



# CLIMATE CHANGE AND THE ROAD TO RIO

---

**11-13 October, 2011 ♦ Algiers, Algeria**

This is an information note for the invited speakers and Co-Chairs for the Meeting on Climate Change and the Road to Rio, Algiers 11-13 October 2011. The Note is divided into two parts, namely Overall Guidelines, and Information for individual Sessions. The overall guidance provides logistical and other information. The Session information is intended as a first order draft of the technical note for the Meeting.<sup>1</sup>

## OVERALL GUIDELINES

The objective of the meeting is to share information and facilitate discussion, in a non-negotiations context, on climate change and sustainable development, by providing information on the central issues, key developments, and expectations from the forthcoming meetings in Durban and Rio. The meeting is hosted jointly by UNDP Regional Bureau of Arab States and the Government of Algeria.

**Participants:** The meeting comprises three categories of participants: co-hosts, official representatives of Arab states Governments, and invited experts. All participants are invited to all the sessions of the meeting, and not only to the sessions in which they are invited to make a presentation or serve as co-chair.

**Background Documents:** The background documents for the meeting include a concept note, the meeting agenda, a background paper including guidelines for speakers and co-chairs (this document), national reports or position papers contributed by participating governments, papers or reports recommended or contributed by invited experts, and power point presentations to be used during the meeting. A final report of the meeting will be prepared and circulated at its conclusion. All expert speakers are invited to recommend papers or reports of relevance to the themes and objectives of the meeting. Likewise all participating officials are invited to contribute national reports or other position papers prepared by their governments. These will be made available to participants electronically.

**Conduct of Sessions:** Each session, scheduled to run for 90 minutes, will be co-chaired jointly by one representative from the host country and one invited expert. While details of individual sessions would be worked out by the co-chairs in consultation with the speakers, as a general rule, the aim is to ensure that at least 30 minutes (and ideally 45 minutes) is available for interactive discussion, while the remaining time is allocated to the presentations (15 minutes each), and opening and closing remarks by co-chairs (a total of 15 minutes). The responsibilities of the two co-chairs include time management, opening remarks to set the stage for the session, introduction of the speakers, conduct of the interactive discussion, and summary concluding remarks. The co-chairs are encouraged to meet jointly with the session speakers during lunch or coffee breaks in order to go over the key themes and messages from the session and agree upon a division of labor between the co-chairs.

**Opening Remarks by Co-Chairs:** Each session will start with opening remarks by one of the co-chairs, followed by two or three expert presentations and an interactive discussion, and conclude with a summary of the session by the other co-chair. The purpose of the opening remarks is to set the stage for

---

<sup>1</sup> This is an independent background note prepared by Tariq Banuri and does not represent the views of UNDP, Government of Algeria, or the co-organizers of the Workshop.

the expert presentations by identifying strategic issues and concerns, and raising a few sharp questions that may need to be answered. The co-chairs may use power point presentations if they deem them to be helpful but it is not essential.

**Expert Presentations:** The presentations will introduce the strategic issues and latest developments on the session theme. Further details are provided separately for each session. All speakers are requested to send their power point presentations by Monday, 3 October 2011. Given the time limit of 15 minutes, it is recommended that the presentations use no more than 15 slides. If speakers so wish, they could provide additional slides to be circulated separately.

**Discussion:** In order to allow a free and frank exchange of issues and concerns, outside of a negotiations context, the meeting will be conducted under Chatham House rules (i.e., no one will be quoted by name). It will be the responsibility of the co-chairs to manage the discussion process in a manner that is most conducive to this goal.

**Closing Remarks by The Co-Chairs:** The purpose of the closing remarks is to provide a succinct summary of the issues covered in the presentations and discussion, and identify areas of convergence or agreement as well as those of disagreement and uncertainty.

## OPENING SESSION (Tuesday, 11 October)

### Objectives and Background

This session will introduce the participants, and set out the objectives of the meeting as well as the underlying challenges and concerns. In particular, it will place the climate process as well as the Rio+20 process in the context of emerging challenges.

**Durban and its Discontents:** The next milestone in international negotiations is the Durban Climate Conference (COP17), 28 November to 9 December. The expectations from COP17 are that it will put a finishing touch on the work that was started at COP16 at Cancun, and in particular to finalize the establishment of the new institutions and mechanisms that were set out in the Cancun Agreements. Some comments on the key questions on each of these are provided in the relevant thematic sections below. The workshop is organized around the four pillars of climate policy, namely mitigation, adaptation, finance, and technology.

To assess the scope for action, it may be useful to distinguish between strategic and tactical (or pragmatic) challenges. Two years ago, the Copenhagen Conference was widely perceived as a major opportunity for reaching binding agreements on strategic challenges faced by the global community. This perception may have been responsible for the mobilization of perhaps the highest level of political engagement in recent history. However, this high level of interest and political will—with 119 heads of state or government and 45,000 participants—could not be converted into a meaningful or comprehensive agreement. Since then, it appears that the climate process has switched into a more pragmatic stance, opting for incremental progress on institutional issues instead of seeking a grand bargain. This may change in the future.

**The Road to Rio:** The failure of Copenhagen revealed two kinds of gaps—on the one hand between scientific imperatives and political will, and on the other hand between the perception of climate change as a scientific issue and development as a political preference of developing countries; indeed, these two gaps bear a significant responsibility for the failure.

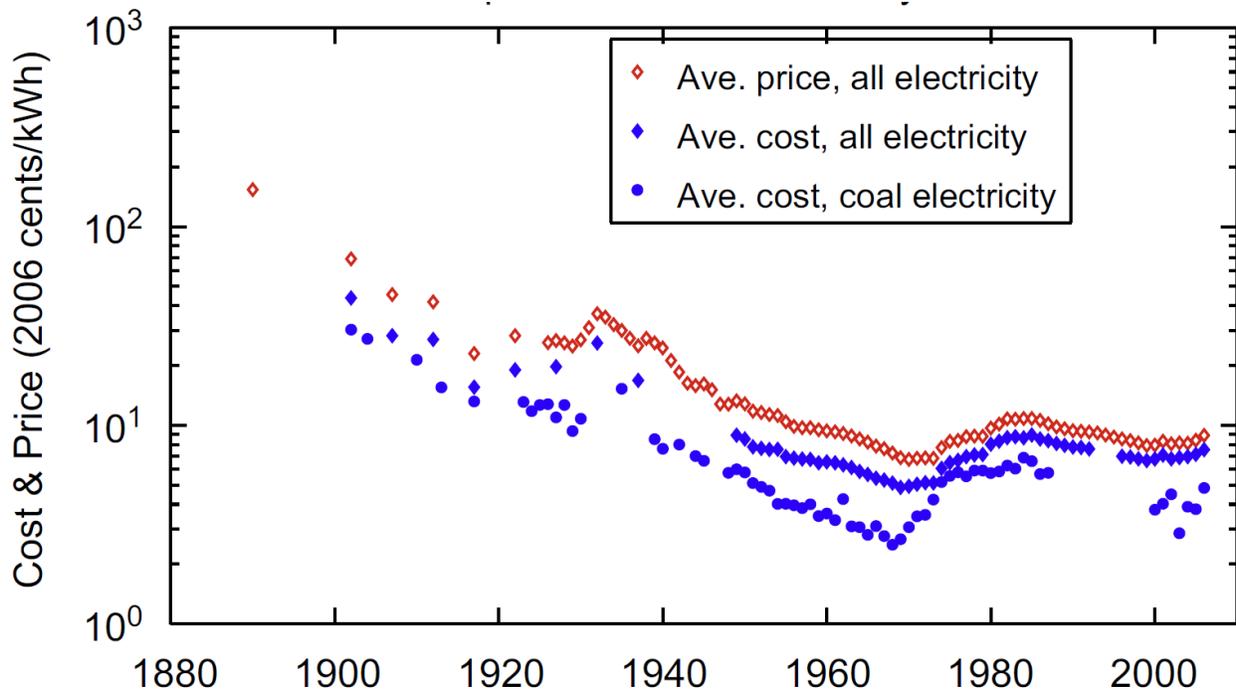
The convening of the Rio+20 Conference has to be seen as one of the efforts to find a way of closing these gaps. Other efforts include the establishing of high level advisory groups or task forces on energy (AGECC), finance (AGF), and global sustainability (GSP), scientific panels on energy (GEA), biodiversity (TEEB and IPBES), and green economy, and cooperative initiatives by several countries (e.g., G20, Energy+, 3GF, Paris-Nairobi Initiative). These efforts seek to create alternate forums for the discussion and resolution of strategic issues, and must be viewed not as parallel processes but as complementary elements of the response to a single challenge.

The Algiers meeting will review the ongoing impact of these efforts, explore how these can complement each other, and draw lessons for policy makers and negotiators.

**Rio+20:** The objective of the Rio+20 Conference is to renew political commitment to sustainable development, assessing progress and gaps in implementation of past decisions, and addressing new and emerging challenges. The conference has two themes, namely green economy and institutional framework. The reference to past decisions invokes not only the Rio Earth Summit (UNCED 1992), but also the Stockholm (UNCHE 1972) and Johannesburg (WSSD 2002) Conferences.

Two thoughts can be offered at this stage. First, the message of sustainable development is a simple one: all things are connected. For practical reasons, we often address different issues in different contexts, but structural challenges cannot be addressed in this way. The recent series of food, energy, climate, financial, and economic crises are generally been pursued through parallel processes. However, this can only address the symptoms not the structural causes.

Second, and following up from the first point, the recent set of crises are not entirely new. In fact, the decade of the 1970s offered a relatively milder preview of the current situation. At that time as well, food and energy prices shot up, were followed by a severe financial crisis, as interest rates rose to record levels in developed countries and developing country indebtedness became “unmanageable” almost overnight, and eventually to a drawn out global recession. It is also easy to see in retrospect that the policy response to this syndrome of crises took the form of various forms of economic liberalization—the so-called Washington Consensus, getting prices right, hard-nosed structural adjustment programs in developing countries, decimation of the public sector in developing countries, undermining of trade unions, and dismantling of social protection programs. The success of these policies, if it could be called “success” at all, was incumbent upon exacerbating the levels of inequality within and between countries.



Indeed, a review of historical evidence suggests the emergence of a structural rupture around the late 1960s, when the long term trend of declining energy costs reversed itself almost permanently (see figure for US electricity prices and costs). This may have been the end result of a number of factors—doubling of coal prices because of mining safety regulations and acid rain legislation, peak oil in the US, quadrupling of oil prices, tripling of electricity prices, the end of the dam-building spree in developed countries (“peak hydro”), Three Mile Island and an unstated moratorium on nuclear energy in some countries (“peak nuclear”). The current series of crises are far more acute than those in the 1970s, even if they are the end result of the same underlying social and environmental reasons, and are manifested similarly, initially in the form of energy and commodity price shocks, secondarily as financial crises or collapses, and finally as an economic recession. But there are differences, in gravity if not in structure. Instead of acid rain there is climate change. Instead of impending peak oil in the US, peak oil looms globally. Instead of Three Mile Island, we have Fukushima. Instead of “peak-hydro” in developed countries, these concerns are global in reach. Instead of mining safety concerns, there are concerns about the impact on human health of an entire range of production processes. As Yogi Berra once said, “its déjà vu all over again”.

The temptation is, of course, to recycle the failed solutions from the previous crisis under new names—a kind of Green Washington Consensus that relies more or less exclusively on getting prices right. In the

1970s and 1980s, the mainstream recipe was to tinker with the prices of labor, currencies, and tradable commodities. Today, it is the turn of the prices of natural resources and sinks—carbon pricing, payment for ecosystem services, full cost pricing, and so on. Once again, neither the distributional impact of such solutions nor the availability of ancillary or offsetting policies has been studied with sufficient care. Once again, there is the danger is that the recipes will turn out to be inequitable without being effective. An alternative is to concentrate on policies that promote investment and cooperation. These do not exist solely or even primarily in the climate domain, although progress on climate policies would both help and be helped. They have to be discussed in an appropriate forum or forums. Rio+20 could well be such a forum.

**Challenges for the Arab Region:** In regard to these goals, four key features of the Arab region are worth mentioning. These have a strong bearing on the nature of priority domestic action as well as expectations from Durban and Rio.

- **Energy Security:** The socio-economic development of the region has been based to a disproportionate extent on conventional energy sources (oil and natural gas), although they are distributed unevenly. Conventional climate policy, whether it takes the form of carbon taxes or carbon markets, will inevitably weaken this growth engine at the same time that it affects consumption and welfare. Some countries have undertaken major initiatives in renewable energy, referring mainly to solar, in which also the region may possess a comparative advantage, since the scope of other low carbon alternatives (e.g., bio-energy, hydro-energy, and nuclear energy) is somewhat limited.
- **Demographic:** The high population growth rates in the region (over 2 per cent per year) lead to a high proportion of youth, high youth unemployment rates (double the world average), high rates of urbanization (over 60 percent), and consequently a potential for social and economic instability.
- **Food Security:** Four of the 10 most water stressed countries in the world are in this region. This makes the region highly vulnerable to drought and associated impacts of climate change, and contributes to food insecurity.
- **Development:** The growth momentum in the region could get caught in a vicious cycle between a faltering growth engine, declining welfare because of high energy and commodity prices and food stress, and frustrated social and democratic aspirations. The recent developments in the region may be an indication of this vicious cycle.

## Recommended Readings

1. Alan Atkisson, Pushing Reset on Sustainable Development, Boston University, <http://www.bu.edu/pardee/files/2009/11/UNsdkp001sin.pdf>.
2. DESA Policy Brief No. 12, A Global Green New Deal for Sustainable Development, available at <http://www.un.org/esa/analysis/policybriefs/policybrief12.pdf>. This policy brief sets out in a succinct form the impact of the combination of shocks that hit the world economy in 2008, and the lessons that the response to the Great Depression provides in addressing the shocks.
3. SG Report for First Prepcom of Rio+20, available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N10/302/56/PDF/N1030256.pdf?OpenElement>. This report reviews the reasons why political will for sustainable development continues to lag behind its scientific imperative, and provides alternative ways of measuring progress on sustainable development.
4. Speech by Ambassador Sha Zukang, National Press Event, Washington DC, 28 June, 2011, <http://www.un.org/en/development/desa/usg/statements/national-press-club-event.shtml>. An overview of the political challenges.

## Speakers and Schedule

The speakers in the opening session are the representatives of the co-hosts, namely the Government of Algeria, UNDP Country Office, and UNDP Regional Bureau of Arab States. They will set out the broad aims and objectives of the meeting. Algeria will chair the Group of 77 in 2012. The opening statements will be followed by a detailed presentation by UNDP consultant, Dr Tariq Banuri, former Director of the Division for Sustainable Development, on the substantive context within which the climate discussions are currently taking place. This address will also include an introduction to Rio+20, and the scope for synergy between the climate process and the Rio+20 process.

### **WELCOME REMARKS AND INTRODUCTION TO THE MEETING**

H.E. Mr. Mourad Medelci, Minister of Foreign Affairs, Algeria

H.E. Mr. Cherif Rahmani, Minister of Spatial Planning and Environment, Algeria

Mr Mamadou Mbaye, UN Resident Coordinator and UNDP Resident Representative of Algeria

Mr Adel Abdellatif, UNDP RBAS

## THE POLITICAL PROCESS (Tuesday, 11 October)

### Objectives and Background

This session will set out the main set up of international negotiations, including critical questions, milestones, players, negotiating blocs, and future prospects.

**Durban:** The challenge for Durban is widely perceived to be one of maintaining momentum and ensuring that the various mechanisms, institutions and frameworks that were agreed upon at COP16 in Cancun are in place and operational in 2012 in accordance with the agreed deadlines.

**Cancun:** The Cancun Agreements formalized several elements of the Copenhagen Accord, and prepared the ground for the formalization of other elements. These include the establishment of a NAMA registry, the Cancun Adaptation Framework, the Green Climate Fund, a formal REDD mechanism, and a Technology Mechanism, refinements in existing procedures (including for CDM, JI, and sectoral crediting of NAMAs), and decision on access to technology for some Annex 1 Countries (EITs and Turkey). However, no decision could be reached on the second commitment period for the KP.

**Copenhagen:** The progress made at Cancun was in marked contrast to the tumultuous experience the previous year in Copenhagen, where notwithstanding a heightened level of political energy and public expectations, agreement and consensus remained elusive. In the end, however, a political declaration, the Copenhagen Accord, was negotiated by a few countries and endorsed by several others, albeit with reservations. It recognized the importance of climate change, agreed on the target of 2°C or less, and acknowledged that deep emissions cuts would be needed to meet this target, including peaking of emissions as soon as possible. It also agreed that development and poverty eradication were the first and overriding priorities (though supposedly only *of developing countries*), and called for low-carbon development strategies. In addition, the Accord set the stage for the Cancun meeting by agreeing on the need for new institutions (enhanced action on adaptation, REDD+, Technology Mechanism, and Green Climate Fund), quantified (and MRVed) emissions targets for Annex I countries for 2020, and national actions for non-Annex I countries (subject to domestic MRV unless if internationally supported), and new and additional financing (\$30 billion for 2010-12, and to a goal of jointly mobilizing \$100 billion a year by 2020).

**Why Rio+20?** By lowering the temperature of the negotiations the post-Cancun process has been able to guarantee steady if incremental progress, and ensure that the best will not remain the enemy of the good. However, there is now the opposite danger, namely that while the individual bricks will continue to be put in place one by one, we will lose sight of the overall challenge (However, Cancun also agreed to establish a mechanism to review the adequacy of the overall goals (i.e., the 2°C target) between 2013 and 2015, which may lead to a recalibration of the actions). In the meantime, the aspirations attached to Rio+20 have responded to these developments. As the climate discussions have increasingly turned towards tactical and pragmatic considerations, the search for more strategic and longer range solutions has had to find other forums, most notably Rio+20.

### Key Questions

The Algiers meeting is structured on a two track approach. One track lays out the developments in the negotiations on the four traditional pillars: mitigation, adaptation, finance, and technology. These will cover such questions as whether previous commitments will be fulfilled, including those of developed countries under the Kyoto Protocol (and whether they will be extended), financing commitments, and commitments on new institutions—i.e., whether Durban will deliver on the Cancun Agreements to ensure that the institutions and frameworks required are put in place by the deadlines in 2012.

These are immediate questions. Beyond these lie strategic challenges, especially whether the discussions and agreements will ensure the protection of human welfare and sustainable development. To address this strategic dimension, the agenda proposes a focus on three topics: sustainable energy, food security, and green economy. These topics are also salient in the Rio+20 discussions.

## Recommended Readings

1. TWN Update 17, Wish List for Durban Climate Conference, 13 Jun 2011, [http://www.twinside.org.sg/title2/climate/news/Bonn08/TWN\\_bonn8.up17.pdf](http://www.twinside.org.sg/title2/climate/news/Bonn08/TWN_bonn8.up17.pdf)
2. South Africa, Briefings on COP process, PPT, available at [http://www.environment.gov.za/HotIssues/2011/cop17\\_stakeholderworkshop/copenhagen\\_su\\_bstance\\_briefing.pdf](http://www.environment.gov.za/HotIssues/2011/cop17_stakeholderworkshop/copenhagen_su_bstance_briefing.pdf); and [http://www.nbi.org.za/SiteCollectionDocuments/yawitch-cancun\\_outcome-20110120.pdf](http://www.nbi.org.za/SiteCollectionDocuments/yawitch-cancun_outcome-20110120.pdf)
3. Rio+20: Another World Summit?, <http://www.bu.edu/pardee/files/2009/11/UNsdkp002sin.pdf>.

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS:

H.E. Ms. Latifa Benazza, Ambassador, Director of Environment and Sustainable Development, Ministry of Foreign Affairs, Algeria

Mr Mootaz Khalil, Deputy Assistant Minister of Foreign Affairs for Minister's Office, Egypt

### SPEAKERS

H.E. Mr. Lumumba Di-aping, Ministry of Foreign Affairs, Republic of South Sudan

Director-General, Ministry of Foreign Affairs, Algeria, G77 Chair for 2012

Mr Ogunlade Davidson, Minister of Energy and Water Resources, Republic of Sierra Leone, and Vice Chair of IPCC

### Discussion

### Chair's Concluding Remarks

## MITIGATION (Tuesday, 11 October)

### Objectives and Background

This session will focus on the first major pillar of the climate challenge, its key features and challenges, recent history, science-policy debates and trends in emissions scenarios, and future prospects.

**Goals:** Copenhagen recognized the urgency of reducing greenhouse gas emissions with the goal of limiting global warming to less than 2°C above pre-industrial levels. However, the sum total of the commitments thus far falls far below this level of ambition. Several commentators have noted that the aggregation of all the announced targets would result in 3°C or more warming.

**Emission Targets:** The 2020 targets announced by Annex 1 countries include Australia (15 or 25% against 2000), Belarus (5-10% against 1990), Canada (17% against 2005), Croatia (5% against 1990), EC27 (20-30% against 1990), Iceland (30% against 1990), Japan (25% against 1990), Lichtenstein (20-30% against 1990), Monaco (30% against 1990), New Zealand (10-20% against 1990), Norway (30-40% against 1990), Russia (15-25% against 1990), Switzerland (20-30% against 1990), Ukraine (20% against 1990). In addition, Kazakhstan announced a target of 15% against 1992, and USA announced provisional targets for 2020 (17%), 2030 (42%), and 2050 (42%) against a 2005 baseline, contingent on the support of Congress. However, some countries have begun to announce more ambitious domestic plans. For example, the UK has announced a target of 50 per cent cuts in greenhouse gases by 2025. This adds to the list of other countries, including Germany, Norway, and Japan, with ambitious targets.

**Kyoto Protocol:** However, the lack of an agreement on defining the second Commitment period to the KP creates considerable uncertainty regarding the announced targets. At the June meeting, Russia, Canada and Japan joined the US in the list of countries that refuse to sign up to a second commitment period under the Kyoto Protocol. The EU, thus far the only significant bloc to support a second commitment period, has also announced that its commitment is conditional upon the adoption of legally binding commitments by other major emitters including China and India. Developing countries have consistently demanded that Kyoto be extended. This creates a potential for deadlock at Durban.

**Developing Country Targets:** Several advanced developing countries announced emissions related targets for 2020, including China (40-45% reduction in carbon intensity), Brazil (36-39% by improved protection of the Amazon forests), South Korea (4% in 2020 against 2005 levels), and South Africa (34% below BAU). Mexico announced plans to reduce emissions by 50 million tons/year starting in 2012. Several non-Annex 1 countries already have NAMAs in place.

**NAMAs:** Instead, there is now increasing stress on mitigation actions by larger developing countries. This is reflected in the encouragement to developing country governments to prepare and implement NAMAs as well as Low Carbon Development Strategies (LCDS), the establishment of a NAMA registry, the clarification of MRV requirements (international MRV for actions that receive international support and domestic MRV for others), and reporting of actions through new, enhanced national communications every four years.

**REDD:** In regard to forests, Cancun answered a number of questions that have been prominent since the Bali Action Plan in 2007. It established the formal REDD mechanism, clarified overall goal of the activities to be undertaken – to slow, halt and reverse forest cover and carbon loss – as well as the scope of what will be considered relevant activities, and the role of developed countries, namely to provide financial support and address their own actions that drive deforestation. For developing countries, it supports a phased approach, starting with readiness and pilot phases that require significant capacity building and technical assistance, and graduating to a results-based phase. It provided some initial guidance with regards to “readiness” by listing the activities REDD+ countries should undertake (and for which they should be supported) as part of engaging in actions to achieve REDD+ emission reductions. These

include developing national strategies or plans, national reference emission levels, robust national systems for MRV of actions, and a system for monitoring and reporting compliance with safeguards. Several questions remain, however, including who will use information on safeguards, whether this information will be effective and will empower parties and stakeholders to work together, how will reference levels be set, how are forests and degradation to be defined, and whether there will be a relation between REDD and NAMAs.

**Carbon Markets:** A central feature of the mainstream climate approach is the faith in market based solutions, including carbon markets, CDM, JI, and proposals of a carbon tax. However, the equity implications of such measures have rarely been worked out explicitly. This is of special importance to countries whose growth prospects rely centrally on carbon intensive sectors, especially oil and gas industries, as well as those where energy access continues to remain a daunting challenge.

**Burden Sharing:** This is one example of an underlying contentious issue, namely burden sharing of abatement action. Several ideas are in the air. An interesting approach has been advanced in the greenhouse development framework, which bases it on the goal of ensuring a decent level of human welfare, as measured by the HDI. A related question pertains to the distributional impact of alternate policy measures, including market based measures (e.g., carbon markets or carbon taxes), particularly on countries and populations that lack access to modern energy services, or whose economies depend on such services.

## Recommended Readings:

1. Ecoequity, The Greenhouse Development Rights Framework, available at <http://www.ecoequity.org/docs/TheGDRsFramework.pdf>

## Key Questions

Will Durban provide clarity on targets for industrialized countries, and NAMAs of developing countries, including on how to generate support for mitigation as well as adaptation in developing countries, and the operationalization of requisite governance structures?

Is there a resolution of the question of burden sharing in abatement?

How can climate policy help growth prospects in oil producing countries?

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS:

Mr. Abdelkader Benhadjoudja, Cabinet Chief to the Minister, Ministry of Spatial Planning and Environment, Algeria

H.E. Mr Ogunlade Davidson, Minister of Energy and Water Resources, Republic of Sierra Leone, and Vice Chair of IPCC

### SPEAKERS

#### From Cancun to Durban

Mr Fernando Castellanos Silveira, UNFCCC Secretariat

#### The Greenhouse Development Rights Framework

Dr Thomas Athanasiou, Executive Director, Ecoequity:

### DISCUSSION

### CHAIR'S CONCLUDING REMARKS

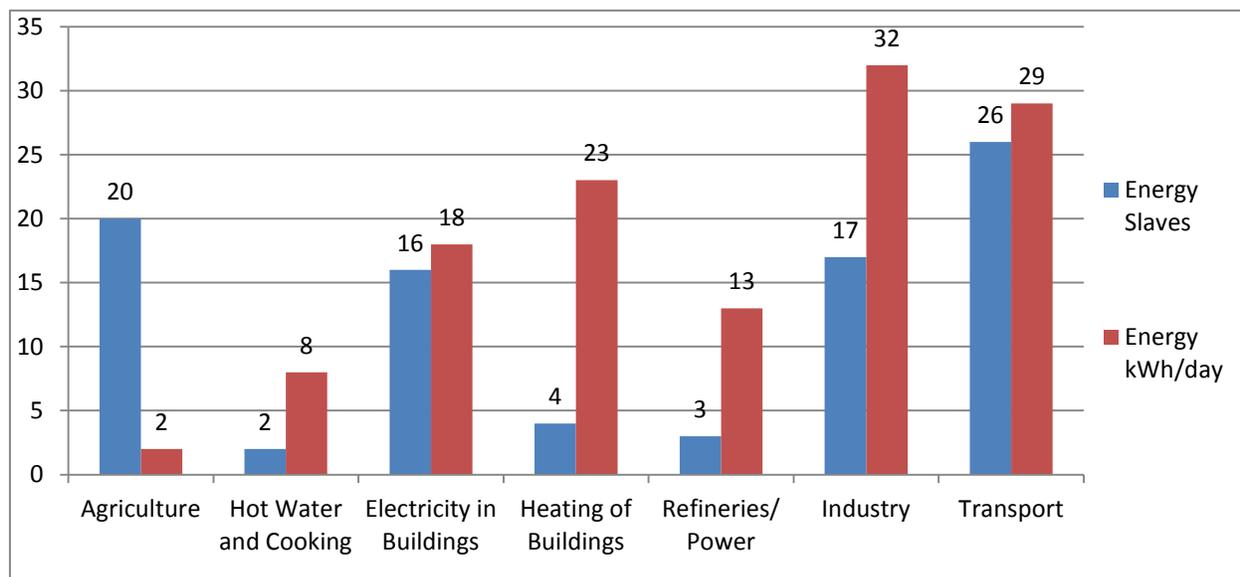


## SUSTAINABLE ENERGY (Tuesday, 11 October)

### Objectives and Background

This session will look at one of the key drivers of climate change (from mitigation and adaptation perspectives), and its solution. Topics covered will include: reviews of the most recent energy data, energy policies that further sustainable development; and trends in energy access, energy efficiency and renewable energy.

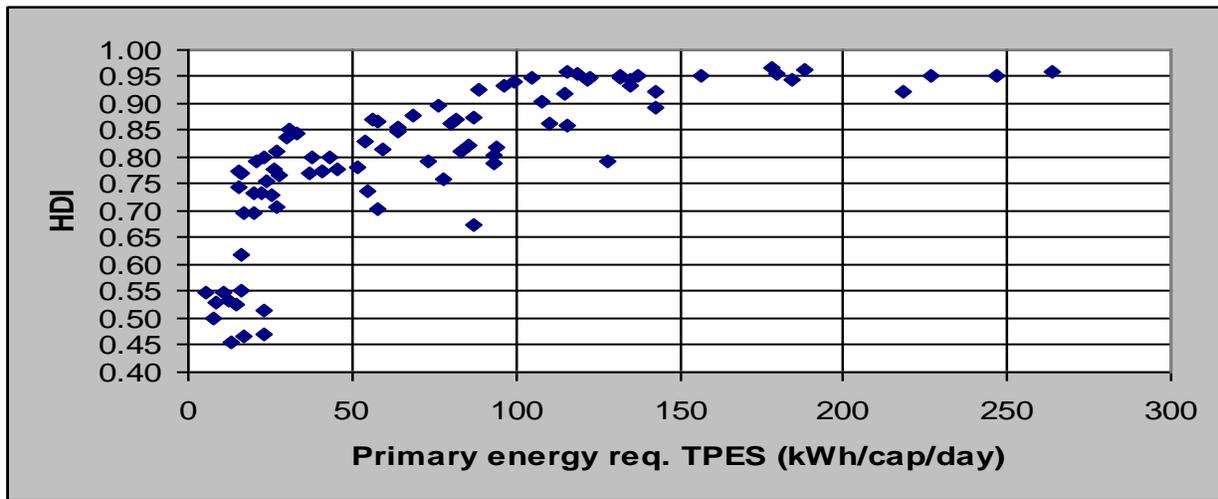
**Basics:** Energy is not only a sector of economic activity it has served as the primary driver of economic and social progress. The industrial revolution was arguably made possible by the dramatic expansion in access to fossil fuels. This access, combined with the rapid strides in energy efficiency, has enabled enormous expansion in economic welfare—on average, each person has the equivalent of 55 kilowatt hours per person per day (or, in more colloquial terms, 30 “energy slaves”, see Chart with representative data for France, from [www.manicore.com](http://www.manicore.com)). Not only has this brought normal comforts (cooking, food production, clothing, shelter, and mobility) within the reach of an expanding circle of the world’s population, it has enabled increased cooperation in production and distribution of goods and services—and indeed cooperation in political affairs as well. More importantly, the seemingly infinite potential for expanding the quantum of per capita energy availability has created the vision of unending growth, and thus of translating the economic sphere from a zero sum game to a positive sum game. This, in turn has been one of the factors responsible for elevating the value of cooperation over that of conflict.



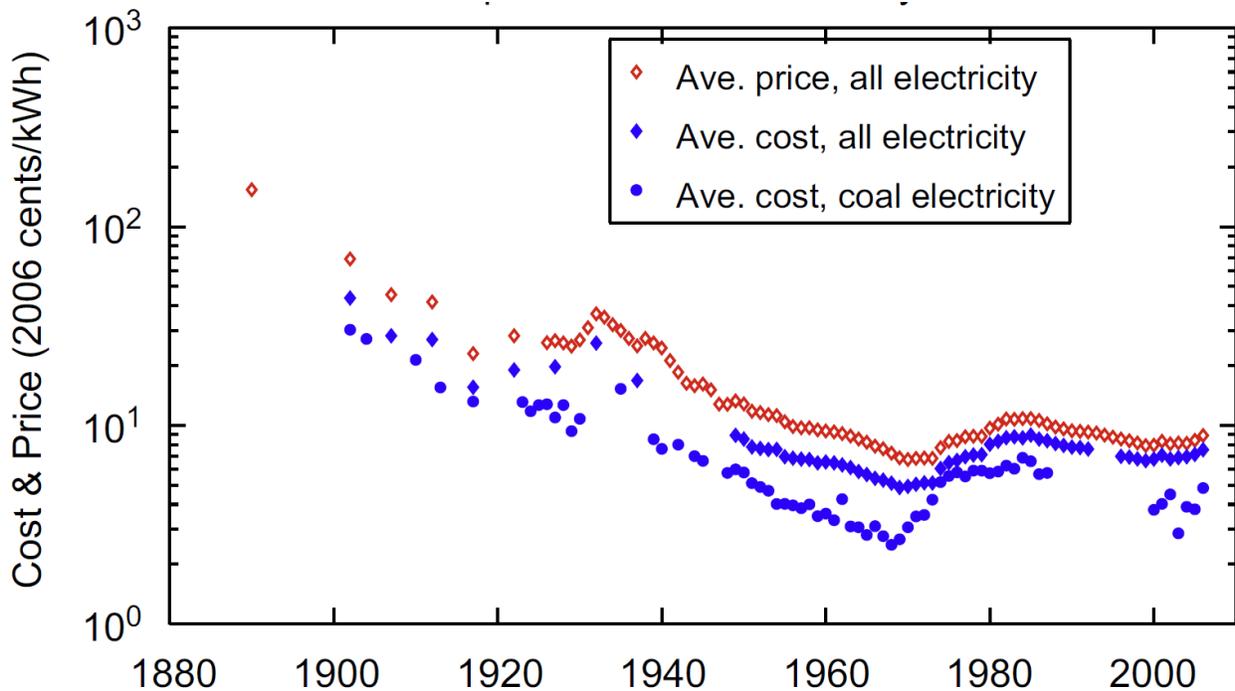
**Equity and Sustainable Development:** However, energy services are distributed very unequally, ranging from over 250 kWh per person per day in some rich countries to less than 10 kWh per person per day in the least developed countries (see Chart next page). The distribution of safer and more efficient modern energy services is even more skewed. Bringing everyone to a decent standard of living will require either a significant expansion in energy production or a massive transfer from the energy affluent to energy poor. Parenthetically, it could be mentioned that the unequal global distribution of energy services is mirrored in the Arab region as well, where GCC countries have close to universal access to modern energy while the LDCs have extremely low levels of access.

Energy is also the solution for emerging problems, including environmental problems. In the past, it was possible to substitute every emerging scarcity with the use of greater energy. If this cannot be assured in

the future, it will become doubly challenging to abate the pressure on nature resources; e.g., the move to a zero waste economy will be possible only through increased use of energy services.



**New and Emerging Challenges:** The energy bandwagon may have been disabled since roughly the late-1960s. At that time the two-century long trend of declining energy costs reversed itself more or less permanently (see Chart). This was a structural rupture of huge proportions with equally huge and long lasting impacts. It ushered in a period of persistent economic uncertainty, marked the end of the era of the Keynesian consensus, and engendered recurrent recessions, stagflation, commodity price shocks, financial market gyrations, debt crises, structural adjustment, jobless growth, and dismantling of mechanisms for social protection. Much of the adjustment to these developments has taken place through increased inequality within and between countries.



The pessimism over climate change is due in significant measure to the fact that it has turned a solution into a problem, and it has done so far “too early”, namely at a time when energy access continues in most places to be highly inadequate and unequal. Put simply, unless the world finds a solution to the

energy problem, it will be impossible to find solutions for climate change, economic development, global recession, and persistent poverty.

**Potential of Renewable Energy:** It has long been presumed by many world leaders that, without nuclear power, renewables have no hope of meeting global energy demand. But the IPCC's Special Report of Renewable Energy (SRREN), released in May, found that renewables could meet nearly 80 per cent of the world's energy demands by 2050. Meanwhile, Germany has become the largest nation to date to pledge itself to a nuclear-free future in the wake of the Fukushima crisis in Japan.

**AGECC:** In this context, the Secretary General's Advisory Group on Energy and Climate Change has advanced an agenda with three goals for the year 2030: 100 per cent energy access, 40 per cent increase of energy efficiency, and 30 per cent share of renewable energy. Several countries and political groups have begun to engage on these goals. Norway has announced an Energy+ initiative, inspired by REDD+, for mobilizing, pooling, and channeling funds for energy access and efficiency; although this not directly linked to UNFCCC processes or funds, such linkages could be created, e.g., if some countries prepared NAMAs around sustainable energy initiatives or feed-in tariff programs. The Paris-Nairobi Initiative aims to support the AGECC goal of universal energy access by securing and channeling climate financing into sustainable electricity projects in Africa and other vulnerable regions. The EU may table a formal proposal on renewable energy targets for Rio+20.

**IRENA:** A new institution, IRENA, has been established to champion the renewable energy agenda. The General Assembly has declared 2012 to be the year of sustainable energy for all. Several countries have started looking at alternative models of energy cooperation. The energy issue has risen to the top of the list in the Rio+20 process.

## Key Questions

The main question is how universal energy access can be achieved in a climate friendly manner. This brings up issues of costs of energy relative to income levels, future trends of costs and investments, the role of public policy, the need for international support, and the implications for energy access of the more popular market based solutions, such as carbon taxes or carbon markets.

## Recommended Readings

1. Report of SG's Advisory Group on Energy and Climate Change (AGECC), <http://www.un-energy.org/publications/558-agecc-report-energy-for-a-sustainable-future>;
2. International Renewable Energy Agency (IRENA), Work Programme 2011, <http://www.irena.org/DocumentDownloads/WP2011/WP2011.pdf>;
3. Generic Presentation of IPCC Special Report on Renewable Energy (<http://srren.ipcc-wg3.de/ipcc-srren-generic-presentation-1>)
4. UNDESA Policy Brief, A Global Green New Deal for Climate, Energy, and Development, [http://www.un.org/esa/dsd/resources/res\\_pdfs/publications/sdt\\_cc/cc\\_global\\_green\\_new\\_deal.pdf](http://www.un.org/esa/dsd/resources/res_pdfs/publications/sdt_cc/cc_global_green_new_deal.pdf)
5. GEF, Investing in Energy Efficiency, <http://www.thegef.org/gef/sites/thegef.org/files/publication/Investing-Energy-Efficiency-English.pdf>

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS

Mr. Badis Derradji, CEO of New Energy Algeria (NEAL), Ministry of Energy and Mines, Algeria

Mr Adel Abdellatif, UNDP RBAS

**SPEAKERS**

**The AGECC Report and Recommendations on Sustainable Energy for All**

Mr Guillermo Jiménez-Blasco, UNIDO Representative in Algeria

**Renewable Energy Options**

Ms. Rabia Ferroukhi, Senior Policy Officer, IRENA

**DISCUSSION**

**CHAIR'S CONCLUDING REMARKS and Overview of Next Day**

## ADAPTATION (Wednesday, 12 October)

### Objectives and Background

This session will take up the second pillar of the climate agenda, setting out its key challenges and features, approaches, and initiatives.

**Basics:** There is increasing evidence that the impacts of climate change are accelerating. Observers point to the increasing frequency and intensity of extreme weather events, especially floods and hurricanes, which led to considerable loss of life and property, huge costs of reconstruction and rehabilitation, and growing stress on the institutional and fiscal bases of national as well as local authorities. Borrowing a typology coined by Joel Cohen,<sup>2</sup> these are “bumps”—catastrophic events that occur in minutes to months and have profound global impact—which can be distinguished from “grinds”, namely persistent, gradually unfolding trends that have an equally profound impact, such as drought and desertification, slow moving migration, or changes in disease vectors. While much attention is focused on “bumps” because of their greater visibility and concentrated impact, “grinds” may pose a greater threat, specifically because of the inability to mobilize action or build solidarity.

**Droughts and Desertification:** In the Arab region, the major impacts of climate change are of the second variety, especially droughts and desertification, which make them more difficult to manage and address. The human impacts of these changes are far reaching and profound. Besides the immediate impacts on lives and livelihoods, they also affect security, public institutions, and safety networks.

**Progress:** Regardless of the type of impact, the response to climate change incidences has generally been through ad hoc means. The impact on human lives has been highly correlated with levels of income and capacity. However, as the prospect of future shocks continues to increase, there will be a need for more systematic responses. A key strand of adaptation analysis focuses on capacity building, especially at local and community levels, including through building information flow mechanisms, collective action arrangements, and social protection systems.

Funding provided by the GEF has enabled several countries to prepare NAPAs, which cover both adaptation action and adaptation capacity. However, funding for implementation has been limited.

**Cancun Adaptation Framework:** The Cancun Agreements achieved significant progress and introduced important innovations, which will raise the importance of adaptation and enable more focused and coherent action. The challenge for Durban is to bring these to a head by operationalizing what was agreed. Cancun created a new Adaptation Framework and established a new Adaptation Committee. The Framework covers the development of plans, projects and programs, strengthening of institutions, assessments of impacts, vulnerabilities, and financial needs, and adaptation technology. In order to assist developing countries in formulating and implementing national adaptation plans, it envisages the establishment of international centres and networks, and invites countries to strengthen regional centres and networks (although no concrete decision was taken to establish these). Mention has to be made of a number of innovative elements, especially the attention to both ecological and socio-economic resilience, as well as climate induced migration, disaster risk reduction (and an explicit link to the Hyogo Framework), strengthening of institutions, Improving research, observation and information management systems, and a work programme for losses and damages (i.e., those that cannot be reduced through adaptation) to consider how to reduce or offset the negative impacts on developing countries..

---

<sup>2</sup> Joel Cohen, Disaster Watch: A Review of “Global Catastrophes and Trends” by Vaclav Smil, New York Review of Books, 2009, <http://www.vaclavsmil.com/wp-content/uploads/docs/smil-bookreview-global-catastrophes-new-york-review-books-2009.pdf>.

**Cancun Adaptation Committee:** The Committee will provide technical support and guidance, strengthen and consolidate relevant information, promote synergies and strengthening engagement with national, regional and international organizations, and serve as a “match-maker” for funding by providing information and making recommendations.

**Challenges:** However, a number of issues were left unresolved. These include the contentious question regarding how to make decisions to allocate adaptation finances to various countries, as a number of criteria (e.g., “most vulnerable” and “particularly vulnerable”) are used without proper definitions. There are also questions regarding the precise relationship of the Framework and Committee to new and old funds.

## Recommended Readings

1. UN-Water, Water Related Disasters, <http://www.unwater.org/downloads/181793E.pdf>.
2. IIED, 2011, Beyond Cost-Benefit: Building a Complete Toolkit for Adaptation Decisions, <http://pubs.iied.org/pdfs/17081IIED.pdf>.
3. IIED 2010, Climate Change Adaptation in Developing Countries, <http://pubs.iied.org/pdfs/15517IIED.pdf>.
4. GEF, Financing Adaptation Actions, available at [http://www.thegef.org/gef/sites/thegef.org/files/publication/adaptation-actions\\_0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/publication/adaptation-actions_0.pdf)

## Key Questions

The questions for Durban pertain to whether the agreed institutions and frameworks can be established and made operational, and whether and how soon can adequate international support be mobilized to implement adaptation plans.

The ultimate question is how to establish robust national and international frameworks to protect human society from the avoidable impacts of unavoidable climate change. What are main categories of climate impacts in the Arab region? What kind of national and international actions are needed to adapt to these changes? Some of these pertain to specific areas, including water, agriculture, and food.

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS

Mr. Rachid Taibi, General Director of the National Water Resources Agency (ANRH), Ministry of Water Resources, Algeria

Mr Fernando Castellanos Silveira, UNFCCC Secretariat

### SPEAKERS

#### The Impact of Climate Change

Mr. Ogunlade Davidson, Minister of Energy and Water Resources, Republic of Sierra Leone

#### Human Impact of Climate Change

Mr. Martin Frick, Programme Leader, Third Generation Environmentalism (E3G)

#### Bringing Science to the Field: Capacity Building for Adaptation

Dr Shivsharan Someshwar, Director, Climate Policy (CGSD) and Senior Advisor, Regional Programs (IRI), Adjunct Professor (SIPA), The Earth Institute, Columbia University, New York

### DISCUSSION

### CHAIR'S CONCLUDING REMARKS and Overview of Next Day

## FOOD SECURITY (Wednesday, 12 October)

As in the case of mitigation and energy, this session will go deeper into adaptation by looking at one of the key dimensions of climate change impacts and adaptation to them.

### Objectives and Background (Adapted from UN-Water)

The 2008 crisis saw food prices rise to unprecedented levels (graph), which added an estimated 100 million to the ranks of the hungry. The FAO food price index jumped by an unprecedented 40 per cent in 2008. Since then, prices declined temporarily before reverting to and exceeding the peaks of 2008. OXFAM predicts that food prices will double by 2030, and warns of rising social frustration, political instability, and widening conflicts. While the recent unrest in the Arab Region may have had longer term structural causes, the food price shocks are widely believed to have acted as a trigger as well as an exacerbating factor.



The reasons for the recent food price increase are quite complex, and include short term as well as long term factors: draw down of inventories, food speculation, and short sighted policies, as well as such structural causes as climate change, water stress, environmental pressures, stagnating yields, rising food demand, and changes in demand composition.

Much of the policy response to the food crises has concentrated, rightly, on urgent challenges, especially through food support to deficit countries. However, the message of sustainable development is very consistently that of recognizing the links and interconnections between different dimensions, short run as well as long run, and those in the environmental, social, economic—and even political—domains. This suggests that one of the main goals of adaptation activities must be to ensure food security in the turbulent times that lie ahead.

Water plays a pivotal role in adaptation to climate change, but the political world has yet to recognize this notion. As a consequence, adaptation measures in water management are often underrepresented in national plans or in international investment portfolios.

Water is the primary medium through which climate change influences Earth's ecosystem and thus the livelihood and well-being of societies. Higher temperatures and changes in extreme weather conditions are projected to affect availability and distribution of rainfall, snowmelt, river flows and groundwater, and further deteriorate water quality. The poor, who are the most vulnerable, are likely to be adversely affected.

Water stress is already high, particularly in many developing countries. While future impacts cannot be predicted with high certainty, it is clear that agriculture, which uses more than 70 percent of all water withdrawals, must to adapt to a future in which water stress will rise because of reduced availability of water in some areas (including in the Mediterranean Region), further depletion of non-renewable groundwater resources, increased evaporative demand from crops, and growth in competing demands for water. These will lower crop yields and agricultural productivity.

To recognize this reality and to respond accordingly presents development opportunities. Various necessary adaptation measures that deal with climate variability and build upon existing land and water management practices have the potential to create resilience to climate change and to enhance water security and thus directly contribute to development. Water resources management affects almost all aspects of the economy, in particular health, food production and security; domestic water supply and sanitation; energy and industry; and environmental sustainability. If addressed inadequately, management of water resources will jeopardize progress on poverty reduction targets and sustainable development in all economic, social and environmental dimensions.

In the international arena, the absence of a common vision and relevant structures can result in uncoordinated and conflicting policies, recurring crises, and spillover effects in economic, social, and political domains. While the Durban process may address these issues in due course through the evolution of the Adaptation Framework, and while food crisis initiatives may continue to treat the symptoms or provide targeted support to developing countries, there is a danger that systematic attention to structural and longer term determinants of food security may go by default.

This is one of the reasons why the water, energy, and food nexus has risen to prominence in the Rio+20 discussions. These discussions include recommendations for mainstreaming adaptation activities within the development context, strengthen water governance, enable international cooperation over water and land management, generate and share information on the link between water and climate, promote investments in smart water management and smart agriculture, provide preferential access to relevant technologies, protect the interests of poor and vulnerable populations, and target support to small farmers, women farmers, and indigenous populations.

## Recommended Readings

1. SG Report Agricultural Technology for Development, [http://www.un.org/esa/dsd/resources/res\\_pdfs/ga-66/SG%20report\\_Agricultural%20technology.pdf](http://www.un.org/esa/dsd/resources/res_pdfs/ga-66/SG%20report_Agricultural%20technology.pdf).
2. FAO, Water and Climate Change, <http://www.fao.org/nr/water/news/clim-change.html>.
3. FAO, Greening the Economy with Agriculture [http://www.uncsd2012.org/rio20/content/documents/GEA\\_concept\\_note\\_GEA\\_3March\\_references\\_01.pdf](http://www.uncsd2012.org/rio20/content/documents/GEA_concept_note_GEA_3March_references_01.pdf)
4. Trends Report 2008 Drought, <http://www.un.org/esa/sustdev/publications/trends2008/drought.pdf>.
5. Trends Report 2008 Desertification, <http://www.un.org/esa/sustdev/publications/trends2008/desertification.pdf>.
6. Developing Index based insurance for agriculture in developing countries, <http://www.un.org/esa/sustdev/publications/innovationbriefs/no2.pdf>.
7. UN-Water Policy Brief, Climate Change Adaptation: The Role of Water, [http://www.unwater.org/downloads/unw\\_ccpol\\_web.pdf](http://www.unwater.org/downloads/unw_ccpol_web.pdf).
8. FAO-guidelines on food policy, [http://www.fao.org/fileadmin/user\\_upload/ISFP/reviseISFP\\_guide\\_web.pdf](http://www.fao.org/fileadmin/user_upload/ISFP/reviseISFP_guide_web.pdf).

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS

Mr. Sid Ahmed Ferroukhi, Secretary General, Ministry of Agriculture and Rural Development, Algeria

H.E Eng. Maysoon Al-Zu'bi, Secretary General, Ministry of Water and Irrigation, Jordan

### SPEAKERS

#### Climate Change and Food Security

Mr. El Mourid, Regional Coordinator for North Africa Program, ICARDA; *and* Mr. Rachid Serraj, Director of Diversification and Sustainable Intensification of Production Systems Program, ICARDA

### Discussion

### Chairs' Concluding Remarks

## FINANCING (Wednesday, 12 October)

This session will take up the fourth pillar of climate negotiations, providing information on the Copenhagen Accord, the recommendations of the SG's Advisory Group on Finance, and the deliberations in the Transition Committee on Climate Financing.

### Objectives and Background

**Basics:** Financing is a sticking point in climate negotiations. There are disagreements over what needs to be financed, how much needs to be financed, how much is the concessional component of the needed finance, who will provide the finance, and through what channels will it be delivered.

The basic principle is not in dispute, namely that developing countries will be compensated for all incremental costs of climate change. However, the practical application of this principle has been difficult. One reason is that after two decades there is no consensus on the estimate of incremental costs of mitigation and adaptation. Most estimates run into hundreds of billions of dollars, and many are in excess of current ODA levels. National action plans for adaptation (NAPAs), with solid budget estimates, have failed to attract resources.

One obstacle to the rapid mobilization of funds is the very broad nature of climate action. The narrowing of the focus to forests under the REDD initiative has succeeded in creating greater ownership among developed countries. Various initiatives by governments (Denmark, Norway, France, and the G20) as well as the private sector and civil society (e.g., Deutsche Bank, FOE, SSNC) are exploring how a similar ownership could be created for the energy sector.

**Copenhagen Accord:** The Copenhagen Accord was the first time that concrete figures (\$30 billion in quick start funds and \$100 billion per year to be mobilized by 2020) were mentioned.

**AGF:** To assist in the operationalization of the Accord, a high level advisory group (AGF) was established. However, its report reveals continuing differences on some essential issues, including whether the figures pertain to the concessional component or to total financing (i.e., loan) requirements, whether the reference was to public resources or aggregate financial flows, and whether this financing represents charity or compensation for damage. This has implications for the channeling of funds, since the former interpretation supports the desire of developed countries to use IFIs, which are controlled by them. In contrast, developing countries have consistently argued that the financial mechanism has to be controlled in a more balanced, democratic, and transparent manner. The GEF was established as an interim financial mechanism, but has not received adequate funds. The larger volume of (loan) funds still continues to flow through the World Bank.

Another difficult area is the role of the carbon markets. Developed countries prefer to view carbon offsets as the primary vehicle for supporting mitigation actions in developing countries, thus diluting further their own rather unambitious targets.

**Cancun:** Be that as it may, the Cancun Agreement formalized the commitment made in Copenhagen by establishing the Green Climate Fund (GCF) as an operating entity of the financial mechanism of the UNFCCC, alongside the GEF, and adopting the goal of mobilizing \$100bn per annum by 2020 from multiple sources. It also took note of the report of the SG's High-level Advisory Group, but did not put in place any procedure to follow up on its recommendations. The agreement also made major amendments to the CDM, adding carbon capture and storage (CCS) to eligible activities, and refining some procedures to ensure better regional and subregional distribution of CDM funds.

**Transition Committee:** The GCF is being designed by a transitional committee of 40 members, who will make recommendations to the Durban COP. Relevant UN Agencies, IFIs, MDBs, the UNFCCC Secretariat and GEF Secretariat were invited to second staff to support the transitional committee.

The terms of reference agreed to in Cancun are intended to ensure the Fund provides wide stakeholder participation; applies environmental and social safeguards; applies fiduciary standards and sound financial management to its investments; and is subject to independent evaluation. In response to a key demand from developing countries, the Fund will have the capacity to provide “direct access” to national institutions, without the intervention of international implementing agencies like the World Bank and the United Nations. It was agreed that the Climate Fund will be composed of a Board with equal representation of developed and developing countries, though many details still remain.

The Transition Committee has met three times this year. While the discussions have been constructive, it is slow progress and they are focused more on institutional arrangements than operational issues. The committee will present options at Durban on the legal status of the Fund, the relationship with the COP, the proposed financing windows, institutional design and the role of the private sector. It appears that the discussion of the actual financing mechanisms will stretch into next year and are expected to address how the funds will be raised, disbursement to mitigation and adaptation projects, and the process to monitor and evaluate the spending.

**Standing Committee:** Overseeing the new fund, as well as the GEF and Adaptation Fund, will be a new Standing Committee on finance under the Convention. The Committee can help the COP bring greater coherence to coordination of climate finance both within and outside the Fund, mobilizing financial resources and measuring, reporting and verifying (MRV) their delivery. In this regard, in the near term, developed countries agreed to greater transparency on the delivery of their pledges on quick start funds through annual reporting to the UNFCCC the Secretariat in 2011, 2012 and 2013.

**CDM:** Project activity in the CDM has dropped significantly, partly because of the low carbon prices and partly because of new restrictions by the EC on the use of CDM credits. According to the World Bank, primary CDM transactions almost halved from \$2.7bn in 2009 to \$1.5bn in 2010. Business groups have highlighted the irony that governments are suffocating the CDM at the same time as discussing new mechanisms for scaling up finance to developing countries. There is a buzz around the fact that larger developing countries, including Brazil, China and India, will oppose the CDM, if there is no second commitment period under Kyoto. This indicates that they believe that developed countries need the CDM credits more than developing countries need the financial flows and technology transfer from the CDM projects.

**Quick Start Finance:** Developed countries maintain that they are making good progress on honoring their financial commitments, but recent research by the WRI shows that only \$12 billion out of the \$30 billion committed as quick start fund had been budgeted, and even less delivered. In some cases as little as 30 per cent of the budgeted amounts had been delivered.

## Recommended Readings:

1. Report of SG’s Advisory Group on Finance, available at: [http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF\\_reports/AGF\\_Financial\\_Report.pdf](http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/AGF_Financial_Report.pdf)
2. Deutsche Bank Advisors, De-Risking Clean Energy Business Models in a Developing Country Context, April 2011, available at [http://europa.eu/epc/pdf/workshop/background\\_get\\_fit\\_plus\\_final\\_040711\\_en.pdf](http://europa.eu/epc/pdf/workshop/background_get_fit_plus_final_040711_en.pdf),
3. UNDESA Policy Brief, A Global Green New Deal for Climate, Energy, and Development, available at [http://www.un.org/esa/dsd/resources/res\\_pdfs/publications/sdt\\_cc/cc\\_global\\_green\\_new\\_deal.pdf](http://www.un.org/esa/dsd/resources/res_pdfs/publications/sdt_cc/cc_global_green_new_deal.pdf).

4. Scoring Quick Start Climate Finance, <http://pubs.iied.org/pdfs/17100IIED.pdf>

## Key Questions

There are four basic questions. First, what are the needs (what and how much is needed)? Second, how much can in fact be expected to materialize, both quick start and slow start? Third, how will the funds be channeled (through the World Bank, GEF, UN, bilateral programmes, or others)? Fourth, how can the utility of whatever quantum materializes in practice be maximized? Fifth, what are the distributional and other implications of market based channeling of funds?

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS

Mr. Hichem Kimouche, Deputy Director in charge of Sustainable Development, Ministry of Foreign Affairs, Algeria

Mr. Waddah Ghanem, Vice Chairman, Dubai Carbon Centre of Excellence

### SPEAKERS

#### Prospects for Climate Financing

Mr. Michael Clark, Senior Interregional Adviser, UNCTAD

#### The GETFIT Approach

Mr. Mark Fulton, Managing Director and Global Head of Climate Change Investment Research and Strategy, Deutsche Bank ([by video link](#))

### Discussion

### Chairs' Concluding Remarks and Overview of Next Day

## TECHNOLOGY TRANSFER (Thursday, 13 October)

### Objectives and Background

This session will look at the third pillar of the climate challenge, namely technology development and transfer. It will provide information on the latest developments on the technology instrument.

**Background:** Technology transfer is one of the three pillars of international development cooperation, together with finance and capacity building, and has been the subject of every major international agreement or declaration on development. It is a key objective of the UNFCCC from the very outset, and has acquired even more importance with the increased awareness of the threat. There is universal acknowledgment that addressing climate change will require the widespread deployment of existing low-carbon technologies as well as the development of new ones. Yet, there has been no progress in this regard besides desultory efforts to undertake technology needs assessments, ad hoc capacity building projects, or a blind faith that IPRs or CDMs would miraculously achieve the desired results—even though all available evidence proves to the contrary.

**Policy Objectives:** The basics of the technology question are well known. They involve a balancing between protecting the competitive advantage of countries or corporations, and ensuring that such protection does not undermine other vital interests—and thus create a basis for conflict and instability. Nationally as well as internationally, the aim has been to set up systems that balance the competitive and public interests. In recent years, however, the international system has run into an impasse on this point, as some countries have abandoned the public dimension entirely in favour of an undiluted support for private intellectual property rights. This will continue to be an underlying challenge for climate cooperation. The situation has worsened in recent years as developed countries have become allergic even to references to previously agreed language on concessional and preferential terms for technology transfer.

**Obstacles:** In principle, the technology challenge can be decomposed into three components: cost, exclusion, and local adaptation. First, many technologies are too costly for developing countries. A good example is renewable energy. If the average income of a country is 2 or 3 dollars per day, energy costs of 10-30 cents per kWh will place it beyond the reach of all but a minuscule minority. True, governments can subsidize access for targeted groups but this is limited by fiscal and institutional capacities. This means that reducing the cost of technologies is essential for developing countries. The agreement on access to life saving drugs is a good example of a possible solution.

A second issue is of restrictions of access to essential technologies because of proprietary, political, or strategic considerations. Some technologies are not in the public domain; and others are subject to governmental restrictions. Significant areas of information technology provide a good example of this situation.

A third issue is one of adaptation and learning. Technologies are country and sector specific. There is no silver bullet or 'one size fit all' technologies. It is not enough for a plant or production process to be located in a country, or for a service to be provided to it. What countries need is the opportunity to adopt and adapt the technological information to local needs. This requires a dynamic process that builds upon and enhances national institutional capacities. The easing of the non-cooperative stance on technology cooperation is a necessary but not sufficient step in the process.

**Cancun Technology Framework:** The Cancun Agreement has tried to go beyond the conventional, static, approach to technology transfer—based on capacity building and needs assessments—towards a more 'dynamic' stewardship of the process, promoting innovation in recipient countries through a combination of instruments: public-private partnerships, technology action plans, joint R&D activities, and national, regional and international technology centres. The agreement established the Technology Mechanism, with three elements, a Technology Executive Committee (TEC), a Technology Centre, and a

Technology Network (referred together as CTCN). The main goal of the Mechanism is to accelerate the development and transfer of climate friendly technologies, in particular to developing countries, to support action on climate mitigation and adaptation. It is premised on the wide recognition that the large scale diffusion of these technologies is pivotal to global efforts to reduce greenhouse gas emissions.

**TEC:** The TEC will have 20 experts, 11 from developing and 9 from developed countries. It will identify technology needs, coordinate international efforts, and make recommendations. Parties now need to nominate high-level experts for the committee (and develop qualification criteria for TEC members). While the TEC can start its work immediately, negotiators will still need to determine the detailed modalities for the Centre and Network, and how these will relate to each other and to the TEC.

**CTCN:** The Centre and Network may well imitate the CGIAR network, with small center and large network, probably including regional units, so that it builds on existing initiatives and coordinates them better, and takes off quickly. Where the center will be, what the network will look like, and how they will operate and interact still needs to be defined in 2011. Technology negotiators have put these questions in their workplan for next year, but it will be challenging to resolve them all.

**Remaining Challenges:** However, there are many challenges and questions. Will the mechanism have adequate resources? What will be the relationship, if any, between the technology mechanism and the financial mechanism? What will be the relationship between the TEC and the CTCN? Would the supervisory role assigned to the TEC result in the politicization of the technology agenda? Finally, there are concerns regarding the diffuse and unfocused scope of action, with considerable potential for overlap and duplication. The envisaged scope of action includes R&D, deployment and diffusion of soft and hard technologies, national systems of innovation, development of technology action plans, and technical assistance.

**IPRs:** Developing countries have consistently pressed for the inclusion of intellectual property rights (IPRs) as a barrier to technology transfer. However, the United States in particular and developed countries in general views IPRs as essential for promoting innovation, and oppose any proposal that may moderate the protection of IPRs. Debates on this issue have become highly polarized and even tendentious. Because of this opposition, in particular by the United States, all references to IPRs were deleted from the Cancun final outcome.

## Recommended Readings:

1. ICTSD 2008, Climate Change, Technology Transfer, and IPRs, [http://www.iisd.org/pdf/2008/cph\\_trade\\_climate\\_tech\\_transfer\\_ipr.pdf](http://www.iisd.org/pdf/2008/cph_trade_climate_tech_transfer_ipr.pdf).

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS

Mr. Mokhtar Boudina, Director General, National Clean Technology Center, Ministry of Spatial Planning and Environment, Algeria

Mr. Lumumba Di-aping, Ministry of Foreign Affairs, South Sudan

### SPEAKERS

#### Technology Transfer options

Mr Mongi Hamdi, Head of the Science, Technology and ICT Branch, UNCTAD and Head of the Secretariat of the UN Commission on Science and Technology for Development

#### The Role of IPRs in Technology Transfer

Mr. Ahmed Abdel Latif, Sr. Programme Manager, Innovation, Technology and Intellectual Property, International Centre for Trade and Sustainable Development (ICTSD)

### Discussion

## Chair's Concluding Remarks

### GREEN ECONOMY (Thursday, 13 October)

#### Objectives and Background

As in the case of the first two pillars, the purpose of this session is both to deepen the discussion on the relevant climate pillar (tech transfer) and try to identify the linkages between the climate and Rio+20 processes.

**Basics:** The concept of the green economy is one of the several mutually complementary constructions that have emerged in recent years to enhance convergence between the different dimensions of sustainable development. It has gained currency to a large extent because it offers a response to the multiple crises that the world has been facing in recent years – the climate, food, energy, and economic crises – with an alternative framework that promises economic growth as well as the protection of the earth's ecosystems. It sees climate change as well as the other recent crises to be the inevitable outcome of a system that promotes unsustainable development. Accordingly, it advocates moving away from such a system to one that will proactively address and prevent them.

**Pros and Cons:** Within the UN, it has been championed actively by UNEP, which has argued that this represents a new economic growth paradigm, friendly to ecosystems, compatible with the familiar concept of sustainable development that has been mainstreamed into the United Nations' work for decades, and therefore capable of contributing to other relevant goals (e.g., poverty alleviation). However, it also led to concerns about risks and challenges, particularly for developing countries, for which economic development can become more demanding as a result, especially if the new concept ends up being used by developed countries to introduce protectionist policies or aid conditionalities. In response to the promise as well as the concerns, the UN General Assembly included “a green economy in the context of sustainable development and poverty eradication” as one of the two themes of the Rio+20 Conference.

**Definition:** There is no unique definition of the green economy, but the term is understood as emphasizing the importance of the *economic* dimensions of sustainability. To cite the UNEP report on the Green Economy, the “growing recognition that achieving sustainability rests almost entirely on getting the economy right”. It also argues a crucial point that economic growth and environmental stewardship can be complementary strategies, challenging the still common view that there are significant tradeoffs between these two objectives—in other words, that synergies prevail over tradeoffs. In this sense, it seeks to unite under a single banner the entire suite of economic policies and modes of economic analyses of relevance to sustainable development.

**Alternative Approaches:** In practice, this covers a rather broad range of literature and analysis, often with widely different starting points, modes of economic analyses, and implications for equity and development. A popular strand follows a micro-economic or neoclassical approach, focusing on market failure and advocating the internalization of externalities through such means as getting prices right, removing subsidies, valuing natural resources, and imposing taxes on environmental “bads”. As mentioned, the distributional impact of such policies need to be assessed carefully and used to identify and develop suitable ancillary policies and instruments, including safeguards, safety nets, targeting, capacity building, and requisite international support.

Others have seen it in a neo-Keynesian light, recommending that stimulus packages be tailored towards investing in green infrastructure (renewable energy, public transport, green buildings, rehabilitation of degraded lands, afforestation, and water conservation), and green R&D. This also needs to be assessed carefully on at least three counts. First, given the unequal distribution of fiscal space (and therefore the capacity to use stimulus packages), there is a need for a global plan to enhance the fiscal space of

developing countries. Second, there is the concern that such an approach may slow down the development process, and if so, there will be a need for developing ancillary instruments to offset the adverse impacts. Third, the criteria for tailoring these in such a way as to benefit low income and rural populations have yet to be developed. The Energy Group addressed this by prioritizing the goal of universal energy access. Similar criteria may need to be developed in other sectors, as well as the instruments for realizing the priorities on the ground.

**The Ocampo Report:** At the UNCSD's first Preparatory Committee in May 2009, several delegations requested that the United Nations Department of Economic and Social Affairs (UN-DESA), UNEP, UNCTAD and other relevant organizations cooperate to prepare a study to assess both the benefits and the challenges and risks associated with a transition to a green economy. Some of the main findings of the resulting report (Ocampo, Cosbey, and Khor 2010) may be relevant to this discussion. It identifies a number of risks, including the fear that the idea of the green economy would be defined or operationalized in a one-dimensional manner, as purely "environmental", that it would take the form of a "one size fits all" approach in which all countries are treated in the same manner, that it may work to further limit the policy space available to developing countries to promote their own green economy sectors, that it would provide an excuse for developed countries to gain market access or subsidize production under the guise of environment, and further that it may provide an excuse to impose new conditionality on developing countries for aid, loans, and debt rescheduling or debt relief.

Going on to recommendations, the Ocampo Report begins by stressing that economic growth is a process of structural change in which some activities expand, based on new technological knowledge, while others contract. These changes are not just a byproduct of growth but their prime mover. To be meaningful, the transition to a green economy has to be understood as precisely such a technological revolution. They argue that the green technological revolution will differ from previous structural transformations (e.g., the information revolution) in three ways: it will require a stronger role for government policy, its global scale will necessitate explicit forms of international cooperation, and it will have to emerge in a world with stronger intellectual property rights protected by the WTO.

This leads the authors to recommend a combination of an active industrial (or "production sector policies") and a technology policy. Industrial (or production sector) policy refers to an investment-led strategy. The state has traditionally had a strong developmental role in developing countries: it now has to take on a *sustainable* development role, including of course, the encouragement of strong private-sector responses. Technology policy refers to a strategy of adapting and disseminating green technologies, including treating green economic activities as "infant industries" that require support in the form of subsidies, preferably time-bound, access to credit, and some level of protection.

This has relevance to the discussion in other sessions. On the issue of **technologies**, the authors draw attention to the distribution of benefits from technological change, given that most innovation in climate mitigating technology (and therefore control of IPRs) is in industrial countries—although some major developing countries (from Brazil, China and India, in particular) have begun to gain market share. Unless addressed through ancillary policies, this may generate new forces for international inequality. This may include investment building local capacity so that developing countries can absorb, adapt, diffuse into the domestic economy and eventually design new technologies.

The report draws favorable attention to the **example of agricultural extension** services for green agricultural technologies, and recommends similar mechanisms to spread knowledge about better building practices to household and construction firms, and about energy-saving technologies, and others. Finally, they argue for global institutional arrangements that increase international cooperation and collaboration on research and development in all areas relevant for green growth, and accelerate the spread of those technologies to developing countries.

**IPRS:** The report also argues for the reinstatement of the public good character of knowledge, which may conflict with the current operation of the IPR regime, given that the argument for technology transfer and diffusion has become more compelling in the light of the current series of crises. It argues that in the interests of building a global green economy, IPR regimes should be tailored to countries' development status. One specific recommendation is to expand the space for technologies in the public domain, and to stimulate the transfer to developing countries of publicly-funded technologies.

**Food Security:** In regard to “food security”, a term that has shifted back to the traditional concept of greater self-sufficiency and increased local food production, the report stresses rehabilitating the institutions that were dismantled in developing countries due to structural adjustment policies—those that assisted farmers in marketing, credit, subsidies, infrastructure, and protection—and international trade reform to reduce or remove harmful agricultural subsidies in the developed countries.

In short, there are two broad views of the green economy. A microeconomic view focuses on fixing prices, while a macroeconomic view advocates the use of an industrial-cum-technology policy to facilitate the transition.

## Recommended Readings:

1. Ocampo Report: available at [http://www.uncsd2012.org/rio20/content/documents/Green%20Economy\\_full%20report%20final%20for%20posting%20clean.pdf](http://www.uncsd2012.org/rio20/content/documents/Green%20Economy_full%20report%20final%20for%20posting%20clean.pdf)
2. ESCWA Reference Paper, Green Economy in the Arab Region, available at [http://www.uncsd2012.org/rio20/content/documents/ESCWA%20Reference%20Paper\\_En.pdf](http://www.uncsd2012.org/rio20/content/documents/ESCWA%20Reference%20Paper_En.pdf)
3. SG Report for Second Prepcom of Rio+20, available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N10/706/57/PDF/N1070657.pdf?OpenElement>. This report shows how agreements on the two Conference themes can set out the larger challenge faced by the global economy.

## Speakers

### INTRODUCTORY REMARKS BY CO-CHAIRS

Mr. Tahar Chérif Zerarka, President of the Hydrocarbons Regulatory Authority, Ministry of Energy and Mines

Mr Adel Abdellatif, UNDP RBAS

### Challenges, Risks, and Opportunities

Mr. Mootaz Khalil, Deputy Assistant Minister of Foreign Affairs for Minister's Office, Egypt

### A Green Economy Strategy for Development

Mr. Bernard Jamet, Head of Technology Transfer Unit, UNEP Division of Technology, Industry and Economics

### Discussion

### CHAIRS' CONCLUDING REMARKS

## **CONCLUSIONS (Thursday, 13 October)**

### **Objectives and Background**

The purpose of this session is to review a summary workshop report on the key issues raised and discussed during the meeting.

**Chair:** Minister of Foreign Affairs, Algeria

### **Opening Remarks by Chair**

**Synthesis of the Meeting and Closing Remarks:** Mr. Adel Abdellatif, UNDP RBAS

### **Close of Meeting**