secretariat) describes the **rationale** for a new technology mechanism under the Convention. It notes that enhanced mitigation and adaptation under the Convention requires an acceleration of the development, deployment, adoption, diffusion and transfer of environmentally sound technologies from developed to developing countries.

This will enhance the achievement of the objective of the Convention by avoiding the lock-in effects of environmentally unsound technologies and by promoting a shift to sustainable development paths. There is, in particular, an urgent need to provide access to technologies for adaptation at regional and national levels. This should be enabled by ca-

capacity building and by new and additional funding to meet the costs of integrating adaptation into the development process and of stand-alone adaptation activities.

The proposal notes that access to financing is currently limited and should be enhanced to deliver on the Convention's technology obligations. Barriers to transfer also inhibit the adoption of technologies in developing countries. Consequently, access must be urgently provided to these technologies while balancing rewards for innovators with the common good of humankind, including through jointly developed technology and intellectual property rights (IPR) sharing.

The proposal says that the immediate and urgent delivery of technology to developed countries also requires an effort by developed country Parties to the Convention to enhance enabling environments, to facilitate access to technology, and to provide finance that leverages private sector financial resources. It states that current institutional arrangements are not sufficient to deliver technology to developing countries as required by the Convention.

To address these challenges, the mechanism proposed by the G77 and China would build on existing activities within the Convention, including the work of the Expert Group on Technology Transfer (which identifies ways to facilitate technology transfer and offers recommendations to the Convention's subsidiary bodies). It would also promote coherence by integrating expanding and ongoing activities related to technology. It will provide a means to enhance delivery on the Convention obligations on technology and related finance and capacity building.

The proposal describes the **objective** of the technology mechanism as addressing all aspects of cooperation on technology research, development, diffusion and transfer in accordance with Articles 4.1(c), 4.3, 4.5, and other relevant articles of the Convention (such as Articles 4.8 and 4.9) in order to enable mitigation and adaptation under the relevant paragraphs of the Bali Action Plan.

Article 4.5 of the Convention obliges developed countries to "take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention." It states that, in this process, the developed countries "shall support the development and enhancement of endogenous capacities and technologies of developing country Parties".

The need to finance technology development

and transfer is identified in Article 4.3, which says that developed countries shall provide "such financial resources including for the transfer of technology, needed by developing country Parties to meet the agreed full incremental costs of implementing measures" covered by Article 4.1 (which refers to technology transfer in Article 4.1(c)). It states that developed countries shall "take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among the developed country Parties".

The nature and scope of technologies covered by the Convention is indicated by Article 4.1(c), which says that all Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall "promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases ... in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors". Notably, the Convention's obligations cover both the "hardware" and "software" aspects of technology, including practices, processes and know-how in "all relevant sectors".

The proposal establishes a range of **guiding criteria** for the technology mechanism. It would operate under the authority and guidance of the Conference of Parties, ensuring that it is fully accountable to the Parties to the Convention. It would aim to ensure that the technologies required by developing countries to enhance action on mitigation and adaptation are accessible, affordable, appropriate and adaptable. It would achieve the provision of financial support in accordance with Article 4.3 of the Convention. And it would also seek to ensure the adequacy and predictability of funds for technology transfer, as well as the removal of barriers to technology development and transfer. Generally, it would implement the relevant decisions adopted on technology transfer by the Parties.

The technology mechanism will comprise a set of **institutional arrangements**, including a new subsidiary body of the Convention (established under Article 7.2(i)) to enable implementation of the Convention's technology-related obligations to support action on mitigation and adaptation, as well as a new Multilateral Climate Technology Fund to finance efforts relating to technology development and transfer.

The subsidiary body would comprise an **Executive Body** of government representatives who are elected by the Conference of Parties and are experts

on matters related to technology transfer. The body will reflect a balance of representation from different geographic regions and be open to input from other experts.

The Executive Body would be supported by a **Strategic Planning Committee** (comprising a subset of the Executive Body) which would be responsible for developing strategies, providing guidance on technology transfer activities, assessing and elaborating on technology-related matters, evaluating progress and regularly updating a Technology Action Plan (described below).

Within the subsidiary body, technical input would be provided by **Technical Panels** designed to generate and compile current expert information on topics such as capacity building; policies and measures; intellectual property cooperation; cooperation on a sectoral, cross-sectoral or cross-cutting basis; assessment, monitoring and compliance, and other topics. Under the proposal, the Executive Body could establish additional technical expert committees, panels, working groups or other bodies to provide scientific, technical and operational expertise. Building on the experience of other bodies (such as the Technical Options Committees and Technology and Economic Assessment Panel of the Montreal Protocol), the proposal states that these technical panels and other bodies would consolidate and provide advice to the Executive Body and Conference of Parties, in order to assist them in performing their functions.

To ensure that financial and technological contributions made to the mechanism are “measurable, reportable, verifiable” as required by the Bali Action Plan, the subsidiary body would also include a **Verification Group** designed to review the actions of Parties.

These various activities would be supported and facilitated by a **Secretariat**, which would be responsible to the Executive Body. The Secretariat would compile and prepare a final report on financial and technological contributions made and reported by Parties to the technology mechanism, in accordance with the overall “measurable, reportable, verifiable” requirement of the Bali Action Plan.

In addition to these institutional arrangements, a second key aspect of the G77 and China’s proposed technology mechanism is a **Multilateral Climate Technology Fund**, which would finance enhanced action on technology development and transfer in accordance with technology-related financial requirements as determined by the Executive Body.

This fund will operate under the Conference of Parties as part of the enhanced multilateral financial mechanism for the UNFCCC, which was de-

scribed by the G77 and China in a separate proposal (See TWN Accra News Update No. 6). Like the technology mechanism, the enhanced financial mechanism would operate under the Conference of Parties and be managed by a Board, which would oversee a series of specialized funds and funding windows designed to address mitigation, adaptation, technology, capacity building and related topics, including the Multilateral Climate Technology Fund.

In this respect, the G77 and China’s technology proposal dovetails with its finance proposal, by providing additional information about how the Multilateral Climate Technology Fund would operate within the context of the broader UNFCCC financial architecture, proposed by the G77 and China. It states that the fund shall be financed through assessed contributions from developed countries. These contributions shall be additional to other financial transfers to developing countries and shall meet the costs incurred by them.

The proposal provides that an agreed proportion of contributions by developed countries to bilateral and regional co-operation may be considered as contributions to the fund (as is the case with the Montreal Protocol’s Multilateral Fund), provided that such co-operation is consistent with the policies and scope of the mechanism.

The proposal also states that financial transfers to the fund shall be counted as measurable, reportable and verifiable commitments under paragraph 1(b)(ii) of the Bali Action Plan. Any funding not under the authority and guidance of the UNFCCC shall not be regarded as fulfillment by developed countries of their commitments under Article 4.3 of the Convention or the Bali Action Plan.

The fund will cover, among other things, the eligible costs of activities approved by the Executive Body (see below), as well as the administrative costs of the Executive Body, Secretariat, and Trustee or Trustees, and costs associated with other specific decisions of the Conference of the Parties.

The fund would be managed by a **Trustee or Trustees** in the context of the enhanced multilateral financial mechanism proposed by the G77 and China. The Trustee/s would be selected through a process of open bidding and would have the fiduciary responsibility and administrative competence to manage the fund.

A third key aspect of the G77 and China’s technology proposal is the creation of a **Technology Action Plan** which would support concrete actions by all countries to enhance implementation of the Convention by defining policies, actions and funding requirements for all relevant classes of technologies, and by seeking to realize the full potential of

technology at all stages of the technology cycle.

In relation to the *research* phase of the technology cycle, the Technology Action Plan would accelerate research and invention by supporting scientific and technical cooperation at all levels, including cooperation among scientists and among relevant institutions. In relation to *technology development*, it would accelerate the rate at which technologies are brought into effect. In relation to *technology transfer and diffusion*, it would ensure the availability of financing for technology transfer through all available means to ensure that technologies, and related products and services, are affordable to developing countries.

The Technology Action Plan will also define specific policies, actions and funding requirements for all relevant technologies, under the following classifications. In relation to *public domain technologies*, it will establish a system for international cooperation to ensure that the needs of developing countries are met through the lowest-cost technology options, and to transfer know-how about how to use and maintain technologies and adapt them to local conditions, thereby contributing to the development of endogenous technologies.

In relation to *patented technologies*, the Technology Action Plan will ensure that privately owned technologies are available on an affordable basis including through measures to resolve barriers posed by intellectual property rights, and through compulsory licensing of patented technologies. Technologies with shared ownership (government and private) will be made available on an affordable basis by facilitating transfer of the government proportion on a reduced or no-cost basis. Technologies that are government owned will be made available on an affordable basis by facilitating transfer on a reduced or no-cost basis.

In relation to *future technologies* the Technology Action Plan will support the establishment of national and regional technology excellence centers and will reinforce north-south, south-south and triangular cooperation, including in the area of joint research and development.

The proposal states that the Technology Action Plan would serve as a starting point for the work of the Executive Body. It would include clear actions and dates for the first three years, and would be updated for successive three-year periods.

The proposal concludes by identifying the **eligible activities and costs** that would be covered by the technology mechanism. It notes that the mechanism will cover technologies in all relevant sectors (i.e. in accordance with Article 4.1(c)) and endeavor

to remove barriers to the effective development, deployment, diffusion and transfer of technologies.

To secure necessary funding, the technology mechanism will link or articulate with the overarching financial mechanism of the Convention (as described above). The proposal offers an indicative list of activities and costs that would be eligible for support by the mechanism, and says that the Conference of the Parties could modify this list at any time. This list includes:

- *Promotion, facilitation and implementation of activities along the entire technology cycle* to accelerate the rate at which environmentally sound technologies are adopted.
- *Support for research, development, manufacture, commercialization, deployment and diffusion* of technologies for adaptation and mitigation, in accordance with the Bali Action Plan.
- *Adaptation technologies* to address the adverse effects of climate change and finance the removal of barriers to the large-scale transfer of technologies for adaptation.
- *Technologies to address the adverse impact of response measures*, and finance the removal of barriers to the large-scale transfer of technologies for reducing the adverse impact of response measures.
- *Capacity-building* to manage and generate technological change, enhance absorptive capacity, and create enabling conditions in developing countries. This would include costs relating to research, development and demonstration of new technologies; enhancing human and institutional capacity; and guarantees on foreign direct investment for environmentally sound technologies.
- *Commercialization of new and emerging technologies*. This would include venture capital, with public investment leveraging private capital markets for emerging technologies; research, development, and demonstration of new technologies, financed by venture capital and other sources; and joint technology development.
- *Creation of manufacturing facilities* for environmentally sound technologies, including low-GHG (greenhouse gas) emission technologies. This would include the costs of compulsory licensing and cost associated with patents, designs, and royalties; conversion of existing manufacturing facilities or of establishing new facilities; research and development activities, including joint research, development, design, and demonstration; technology adaptation; re-

training and dissemination of know-how; operation (of facilities/technologies); and monitoring and verification.

- *Procurement of low-greenhouse gas emission technologies*, including software and hardware. This would include cost of premature modification or of replacement of existing equipment, as well as the cost of new equipment; cost of retraining and dissemination of know-how; cost of technical assistance for the design, installation and stable operation of the technology; cost of fuel and other operational costs; cost of technologies for fuel switching; and cost of monitoring and verification.

The G77 and China's proposal, which will be made available in a compilation of documents by the Chair of AWG-LCA, is an essential proposal on a main element of the Bali Action Plan – the development and transfer of technology. It enhances the implementation of the Convention in accordance with Article 4.7 which states that “the extent to which

developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties”.

As emphasized by many developing and developed countries at the climate talks in Accra, technology and finance are important “building blocks” in the Bali Action Plan and are key elements in the negotiations. Delivering a substantial outcome on technology and finance is thus a central objective for any deal in Copenhagen at the end of 2009.

This topic, and the G77 and China's proposal, will likely be picked up again for discussion at Fourth Session of the AWG-LCA, which will take place in the context of the 14<sup>th</sup> UNFCCC Conference of Parties Meeting scheduled for 1-12 December 2008 in Poznan, Poland.



# **Climate Briefings for Accra**



## Sectoral Approaches in Climate Negotiations: Considerations for Developing Countries

Third World Network (15 August 2008)

This paper identifies some considerations for developing countries arising out of discussions regarding “sectors” and “sectoral approaches” in the AWG-KP and AWG-LCA. It examines potential linkages between sectoral approaches and issues relating to international trade and competitiveness, and the risk that sectoral approaches may be misused to create new trade and economic barriers for developing countries.

### **Sectoral approaches – risks and opportunities**

Sectoral approaches present opportunities and risks for developing countries. On one hand, they offer one practical means at the national level to organize and integrate actions relating to mitigation, adaptation, finance, technology and capacity building on a sector-by-sector basis. On the other hand – if linked with international competitiveness considerations – they risk the creation of new trade and economic barriers for developing countries. Advancing a development-oriented discussion of sectoral approaches thus requires a careful strategic approach by developing countries.

Elements of a development-oriented agenda are reflected in references in the Bali Action Plan to “cooperative sectoral approaches and sector-specific actions, in order to enhance implementation of Article 4, paragraph 1(c), of the Convention”. In this context, developing countries have focused sectoral discussions on ensuring implementation by developed countries of their existing obligation to transfer technology in “all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors” (paragraph 4(1)(c)), and on the need for technology transfer to be “measurable, reportable and verifiable” (paragraph 1(b)(ii) Bali Action Plan).

Avoiding undue impacts, in turn, requires an understanding of the climate regime and of rules relating to international trade and commerce – including those established by the World Trade Organization. In particular, it requires an understanding of how different proposals for sectoral approaches, if established in the context of the climate regime, could be applied in the context of multilateral, regional or bilateral trade agreements, or through unilateral domestic actions by developed countries, with the effect of passing on the costs of compliance with the climate regime by developed countries to developing countries – compromising the principle of common but differentiated responsibility and creating adverse effects on the economic and development prospects of developing countries.

## **Sectoral discussions under AWG-KP**

Issues relating to sectors and sectoral approaches arise in both the AWG-KP and the AWG-LCA. In the AWG-KP, Parties are discussing greenhouse gases, sectors and source categories and possible approaches targeting sectoral emissions. Discussions have covered, *inter alia*:

- The possible broadening of the coverage of greenhouse gases, sectors and source categories;
- How approaches to limit or reduce the emissions of greenhouse gases from aviation and marine bunker fuels could be used by Annex I Parties as a means to reach their emission reduction targets, taking into account Article 2, paragraph 2, of the Kyoto Protocol; and
- How approaches targeting sectoral emissions could be used by Annex I Parties as a means to reach their emission reduction targets.

At the in-session thematic workshop at the recent Bonn AWG-KP meeting<sup>1</sup>, the chair stressed that approaches targeting sectoral emissions differ from the other means to reach emission reduction targets in that such approaches are not currently included under the Kyoto Protocol.

At the meeting, participating experts noted that several sectoral initiatives and voluntary agreements are already in place, for example, those implemented by the International Aluminium Institute, the International Iron and Steel Institute, the Cement Sustainability Initiative within the World Business Council for Sustainable Development, and ICAO.

Participants noted that any approaches targeting sectoral emissions should complement national emission reduction targets for Annex I Parties but not replace them. Among the approaches discussed were:

- Sectoral technology cooperation through the sharing of information and transfer of technology and best practices;
- Voluntary or mandatory sectoral actions defined in quantitative terms (e.g. standards) or qualitative terms (e.g. adoption of best practices);
- Crediting of sector-specific actions in developing countries, including through ‘sectoral CDM’, as a means available to Annex I Parties to reach their emission reduction targets; and
- Separate accounting of sectors outside national emissions totals.

Among the key issues discussed were: the definition of the sectors; the need for flexibility and to take account of national circumstances such as national policies; the national energy base and the availability of natural resources; linkages across sectors; and the need for robust methodologies and sufficient data, in particular on mitigation potentials at the sectoral level.

Some participants referred to potential advantages, suggesting that sectoral approaches could help to deliver mitigation benefits, mobilize technology development and transfer, provide frameworks for financing, and simplify complexities associated with project-based cooperation.

A few participants called for broader consideration of the issue by the AWG-LCA. Others, mainly developing countries, noted that the AWG-LCA’s mandate on sectoral approaches is focused on enhancing the implementation of Article 4.1(c) of the Convention.

## **Sectoral discussions under AWG-LCA**

In the AWG-LCA, Parties are discussing “cooperative sectoral approaches and sector-specific actions, in order to enhance implementation of Article 4, paragraph 1(c), of the Convention”, as described in paragraph 1(b)(iv) of the Bali Action Plan. Article 4.1(c) provides that all Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors.

At an in-session thematic workshop at the upcoming Accra AWG-LCA meeting, Parties will discuss “cooperative sectoral approaches and sector-specific actions” to implement Article 4.1(c) as well as “the effectiveness of mechanisms and tools for technology cooperation in specific sectors”.

The European Union, in its submission on cooperative sectoral approaches for AWG-LCA in Accra, offers a set of principles and definitions for sectoral approaches and suggests that deliberations should cover proposals including:

- Market based sectoral approaches giving incentives to developing countries to participate in global mitigation efforts. There are various types of market related sectoral mechanisms which could be explored, among others national or international emissions trading, sectoral no-lose mechanisms and sectoral crediting mechanisms.
- Non-market based sectoral approaches such as cooperative approaches based on technology cooperation and/or domestic mitigation policies could contribute to removing barriers that are specific to certain sectors, increase technology deployment and enhance technology RD&D in key sectors in developing countries – and provide an intermediary step for some developing countries for participation in mitigation actions.

Developing countries, by contrast, have made a clear distinction between discussions taking place in the AWG-KP, which focus on means for Annex I Parties to meet their obligations, and discussions taking place in the AWG-LCA, which focus more specifically on technology transfer.

### **“Sector” and “sectoral approach”**

The terms “sector” and “sectoral approach” are not formally defined in the Convention or Kyoto Protocol. Among other thing, the term “sector” has been used to encompass:

- *Mitigation and adaptation sectors:* The Convention and Kyoto Protocol refer variously to “economic sectors” or “greenhouse gas emitting” sectors and to sectors requiring adaptation to the impacts of climate change. A typology of mitigation and adaptation sectors has been developed by the IPCC and used variously in Technology Needs Assessments, National Adaptation Plans of Action and other contexts.
- *Aviation and marine sectors:* The Kyoto Protocol provides that “Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively” (Article 2.2).
- *Industry sectors:* A number of initiatives have focused on significant greenhouse gas emitting industry sectors. The Asia Pacific Partnership on Clean Development and Climate (AP6), for example, focuses on: cleaner fossil energy; renewable energy and distributed generation; power generation and transmission; steel; aluminium; cement; coal mining; and building and appliances.

Parties have also proposed different approaches to address climate objectives on a sectoral basis. For example:

- Japan has promoted domestic target setting and “an internationally cooperative approach” to mitigation involving cross-border sharing of best available technologies and practices. They propose an initial focus on four key “sub-sectors”: coal-fired power generation; steel; cement; and road transport.
- Norway has focused on means to address emissions in the aviation and marine sectors through “cap-levy-and-trade” or emission trading approaches. It argues that aviation and marine transport should be considered separately, but that targets for each should be included in the Kyoto Protocol.

- Argentina, on an informal basis within the G77 and China, has called for a more development-oriented approach commencing with an evaluation of development objectives in each sector or area as the basis for any discussion of mitigation or adaptation, and associated with technology, finance and capacity building.

Among the most active proponents of a binding international approach to sectors is Japan. Drawing on materials distributed at climate meetings held in Bangkok and Bonn, the Japanese approach involves:

- *Domestic target setting*: Economy-wide emission goals would be estimated by accumulating sector-based mitigation potentials that could be achieved by implementing best available technologies and best practices.
- *Internationally cooperative sectoral approach*: Mitigation would be supported by cross-border sharing of best available technologies and best practices, in accordance with common but differentiated responsibilities and respective capacities.
- *Prioritizing “key sub-sectors”*: Initial efforts would prioritize “key sub-sectors” in terms of effectiveness and practicalities, focusing on candidates such as power (e.g. coal-fired power generation), industry (e.g. steel and cement) and transportation (e.g. road transportation).
- *Loans and grants*: Japan has proposed supporting a sectoral approach with finance through their “Cool Earth Partnership” of USD10 billion over the next five years (much of which would be in the form of loans).

Japan argues that a sectoral approach:

- Is comparable and fair means to set quantified national emission reduction targets, and contribute to enhance their measurable, reportable and verifiable actions;
- Would not replace quantified national emission reduction targets;
- Allows effective and efficient sector-based mitigation actions; and
- Is effective in addressing carbon leakage.

Japan has promoted a sectoral approach outside the UNFCCC process through a Paris Workshop on Sectoral Approaches (8 May 2008), at the 24-28 May 2008 G8 Environment Ministers Meeting and at the 8 July 2008 G8 Meeting in Toyako, Hokkaido.

### **Links between sectoral approaches and competitiveness**

Proposals by developed countries for sectoral approaches are motivated – at least in significant part – by concerns about competitiveness. They reflect the concerns (expressed particularly by energy-intensive industries and organized labour) that the costs of complying with new domestic regulations, carbon taxes or cap-and-trade systems will:

- Reduce the competitiveness of their firms and products in domestic markets;
- Reduce the competitiveness of their firms and products in international markets; and/or
- Cause the migration of energy intensive industries (e.g. chemical, steel, cement) to developing countries – a tendency referred to as “carbon leakage”.<sup>2</sup>

Among other things, sectoral approaches are likely seen by some developed countries as:

- A practical way of breaking the mitigation challenge into manageable parts;
- A means to proactively address competitiveness, technology, finance and other concerns on an industry-by-industry basis;
- A means to establish new mitigation targets, goals or other commitments for developing countries;
- A means to secure “measurable, reportable and verifiable” mitigation actions by developing countries;
- A means to gain new competitive advantages by their firms and/or avoid competitive disadvantages resulting from climate change and response measures; and/or

- A justification for unilateral trade measures against developing countries in the event that multilateral negotiations are, in their view, unsuccessful.

Just as many developed countries see sectoral approaches as a means to protect or enhance their competitive position, they are seen by many developing countries as a means to challenge or undermine theirs. Developing countries are appropriately concerned that binding, international-level agreements on a sectoral basis could adversely affect their competitive position in international economic relations.

### **Concerns about competitiveness and trade**

The specific linkages between sectoral approaches, competitiveness and trade will depend, in large part, on the specific nature and scope of any agreed sectoral approach. There is, nevertheless, a range of general issues that should be considered by developing countries when engaging in discussions of sectoral approaches.

A principal issue is the potential use of sectoral approaches to “tilt the playing field” and to pass on to developing countries the costs incurred by developed countries of implementing their obligations under the Convention and Kyoto Protocol. In particular, concern arises that sectoral approaches may be used to:

- Justify efforts by developed countries to alter the trade-related domestic policies of developing countries – for example, by removing barriers to market access for products and technologies produced by developed countries, or strengthening intellectual property rights over low-emission technologies or climate-resistant crops required for adaptation that are “owned” by companies in developed countries; and/or
- Justify the imposition by developed countries of new trade barriers on products or technologies from developing countries – for example, by justifying new trade bans, border adjustments or standards that limit trade in energy- or GHG-intensive products such as steel or cement or impose other trade-related barriers.

Sectoral agreements may affect competitive conditions and trade in a number of ways:

- They could directly establish new rules or standards at the international level for GHG-intensive industries, imposing costs on products exported from developing countries;
- They could provide a justification for measures taken by developed countries at the national level to impose costs on exports from developing countries at the border or through internal regulations (e.g. by bolstering arguments that the developed countries’ measures are consistent with WTO rules, or justified by WTO environmental exceptions); or
- They could, even if sectoral discussions ultimately prove unsuccessful, support the argument by developed countries that unilateral measures are necessary, justified and do not constitute disguised restrictions on international trade.

A number of developed countries have already proposed new trade-related measures to address climate change. America’s Climate Security Act, for example, would require importers to buy allowances to cover the costs of the greenhouse gasses emitted during the production of products imported by them. These provisions would apply in the context of a United States domestic cap-and-trade system, and would cover exports from countries that lacked a similar system or were failing to apply best available technologies.<sup>3</sup> Similar provisions have been proposed in European legislation. These measures (as well as protecting industries in developed countries) are designed to operate as a “stick” to encourage larger developed countries to reduce their emissions in the context of a new multilateral climate agreement, on the basis that their failure to do so may result in unilateral trade measures by developed countries.

### **Possible trade-related measures**

Broadly speaking, developed countries have a range of potential trade-related measures that could be applied to restrict access to their market and alter the conditions of competition:

- *Punitive tariffs or quantitative* measures could be imposed to ban or limit market access for products that are seen as harming the climate or failing to internalize the costs of climate-related environmental measures.
- *Anti-dumping duties* could be applied to the exports of foreign producers drawing on the argument that their goods that are produced in a manner that does not internalize the full (carbon-related) costs of their production, are exported at below their normal value and cause material injury to competing domestic industries. This seems to be the basis of “environmental dumping” arguments.
- *Anti-subsidy duties* could also be applied drawing on the argument that the failure by a government to impose suitable regulations, carbon taxes or carbon cap-and-trade systems constitutes a financial contribution that confers a benefit on industries or regions which causes an “injury”, “serious prejudice” or a “nullification of benefits” expected from the GATT.
- *Border adjustment* of a domestic regulation or system that applies equally to foreign and domestic products (such as that proposed in America’s Climate Security Act). Such a border adjustment could include the application of domestic carbon taxes to imported products or require the purchase of domestic carbon credits or other forms of emission allowances as a condition of entry into the market.
- *Standards and domestic regulations* could be used to increase barriers to trade in products from developing countries that do not meet energy- or carbon-efficiency standards imposed nationally, or agreed through regional or international processes (including a sector-based agreement).

Of these, two kinds of measures – border adjustments and standards/domestic regulations – are most likely to withstand WTO scrutiny and thus of most serious concern to developing countries. In each case, the terms of any sectoral approach would play a role in defining the terms upon which a developed country could impose trade-related measures on firms or products from developing countries.

### **Border adjustments and sectoral approaches**

As noted, both the United States and EU are publicly discussing “border adjustments” – i.e. a tax, permit or other charge – designed to internalize the GHG-related costs of products entering their economies. Under the WTO, countries are permitted to impose border adjustments under certain circumstances. Article II of the GATT provides that GATT rules about maximum ceilings for tariffs do not prevent a WTO Member from:

...imposing at any time on the importation of any product ... a charge equivalent to an internal tax ... in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part.

Drawing on these provisions, WTO Members could characterize their competitiveness measures as a WTO permissible “border adjustment” of a domestic cap-and-trade or carbon tax scheme. They would argue that the charge applied at the border on a GHG-intensive product such as steel or cement is equivalent to an internal tax applied to steel or cement produced domestically.<sup>4</sup> If such a scheme does not discriminate between products from different exporting countries, and does not discriminate between domestic and imported products then it could conceivably be permissible under WTO rules.

A sectoral approach (for example for steel or cement) would contribute to defining the terms upon which any such border measure would be applied. Among other things, it could define national targets or goals for emissions reduction in a specific sector, it could define the technologies or approaches reasonably available to an exporter, or it could define the permissible “GHG-content” of any product in international trade (and hence the basis of the border adjustment). The effort to negotiate such a sectoral agreement – even if unsuccessful – would likely be used to support claims that the subsequent unilateral measures were not “arbitrary” or “unjustifiable” for the purposes of WTO environmental exceptions (discussed below).

Regardless of the specific measures defined, it is likely that a WTO panel would look to the terms of the international agreement when defining whether a national measure is consistent with relevant WTO rules.

### **Standards, domestic regulations and sectoral approaches**

Any agreed sectoral approach is also likely to prove relevant in the event that domestic regulations – i.e. technical regulations, standards, labels or other such measures – are challenged at the WTO. Article III of the GATT establishes the “national treatment” rule and requires that the products of exporting countries be treated “no less favourably” than “like products” manufactured in the importing country. In the event that a domestic regulation in a developed country is challenged on the basis that it limits exports from developing countries, a WTO panel may be asked to evaluate whether domestic and foreign products are “like” and, if so, whether there is “discrimination”.

One key issue is whether a product such as steel produced using a GHG-intensive process or production method (PPM) would be considered “like” one that is produced using a GHG-efficient process? If they are found to be alike, then discrimination between domestic and imported steel would contravene WTO rules. If they are not alike, then different treatment (e.g. a label noting GHG-intensity in production) would be permissible. Typically, developing countries have argued that products are alike if they are physically similar – i.e. steel is steel – and so discrimination based on PPMs (unless they affect the physical character of the product) is not permissible. Though jurisprudence under the GATT supported this view (e.g. the Tuna-Dolphin case), jurisprudence under the WTO is significantly less clear, with the WTO Appellate Body stating they must take into account “all pertinent evidence” focusing on the competitive relationship of the products in the marketplace.<sup>5</sup>

A second issue is whether the domestic measure constitutes “discrimination” between like products. WTO rules permit different domestic measures for imported and domestically produced products. The principal issue is whether the measure results in treating the imported product less favourably in terms of its opportunities to compete in the domestic marketplace. The adjudicatory body will look both at any explicit differences set out in the measure on paper (de-jure discrimination) as well as any discriminatory effect in practice (de-facto discrimination). A WTO adjudicatory body would look to the measure and specific facts of the case to determine whether imported products are treated less favourably.

In an evaluation both of “like products” and “discrimination” it is likely that a WTO panel would consider the terms of any international agreement relating to trade in the product and/or to measures justifying similar or different treatment – including any sectoral approach agreed in the context of the UNFCCC or otherwise. The terms of the sectoral approach could, for example, play a role in determining the extent to which different building materials are considered similar or different, or what would constitute “discrimination” in the treatment of those products in international trade.

### **WTO environmental exceptions**

In the event that a measure is found to contravene either WTO rules on border adjustments (Article II) or on national treatment (Article III), or to contravene other relevant GATT/WTO rules – for example, the “most favoured nation” rule in Article I, or the ban on quantitative restrictions in Article XI – then the measure would be evaluated against the exceptions set out in Article XX of the GATT.

Among other things, Article XX permits measures relating to the conservation of exhaustible natural resources that are not arbitrary and that take into account the conditions of exporting countries. In applying any such provisions, it seems likely based on previous practice that a WTO adjudicatory body could take into consideration a range of factors including<sup>6</sup>:

- Whether the implementing country had made serious, good faith, across-the-board efforts to reach a negotiated solution with exporting countries in order to resolve issues relating to international competitiveness and/or related environmental issues before imposing unilateral measures (including,

potentially, their good faith participation in relevant multilateral negotiations). Efforts to negotiate sectoral agreements, or negotiate with “major economies” or to provide technology or finance on a sectoral basis would likely be relevant to a decision by a WTO adjudicatory body as to whether a measure is justified.

- The extent to which the measures reflect and take into account the different conditions which may occur in the territories of those other countries, and the comparability of efforts to work with those countries. A WTO adjudicatory body would look to the sectoral agreement as evidence of efforts to negotiate with countries covered by the measure, as well as how effectively the sectoral agreement or any associated domestic measure reflects the different situations of importing countries.
- The transparency and predictability of the process, the availability of review of decisions, the provision of formal, reasoned decisions in writing and other factors associated with due process.
- The relevant provisions of related international agreements – for example, the Climate Convention and Kyoto Protocol’s provisions calling on developed countries to take a lead in addressing climate change, provide supportive measures such as technology transfer and financial assistance, and explicitly call for efforts to minimize adverse effects on international trade and the economic prospects of developing countries.

Any sectoral approach would, again, likely be considered relevant by a WTO adjudicatory body when applying the standards set out in Article XX. In particular, they would likely play into the body’s determination of whether the measure was applied in a manner that constituted arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

## **Conclusion**

When considering discussions of sectors and sectoral approaches, developing countries may wish to carefully evaluate the likely implications for the competitive position of their key sectors in international economic relations. In particular, efforts by developed countries to smuggle competitiveness issues into the UNFCCC negotiations under the guise of sectoral approaches should be clearly identified by developing countries as running counter to the principle of common but differentiated responsibility and, potentially, risking efforts to advance the negotiations. Any effort to advance the negotiations should be based firmly on common but differentiated responsibility, as well as other relevant provisions of the Convention.

Discussions in AWG-LCA on sectoral approaches should be on the basis of Article 4.1 (c) in accordance with the mandate of the Bali Action Plan. Developing countries, especially in their national climate policies should be able to plan actions including sector by sector, and to seek international assistance (finance, technology and capacity building) for actions on an overall as well as sectoral basis. These national plans should not, however, be subjected to “international harmonisation of standards” by sectors, which would lead to the kinds of problems raised in this paper. Indeed, those who promote this international harmonisation and competitiveness approach are doing a disservice in that a confusion may arise which may give a negative connotation to sectoral approaches as a whole, including useful national-level sectoral policies in developing countries.

## **Annex 1**

### **Selected provisions of the UNFCCC referring to sectors (emphasis added)**

#### **Article 3.3**

The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of

greenhouse gases and adaptation, and comprise *all economic sectors*. Efforts to address climate change may be carried out cooperatively by interested Parties.

#### **Article 4.1(c)**

Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in *all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors*;

#### **Annex 2**

##### **Selected provisions of the Kyoto Protocol referring to sectors (emphasis added)**

#### **Article 2.1(a)**

Each Party included in Annex I, in achieving its quantified emission limitation and reduction commitments under Article 3, in order to promote sustainable development, shall:

(a) Implement and/or further elaborate policies and measures in accordance with its national circumstances, such as:

- (i) Enhancement of *energy efficiency in relevant sectors* of the national economy;
- (ii) Protection and enhancement of sinks and reservoirs of greenhouse gases not controlled by the Montreal Protocol, taking into account its commitments under relevant international environmental agreements; promotion of sustainable forest management practices, afforestation and reforestation;
- (iii) Promotion of sustainable forms of agriculture in light of climate change considerations;
- (iv) Research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies;
- (v) Progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies *in all greenhouse gas emitting sectors* that run counter to the objective of the Convention and application of market instruments;
- (vi) Encouragement of appropriate *reforms in relevant sectors* aimed at promoting policies and measures which limit or reduce emissions of greenhouse gases not controlled by the Montreal Protocol;
- (vii) Measures to limit and/or reduce emissions of greenhouse gases not controlled by the Montreal Protocol in the *transport sector*;
- (viii) Limitation and/or reduction of methane emissions through recovery and use in waste management, as well as in the production, transport and distribution of energy;

#### **Article 2.2**

The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.

#### **Article 6.1**

For the purpose of meeting its commitments under Article 3, any Party included in Annex I may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing

anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases *in any sector of the economy*, provided that:

- (a) Any such project has the approval of the Parties involved;
- (b) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur;
- (c) It does not acquire any emission reduction units if it is not in compliance with its obligations under Articles 5 and 7; and
- (d) The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments under Article 3.

#### **Article 10(b)(i)**

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention, shall:

...

(b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change:

(i) Such programmes would, *inter alia*, concern *the energy, transport and industry sectors* as well as agriculture, forestry and waste management. Furthermore, adaptation technologies and methods for improving spatial planning would improve adaptation to climate change; and ...

#### **Annex A: Sectors/source categories**

Energy  
Fuel combustion  
Energy industries  
Manufacturing industries and construction  
Transport  
Other sectors  
Other  
Fugitive emissions from fuels  
Solid fuels  
Oil and natural gas  
Other  
Industrial processes  
Mineral products  
Chemical industry  
Metal production  
Other production  
Production of halocarbons and sulphur hexafluoride  
Consumption of halocarbons and sulphur hexafluoride  
Other  
Solvent and other product use  
Agriculture  
Enteric fermentation  
Manure management

Rice cultivation  
Agricultural soils  
Prescribed burning of savannas  
Field burning of agricultural residues  
Other  
Waste  
Solid waste disposal on land  
Wastewater handling  
Waste incineration  
Other

### **Annex 3**

#### **Selected provisions of the UNFCCC relating to competitiveness and trade**

##### **Preamble...**

*Noting* that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that ***the share of global emissions originating in developing countries will grow to meet their social and development needs, ...***

*Acknowledging* that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, ***in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions, ...***

*Recognizing* that States should enact effective environmental legislation, that environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply, and that ***standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries, ...***

*Recognizing also* the need for ***developed countries to take immediate action*** in a flexible manner on the basis of clear priorities, as a first step towards comprehensive response strategies at the global, national and, where agreed, regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect, ...

*Affirming* that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, ***taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty, ...***

*Recognizing* that all countries, especially developing countries, need access to resources required to achieve sustainable social and economic development and that, ***in order for developing countries to progress towards that goal, their energy consumption will need to grow*** taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas emissions in general, including through the application of new technologies on terms which make such an application economically and socially beneficial,

##### **Article 2**

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to

allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and *to enable economic development to proceed in a sustainable manner.*

#### **Article 3.5**

The Parties should cooperate to *promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties*, thus enabling them better to address the problems of climate change. *Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.*

#### **Article 4.7**

The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

#### **Annex 4**

##### **Selected provisions of the Kyoto Protocol relating to competitiveness and trade**

#### **Articles 2.3 and 2.4**

3. The Parties included in Annex I shall strive to implement policies and measures under this Article in such a way as to minimize adverse effects, including the *adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties* and in particular those identified in Article 4, paragraphs 8 and 9, of the Convention, taking into account Article 3 of the Convention. The Conference of the Parties serving as the meeting of the Parties to this Protocol may take further action, as appropriate, to promote the implementation of the provisions of this paragraph.
4. The Conference of the Parties serving as the meeting of the Parties to this Protocol, if it decides that it would be beneficial to coordinate any of the policies and measures in paragraph 1(a) above, taking into account different national circumstances and potential effects, shall consider ways and means to elaborate the coordination of such policies and measures.

#### **Article 3.14**

Each Party included in Annex I shall strive to implement the commitments mentioned in paragraph 1 above in such a way as to *minimize adverse social, environmental and economic impacts on developing country Parties*, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention. In line with relevant decisions of the Conference of the Parties on the implementation of those paragraphs, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, consider what actions are necessary to minimize the adverse effects of climate change and/or the impacts of response measures on Parties referred to in those paragraphs. Among the issues to be considered shall be the establishment of funding, insurance and transfer of technology.

## Endnotes

- 1 The following discussion draws directly from Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on the first part of its fifth session, held in Bangkok from 31 March to 4 April 2008 (FCCC/KP/AWG/2008/2, 15 May 2008)
- 2 This phenomenon is often discussed using the term “carbon leakage”, a term that describes how when a greenhouse gas-intensive industry moves from a developed to a developing country (without emission caps) there may be no significant change in greenhouse gas emissions (the products will still be produced and exported to the developed country), but that developed country’s emissions will go down as the associated emissions will now occur outside its jurisdiction in a developing country.
- 3 America’s Climate Security Act (Senate bill 2191) was introduced by Senators Lieberman (Connecticut, Independent/Democrat) and Warner (Virginia, Republican), and has been reviewed favorably on 5 December 2007 by the U.S. Senate Environment and Public Works Committee. The other major proposal is that introduced by Senators Bingaman (New Mexico, Democrat) and Specter (Pennsylvania, Republican) (Senate bill 1766). Each proposal requires the purchasing of emissions allowances for products imported from countries determined not to be making sufficient efforts to address climate change.
- 4 *Id.*, at page 3
- 5 *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, AB-2000-11, WT/DS135/AB/R (2001) (Report of the Appellate Body), at paragraphs 101-103
- 6 See, for example, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, AB-1998-4, WT/DS58/AB/R (1998) (Report of the Appellate Body). See also WTO Appellate Body Report: *United States – Import Prohibition Of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia*, AB-2001-4, WT/DS58/AB/RW (notably in this case, the WTO Appellate Body clarified its decision in the initial Shrimp decision by stating that the regulating/importing country need not actually reach agreement with exporting countries, but rather must make ongoing serious, good faith efforts to reach a multilateral agreement).

## A Comprehensive Framework of Principles and Plan of Action on Technology in UNFCCC

Third World Network (August 2008)

The Framework could have a set of Principles, a Global Strategy and Plan of Action.

This was the move made at the WHA after the Commission on Public Health, IP and Innovation finished its work. The WHA has just adopted this Strategy and Plan of Action.

It would be useful to have a set of Principles. Then an action plan, which could encompass the key elements of the technology issue – identification of technology needs, identification of technologies, technology assessment, financing of transfer, capacity building for development of endogenous technology, and concrete programmes for diffusion and use, and institutions to be responsible for implementation.

The principles of (1) making technology accessible to developing countries at most affordable cost, and of (2) assisting developing countries to develop their own technologies, could be operationalised through a plan that involves three types of technologies (categorised by proprietary rights):

1. Technologies that are not patented or whose patents have expired
2. Technologies that are currently patented
3. Emerging technologies or technologies that do not yet exist

### **(1) Technologies that are not patented**

For (1), the action should be on identifying needs and technologies, and establishing an international cooperation system to ensure that the cheapest prices are offered to developing countries (a system of differential pricing) and a financing mechanism that will give grants (or cheap loans) to get the equipment etc to developing countries. Then a system of transferring the know-how of (1) how to use and maintain the technologies; (2) how to adapt them to local conditions. For developing countries that have the capacity or ambition, there should be the transfer of know-how on how to make these technologies and not simply import the machines.

### **(2) Patented technologies**

Besides the above actions for (1), there has to be international cooperation to make the patented technologies accessible. A framework has to be established. There can be a combination of:

- (a) allowing developing countries to exclude patenting of climate friendly technologies. This is the Indian proposal in WTO and at Gleneagles Summit. This requires an amendment of TRIPS. It is a justifiable

demand that can be made, if we are to take climate change as a really serious problem. We cannot have business as usual in the old system while demanding a radical departure from business as usual in emission control.

- (b) a global system of compulsory licensing, for example through a joint patent pool – in which patent owners of climate friendly technologies are obliged to place their patents in a pool, and developing country firms can easily have access to the technologies by paying a compensation that is low. This will make it administratively and financially much easier for access to take place, while the patent system continues to be respected, but the system is regulated, and the flexibilities in TRIPS (compulsory license being the most important) are systematised in terms of operation.
- (c) Developing countries should be provided capacity building in the legal and administrative aspects of exercising their rights to using compulsory licensing. (This is being done by WHO for medicines, the same can be done by agencies such as UNFCCC but other agencies as well). This could also be assisted in the political sense through a TRIPS and Climate Change Declaration in the WTO. The advantage is that this gives a spur to using compulsory licensing in developing countries with more certainty and less political pressure. The UNFCCC can encourage such a declaration. Also, just as WHA had adopted many resolutions on public health perspective of IPRs, UNFCCC can adopt a decision that provides development-oriented climate change perspectives on IPRs. The declaration of Doha, can be adopted in climate change context, that IPRs should not be a barrier to access to climate friendly technology at most affordable cost to developing countries. This can be done at UNFCCC as well as WTO.
- (d) Another measure could be the regulation of the terms of voluntary licenses to ensure that the cost is affordable, and that there are no anti-competitive conditions (such a high price of licenses, restrictions on markets, or insistence on taking a majority share of the company to which license is provided, which have all happened in recent cases, etc).
- (e) A global cooperation system for sharing know-how and “trade secrets” is also important as the lack of this is another serious barrier to technology transfer. This should be a component of a technology transfer framework. Even if a technology is not patented, the withholding of “trade secrets”, or how to make the technology, can prevent the development of endogenous technology in developing countries.

### **(3) Emerging technologies, or technologies that do not yet exist**

For these critical technologies of the future, the model of undertaking innovation and R and D is the critical issue. In the past the public sector in the North funded R and D, and the results were in the public domain. Recently (in the last 2 decades) the public sector continues to fund, but the companies put in a bit of funding as well, and the whole patent for the product is owned by the company.

- A technology cooperation framework should encourage joint public sector funding of R and D, through an international technology fund for example, and the products that emerge should not have patents attached, and instead all firms or agencies should have access to the technologies and to making the technologies so that they can be most widely deployed.
- Also, if a government were to partially fund the R and D, it should have partial ownership of the patent for the product. The portion that belongs to the government should be offered at no cost to developing country firms. For example, if the US government funds 80% of the R and D cost, and a product results from it, then 80% of the patent belongs to the government. When a license is issued to a developing country firm, the 80% cost of the license is waived, thus reducing the overall cost to developing countries.

Other methods of R and D cooperation can be devised so that the principles are fulfilled:

- the cost of the technology is most accessible and affordable to developing countries
- developing countries can build the capacity or means to develop and to make the technologies and equipment

### **The way forward**

The technology framework can involve Principles, a Plan of Action, and financial mechanism for implementation.

This may require a Technology Agency of the UNFCCC to be established. This agency should be under the UNFCCC and serviced by technical panels.

**Most importantly there must be a plan of action, with a concrete implementation scheme.**

## Possible Elements of an Enhanced Institutional Architecture for Cooperation on Technology Development and Transfer Under the UNFCCC

Third World Network (15 August 2008)

### Introduction

1. This note proposes the establishment and operationalization of an effective **Institutional Architecture for Technology Development and Transfer** under the UNFCCC. The technology architecture would ensure the full, effective and sustained implementation of the Convention, as regards the relevant commitments relating to the development, application, transfer and diffusion of technologies, practices and processes to support action on mitigation and adaptation.

### Mandate

2. An enhanced technology architecture is mandated and supported by Articles 4.1(c), 4.3, 4.5 and other articles of the Convention. It would build on and implement relevant COP decisions, as well as the work and recommendations of the Expert Group on Technology Transfer and national Technology Needs Assessments.

### Principles

3. Enhanced action on technology development and transfer to support action on mitigation and adaptation must (1) make technology accessible to developing countries at most affordable cost, and (2) assist developing countries to develop their own technologies.<sup>1</sup> The following are **Principles** for enhanced action on the transfer and development of technology under the Convention. The architecture shall:

- Ensure the accessibility, affordability, appropriateness and adaptability of technologies required by developing countries for enhanced action on mitigation and adaptation;
- Ensure provision of full incremental costs of technology required to support developing countries to implement measures covered by Article 4.1 of the Convention;
- Evaluate the adequacy and predictability in the flow of funds for technology transfer and appropriate burden sharing among the developed country Parties;
- Support technology development and transfer in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors; and
- Operate under the authority and guidance of and be fully accountable to the Conference of Parties.

## Institutional arrangements

4. As stated by China,<sup>2</sup> there is need for a more effective, operational and implementation-oriented body to speed up the development and transfer of technologies to implement the Convention and meet the climate challenge. A more effective technology architecture could include the following **Institutional Arrangements**:

- **Subsidiary Body on Technology:** A subsidiary body paralleling the SBSTA and SBI could be established to assist the Conference of the Parties in the assessment and review of efforts under the Convention for the development, application, transfer and diffusion of technologies, practices and processes to support action on mitigation and adaptation. This body would be open to participation by all Parties and comprise government representatives who are experts on matters related to technology transfer and climate change.
- **Strategic Planning Committee:** A committee, building on the experience of the Technology and Economic Assessment Panel of the Montreal Protocol, could be established to provide regular guidance on matters relating to the Convention's actions on technology development and transfer, and to provide regular expert assessment of technology-related matters to the Conference of Parties.
- **Technical Panels:** A set of technical panels could be established, building on the Montreal Protocol's experience of Technical Options Committees. These expert panels could operate on a sectoral and cross-sectoral basis. Sectoral panels could address issues relating to technology development and transfer in relevant sectors such as those identified in Article 4.1(c). Cross-sectoral panels could address "cross-cutting" issues such as: technology needs assessments and information; intellectual property cooperation; enabling policies and measures; economic and financial issues; capacity building; and monitoring and assessment.
- **Multilateral Climate Technology Fund:** A new technology fund will be established as part of the enhanced financial mechanism, within the Convention. The sources and uses of funds will be guided by the above institutions (subsidiary body, planning committee, technical panels) and by a Technology Plan of Action. (Details of this Fund and Plan of Action are in separate sections below).

5. The work of the current Expert Group on Technology Transfer would be assumed by these bodies to ensure the institutional capacity required to significantly enhance efforts on technology development and transfer, while building on the significant accomplishments of the EGTT.

6. The **functions** of these institutional arrangements could include: providing advice, guidance, and recommendations to Parties; coordinating actions by different international stakeholders and governments; promoting communication and sharing of information and knowledge; monitoring and assessing the progresses in ensuring the full implementation of the Convention's provisions relating to technology development and transfer; and guiding and supervising utilization of the Convention's technology fund based on public finance.<sup>3</sup>

### **Multilateral Climate Technology Fund: Financing technology development and transfer**

7. The technology architecture would complement and support an enhanced financial mechanism for the Convention, operating under the authority and governance of the COP in line with proposals by the G77 and China on finance. Specifically, it would guide and supervise the utilization of technology-related funding applied a new **Multilateral Climate Technology Fund** established within the Convention's enhanced financial mechanism, and linked to the Technology Architecture that is proposed here.

8. The fund, based on public finance from developed countries, would be established and used to support the development and transfer of technologies.<sup>4</sup> Together with the associated institutional arrangements, it would ensure that a significant amount of public finance from developed countries plays a leading role in

guiding and attracting private financial resources into the development, diffusion and transfer of technologies, including by supporting incentives to the private sector through various policy instruments with impacts on capital market.<sup>5</sup> Among other things:

- The fund would operate as a single window facility within the UNFCCC financial mechanism and would support research, development, deployment and transfer of technologies as well as the enhancement of developing countries' endogenous capacity.
- The policies relating to the Fund, including the uses to which the funds are put, will be guided by the Technology Architecture (i.e. the Subsidiary Body on Technology, the Strategic Planning Committee and the Technical Panels), and by the Technology Plan of Action.
- Funding for technology (as well as for other central functions of the financial mechanism such as supporting adaptation) will be "new and additional" financial resources over and above ODA.<sup>6</sup> The major source of funds will be derived from the public sector, which may be supported with market-based and private sources as agreed by the COP.<sup>7</sup>
- An indicative list of incremental costs could be agreed up-front by Parties. Drawing on the experience of the Montreal Protocol's Multilateral Fund, these could include institutional strengthening, networks for knowledge sharing, preparation of country programs, awareness and training of officials, support for policymaking, etc.
- The funding needs of the mechanism could be evaluated independently. Parties could agree to regular replenishments of the mechanism to ensure the adequacy and predictability in the flow of funds for technology transfer and an appropriate burden sharing among the developed countries.

#### **Technology Plan of Action: Supporting all stages of technology cycle**

9. As stated by India,<sup>8</sup> realizing the full potential of technology will require mechanisms across all the stages of the technology cycle. It is not merely a question of transfer alone, but of generating new technologies as well. Technology transfer has been a part of the UNFCCC process from the outset, but the actual achievements are limited.

10. Technology transfer is now one of the pillars of the Bali Action Plan, and measurable and verifiable technology transfer is, *inter alia*, a precondition to nationally appropriate mitigation actions in developing countries. Efforts are therefore required to accelerate the process of technology development, transfer and deployment for enabling adaptation and mitigation.

11. Achieving this requires a **Technology Plan of Action** to support developing countries at all stages of the technology cycle as required by Article 4.1(c) of the Convention.<sup>9</sup>

- **Research.** Efforts are required to accelerate research and invention through scientific and technical cooperation at the level of scientists and institutions, including through South-South collaboration. An action plan should include efforts to establish a **Global Network of Centers of Excellence** in research, development and pilot testing of identified climate-relevant technologies through public-private partnerships. Efforts are also required to strengthen research in the public domain, including through open platforms for collaboration and sharing. Enhancing the research capabilities of developing countries is a key element of enhancing their endogenous capacity to adapt, apply and replicate technologies.
- **Development.** Efforts are also required to accelerate the rate at which technologies are developed and brought into effect, through means such as **Initiatives for Joint Development of Technologies** with sharing of intellectual property rights. Consortia involving the public and private sector, including financing structures with cost sharing, could ensure that new technologies are made available to devel-

oping countries at affordable prices. A **Technology Cooperation Framework** should encourage joint public sector funding of research and development, and the products that emerge should not have patents attached, but instead all firms or agencies should have access to the technologies and rights to make the technologies so that they can be most widely deployed.

- **Transfer and diffusion.** Technology transfer is a specific responsibility of Parties under the Convention and is thus distinct from purely market-based transfer arrangements. Global financing is thus required for technology transfer, including for the public procurement of intellectual property rights and other means to ensure the affordability of technologies, products and related services. As noted below, ensuring transfer and diffusion on fair and favorable terms will require a range of conditions to be met, and barriers to be removed.

12. To support implementation of the Convention, the Technology Action Plan should encompass all the key elements of the technology transfer issue – the identification of technology needs, identification of technologies, technology assessment, financing of transfer, capacity building for development of endogenous technology, and concrete programmes for diffusion and use, and institutions to be responsible for implementation.<sup>10</sup>

### Enhancing access and affordability of technologies

13. As noted in the recent G5 declaration at the 2008 G8 Hokkaido Toyako Summit:

Affordable access to adaptation and mitigation technologies, achieved through a suite of funding mechanisms, investment structures and policy tools, is a key enabling condition for developing countries to tackle climate change. We call on the international community to work towards a strengthened scheme for technology innovation, development, transfer and deployment, and a comprehensive review of the intellectual property regime for such technologies in order to strike an appropriate balance between rewards for innovators and the public good.<sup>11</sup>

14. For technology to be accessible and affordable several conditions have to be present. The absence of these conditions can form barriers to technology transfer. Among the barriers that are normally listed are poor infrastructure, inadequate laws and regulations, shortage of skilled personnel, lack of finance, ignorance of technology issues, high cost of certain technology agreements, problems created by equipment suppliers, and intellectual property rights. Many of these can be dealt with through capacity building of developing countries and their institutions, and through financing cooperation. However other issues, for example IPRs, require international cooperation and joint measures and actions.

15. As stated by Brazil,<sup>12</sup> a range of measures are available to Parties to improve the accessibility and affordability of climate-related technologies. These can be classified according to the type of technologies, including: (1) Existing Technologies in the public domain; (2) Patented Technologies (publicly and privately owned); and (3) New or Future Technologies:

- **Public domain technologies.** For technologies in the public domain the action should be on identifying needs and technologies, and establishing an international cooperation system to ensure that the cheapest prices are offered to developing countries (a system of differential pricing) and the financial terms to transfer the equipment to developing countries. Also required is a system of transferring the know-how of (1) how to use and maintain the technologies; (2) how to adapt them to local conditions. For developing countries that have the capacity or ambition, there should be the transfer of know-how on how to produce these technologies and not simply import the equipment.
- **Patented technologies.** Patented technologies may be owned in the public or the private sector. Many technologies are owned by public research institutions, agencies and other governmental bodies. As acknowledged in a presentation by the government of the United States, there is a need for a “global

effort to share government-developed and owned technologies at low or no cost".<sup>13</sup> The sharing should also include the know-how. Fully-owned government technologies should be transferred at no cost. Where governments partially fund research and development, they should have partial ownership of any resulting patent. When a license is issued to a developing country firm, a corresponding proportion of the cost of the license should be waived, thus reducing the overall cost to developing countries.<sup>14</sup> Incentives can also be given to companies (that are publicly funded) to make the patented technology with its know-how available to developing countries. To support no- and low-cost transfer, developed country governments should compile a **Publicly-Owned Technology Inventory**.

- For privately owned technologies, various mechanisms can be examined to make them more accessible and affordable for developing countries. A range of measures relating to compulsory licensing and low-cost voluntary licensing as well as technology pooling and the sharing of know-how can be examined. (See section below). The Multilateral Technology Fund could support the financing of compensation to be paid by developing countries into a technology pool, and also meet the cost of negotiation and purchasing of licenses at a very reasonable cost with a view to facilitating transfer. As discussed below, complementing the fund is a range of other ways to reduce the costs associated with intellectual property rights, in order to ensure they are not a barrier to transfer, and to strike an appropriate balance between rewards for innovators and the public good. Both developed and developing countries can also consider incentives to stimulate technology transfer within companies, with a view to strengthening capacity in subsidiary companies located in developing countries.
- **Future technologies.** Brazil, like India, has proposed the establishment of national/regional technology excellence centers to promote technology development, deployment and transfer, stimulate capacity building, improve access to information and establish an appropriate international cooperation environment. They have also called for efforts to reinforce north-south, south-south and triangular cooperation, including Joint Research and Development. As part of future international cooperation, some research and development programmes should be jointly planned and coordinated by governments (developed and developing). If certain products are wholly publicly funded, they could be placed in the public domain, or else made available through affordable licenses. This will make the future technologies more accessible and affordable, especially to developing countries.

### Measures relating to intellectual property and climate technologies

16. For climate related technologies, whether intellectual property rights constitute an important barrier depends on several factors, such as whether or not the particular technology is or will be patented, whether there are viable and cost-effective substitutes or alternatives, the degree of competition, the prices at which it is sold, and the degree of reasonableness of terms for licensing, and so on. To the extent they are identified as an important barrier to technology transfer, there is a variety of ways to relax intellectual property rights in relation to climate friendly products and technologies. These include:

- **A mandatory exclusion from patents world-wide** of climate friendly technologies and products. Because most of the technologies required to address climate change already exist, and climate change represents a grave and potentially irreversible threat to human societies, the international community could consider requiring all climate friendly technologies to be free of intellectual property rights to ensure their widest availability. Just as intellectual property rights are relaxed in wartime, the threat of climate change could justify a systemic relaxation of intellectual property rights to strike an appropriate balance between the private interests and the global public good.
- **A mandatory exclusion from patents in developing countries**, while patents can still be granted in developed countries. Both this and the world-wide exclusion would require an amendment of the TRIPS Agreement. But it is a justifiable demand that can be made, if we are to take climate change as a serious challenge. Developed countries cannot justify business as usual in the old system while also demanding a radical departure by developing countries from business as usual in their emissions pathways.

- **Discretionary exclusions from patents in developing countries.** The TRIPS Agreement permits individual countries to “exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment”.
- **Technology pooling through a collective global approach.** In situations where patents *are* granted, a collective or global approach could enhance access and affordability. A global technology pool, for example, could be developed in which patent owners of climate friendly technologies are obliged to place their patents in a pool, and developing country firms can have access to the technologies by paying a compensation that is low and on standard terms (that are to be negotiated). This will make it administratively and financially easier for access to take place, while the patent system continues to be respected, while ensuring the system is regulated, and the flexibilities in the TRIPS Agreement (including compulsory license) are systematized in terms of operation.
- **Compulsory licensing in individual developing countries.** The WTO TRIPS Agreement provides countries with significant flexibilities to grant compulsory licenses. These grounds are not restricted, as confirmed by the WTO Ministerial Declaration on TRIPS and Public Health (Doha 2001). It is not necessary to declare a state of emergency, for example. Developed countries regularly exercise compulsory license – or in the case of the United States, powers of “*eminent domain*” – to use patented technologies. Developing countries, similarly, can and should grant compulsory licenses over technologies required to meet their climate objectives.
- **International Declaration on IPRs and Climate Technologies.** It is also useful to establish such a Declaration in order to clarify the ability of countries (especially developing countries) to have maximum affordable access to climate technologies, and that IPRs should not be a barrier, making use of the WTO Doha Declaration on TRIPS and Public Health as an example. The need to modify TRIPS for specific purposes, as in the case of pharmaceutical and health related products, should also be looked into.
- **Regulation of terms of voluntary licenses.** Another measure could be the regulation of the terms of voluntary licenses to ensure that the cost is affordable, and that there are no anti-competitive conditions (such as high price of licenses, restrictions on markets, or insistence on taking a majority share of the company to which license is provided, which have all happened in recent cases, etc).
- **Sharing of know-how and trade secrets.** Parties may also consider a global cooperation system for sharing know-how and “trade secrets”, which is also important as the lack of this is another serious barrier to technology transfer. This should be a component of a technology transfer framework. Even if a technology is not patented, the withholding of “trade secrets”, or how to make the technology, can prevent the development of endogenous technology in developing countries.

17. Developing countries may wish to raise the level of ambition for sustainable development by proposing that environmentally-friendly technology should not be patented in the first place (so that the process of compulsory licensing etc is not even required). There is a strong rationale for this, at least for climate-friendly technology and products:

- The processes of negotiating with the patent holder and of issuing compulsory licenses can be quite cumbersome to countries not familiar with the procedures. In light of the imminent challenges posed by climate change, it is thus better that developing countries be allowed to exempt such technologies from patenting.
- If climate change is truly the serious crisis threatening human well-being, and there are only a few years left to start very strong action, then the situation is similar to emergency war-like conditions. In such conditions, individual commercial interests such as patents are suspended so that there can be concerted national action in the most effective way to face the common threat.

- Developed countries should not treat intellectual property rights as sacrosanct and to be upheld at all costs. Doing so would signal that climate change is not a serious threat, as commercial profits for a few are more important on the scale of values and priorities than are the human lives that are at stake due to global warming. Technology transfer to developing countries to enable them to combat climate change should be the higher priority.
- Developed countries should also not treat climate technology as a new source of monopoly profits, as this would damage the ability of developing countries to phase in existing or new climate-friendly technologies for both mitigation and adaptation.

18. In light of these factors, the post-Bali process should adopt the principle that developing countries can exempt climate-friendly technologies from patents. Such a principle would demonstrate that developed countries are serious about resolving the global climate crisis and about assisting developing countries. It would also help developing countries to take on mitigation and adaptation measures, which are dependent on the technologies.

### **Enabling action at the national level**

19. As noted by China, governments play a variety of important and different roles in the whole cycle of environmentally sound technologies – including the provision of incentives to the private sector and markets; direct public funding for research, development, transfer and deployment; as well as a variety of other policy instruments.<sup>15</sup>

20. A range of measures are available to coordinate policies and provide incentives to the private sector to transfer technologies. These include:<sup>16</sup>

- Tax exemptions for the export of technologies by companies in developed countries to developing countries;
- Subsidies to encourage research and development of technologies appropriate to the needs and challenges of developing countries and transfer of those technologies;
- Favorable conditions for technology-related export credits, such as guarantees for technology export credits, subsidies, and so on;
- Removal of technology export bans in climate related technologies and products; and
- Other regulations, policies and measures required to implement the Convention.

### **Endnotes**

- 1 Any architecture for technology transfer could have a set of Principles, a Global Strategy and Plan of Action. This was the move made at the World Health Assembly following the conclusion of the Commission on Public Health, IP and Innovation. The WHA has just adopted this Strategy and Plan of Action. Developing countries were the active proponents of this arrangement.
- 2 China, “China’s Proposal on Innovative Mechanism for Development and Transfer of Technologies”, 3 June 2008, Workshop on Technology Transfer during UNFCCC Climate Change Talks, AWG-LCA, Bonn, Germany (China’s Technology Presentation)
- 3 China’s Technology Presentation
- 4 China’s Technology Presentation
- 5 China’s Technology Presentation
- 6 Statement of the Group of 77 and China, AWG-LCA 2<sup>nd</sup> Session, Bonn, Germany, 7 June 2008
- 7 Statement of the Group of 77 and China, AWG-LCA 2<sup>nd</sup> Session, Bonn, Germany, 7 June 2008
- 8 India, “Realizing the Full Potential of Technology: Presentation by India”, 3 June 2008, Workshop on Technology Transfer during UNFCCC Climate Change Talks, AWG-LCA, Bonn, Germany (India’s Technology Presentation)

- 9 As noted above, the World Health Assembly has recently adopted a Strategy and Plan of Action as part of the follow up to the Commission on Public Health, IP and Innovation. Developing countries played the leading role in shaping the strategy, plan and a related set of principles.
- 10 According to the IPCC, technology transfer is a broad set of processes covering the flow of know-how, experiences and equipment for mitigating and adapting to climate change involving different stakeholders including government, the private sector, financial institutions, NGOs, and research and education institutions. It comprises the process of learning to understand, utilize and replicate technologies including the capacity to choose and to adapt technologies to local conditions and integrate it into indigenous technologies. *See*, IPCC, Special Report of Working Group II, Methodological and Technological Issues in Technology Transfer (IPCC, 2000), at page 3
- 11 G5 Statement issued by Brazil, China, India, Mexico and South Africa at the 2008 Hokkaido Toyako Summit, July 8, 2008, at paragraph 19
- 12 Brazil, “Brazilian Views on Technology Transfer”, 3 June 2008, Workshop on Technology Transfer during UNFCCC Climate Change Talks, AWG-LCA, Bonn, Germany (Brazil’s Technology Presentation)
- 13 US Government, White House Power-point Presentation describing goals of Major Economies Meeting (on file with author). For a summary of home country measures relevant to securing technology transfer see also, UNCTAD, *Facilitating Transfer of Technology to Developing Countries: A Survey of Home-Country Measures* (UNCTAD/ITE/IPC/2004/5) available at [http://www.unctad.org/en/docs/iteipc20045\\_en.pdf](http://www.unctad.org/en/docs/iteipc20045_en.pdf)
- 14 Parties could, for instance, agree on a “Principle of No-Cost and Proportional Cost Transfers” for all technologies that are fully or partially government owned or funded.
- 15 China’s Technology Presentation
- 16 China’s Technology Presentation

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