

## **ADP: Addressing technology transfer in new agreement**

Bonn, 13 June (Hilary Chiew) – Parties met in the contact group of the Ad Hoc Working Group on Durban Platform for Enhanced Action (ADP) in the afternoon of 10 June to discuss the issue of ‘technology development and transfer’ for the post-2020 agreement, expected to be concluded in Paris next year.

Developing countries stressed that intellectual property rights (IPRs) are a serious barrier to technology transfer and that much more could be done to improve the existing Technology Mechanism under the UNFCCC, including a review of its progress. Developing countries called for a specific funding window under the Green Climate Fund (GCF) to facilitate technology transfer.

The Like-minded Developing Countries (LMDC) called on developed countries to put in place an enabling environment in their countries to remove barriers to technology transfer.

Developed countries on the other hand, led by the United States, Japan and Canada maintained that IPRs are not a barrier but an enabler for technologies, with the US calling on developing countries to improve their domestic environment to enable the protection of IPRs and to attract clean technology investments.

The European Union described technology transfer as being one of “supply and demand” prompting a sharp retort from Malaysia, reminding Parties that technology transfer to developing countries is a commitment under the Convention and is not a matter of buying and selling technologies. It stressed that the Convention was not a “market-place”.

ADP Co-chairs Kishan Kumarsingh (Trinidad and Tobago) and Artur-Runge Metzger (the European Union) facilitated the discussions.

**Speaking for the Like-Minded Developing Countries (LMDC), India** began by requesting a slide providing a summary of the group’s conference room paper (CRP) to be projected on the screen. India underscored that this issue flows from the heart of the Convention that Annex II Parties have to facilitate the development and transfer to developing countries. On enhancing action, it suggested facilitating technology development and transfer keeping in mind on how to find ways around the challenge of addressing IPRs, including the costs involved and the provision of a special window under the GCF.

To strengthen the Technology Mechanism, the Technology Executive Committee (TEC) and Climate Technology and Centre and Network (CTCN), the LMDC proposed improving staffing and financing through having a core budget.

It also called for the creation of an enabling environment in developed countries to remove barriers including IPRs in various sectors.

India said that all agree that global warming is deeply worrying and impacts us all in ways that are still being understood by experts. More sustainable ways of production and consumption are essential to battle this challenge both in terms of mitigation of the problem and adaptation to its increasingly visible impacts. All countries are doing what they can within their capacities to meet this challenge. But we also recognise that this is clearly far from adequate. A transformational response encompassing energy,

transport, industry, agriculture, forestry, waste management etc. is required to meet this challenge and that can only come through genuine large scale global collaboration to facilitate the adoption of relevant technology options, it added.

Identification of necessary environmentally-friendlier technology options, relevant to developing countries' situations, customised to their contexts and needs, and facilitation of their access to such desired technologies at costs that enable services to be provided to people at reasonable prices are significant challenges, it further said.

Expressing understanding that there is a whole range of issues involved when we refer to technology, India said it is not just a simple single tool that we are referring to. The nature of technology and the processes involved is diverse. It ranges from renewable energy solutions such as wind or solar or biofuels, many of which also depend on the rapidly evolving research, market demand, alternative energy and financial source availability and the policy parameters obtaining in different countries depending upon their individual situations. The discussion includes industrial manufacture technologies aimed at reducing resource consumption, emissions and energy intensity of these industrial processes. Technologies for improving energy efficiency of household appliances or complete buildings are other areas. Technologies or solutions for transportation sectors or technologies for carbon capture and storage are also very relevant. So the range of situations involved is diverse and cross-cutting.

India stressed the role of public research and development (R&D), private incentive for commercial R&D and development of technologies, reaching of economies of scale, issues relating to finance and other ways to address the IPRs remain other important concerns that need to be addressed. It also said that we do need a serious genuine collaborative effort and coming together of minds along with political will to enable concrete successes on some of these sectors to build confidence in this negotiating process. This will genuinely help in addressing what is a common challenge.

It pointed out that there have been several instances of international and multilateral collaboration on technology issues in specific sectors in public interest including in agriculture and health. There are also instances of such collaboration driven by commercial interests in sectors such as IT (information technology), biotechnology, advanced materials, aerospace, defence, automotive industry, environment and chemicals. These efforts have included elements of sharing of knowledge and IPRs through collaborative R&D and other such efforts. Such collaborations have also involved a range of stakeholders. The record of their success is a very mixed one, said India.

It stressed that while the establishment of the TEC and the CTCN represent good beginnings, we still have to tackle issues of how to facilitate access to technologies by those who need them but do not have capacity to pay for them. It said further that the basic underlying tension between competitive urges and collaborative compulsions has to be substantially resolved in the larger context of the common good of managing climate change if we are to see progress in meeting this global challenge. The Convention provides a remarkable framework for such an approach and it deserves to be implemented in full measure by all.

**China** sees technology development and transfer as an important integral part of the 2015 outcome, and it is one of the vital elements for enhancing the implementation of the Convention.

It said the ultimate objective of 2015 outcome with regard to technology is to enhance actions of technology development and transfer in order to better facilitate the implementation of the Convention. It welcomed the establishment and operationalisation of the technology mechanism under the Convention, nevertheless, enhancing actions on technology after 2020 requires far more than the operation of the existing technology mechanism. It means to fill up the implementation gap compared with the requirement under the Article 4.1(c), 4.5 and 4.7 of the Convention, which include the provision of finance, removal of barrier (e.g. IPRs), enabling environment of providing technology support and building of endogenous capacity.

In order to close this implementation gap in technology development and transfer with a view to fulfil the requirement of the convention, China believes that two issues are of great importance, namely responsibility and participation, and these have to be strengthened. Concrete commitments and actions from developed countries to fulfil their responsibilities under Article 4.5 will be fundamental, simply like what has been discussed under the other elements such as mitigation, adaptation, finance; putting such commitments on the table will guide and enhance actions. Regarding participation, it believes more participation of any form is needed to accelerate and scale-up the development, diffusion and transfer of technologies.

Firstly, developed country Parties shall put forward their concrete commitments or action plan periodically in terms of the technology support to the developing countries. The commitments or action plans can be in different forms, including provision of finance for technology, removal of barriers (e.g. through patent pool), building endogenous capacity for developing countries, facilitating particular number of technologies transferred to developing countries, supporting research, development and demonstration (RD&D) in developing countries, and enabling their domestic environment of providing the supports above mentioned. These commitments or action plans shall be quantifiable, comparable and transparent, and shall ensure best efforts within their capacity and with an aim to fully implement the objective and requirement under the Article 4.1(c), 4.5 and 4.7 of the convention. In such way, developed countries will have the flexibility to find the most suitable means to provide accountable support on technology transfer, while they are also in the dynamic process towards a higher commitment.

Second, developing countries, on the other hand, should, under the support of the developed countries, strengthen capacity building and enhance endogenous innovation system. In this regard, China believes that, on the basis of support of the developed countries, strengthening cooperation among developing countries through the technology mechanism and financial mechanism under the Convention

will be highly needed, and should be another key element on technology of the 2015 outcome.

Third, at global level, joint RD&D process shall be established with the support by developed countries, attracting and integrating capable stakeholders, both from developed and developing countries, with an aim to promoting innovation, accelerate R&D, and scale up the diffusion of existing technologies.

The implementation of technology element of 2015 outcome could be based on the existing technology mechanism, as well as other outcomes, such as Technology Needs Assessments (TNAs), Technology Action Plans (TAPs) and financial mechanism. China strongly believes that more guidance and clear mandate to the existing mechanisms will be needed to enable them deliver enhanced actions, including the measuring, reporting and verification (MRV) of the enhanced

actions, both the MRV of technology actions and the MRV of support for such actions.

**Tuvalu representing the Least Developed Countries (LDCs)** said clearly technology development and transfer is vitally important for LDCs which is very keen to pursue a low carbon development pathway. It said it is a curious thing that we will hear that the existing institutions are enough and we do not need anything in the new agreement. We do not believe there should be merely mitigation and nothing else. It said obviously the key linkage is to finance as discussed in previous session (*see TWN Bonn News Update #14*). It would support a funding window for technology in the financial mechanism.

Tuvalu noted that there are already several institutions but need to give some sense of longevity and provide coherence in the way they would work, through some direction to the 2015 agreement. It said barriers imposed by IPRs need to be resolved by exploring ways that can provide an alternative to IPRs. It also said clearly the Technology Mechanism needs strong and effective linkage through synergy. Therefore, a linkage in collaboration within the agreement would help us pursue that end.

**Belize representing the Alliance of Small Island States (AOSIS)** pointed out that in spite of the many COP decisions, it has not seen delivery and diffusion of technologies. If occurred, it said, emissions will be declining and not rising as we witness the impacts. The agreement provides an opportunity to correct this. The Technology Mechanism are fully operational and the new agreement must make sure that these are effective and there is no ambiguity that the mechanism is the mechanism of the Convention and must guide other (climate-relevant) technology centres outside.

Belize stressed that the mechanism must address the special circumstance of the small island states and low-lying areas with a special mechanism citing how Kiribati (an island state in the central Pacific Ocean) is preparing for building of floating islands using Japanese technologies. In terms of mitigation, its geo-thermal energy resources far exceed its capacity to absorb and utilise unless the energy can be shared by several island states. Such effort requires technologies, it said, noting that this requires the technology centres in the region to be strengthened and this should form an integral part of the CTCN.

**South Africa** said technology is an essential and integral element of the 2015 Agreement and that support for its development, diffusion and transfer is critical for developing countries to meet their commitment to the goal of keeping temperature rise below the 2°C and be directly linked to addressing the ambition gap. It urged Parties with obligation to obtain and buy out the specific technologies and licences at preferential rate and not use the IPRs, have full licence and sub-licensing at preferential rate, and a subsidy scheme for sub-licensing. Those Parties should also commit to an incentive scheme and technical support for deployment and diffusion of technologies, strengthen the national system of innovation and commit to R&D in developing countries. They should further leverage their private sector support. Furthermore, developing countries must update and finalise their respective TNAs with the support of Annex I Parties and the technology mechanism.

On institutional arrangements, South Africa said all Parties must agree to effectively create enabling policy to address barriers and the existing arrangement must be used, and it called

for the 2015 Agreement to enhance the role of both the TEC and the CTCN. It also believes that there must be consideration for technology transfer with financial facilities through the existing mechanism that will support the transfer and acceleration of technology in the early stage. It also wanted the TEC and CTCN to be mandated to MRV the technology support provided. As far as information is concerned, technology development and transfer should be included in the intended nationally determined contributions (INDCs).

**Venezuela** said along with finance and capacity building, technology is one of the key elements of change towards new models and patterns of consumption and production that are just, equitable and sustainable. We acknowledge the progress made so far in the Technology Mechanism, it is very important to strengthen it as an integral part of the new agreement to be sign in 2015. It said that some aspects are crucial and can make the difference between an effective mechanism and a complete failure; these are finance, technology development and IPRs.

In terms of finance, support for technology is a commitment that Annex I Parties have, under the Convention, to strengthen action in developing countries in adaptation and mitigation in a balanced manner and responding to national priorities. This responsibility of financing technology cannot be transferred to the private or business sector. A strong MRV mechanism should be put in place to assure that this commitment is complied with.

The Technology Mechanism should aim not only at adoption of foreign technologies in developing countries, but primarily adapt those technologies to local realities and to the development of endogenous technologies and capacities in developing countries. The Technology Mechanism cannot be a technology market place or a way to impose practices disregarding cultural and social factors particular to each country or region.

With regards to IPRs, the development and modification of technology will necessarily have to deal with IPRs. IPR seems to be a bad word that cannot be mentioned in the UNFCCC, said Venezuela. The issue has been considered in some bodies but never fully discussed within the

Convention, despite being an important concern for a significant number of Parties. We think the time to deal with this issue is long overdue and expect to finally have the opportunity to deal openly with it in order to include explicit references and guiding principles on how to deal with IPRs in the new agreement.

In any future agreement, there should be continuity with what has been achieved so far and to strengthen it. In this sense, it considers it important to constitute a legal experts working group with legal experts of all Parties to analyse the consistency of the future agreement with the current regime of climate change now until COP 21 in 2015. The time is now as this is the correct place and time for Parties to pronounce in favor of a legal agreement. We do not want to send a wrong message to the peoples of the world that this silence means that Parties are giving up or 'throwing the towel' with respect to the level of legal ambition in Paris.

**Representing the Arab Group, Algeria** stressed that enhancing climate change actions by developing country Parties depend on the effective provision of support, including finance, for technology development and transfer from developed country Parties. There should be a provision and modalities incorporating finance to facilitate access to and the transfer of environmentally-sound technologies to developing country Parties, and to promote endogenous technology, development, application and diffusion. In terms of arrangements and institutional framework as well as commitments, we do not need to start from the scratch, but we shall build on the previous work and achievements, while working towards strengthening these mechanisms. The established Technology Mechanism is an important building block, which should be strengthened with adequate staffing and financing. Algeria said the issue of IPRs shall be addressed in a fair and comprehensive way through mainly the removal of barriers. It also called for the establishment of an international mechanism on IPRs and the provision of financial resources for technology development and transfer to developing countries through a specific window under the GCF.

**Uganda** noted that we are not beginning from scratch but Parties must bear in mind that the

principles and provisions of the Convention are not avoided when we are addressing the issue of technology development and transfer. It pointed out that before the Technology Mechanism, the Poznan Strategic Programme (PSP) on technology transfer was undertaking important activities. It wanted the Agreement to provide the guidance for the transfer of the PSP into the technology mechanism. It would like to see more emphasis given to the development of endogenous technologies. While the CTCN is set to receive requests from Parties, it would need financial support, thus Uganda called for a special window on technology finance under the GCF. On IPRs, it said this should not be treated as a barrier solely but also a tool for innovation and should be addressed in the 2015 agreement.

**Iran** said cooperation and coordination of technology matters are crucial for the post-2020 enhanced actions and commitment. It opined that the CTCN is not adequate and do not assess actual technology transfer that take place. On addressing IPRs, it said dedicated finance would need a special window under the GCF. It also stressed that Parties must put in place an enabling environment that will remove barriers and enable them to implement the development and transfer of such technologies to developing countries as this is an important aspect of enhanced action and should have the same legal character as the other action elements. It also concurred with other Parties which noted that the TEC and CTCN should be strengthened with staffing and financing and balanced in the technologies for both mitigation and adaptation. On institutional arrangements, Annex II Parties should continue with their commitment to provide finance to developing countries by making domestic preparation.

**The Philippines** said the 2015 agreement should contain a review and assessment provision of the Technology Mechanism, whether the institutions have lived up to their mandate especially those provided by the Cancun, Durban, Doha and Warsaw decisions that called for the up-scaling of technology cooperation. The review should lead to consideration to strengthen or reconfigure the Technology Mechanism so that it will be responsive to enhanced actions post-2020. It said that given that we will be tackling the technology and finance mechanisms in Lima, it will be useful

to determine if the institutional arrangements will be sufficiently legally-binding for the needs of technology development and transfer post-2020. As for TNAs, it cautioned that this is not the only source of information, referring to other efforts like national climate change action plans that also identify respective technological needs and challenges.

Reacting to the EU, **Malaysia** said if technology development and transfer is about supply and demand and a market place then we do not need the Convention at all. It reminded Parties of the provisions under the Convention such as Article 4.3, 4.7, 4.8 and particularly Article 4.9 being very important for the special concerns of LDCs and small island states. Technology needs of developing countries are not a demand where we suddenly decided that we want technologies. Instead, the need arises from developing countries having to face climate change not of their own doing. This is not a demand or a supply, this is commitment under the Convention. It further said developing countries not only need technologies for mitigation but also adaptation specifically because the standard action is no longer tenable. It is glad that Parties are moving into more focused conversation of this very important issue as it is important to be absolutely clear what we are talking about, and that is technology transfer under the Convention.

**Japan** believed that the existing arrangement of technology development and transfer is functioning well. Therefore, it should continue to work as such and be strengthened and enhanced further. It reminded Parties that the TEC and CTCN had started to function, particularly the CTCN since 2013 has more than 80 centres established as focal points and requests for support have come from six developing countries and that CTCN has entered its implementation phase. It said TEC and CTCN can play important role in following up the ideas in workstream 2 (on pre-2020 mitigation actions) particularly in the areas of renewable energies and energy efficiency. As to how technology should be reflected in the 2015 agreement, it wanted the function and changing nature of each body to be reflected in the decisions.

**The European Union (EU)** said the new agreement will drive regulatory and market demand for technology development and

transfer. It said the GCF will have technology at the heart of much of what it will finance and the TNAs will begin to connect between supply and demand. It also said that at the moment, the TNAs do not necessarily show the kind of needs that will attract climate finance. It hoped that INDCs will align the technology needs on what are bankable as climate finance projects. This, it stressed, is how the new agreement will connect new demands with the institutions built over the years.

On overcoming barriers, the EU said the work plan of the TEC will begin to respond and that includes the kind of IPRs that have been flagged which are both areas of friction but importantly as enabler of technology transfer. In this context, it said the TEC will focus more and more on national innovation systems in developing countries to enable them to take up technology transfer more readily. There would be outreach to the private sector which holds the technology and to promote dissemination. There are some experiments under the TEC and the EU would like to see decisions in Paris (COP 21) enhance those elements further as well.

The **United States** said we should get most out of the institutions that were created and that will endure post-2020. It said the CTCN is already providing on the ground support to Parties and should be given some time to ramp-up the activities before changing the structure of the institution. On resources and staffing for the CTCN, it agreed with the LMDC's position contained in the latter's CRP that we need to find reliable sources of funds for the CTCN to scale up depending on demand in the years to come.

Referring to the LMDC's position on IPRs, it said there are areas of emerging commonality from the discussion, and areas of divergence potentially can become common areas. Nevertheless, there is evidence showing without a doubt that IPRs is an enabler and not the other around.

On TNAs, it said many TNAs do not result in a pipeline of commercial interests and financing. Therefore, there is no need for new institutions as the CTCN intends to address the same purpose. As to how to reflect the institutions created under the Copenhagen (COP 15) and

Cancun (COP 16) decisions, it would include them by reference into the agreement.

On calls for a window under the GCF for technologies, the US said the challenge is how to differentiate general mitigation and adaptation activities and technology transfer. It reiterated that it is incumbent on developing countries to improve their domestic enabling environment for improving laws and policies for the protection of IPRs, strengthening national innovation systems and for attracting clean technology investments. It would welcome further discussion to find ways to facilitate the participation of the private sector which has the technologies.

**Canada** said a concerted effort to develop and accelerate new technologies will have significant

pay-off in creating low carbon societies globally. It believed the private sector plays an important role and that the technology issue should be addressed going forward under the technology mechanism. It said the CTCN provided US\$ 2.5 million for the start-up and building local capacity. Although it recognised that it might be useful to assess the technology mechanism progress in the future, it must be given time to develop before suggesting changes. It envisaged that a post-2020 agreement on technology could include past decisions but could also include (new) decisions as progress is assessed in the future. On IPRs, Canada does not believe these pose a barrier to technology transfer, rather they would provide incentives to support private sector innovation that is so critical to ensure development of technologies.+