CLIMATE INVESTMENT FUNDS

CIF 2012 PARTNERSHIP FORUM

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Proceedings of the Climate Investment Funds
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Contents

List of Abbreviations

ACMAD	African Centre of Meteorological Applications for Development
ADB	Asian Development Bank
AfDB	African Development Bank
BMZ	Federal Ministry for Economic Cooperation and Development, Germany
CDM	Clean Development Mechanism
CIC	Climate Innovation Center
CIF	Climate Investment Funds
CMS	Convention on Migratory Species
COP 17	17th Conference of the Parties, UN Framework Convention on Climate Change
CSO	Civil Society Organization
CSP	Concentrated Solar Power
CTF	Clean Technology Fund
DFID	Department for International Development, United Kingdom
EBRD	European Bank for Reconstruction and Development
FAO	Food and Agriculture Organization of the UN
FCPF	Forest Carbon Partnership Facility
FIP	Forest Investment Program
GCM	Global Climate Model
GEF	Global Environment Facility
ICT	Information and Communications Technology
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IPCC	Intergovernmental Panel on Climate Change
LAMATA	Lagos Metropolitan Area Transport Authority
LDCF	Least Developed Countries Fund
M&E	Monitoring and Evaluation
MDB	Multilateral Development Bank
MDGs	Millennium Development Goals
MENA	Middle East and North Africa
NGO	Non-Governmental Organization
PPCR	Pilot Program for Climate Resilience
PPP	Public-Private Partnership
REDD	reduced emissions from avoided degradation and deforestation in developing countries
REDD+	REDD plus conservation, sustainable management of forests and enhancement of forest carbon stocks
SADC	Southern African Development Community
SCCF	Special Climate Change Fund

SCF	Strategic Climate Fund
SGP	Small Grants Programme
SREP	Program for Scaling Up Renewable Energy in Low-Income Countries
SPCR	Strategic Program for Climate Resilience
UK	United Kingdom
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	UN Fund for Children
WFP	World Food Programme
WMO	World Meteorological Organization

Introduction

The Climate Investment Funds (CIF) 2012 Partnership Forum convened on Tuesday and Wednesday, 6–7 November 2012, in Istanbul, Turkey, and was co-hosted by the CIF and the European Bank for Reconstruction and Development (EBRD).

Almost 500 participants attended the Forum, which provided an opportunity for governments, civil society, including indigenous peoples, the private sector, multilateral development banks (MDBs), UN agencies and others to contribute to a deepened understanding of the linkages between climate change and development, as they have been addressed within the CIF. As all CIF programs are now moving into implementation at the country level, the 2012 Partnership Forum aimed to emphasize on-the-ground implementation, knowledge building and lesson sharing.

The Forum included plenary sessions, panel discussions on creating the climate for change, Turkey's clean energy initiative, civil society participation in the CIF, and hydrometeorological and climate services. Several parallel sessions also convened, which aimed to address the multiple interests of CIF stakeholders and enable open discussions to explore ways to maximize CIF effectiveness. Sessions addressed: innovations in engendering climate finance; sustainable energy for all (including on financing energy access for the poor, and on making big investments work in renewable energy); reporting from the Private Sector Forum; enabling private sector investment; sustainable cities; landscape approaches to address adaptation, mitigation and poverty reduction; and measuring results and impacts in a meaningful and practical way.

Meetings that took place in the days prior to the Partnership Forum included the CIF Pilot Country Meetings, Sub-Committee and Trust Fund Committee meetings, a master class on wind and biodiversity issues, a Civil Society Forum, a Private Sector Forum, a meeting on the Dedicated Grant Mechanism for Indigenous Peoples and Local Communities, and a number of side events.

CIF 2012 Partnership Forum – Istanbul, Turkey, November 6–7, 2012
Co-Hosted by European Bank for Reconstruction and Development

Tuesday, November 6, 2012			Wednesday, November 7, 2012		
9:00–9:30 am	Opening Plenary Session		8:30–10:30 am	Toward Sustainable Energy for All – Making Big Investments Work in Renewable Energy	Enabling Private Sector Investments
9:30–11:00 am	Moderated discussion on "Creating the Climate for Change"				
11:00–12:00 pm	Ignite Your Climate Passion		10:30–12:30 pm	Sustainable Cities – Investing in Energy Efficient and Cllimate Resilient Urban Development	Measuring Results and Impacts in a Meaningful and Practical way
12:00–1:00 pm	Turkey's Clean Energy Initiative				
2:00–4:00 pm	Innovations in Engendering Climate Finance	Towards Sustainable Energy for All – Financing Energy Access for the Poor	1:30–3:00 pm	Civil Society Participation in the CIF – Finding New Opportunities and Overcoming Barriers	
			3:00–5:00 pm	Hydromet and Climate Services – Can Science Help Countries Deliver?	
4:00–6:00 pm	Reporting from CIF Private Sector Forum	Landscape Approaches – Addressing Mitigation, Adaptation and Poverty Reduction in One Go	5:00–6:00 pm	Closing Plenary	

A Brief History of the Climate Investment Funds and the CIF Partnership Forum

The CIF, formally approved by the World Bank's Board of Directors on July 1, 2008, is a collaborative effort among the MDBs and countries to initiate transformational change towards climate-resilient, low-carbon development. The CIF was designed through consultations with various stakeholders and is governed by donor and recipient countries, with active observers from the UN, the Global Environment Facility (GEF), civil society, including indigenous peoples' organizations, and the private sector.

Through two distinct funds, the Climate Technology Fund (CTF) and the Strategic Climate Fund (SCF), the CIF support developing countries' efforts to mitigate and manage the challenges of climate change by providing grants, concessional loans and risk mitigation instruments, as well as through leveraging significant financing from the private sector, the MDBs and other sources. With CIF support, 48 developing countries are piloting low-emission and climate-resilient development, transformations in clean technology, sustainable forest management, and increased energy access through renewable energy. Thus far, donor countries have pledged approximately US$7.2 billion to the CIF, administered through country-led programs and investments, by the African Development Bank (AfDB), Asian Development Bank (ADB), EBRD, Inter-American Development Bank (IDB) and World Bank Group. Another approximately US$43 billion in co-financing from governments, the private sector, MDBs and other sources is expected to be leveraged.

The CTF and the SCF each have a specific scope and objective and their own governance structure, with each governed by a separate Trust Fund Committee with equal representation from contributor and recipient countries. The CTF Trust Fund Committee oversees the operation of the Fund, provides strategic direction, and approves and oversees its programming and projects. The SCF Trust Fund Committee approves the establishment of its three targeted programs and advises on strategic direction. The SCF targeted programs include the Forest Investment Program (FIP), Pilot Program for Climate Resilience (PPCR), and Scaling-up Renewable Energy Program in Low Income Countries (SREP), each of which is governed by its own Sub-Committee. Decisions of the Trust Fund Committees and Sub-Committees are taken by consensus. "Active" observers from the UN, GEF, UN Framework Convention on Climate Change (UNFCCC), civil society, indigenous peoples' organizations and the private sector are invited to participate in Trust Fund Committee and Sub-Committee meetings.

The CTF provides developing and middle-income countries with positive incentives to scale up the demonstration, deployment and transfer of technologies with a high potential for long-term greenhouse gas emission reductions. It focuses on large-scale, country-initiated renewable energy, energy efficiency and sustainable transport projects. Each CTF investment plan is tailored by the country to be integrated into national development objectives. To date, although half of CTF funding has been approved, progress on implementation has been uneven. Many countries are now revising their investment plans to reflect changing circumstances on the ground. Eighteen recipient countries are participating in the CTF, and around US$5 billion has been pledged thus far.

The SCF supports efforts in developing countries to achieve climate-resilient, low-carbon development. It operates, through its three targeted programs, with dedicated funding to pilot new approaches to climate action to initiate transformation with potential for scaling up climate resilience. Pledges for the three SCF programs total approximately US$2.2 billion.

The FIP provides financing to support efforts in developing countries to reduce emissions from deforestation and forest degradation, and to promote conservation, sustainable forest management and

enhancement of forest carbon stocks (REDD+). The FIP finances large-scale investments and leverages additional resources, including from the private sector, and complements other REDD+ financing mechanisms. The FIP aims to reduce the underlying threats to the world's forests and to the communities that depend on them, addresses governance, and is active in eight pilot countries. Over US$635 million has been pledged to the FIP.

The PPCR: helps developing countries mainstream climate resilience into development planning; offers additional funding to support public and private sector investments; provides incentives for scaled-up action; initiates a shift from "business as usual" to broad-based strategies for achieving climate resilience at the national and regional levels; and supports climate-smart investments to address priority vulnerabilities in highly vulnerable developing countries, including small island developing states. PPCR priority areas include agriculture and food security, water security, climate services and infrastructure. Thus far, there are nine PPCR pilot countries and two pilot regions, and approximately US$1.2 billion has been pledged.

The SREP aims to: scale up the deployment of renewable energy technologies and expand renewable markets in the world's poorest countries to increase energy access; build capacity; and pilot and demonstrate the economic, social, and environmental viability of low-carbon development pathways in the energy sectors of low-income countries. The program finances solar, wind, bio-energy, geothermal and small hydro technologies. To date, seven countries have joined the SREP as pilot countries, and more than US$360 million has been pledged to the program. The SREP Sub-Committee has endorsed investment plans from five countries, another country submitted its plan for endorsement at the November 2012 Sub-Committee meeting, and the seventh country has yet to submit its plan. The preparation of projects identified in the investment plans is also underway. In addition to the seven pilot countries, another four countries and one regional program have been identified, and funding has been made available for them to prepare their investment plans. Over US$360 million has been pledged to the SREP.

CIF Partnership Forum

As governments and institutions began designing the CIF, it became apparent that lessons and experiences would have to be shared for the CIF to contribute to an effective global solution to climate change. The CIF Partnership Forum was introduced to help ensure effective lesson sharing and the full engagement of all stakeholders in the CIF process in an inclusive, transparent and strategic manner.

Thus, a Partnership Forum was incorporated into the CIF process to serve as a regular venue in which all stakeholders could share CIF-related ideas and experiences, and engage in dialogue on the CIF's strategic directions, results and impacts. Stakeholders involved in the process include: representatives of donor and recipient countries, MDBs, UN agencies, the GEF, the UNFCCC, the Adaptation Fund, bilateral development agencies, nongovernmental organizations (NGOs), civil society organizations (CSOs), including indigenous peoples' organizations, private sector entities, and scientific and technical experts. At the Partnership Forum, donor and recipient countries select, within their respective constituencies, members to serve on the CIF Trust Fund Committees and Sub-Committees.

In October 2008, an initial CIF Partnership Forum was held at World Bank Headquarters in Washington, DC, to begin the Forum process, as the structure

of the CIF was still being refined. This first Forum served as an early opportunity to explore how best to promote dialogue and open exchange on various aspects of the CIF and set the stage for convening the Forum on a regular basis.

2010 CIF Partnership Forum

The 2010 CIF Partnership Forum, held from 18–19 March 2010 at ADB Headquarters in Manila, the Philippines, brought together 400 participants, representing more than 70 countries, nearly 80 NGOs and CSOs, including indigenous peoples' organizations, MDBs, UN agencies and the private sector. The 2010 Forum provided a platform for stakeholders to reflect on the first year of CIF operations, engage in dialogue on knowledge gained to date, and extract useful lessons learned to inform further CIF implementation. The Forum enabled participants to share lessons learned from the CIF design process and early implementation of CIF-funded programs, in particular, from country-level activities of the CTF and the PPCR, which had both advanced to the implementation stage.

2011 CIF Partnership Forum

The 2011 CIF Partnership Forum convened from 24–25 June 2011 in Cape Town, South Africa. The Forum was preceded by: Trust Fund and Sub-Committee meetings; CSO consultations; and CIF Pilot Country Meetings, which provided an opportunity for pilot countries in the SCF programs and CTF to provide updates on their progress and experiences with the CIF, as well discuss challenges and lessons learned.

The Forum was organized by the AfDB and the World Bank, in consultation with other MDB partners, and had approximately 450 participants in attendance. The Forum included: plenary sessions featuring stakeholder perspectives, experiences and reflections on CIF strategic directions, results and impacts; panel discussions on ways to maximize CIF impacts at the country and sectoral levels; messages from the Pilot Country Meetings; and presentations on lessons learned. Participants also convened in a CSO Panel and eight breakout sessions on issues related to, *inter alia*: private sector engagement in adaptation; climate-smart mobility; promoting clean technology manufacturing; innovative partnerships; financing transformation; and wind energy.

The Forum provided an opportunity for CIF stakeholders to: explain how the CIF is working in their respective countries; discuss what is most effective and how the CIF can be expanded or improved; share on-the-ground achievements, challenges and knowledge; and help other CIF stakeholders apply lessons learned. The 2011 CIF Partnership Forum also aimed to: raise awareness of the CIF and country selection process; provide feedback to CIF governing bodies; and identify opportunities for further stakeholder participation.

Opening Plenary

Opening Remarks

Jonathan Charles, Communications Director, European Bank for Reconstruction and Development (EBRD), opened the Partnership Forum on Tuesday morning, 6 November, stating that the Forum provided a unique opportunity for all stakeholders to contribute to deepening the understanding between climate change and development as they are addressed within the context of the Climate Investment Funds (CIF).

Via videolink, Ali Babacan, Deputy Prime Minister for Economic and Financial Affairs, Turkey, welcomed participants and said the Forum provides an open, transparent and constructive platform that brings all relevant parties together to share experiences and best practices on climate-smart development, and paves the way for innovative methodologies to develop clean energy technologies. He said the CIF was a unique tool and commended its openness to include and work with multiple stakeholders. He said the CIF has been instrumental in providing fast-start financing to developing countries in their pursuit of low-carbon and climate-resilient development, and plays a key role in meeting international climate change objectives, and in enhancing energy supply security, boosting industry competitiveness and generating jobs.

Babacan underscored that climate change is one of greatest challenges humanity has ever confronted, citing more frequent drought, storms and floods as having more visible repercussions than ever. He said the time is now to create the climate for change, and urged designing policies that will reconcile national and global interests. He: said current funding for developing countries to transition to a green economy is insufficient; called for immediately and substantially scaling up resources for mitigation and adaptation activities; and stressed critical resources must be utilized through mechanisms that reflect the economic and social priorities of developing countries.

He said that Turkey's goal is to contribute to global efforts in tackling climate change within the framework of common but differentiated responsibilities. He noted his country: was pushing hard to enhance energy efficiency and increase the use of clean and renewable energy; had adopted the "challenging" goal of raising the share of renewables in electricity generation to at least 30% by 2023; and had finalized an energy efficiency strategy to lower the Turkish economy's energy intensity by 20% by 2023. Noting that Turkey was one of the first countries to implement its Climate Technology Fund (CTF) Investment Plan, he said the Plan focused on renewable energy development and energy efficiency. He thanked the World Bank and the EBRD for their assistance in convening the Partnership Forum.

Hans Peter Lankes, Acting Vice-President for Operational Policies and Managing Director for Institutional Strategy, EBRD, welcomed participants to the fourth CIF Partnership Forum on behalf of the multilateral development bank (MDB) community. He said the CIF is the foremost financing mechanism for climate finance today, and stressed the CIF's key role in scaling up climate investment globally. He said the CIF acts as a "laboratory," providing lessons for the future climate finance architecture, and is about saving energy, money and the environment locally and globally. He highlighted the EBRD's specialty and focus on implementing private sector solutions in middle-income countries.

He said that since 2006, when EBRD's sustainable energy initiative was introduced, the ERBD has invested €10 billion in climate mitigation, and helped achieve over 50 million tonnes of CO_2 reductions annually, two-thirds of which is in the private sector. He said the ERBD has been active in the CIF since 2008, with a clear focus on private sector solutions in middle-income countries.

Lankes went on to explain that the CIF has been invaluable in the ERBD's ability to develop new instruments and to scale up in Kazakhstan, Ukraine and Turkey, and has helped to initiate work on adaptation in Tajikistan. He said countries are offered opportunities to achieve significant impacts on climate mitigation at a low cost to donors by delivering important co-benefits for growth. He underscored that Turkey is a great example of what can be achieved, and of how cooperation among international financial institutions (IFIs), authorities and the private sector pays dividends in terms of rapid implementation.

Hans Peter Lankes, EBRD

He pointed out that 34% of EBRD investments in Turkey are in sustainable energy, which has reduced annual energy imports by US$630 million and Turkey's emissions by 1% thus far. He said the ERBD was now working to develop options for mobilizing private sector action on adaptation in Turkey. In closing, Lankes highlighted that successful experiments in middle-income countries are useful models for how to leverage public and international support with the help of the private sector to achieve climate-compatible and climate-resilient growth, especially in low-income countries.

Cevdet Yilmaz, Minister of Development, Turkey, stressed that in order to deal with the challenge of climate change, well-coordinated action and a global perspective are required, involving all countries and all stakeholders. He said that current policies are necessary but not sufficient, and that countries should act collectively despite the global financial crisis and other hindrances. He noted the usefulness of the concept of common but differentiated responsibilities and respective capabilities, and, underscoring the high cost of mitigation and adaptation, said the international community has realized that developing countries have contributed the least to climate change, and that additional financial resources are necessary to help them.

Yilmaz said the CIF was established within this context to provide large-scale financing to support developing countries in integrating climate change into their development agendas. He said the CIF can play an exemplary role for developing future funds at a much broader scale, and provide inspiration for the future financial architecture. Noting that development is not only about economic growth, he emphasized the need for sustainable development to include both the social and environmental dimensions for all countries. Thus, he stressed the CIF should be expanded in developing countries to address the challenges of climate change while they continue their sustainable development efforts.

He underscored that Turkey is one of the fastest growing economies in the world, and aims to become one of the top ten world economies by 2023. Noting Turkey's rapid economic growth and increasing population, he said the government is oriented towards sustainable development and has adopted national goals for enhancing renewable energy and energy efficiency. Underscoring that the need for energy will increase and that Turkey is dependent on primary energy imports, Yilmaz said his country is taking significant steps in line with its sustainable development goals to develop in smarter, more efficient ways through, for example, clean technology. He underscored the social dimension of his country's

Cevdet Yilmaz, Minister of Development, Turkey

development agenda, such as designing education policies that emphasize sustainable livelihoods.

He noted that Turkey has already declared renewable energy and energy efficiency strategies, added wind to the energy supply mix and enacted the Energy Efficiency Law in 2007. He stressed that these goals require additional financing and that the private sector is critical in these efforts. He reiterated that Turkey was one of the first countries to benefit from the CTF, and emphasized the importance of hearing more about and learning from experiences with the CIF in different parts of the world.

Election of Officers

Overseeing the election of officers, Artur Cardoso de Lacerda, CTF Co-Chair, recalled that the CTF-SCF governance framework provides that the Partnership Forum convenes every 18 months to enable a forum for dialogue on the strategic directions of the CIF, and is co-chaired by a representative from an eligible recipient country and a representative from a contributor country.

Cavit Dağdaş, Deputy Undersecretary of Treasury, Turkey, and Diane Barclay, Director, Climate Change Policy and Finance, Australian Agency for International Development (AusAID), were then elected Forum Co-Chairs by acclamation. In his opening remarks, Dağdaş: welcomed participants to Istanbul; said Turkey gives the utmost importance to addressing climate change through, *inter alia*, energy efficiency and investments in renewable energy; and lauded the CIF as one of the "best initiatives to protect the world."

Barclay thanked the government of Turkey for hosting the Forum, and the ERBD for supporting the Forum. She said the previous days' meetings leading up to the Forum had discussed practical issues on how the Funds operate and looked forward to hearing from speakers and participants and sharing experience and expertise on climate-resilient and low-carbon development.

Electronic Voting Session

In an electronic voting session moderated by Jonathan Charles, EBRD, participants in the session indicated where they were from, and their views on various issues. Forty-three percent of participants identified themselves as government representatives, 20% said they were from the private sector and 12% from civil society, while others identified themselves as representing indigenous peoples, MDBs, the UN, academic institutions, think tanks or other. Approximately 66% identified themselves as CIF recipient country representatives and 19% as contributor country representatives. Geographically, around 29% indicated they were from Europe and Central Asia, 21% from Latin America and the Caribbean, 20% from Sub-Saharan Africa, 11% each from East Asia and the Pacific and South Asia, and 7% from MENA countries. Around 40% of participants were female, and 60% male.

Ninety percent of participants expressed confidence that they understood global climate change challenges well; 83% said the private sector is a key stakeholder in reducing greenhouse gas emissions; 47% said mechanisms are in place to help developing countries to leapfrog dirty technologies; 54% said that civil society is empowered to make a difference on climate action; and 74% believed that the flow of climate finance would decrease with the financial crisis.

Cevdet Yilmaz, Minister of Development, Turkey (center), officially opened the CIF Knowledge Bazaar with Hans Peter Lankes, Acting Vice President for Operational Policies and Managing Director for Institutional Strategy, EBRD, and Patricia Bliss-Guest, Program Manager, CIF Administrative Unit.

Plenary Panel Discussion on Creating the Climate for Change

Introduction

Jonathan Charles, EBRD, moderated this session on Tuesday morning. He warned that climate change threatens to reverse the significant strides made by developing countries in reducing poverty, and, recalling that the CIF was established in recognition that immediate action was required for low-carbon, resilient development, stressed that substantial funds will be needed to "level the playing field" between developed and developing countries. He highlighted the potential for developing and middle-income countries to leapfrog old technologies, and power their economies using 21st century technologies.

Panel Presentations

Paddy Padmanathan, ACWA Power, said governments can make the most impact by accounting for real direct costs, which would enable technological choices, such as solar and other renewables, that would reduce the carbon footprint. Using electricity and power generation as an example, while noting subsidies as a given, Padmanathan said the manner in which subsidies are provided and accounted for cause distortions and impacts on climate change. For example, he said fossil fuel subsidies cause a disincentive to use perfectly viable technologies that have a lower carbon footprint. He pointed to the long sunlight hours and excellent irradiance levels in Middle East and North African (MENA) countries and in Southern Africa, which enable the generation of electricity. He noted that if a country signals it is going

to begin accounting for real costs, the private sector will recognize the value of renewable energy, and not only will the carbon footprint be reduced, but the use of non-renewable energy, such as fossil fuels, will decrease as well. He said some governments are waking up to this, but many are not.

Noting the current global economic climate, Michael Liebreich, Bloomberg New Energy Finance (NEF), acknowledged that it is a difficult time for financing long-term assets and that many investors are risk averse. Nevertheless, he recognized that significant financial flows are still going into clean energy, but that many clean energy programs are under economic stress, and support and subsidy mechanisms are, in some cases, being dismantled. Even so, he emphasized that they are not being dismantled faster than the cost reductions in clean energy, and therefore, clean energy is becoming the cheapest form of energy in more and more places around the globe. One example of this is in the US where, he said, wind farms are now cheaper than coal. He stressed that while clean energy is the least expensive option, all spending must be done upfront, while fuel-based energies are "pay-as-you-go."

Liebreich predicted that the clean energy industry will survive the difficult financial situation, but said that greater efforts will be required to accelerate the "roll out" of green technologies. He emphasized that countries must be confident enough to know what sort of energy mix will be required for the 2025 timeframe, saying that clean energy can be the bedrock of energy systems. If this confidence exists, he said finance will flow because investors will be assured that a long-term future exists for clean technologies.

Michael Liebreich, CEO Bloomberg New Energy Finance

Wilbur Ottichilo, Member of Parliament, Kenya, called on developing countries to make their own budgetary allocations for clean energy, noting that the CIF cannot meet all their needs. He explained that, even where electricity is available, it might prove too expensive for local communities. He proposed providing simple and inexpensive options, such as solar lamps and biogas for cooking, with local people participating in the process of providing such energy. He observed that 80% of energy in Kenya comes from wood fuel, much of which is required for cooking. Ottichilo recommended different technology solutions for rural and urban areas, and provided examples of tree planting and fuel-efficient stoves as suitable measures in Kenya's rural communities. In conclusion, he stated that the model of energy provision for developing countries must be different from that of developed countries.

Mirna Cunningham, UN Permanent Forum on Indigenous Issues (UNPFII), described conditions in her home territory in Nicaragua where 90% of residents do not have electricity. She highlighted the achievement of internationally recognized indigenous peoples' individual and collective rights, and emphasized that indigenous peoples must be able to take part in decisions affecting their communities, including in implementing the CIF. She affirmed that indigenous peoples are participating in the current process in good faith, and that the processes to enable indigenous peoples' participation should be

Mirna Cunningham, UN Permanent Forum on Indigenous Issues

transparent. She noted that decisions regarding clean energy, such as the siting of wind farms often relate to territories owned by indigenous communities.

Stewart Maginnis, International Union for Conservation of Nature (IUCN), observed that the CIF process initially envisaged "fast-track activities" in parallel with formal negotiations on climate and sustainable development. However, he stressed that given the slow pace of the formal negotiations, the CIF is playing a pioneering role. Therefore, he recommended investing in partnerships with indigenous peoples and taking a more systematic approach to partnerships with women, including strategies for land use capable of accommodating gender considerations. He further highlighted the need to learn from experiences of partnership, including through the application of flexible learning frameworks, and cautioned against an overly rigid application of standardized indicators. He also recommended investing in solar energy and undertaking landscape restoration to increase food production, as well as sequester carbon. On the implementation of clean energy in general, he anticipated "not one great breakthrough, but many small ones."

Liebreich argued that top-down efforts to achieve an international climate agreement have become counterproductive, and that countries will come to an agreement when they understand how to reach the targets required to limit global temperature rise to below 2°C. He stressed that investors are continuing to support clean energy solutions, and mentioned a figure of US$50 billion in private-sector commitments. He noted that while this amount is not yet at the scale needed, the process is working, as opposed to the process towards a multilateral climate agreement, which has stalled. He argued that "the best thing the CIF can do is to be extremely profitable," in order to attract a much greater scale of investment as private investors seek to profit from clean energy. He called for more creative thinking on how to attract funds for off-grid technologies, stressing the urgency to provide for remote communities that are currently considered "too expensive" to reach via centralized grid-based technology.

Padmanathan supported Liebreich's remarks, adding that energy prices have created greater incentives for countries to move towards clean energy. He gave the example of Saudi Arabia adopting a 20-year target of 40% renewables in their domestic energy mix.

Moderator Charles posed the question of whether a global climate agreement or private sector actions are more likely to help indigenous peoples. Cunningham raised the problem of coherence between global and local levels, stressing that until indigenous peoples' rights are recognized in international instruments, indigenous communities seemingly do not exist in some countries. She highlighted the social and cultural aspects of sustainability, and called for building relationships between the private sector and indigenous communities. She recommended recognizing the collective rights of indigenous communities, and using the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) as a framework for how investments are made.

Ottichilo stressed that clean energy is a global issue that should be coordinated and focused on goals. He expressed disappointment that the needs of developing countries have not been met through the multilateral climate negotiations, whereas those developed countries that contributed to global warming in the first place have been able to access the technology needed to mitigate emissions and adapt to the changing climate. He reiterated the need for affordable clean energy in developing countries, and for developing countries to prioritize this in their own budgetary allocations and domestic policies. He gave the example of his home community in Kenya of 3,000 people, where despite grid electricity being available, only 10% of residents can afford to use it. He concluded that while international agreements are required, they tend to work to the disadvantage of developing countries.

Maginnis agreed that "the future ultimately is local" since solutions need to be worked out locally, adding, however, that this does not negate the importance of a global climate agreement. He noted that the climate negotiations have served a useful function, as they had produced REDD+ and led to the recognition of indigenous issues that are in the Cancun Agreements. He cautioned against expecting a global agreement to deliver everything, and encouraged people to continue to invest in local energy initiatives.

Wilbur Ottichilo, Member of Parliament, Kenya

Question and Answer Session

Hosny El-Lakany, University of British Columbia (UBC), asked for a comparison of the global levels of investment in clean energy with conventional energy, and about the impact of US$1 trillion investment in clean energy on reducing greenhouse gas emissions. Liebreich replied that around US$1 to 1.5 trillion has been invested in clean energy compared to US$10–15 trillion in conventional energy, noting that inconsistent definitions are applied, resulting in this range of figures. He affirmed that emission reductions have indeed been achieved. He reported that, for example, on some days, more than 50% of Germany's power comes from its solar capacity, and more than 80% of Denmark's from wind energy, noting that "there is nothing alternative" about clean energy now. Padmanathan affirmed that renewable energy has become mainstream, and stated that costs have decreased and the process of adopting such energy will continue.

A participant from Kenya questioned whether the private sector would adequately involve indigenous and local communities in decisions and activities related to clean energy if this affected profits. A participant from Mali shared his doubts as to whether the promises of financing and technology transfer were merely a utopian vision. He expressed concerns regarding: the availability of financing to the levels needed, and opportunities for African countries to access renewable energy technologies. Charles reflected participants' concerns, asking whether the issues can be resolved if profit is the only motivating factor.

Padmanathan responded with an account of the process undertaken by his company to open a large renewable energy project in Morocco. He noted the company had been able to bid to supply electricity at considerably lower rates than others tendering for the same project, due to their sourcing from local suppliers and building up Moroccan capacity. He concluded that once the correct policing mechanisms are in place to steer the private sector appropriately, there can be useful multiplier effects in favor of sustainability.

Maginnis agreed that the private sector's profit-making incentive does not necessarily have to be in conflict with indigenous and local community rights, noting that the challenge is how to enable communities to secure ownership and use of their natural resource assets. The "missing link," he suggested, could be the establishment of partnerships that will recognize and maintain indigenous and local community rights, as well as deliver profits.

Cunningham agreed that indigenous peoples are not against profit, but that benefit sharing must be addressed, especially in cases where there is private sector investment in indigenous peoples' territories. She emphasized the importance of indigenous peoples' participation in all project phases, as well as capacity development, which helps enable their full and effective participation.

Padmanathan praised South Africa on the successful approval of the first phase of its large renewable energy program, to the value of US$3 billion. He highlighted bid requirements for indigenous participation, and that direct economic benefits arising from clean energy projects will go to local communities. He reminded participants that the private sector can also abuse rules, and that it is important for regulators to enforce policies.

Paddy Padmanathan, ACWA Power

Ottichilo said capacity must be built in developing countries to enable the transfer and application of clean energy technology, emphasizing the value of partnership and cooperation, and cautioning against being driven only by profit.

Liebreich concluded that "a false tension" exists between global and local efforts, and between public and private entities. He called on institutions to find their own routes towards clean energy.

Cunningham affirmed the value of the CIF as an opportunity to build partnerships, and Maginnis called on participants not to underestimate the progress made towards an ambitious transformation. He appealed to the CIF not to insist on narrow frameworks for reporting and monitoring, and urged participants to capture the learning from the innovations being undertaken.

Padmanathan expressed optimism regarding the state of play, and called on participants to continue their activities, stating "what is relevant is local action."

Ignite Your Climate Passion

On Tuesday morning, Moderator Jonathan Charles explained that 10 sessions would take place over the two-day Partnership Forum, and invited those session organizers and moderators to pitch their session and explain why participants should attend. He said the aim was to "ignite the climate passion of the participants."

Innovations in Engendering Climate Finance

Michaela Bergman, EBRD, said successful societies historically relied on both men and women, and that regarding climate change, input and involvement of both are required for determining what needs to be done, taking action and influencing policy. She said the session would show how the CIF has been taking gender into consideration, and discuss why we should advocate for the involvement of women, and what this means in action. She said the session would discuss ways to increase the involvement of women in various careers, and provide examples, such as plumbers in Mexico or solar engineer in Bhutan. She also noted it would also address how policymakers can be encouraged and incentivized to talk about gender and climate change, and how women can be involved in climate change financing.

Jonathan Charles, Moderator

Toward Sustainable Energy for All – Financing Energy Access for the Poor

David McCauley, Asian Development Bank (ADB), said that providing access to the 1.3 billion people who live without electricity and the three billion who are still using traditional stoves, without exacerbating the climate change crisis beyond control, is a central issue. He also stressed that decoupling greenhouse gas emissions from continued growth in the developing world is key. He noted that panelists would include representatives from academia in Nepal and Liberia, the private sector in Africa, and the Japan International Cooperation Agency (JICA), which provides financing for these activities. He said the session would: address how to get initiatives organized and launched, and which institutions are necessary to help make this happen; and look at positive examples. He hoped for an active and participatory audience.

Reporting from the Cif Private Sector Forum: Innovate, Integrate, Transform

Marion Verles, Nexus Carbon for Development, said the session would tackle two critical questions: how do we match expectations from all stakeholders to ensure the private sector hits the desired targets, and where do other actors, such as civil society and indigenous peoples, fit in; and how do we ensure that the climate finance landscape is appropriate to tackle pressing issues. She said the session would, *inter alia*: look at the climate investment value chain; and explore how to get the market to a desirable place, and whether it should be accomplished through standardization, for example.

Landscape Approaches – Addressing Mitigation, Adaptation and Poverty Reduction in One Go

Andrea Kutter, CIF Administrative Unit, said the landscape approach allows for the management of natural resources across wider landscapes, resulting in multiple benefits, such as mitigation, adaptation and livelihood benefits, including poverty reduction. She said the session would provide an overview of where the approach is used, and lessons learned thus far, and that two CIF pilot countries, Mexico (FIP) and Bangladesh (PPCR), would discuss how they have used the landscape approach in their investment plans (IPs).

Toward Sustainable Energy for All – Making Big Investments Work in Renewable Energy

Federico Qüerio, CIF Administrative Unit, highlighted the challenge of expanding the use of clean technologies and increasing the efficient consumption of energy. He said just doubling the share of renewable energy generation in the global energy mix will cost approximately US$1 trillion per year, while the current level of investments are less than 30% of that. Likewise, he said doubling the efficient consumption of energy intensity will demand investments in the order of US$36 billion, while the current level is about half that number.

He said the session would try to answer the following questions: how do we bridge the gap between the current and expected financing levels; and how can we use the limited public funds most effectively to both engage investors and leverage financing in renewables and energy efficiency? He said the session would also focus on the use of limited public funds to increase private sector investment, with two presentations on

innovative financing mechanisms, followed by a panel discussion with private and public sector representatives. He added that the panel would discuss the applicability and scalability of the proposed financing mechanisms, their attractiveness to the private sector, and whether they are addressing the main risks that are hindering private sector involvement.

Enabling Private Sector Investment

Ian Hamilton, African Development Bank (AfDB), noted the session would include an accomplished, diverse panel that would explore the elements required to build an enabling environment for private sector investment, including business environment reforms, building blocks for green and inclusive growth and government as a mobilizer of funds. He noted that legal and regulatory frameworks, and fiscal incentives and risks, would also be explored, followed by three country case studies exploring ways to enable private sector investment, and a question and answer session.

Sustainable Cities: Investing in Energy Efficient and Climate Resilient Urban Development – Global Perspective

Craig Davies, EBRD, said thinking about climate change requires thinking about how today's choices will affect the way we live in the future. He wondered what future generations would think about our civilization, how they would regard the decisions made today, and what they will think when archeologists look back at the cities of our day and age. He said currently: half the world's population or 3.5 billion people lives in cites; cities occupy just 2% of the Earth's surface; and cities account for 70% of energy consumption and CO_2 emissions.

Noting that many cities have poorly adapted to recent events, he asked if they would be able to cope in the future and meet the challenges of climate change, population increase and urbanization. He said cities have sprung out of the desert with huge implications for resource consumption and sustainability, and have collapsed and faded away due to climate change and unsustainable resource consumption.

Measuring Results and Impacts in a Meaningful and Practical Way

Xavier Chavana, Ministry of Planning and Development, Mozambique**,** emphasized that the fight against climate change is driving global transformational change. He explained that: the CIF have committed US$7.2 billion to finance pilot investments in REDD+, renewable energy, clean technology and climate resilience initiatives and projects; and 48 developing countries have accepted the challenge of demonstrating how this transformational change can be achieved by 2025. He said demonstrating results is necessary when moving to implementation, and highlighted the challenge of creating a framework that can report comprehensively and track results. He noted that representatives of Nepal, Cambodia and Mozambique would present on their future vision for setting up a monitoring and evaluation (M&E) framework to report comprehensively on results in their countries and to the CIF.

Civil Society Participation in the CIF – Finding New Opportunities and Overcoming Barriers

Clifford Polycarp, World Resources Institute (WRI), began by quoting former US President Bill Clinton who said " 'We are all in this together' is a much better philosophy than 'you are on your own.' " Referring to the earlier presentation by Mirna Cunningham, UNPFII, he reiterated the need for partnerships and stakeholder participation. He stressed the importance of collaboration to address the problem of climate change, and asked how this collaboration can be achieved during the process of moving money to address climate change. He said the panel would include representatives from the governments of the US and Brazil, civil society and the MDBs.

Hydromet And Climate Services: Can Science Help Countries Deliver?

Rose-May Guignard, Haiti, discussed the "butterfly effect" and its relation to climate change, where, with the "fluttering of a wing, the butterfly creates a storm." She explained that Hurricane Sandy almost prevented the entire Caribbean delegation from attending the previous week's meetings. She explained Hurricane Sandy began as a sleeper storm, and in Haiti, it led to loss of life, crops and infrastructure, as it did in New York, one of most industrialized cities in the world. She asked whether we should search for the storm's "butterfly," or invest in the necessary areas, by obtaining data and studying the effects of climate change to make the appropriate policy and development decisions. She said the session would address bridging the gap between climate science and policy, and that it would speak to everyone, as it is a building block for engaging in meaningful reform. She said participants would learn how people are involved in creating and analyzing data and transforming it into a useable form, not only for those engaged in the field, but also for farmers, urban planners, and everyone else involved in infrastructure planning.

Turkey's Clean Energy Initiative: Opportunities and Challenges

Introduction

This session, which convened on Tuesday, was moderated by Yusuf Yazar, Ministry of Energy and Natural Resources, Turkey, who discussed the transformational impact of clean energy investments. He shared progress on energy efficiency and renewable energy in Turkey, including increasing energy efficiency, harnessing renewable energy resources, exploring new energy sources, developing state of the art technologies for the manufacturing sector, and diversifying the energy sector to address environmental concerns and energy security. Noting that 70% of Turkey's energy is imported, Yazar highlighted the goal of achieving a self-sufficient energy sector. He highlighted progress made in a coordinated manner, and the crucial role that financial institutions play in the process. He reiterated Turkey's great energy potential and said "investors are investing."

Presentations on Clean Energy Initiatives

Elvan Ongun, Deputy Director General, Undersecretariat of Treasury, said that Turkey's strong economic growth has led to increases in energy consumption, mainly generated by fossil fuels, and to a widening current

account deficit. She highlighted the country's need to invest in renewable energy and efficiency measures through promoting an enabling environment for private-sector investments in energy. She noted significant market barriers to clean energy, including a lack of finance, technical capacity and perceptions of risk. To overcome these barriers, she said the government has established "a wholesale approach" of extending credit to intermediary banks that provide loans to clean energy project developers, thus enabling a wider group to access loans from IFIs.

Ongun expressed appreciation for CTF financing and its impact in the domestic market, announcing that US$170 million of US$250 million of available CTF funds have been disbursed for renewable energy and energy efficiency projects, which has leveraged further funds from the International Finance Corporation (IFC) and EBRD for projects totaling US$2 billion. She said that while the CTF provision is not large considering the needs and size of the Turkish economy, it has had a great impact in overcoming market barriers and increasing the experience, awareness and expertise of domestic banks and industry participants. She called on partners to address "more important challenges in difficult areas," which she said her colleagues would highlight in their presentations.

Yusuf Yazar, Ministry of Energy and Natural Resources, Turkey

Josué Tanaka, EBRD, said hard work and good timing had been instrumental in achieving beneficial results. Regarding timing, he noted existing capacity in Turkey's business and financial sectors, the predominance of private-sector projects in the energy landscape, and the government's steps to establish a policy framework for clean energy before the EBRD's involvement in 2009, saying all these factors have enabled rapid progress on implementation. He reported that the EBRD's portfolio over the past three years amounted to €3 billion, of which €1.5 billion was in renewable energy and energy efficiency projects. He estimated that Turkey's high level of investment into efficiency and renewables had resulted in the avoidance of 2.4 billion tons of carbon emissions, or almost 1% of Turkey's total emissions.

Tanaka explained that large wind farms are the main clean energy activity being financed, alongside some investments in geothermal and hydropower. He described the EBRD's establishment of the Turkey Sustainable Energy Financing Facility with €260 million, which had successfully brought in a similar sum from domestic banks, resulting in a total fund of €0.5 billion being invested in 343 energy projects. He noted that five of Turkey's main banks are participating in these projects, representing the country's core banking sector. Tanaka also stressed the mainstream nature of these financing activities, explaining that the five participating banks account for 60% of all banking assets in the country, and are not marginal institutions. He highlighted that investments have been well distributed around the country, including in projects in eastern and central Anatolia and the Aegean and Black Sea regions. He concluded that while much work remains to be

done, there is potential for focusing on larger projects relating to waste and energy development, and for working with municipalities.

Emre Hatem, Senior Vice President, Garanti Bank, stated that energy demand is growing rapidly at 6.3% annually, and noted the key role of domestic banks in financing renewable energy projects. He explained that while total domestic loans have provided US$50 billion to all sectors, including for infrastructure and energy, clean energy is competing with other types of projects for financing and offers comparatively low liquidity and lengthy deposit times. He highlighted that the support of international banks will be required to meet the demand for development financing of all kinds.

Hatem underlined the potential of alternative financing sources, mentioning Eurobonds and local pension funds that may finance long-term projects, and noted that financing in Turkish Lira is increasing. He further highlighted that Turkey's credit rating has recently been upgraded to an investment grade rating, opening the way for international pension funds. He noted, however, that challenges remain in the Euro zone, and that some investors had suspended financing after the financial crisis.

Ozlenen Aydin, Head of Finance, EnerjiSa, provided an overview of the electricity sector from the investor's perspective. She highlighted the 9% growth rate in the sector in 2011, noting that Turkey's energy capacity is set to double over the next 10 years, and that the market liberalization process is expected to be complete in that time. She presented EnerjiSa as a leading energy company with half its portfolio in renewable energy generation, including wind power, with investments totaling €1.6 billion in value since 2008.

In closing, Tanaka expressed appreciation for the composition of the panel, stating that this had provided a range of sectoral and financial policy perspectives for discussion.

Parallel Sessions

On Tuesday afternoon, 6 November, and Wednesday morning, 7 November, a total of eight sessions met in parallel to discuss the various issues in more detail. Sessions addressed: innovations in engendering climate finance; sustainable energy for all (including on financing energy access for the poor, and on making big investments work in renewable energy); reporting from the Private Sector Forum; enabling private sector investment; sustainable cities; landscape approaches to address adaptation, mitigation and poverty reduction; and measuring results and impacts in a meaningful and practical way.

Innovations in Engendering Climate Finance

This session convened on Tuesday afternoon. Lucy Wanjiru, UN Development Programme (UNDP), moderated this session, noting discussions in Subcommittee meetings, and the aim of providing CIF teams with tools, good practices and lessons for mainstreaming gender into CIF operations. She explained that the CIF Administrative Unit commissioned IUCN to conduct a gender impact assessment of the CIF, which aimed to identify what further work is needed and to develop concrete recommendations and practical tools to facilitate this process.

Keynote Presentation on the "Gender Impact Assessment Review"

In a keynote presentation, Lorena Aguilar, Senior Gender Advisor, IUCN, discussed the CIF-commissioned Gender Impact Assessment Review

and described the process undertaken to develop the Review. She said the Review was completed in 2.5 months and that, over the next six months, a more participatory process would be undertaken. She said that in developing the report, questionnaires had been distributed to country representatives and that gender focal points in the MDBs had been interviewed, and pointed to a positive trend since 2010 to mainstream gender in IPs. She explained that MDB gender policies were analyzed, and that when looking at the CTF, in particular, they went to oil and mining companies, companies focusing on corporate social responsibility, etc., to understand how linkages were being created with gender in those companies.

She acknowledged the Review's limitations, including that it does not go into the governance structure or involve field visits. She said 41 IPs were reviewed and the analysis was based on seven criteria from various areas, such as the mandate of the MDBs and what the UN Framework Convention on Climate Change (UNFCCC) has agreed. She identified the seven criteria as: how gender is referred to in the text; how women are characterized; participation in/involvement of national women's mechanisms; amount of resources earmarked; engagement of women/women's organizations; gender indicators; and if gender policies and frameworks were taken into account.

Lorena Aguilar, IUCN

She said the Review's recommendations and lessons learned must be put into practice and, therefore, recommended: building on the relationship between MDB gender focal points and the CIF; establishing a CIF gender focal point; ensuring gender expertise within governments; gender-sensitive M&E; and recognizing gender as a driver for transformational change. She said gender is mentioned in 100% of PPCR, SREP and FIP IPs, compared to only 25% of CTF IPs. She said the majority of IPs view women as vulnerable, but that the PPCR has evolved the most in this regard. However, she noted only 50 of the PPCR IPs acknowledge gender policies at the national level, and that gender indicators are weak in all IPs, with only 25% possessing proper gender indicators. She said women need to be acknowledged as agents of change.

Aguilar identified Samoa, Bolivia and Tonga as those with IPs that have really progressed, and said that Lao PDR and Cambodia were making efforts to incorporate these elements as well. Of the funds, she said the CTF enjoyed the highest allocation of resources, but considered gender the least. She urged addressing knowledge, innovation and coordination, and creating spaces for interaction.

In conclusion, Aguilar acknowledged that much remains to be done regarding mitigation, and said lessons learned from the PPCR should be drawn upon and shared with the other funds. She said obstacles to the mainstreaming of gender in climate change activities are also encountered in other organizations besides the CIF. She said building technical capacity of gender experts within the CIF Administrative Unit and within countries was vital, as gender experts often have no climate change-related knowledge. She

noted that once the Review is endorsed or approved, a multistakeholder participatory process should be established to prioritize actions going forward, and that this process should aim to develop an action plan.

Commentators on the Main Findings and Recommendations of the Review

Panelists then made comments, including on the main findings and recommendations of the Review. Yvonne Ochoa Rosellini, Fundación Hogares, discussed a project in Mexico that trains women as plumbers to install water and energy saving devices in homes, such as shower heads. She said the project was piloted in 100 homes in 2010, has been scaled up to 15,000 Mexican households and aims to eventually reach one million homes. She said the project is executed by women who are trained as plumbers, and who receive a formal certificate, medical and legal benefits, business training and access to a client pool so they can continue working once the project itself ends. She stressed that, in this way, women are becoming agents of change in the community and are working in jobs that are usually reserved for men. She said the project respects local values, creates awareness that water is a limited resource, reduces government cost, fosters large-scale adaptation, creates household savings, reduces government costs, and illustrates the success of small businesses.

Building on the previous presentation, Nathalie Eddy, Coordinator, Global Gender and Climate Alliance, urged that examples of innovation and women's leadership be brought to the forefront of mitigation discussions, and addressed how to incentivize policymakers to incorporate gender considerations into policies. She said the perception of women as vulnerable, rather than as innovators and agents of change, must be shifted. She discussed a number of projects, such as Solar Sister, where solar technology is combined with a woman-centered direct sales network to bring clean energy to rural areas. She also discussed how women can be promoted as key stakeholders, noting the need for more capacity building to address the technical nature of projects, so that they can respond in a nationally appropriate and sector-specific manner.

Regarding incentivizing policymakers to incorporate gender considerations, Eddy reiterated that many pilot countries have developed plans that are not "gender blind," but it remains to be seen what will happen once projects get off the ground. She suggested a gender expert serve as a liaison to ensure the appropriate expertise and knowledge are taken on board when projects get under way. She also proposed establishing a mechanism and creating a space to track progress. She discussed gender indicators, noting they can be a valuable tool, guide implementation and measure progress, but pointed to inconsistencies in how they were incorporated and applied.

Jeannette Gurung, Women Organizing for Change in Agriculture and Natural Resource Management, said obstacles to ensuring that women are integrated into climate mitigation efforts are very much tied to the way gender and women are framed in the discourse and in communication messages. She emphasized the need to talk about women as entrepreneurs and agents of change, not as "vulnerable" and "marginalized," and said use of the latter two words only confirms the patriarchal idea that women need to be taken care of. She said she took inspiration from indigenous peoples' groups who identify themselves as "rights holders." She explained that women have yet to effectively position themselves, and that much can be learned from the private sector in this regard, where women's leadership movements have made progress and have received the support of men. Gurung supported linking women

at all levels, such as community leaders with women's business leaders, and creating synergies around these kinds of partnerships. She supported harnessing climate mitigation initiatives to benefit women, and supported a focal point within the CIF who can take on a coordination role.

Tracy Cull, Kulima Integrated Development Solutions, noted that while community groups are often affected, they are not consulted during the stakeholder dialogue progress. She said communities are integral in determining which products they want and need. She urged training and capacity building so communities think about their livelihoods and use of natural resources, and integrating communities from the start.

She stressed: improving outreach to community groups to ensure women's groups are meaningfully engaged in the process; incorporating indigenous knowledge; fully integrating gender into projects from the very beginning; and gender-sensitive training, workshops and projects so gender no longer is kept in "a box" or requires separate discussions. She noted the Review makes this point quite strongly, and said this session is likely "preaching to the choir" and that participants in the other sessions are more likely the ones who need to hear this message. As an objective, she supported projects that are gender-sensitive by their very nature. She said that adaptation can be as innovative and entrepreneurial as mitigation, and that in order to reduce poverty and build climate resilience, adaptation must also be looked at. She reiterated that the CIF has mostly funded mitigation, and that funding adaptation would help make the CIF more gender sensitive.

She advocated for a multipronged approach to raise awareness, starting with changing the way the CIF and national governments look at gender, and said gender focal points were a first step, but that they must be at a high level of authority. She said civil society organizations (CSOs) must be trained at the grassroots level as well, and noted her own country South Africa has great policies, but that implementation is not so good, and that is where civil society comes into play.

Question and Answer Session

During a question and answer session, Moderator Wanjiru discussed a water pump installation project she had worked on in the past in a semi-arid area prone to disease outbreak. She said the communities were not using the water pumps, which resulted in disrepair, and that technical implementation was halted for a year to train the community and build awareness. She stressed the project had integrated social and gender issues from the beginning, and said, while the budget might be smaller and the issues may be softer, "gender is like the oil we put in an engine; if we leave gender out, the engine will break down and we will end up with white elephants."

Participants then discussed, *inter alia*: women as the cornerstone of adaptation; how to emphasize the role of women in complex projects, such as infrastructure; setting aside small grants for access by communities; focusing on qualitative, rather than only quantitative, data; recognizing and rewarding women's contributions to mitigation; and showing that adaptation can be profitable.

Mali's national focal point for the CIF said he had worked on legislation regarding, for example, land tenure, but noted no distinction was made between women and men. He asked whether it was necessary to review, revise and reread legislation to specifically consider the perspective of women and to mention that women are the cornerstone of adaptation, noting that between text and practice, a big gap exists. In

response, Aguilar noted the development of more than 12 gender-responsive climate change strategies, and said that different groups have come together and modified some legislation with linkages to climate change, such as forestry and the sharing of benefits, and land tenure policies. She said, for example, that some Strategic Program for Climate Resilience (SPCR) documents themselves clearly indicate that engaging in the revision of policies is one of the aims. Kull suggested moving away from treating men and women "equally" and towards treating them "equitably" as they have different roles in society, particularly in rural societies. She said treating them the same will increase inequality, using a project in Bangladesh as an example where women were incorporated into the formal economy and 50% of stalls in markets were given to women. She said this did not take into account that women have the additional duties, such as taking care of children and livestock.

A representative from the EBRD suggested that some of the Review's findings were too negative, and underscored that the MDBs and the CIF have engaged substantially on gender, and that the extent of that engagement had not been reflected. She stressed that much is being done at the project level, and in MDB operations. Eddy welcomed learning more about what the MDBs are doing on gender, and suggested more is probably being done than is realized.

A representative from Uganda and the African regional observer for the CIF expressed frustration that funding goes to governments, but not to small grants programs for access by communities. She stressed the importance of such programs in empowering communities to implement the projects. Reiterating the idea of small grants, Kull concurred that CIF funds are too big, and the projects are massive and unable to take into account the differences that exist between men and women and between different community members. She said the focus must be changed from mitigation to adaptation, and stressed the need to show that money can be made in adaptation, particularly in the longer-term and with smaller funds. Gurung stressed the importance of funding mechanisms to get small grants to communities, and supported using mitigation mechanisms to recognize and reward women's contributions, such as those related to forest and soil management. She suggested finding ways to use the carbon market to bring benefits to women who are preserving carbon, and said that much space for innovation exists if "we can get out of our little boxes."

A representative of the AfDB stressed the importance of adaptation, lamented that the discourse is not being channeled in that direction, and asked how to facilitate channeling adaptation in regions, such as Africa. She advocated focusing on not only quantitative, but on qualitative data as well. In response, Aguilar stressed the need to collect some of the lessons learned from project design and implementation, and moving away from anecdotes. She urged collecting such information through quantitative, as well as qualitative methods.

Lucy Wanjiru, UN Development Programme

Kull supported long-term qualitative monitoring and showing how adaptation projects can be life altering, noting that the "easy stuff" tends to be monitored, such as economic indicators, rather than empowerment. Gurung said that the frameworks the MDBs set in terms of measuring and monitoring are what others must follow, and expressed hope that some of the banks and big donors would start to move away from collecting only quantitative data and towards qualitative data. She also expressed interest in looking at the unanticipated outcomes of actions, and ways of measuring such outcomes.

François Rogers, who was part of the Review team, said the policy framework should serve society and not vice versa, and that policy should aim to benefit women on the ground, as they are the ones who suffer the most from climate change impacts. He questioned whether the policy reform process really affects change on the ground for women, who are often disenfranchised because of customary law, even though recourse might be available in terms of statutory law. He said when talking about sustainability, the only way to advance is to keep "our eye on the ball as a united front" to ensure that society benefits at end of day.

Tracy Cull, Director, Kulima Integrated Development Solutions

Perspective of a Contributor Country

In a final presentation, Michelle Kaminski, Canadian International Development Agency (CIDA), discussed gender-responsive climate financing from the contributor country perspective, noting that Canada has been working to integrate gender into its development policies for the past 30 years. She welcomed the Review and pointed to challenges and opportunities on how the CIF can more effectively integrate gender. She applauded the explicit acknowledgement of gender as a driver for transformational change; supported the recommendation that the CIF hire a dedicated gender specialist to ensure integration of gender equality; and favored a gender equality action plan or strategy.

She said two objectives should be fulfilled in order to improve the Review: developing a toolkit, including best practices, and sharing them, especially among pilot countries; and comprehensively assessing capacity in the CIF Administrative Unit and at the country level. In this regard, she supported developing a roster of experts on gender and climate change. She suggested that once the report is finalized, it be circulated intersessionally. She called for results reporting, gender indicators and strengthening the role of contributor countries through, *inter alia*, a sub-working group that includes specialists and representatives from contributor countries.

In conclusion, Moderator Wanjiru noted much activity in the MDBs and the CIF on this issue, cautioning against reinventing the wheel, and supported establishing a working group and developing an action plan.

Towards Sustainable Energy for All – Financing Energy Access for the Poor

This session took place on Tuesday afternoon. Moderator David McCauley, Head, Climate Change Program Coordination Unit, ADB, introduced the speakers and invited opening remarks.

Panel Presentations and Moderated Discussion

Govind Raj Pokharel, Executive Director, Alternative Energy Promotion Center (AEPC), Ministry of Environment, Science and Technology, Nepal, said that two-thirds of energy use in his country is for household purposes, such as cooking. He stressed that energy development in a poor society encompasses two simultaneous goals: enhancing access to sustainable energy; and improving livelihoods so that the poor can afford the cost of the energy, which is in contrast to developed countries' single goal of enhancing energy access. He emphasized that government alone will not be able to fulfill this need, so involvement of private companies, commercial banks and development banks is required. He said that government incentives for the introduction of solar energy systems have resulted in US$20 to 30 million being invested in Nepal, and US$30 to 42 million in Bangladesh, contributed by households, domestic banks and IFIs. He said that public incentives should be viewed as a "quality-ensuring discount" rather than as a subsidy, since such incentives have successfully leveraged additional financing from the private sector, as well as ensured quality.

Herta von Stiegel, Ariya Capital, prefaced her remarks with two questions relating to sustainability: what major security issues are we facing; and what major trends can we focus on? She argued that food, water and energy represent important security issues, and that population demographics and climate change are major trends, with Africa projected to have 2.2 billion people by 2050, while Europe's population is falling and China's will plateau. She surmised that the demographics favor working with the "developing frontier markets" that are the source of the next generation of consumers. She noted the rapid growth of telephony in such markets, comparing this to anticipated business opportunities in clean energy development. Emphasizing that energy development is fundamental to unlocking growth, she called on participants to apply their expertise and development capital to bridge the existing gap between current developments in the energy sector and the willingness of financiers to invest in it at present.

Henry Kimber, Ministry of Lands, Mines and Energy, Liberia, spoke on behalf of his Minister. He briefly recounted Liberia's history as the first African republic to be established in 1947, its 14-year civil war in more recent times, and the 2006 election of the first woman president in Africa, Ellen Johnson Sirleaf. He highlighted Liberia's energy needs and its target of providing electricity to 70% of the population of Monrovia and its environs, and to 35% of the rest of the country by 2030. He reported that the national grid currently has just 12,000 connections serving a user base of around 57,600 people, out of a total population of 3.8 million. Kimber called for public-private partnerships (PPPs) to meet the need, mentioned opportunities in hydropower, solar, biomass and wind energy, and expressed the government's full commitment to rehabilitating its energy sector and prioritizing sustainable energy. Noting the country's challenges in developing or accessing a strong legal and regulatory framework, human resource capital and technology, he welcomed "well-intentioned" investments.

Kyosuke Inada, JICA, described JICA's aid portfolio for energy projects, noting that around half of its

aid spending is climate-related. He mentioned JICA's experience in supporting rural electrification together with the ADB in Bhutan, including support to the Government of Bhutan to access carbon finance through the Clean Development Mechanism (CDM). However, he said the project's contribution to achieving emission reductions was small, and "almost irrelevant" to the project's revenue stream. He said that the agency has not been successful in involving the private sector in its energy projects, and looked forward to discussing how to attract investors to finance such projects in the least developed countries (LDCs).

McCauley noted that 2012 is the International Year of Sustainable Energy for All (SE4ALL), and that energy is one of the three biggest challenges related to development and the environment. He asked panelists if they envisaged a trade-off between energy access and emission reduction agendas, or if the two agendas could go hand in hand.

Pokharel said that domestic biogas projects have been successful in enhancing access to energy, especially for cooking, and have also brought in CDM revenue. He said that such projects have been successful in reducing indoor air pollution and enhancing the health of women and children, besides reducing greenhouse gas emissions and benefiting the environment. He highlighted that biogas is replacing previous use of unsustainable energy sources, such as firewood, kerosene and liquefied petroleum gas, and expressed optimism that energy access and emission reductions can indeed be brought together.

Von Stiegel agreed with Pokharel's conclusion, highlighting the gender impacts of firewood collection in Botswana as a task that falls to young girls who therefore miss out on education opportunities, and emphasized the link between energy access and access to education. She refuted the perception that renewable energy may be too expensive for developing countries, stating that solar power might seem expensive compared with coal, which produces energy at nine cents per kilowatt-hour, but compares favorably with kerosene or diesel, which costs 50–60 cents per kilowatt-hour.

Kimber supported these points, noting the role of education in persuading people to adopt fuel-efficient stoves in view of the co-benefits, including health. He said it would be difficult to reach the whole population in Liberia and that access to renewable, sustainable energy is a necessity.

In response to McCauley's question about whether trade-offs are inevitable, Inada noted that the conventional wisdom is to say both yes and no. He cautioned against focusing too much on the quantitative impact of aid projects on greenhouse gas emissions, as this could put energy access objectives at a disadvantage, and highlighted that a focus on energy access for all has become a driver for sustainable energy.

McCauley asked panelists for their opinions on whether financing of clean energy should be led more by the public sector, the private sector, or a blend of the two. Von Stiegel responded that the problem is too great for any one sector to handle, and, furthermore, that "size matters." She explained that small projects are not attractive to private investors concerned about returns on investment due to the high transaction costs of each project. She recommended finding ways to aggregate small projects, such as mini-grids and micro-hydro, to make them viable for private sector investment.

Kimber noted the capital-intensive nature of energy development, saying the private sector should be the initial source of capital, with the public sector putting "the right mechanism" in place for such investments.

Inada noted that equipment maintenance and operation are an important aspect of sustainability in energy projects, mentioning an example of a micro-hydro project in Malawi that failed due to lack of maintenance after 10 years.

Pokharel favored a hybrid approach, noting that most countries face limitations in providing an enabling environment for the private sector. He described the situation in Nepal where small and medium enterprises, as an essential part of the supply chain, provide products to households. He noted that while the government provides a small amount of funding as an incentive, the rest comes from households. Pokharel defined the role of the private sector broadly, as providing the small "demand-based solutions" to households, while the role of government is in taking action to ensure quality. He highlighted differences between energy costs to rural and urban users, stating that rural users of micro-hydro in Nepal are paying four times as much for energy as people in Kathmandu, but that city-dwellers are quicker to protest price rises. He also noted the successful financing of biogas and fuel-efficient stoves through the CDM and voluntary carbon markets, stating these were sustainable initiatives.

McCauley invited a show of hands from the audience to indicate whether participants thought public or private sector roles were more important. Most participants indicated they believed that the private sector was more important, and McCauley observed that views on this subject have shifted in the past five years towards prioritizing private sector investment.

Question and Answer Session

A participant from a Mesoamerican indigenous peoples' association asked panelists their views on the role of indigenous peoples in energy projects in their territories, expressing concern over projects in Chiapas, Mexico, that have been unsuccessful due to lack of local involvement.

Pokharel highlighted the example of 700 micro-hydro projects his agency is supporting in Nepal, of which over 97% are community-owned and run by local community groups. He stressed that the government's role is limited to sensitization and responding to community demand for such projects. He explained that the community groups must form as a precondition for receiving a government subsidy,

and the community decides on ownership structure, pricing and management.

Von Stiegel agreed that securing community buy-in and ensuring benefits go to local people are crucial for a project's success, noting that roads and infrastructure need to be maintained locally. She gave an example of a project she had been involved in with partners in Kenya, which she had placed on hold due to the lack of community consultation. She stressed this had been done to ensure that money invested was not wasted.

A participant from the World Bank commented on changes in the development landscape in the last seven to eight years, with the entry of social impact funds, such as the Gates and Clinton Foundations, which she said are demonstrating both development impacts and financial returns. She suggested, firstly, that the CIF umbrella could support some countries in transferring successful business models to other countries, noting their youth work force is seeking business opportunities. She provided the example of small and medium entrepreneurs in providing access to energy, including services, such as collecting payments using mobile phone technology. Secondly, she requested clarification of language and CIF objectives regarding on- and off-grid users, calling for energy access for all to remain the focus of the CIF's work, rather than producing thousands of megawatts for on-grid users.

Regarding local entrepreneurship, a participant from Africa noted that more fuel-efficient stoves had been developed based on a traditional design, and questioned how to identify and expand on technology based on local entrepreneurship and solutions.

Von Stiegel said that "impact investing" should be the focus, and that financial, social and environmental sustainability depend on each other. She affirmed the importance of using local content in energy development, giving the example of a current project in Uganda that is doing so. She said this was not only a matter of technology transfer, but also of the commitment of investors to work with local engineers and entrepreneurs. She stressed that this was a more laborious approach than using imported content in the short term, but would have greater benefits in the long run.

A participant from Samoa highlighted the focus on the principle of common but differentiated responsibilities at the Rio+20 conference. He lamented the ongoing difficulties over the issue of intellectual property rights, saying this would amount to developing countries not being able to access sustainable energy, and urging participants to prioritize energy access and the poor. Moderator McCauley asked panelists whether the point made that "size matters" should be balanced with targeting the poorest as beneficiaries. Kimber responded that Liberia is adopting parallel approaches of developing the grid while also offering off-grid solutions in the form of micro-hydro and other renewable resources. Inada said that technology improvement is crucial, and that JICA has invited proposals from the private sector and academia for research into low-carbon technology.

Pokharel defined the private sector as including entrepreneurs supplying off-grid solutions, such as solar lanterns, mentioning that Nepal has 350 small and medium enterprises (SMEs) that provide renewable energy products to end-users. He drew a parallel between these services and water suppliers who sell bottled water in places out of reach of the water pipeline.

Von Stiegel raised the issue of the cost of corruption in financing large-scale energy investments, which could be more expensive in aggregate for a low-income country than a multiplicity of small-scale solutions.

She said that the CDM and carbon markets in general were intended to provide such subsidies, but so far have not worked well.

McCauley expressed optimism regarding the long-term future of carbon markets, noting that Australia, China, the Republic of Korea and Vietnam have been developing cap-and-trade programs in their domestic markets. He looked forward to the eventual integration of markets, citing Australia's intention to integrate its domestic system with the European carbon market as an example.

Inada highlighted two major challenges for carbon markets, achieving price stability and adequate scale of revenue, adding that in JICA's Bhutan project, transaction costs had exceeded carbon market revenue. Pokharel also expressed optimism about the CDM's future, and proposed that governments should subsidize transaction costs rather than capital costs. McCauley invited further comments from the audience, regarding the issue of scale. A participant from Madagascar called for greater awareness raising for local authorities and communities about the benefits of renewable energy, and expressed concern about project sustainability.

A civil society participant from Panama expressed concern about the impact of hydropower development on indigenous communities, and called for the CDM to improve its community consultation process. He questioned the focus on energy access, saying that health, education and communication access are more important, and that communities should have the opportunity to decide for themselves whether they need access to electricity for commercial purposes.

A participant from Bangladesh called on the CIF to identify low-cost innovative technologies, and queried to what extent rural and poor households have access to the solar energy projects cited earlier by Pokharel. A participant from Uganda recommended allocating budget towards addressing the "awareness gap," which he said was leading to the failure of community buy-in to renewable energy projects. Inada responded that communities, even in remote villages in Malawi, are familiar with the terms "mitigation" and "adaptation," but are not equipped with the right tools to cope with climate risk. He stressed the need to deliver solutions to village people, for example through equipping them to carry out maintenance of off-grid projects as regularly as they would plant rice.

Pokharel emphasized that stakeholder consultations are required under the CDM, and that some Nepalese agencies do more than is required. He affirmed the need to create awareness regarding the benefits of the particular types of renewable energy technologies, in particular, rural decentralized technologies. He highlighted that public-sector awareness raising efforts could be seen as an indirect subsidy to the

Govind Raj Pokharel, Alternative Energy Promotion Center, Nepal

private sector, and that such efforts also ensure that quality products are distributed.

Von Stiegel agreed that more effort should go towards raising awareness, and highlighted that the awareness issue "cuts both ways" as previous projects of value had been obstructed when some people were showcased as being abused. She cautioned that government, civil society and business all need to be careful that the intended beneficiaries of projects are not used as pawns.

Kimber stressed the need for people to take ownership of projects, and noted that while awareness helps, energy supply also goes to those who pay their bills.

McCauley summed up the session by highlighting the need for well-targeted programs that reach the poor and are also financially sustainable.

Reporting From The Private Sector Forum: Innovate, Integrate, Transform

This session took place on Tuesday afternoon. Moderator Susan Kish, Cross Platform Initiatives, Bloomberg, updated participants on the Private Sector Forum, which convened on 5 November, 2012. Her presentation, which included slides speakers had presented during the Forum, was organized in three parts: context; successes; and matching expectations and looking ahead.

On context, she shared slides from the keynote address by Michael Liebreich, Bloomberg NEF, on "The Private Sector in Energy Market Transformation," and from a presentation by Frances Way, Carbon Disclosure Project.

Regarding energy market transformation, she highlighted: rising investments in renewable energy, with dips reflecting financial crises in early 2009 and late 2011, and an average 20% fall in prices; a trend towards "distributed solutions" whereby around one-third of the money supports small projects; and cross-border regional flows that are predominantly North-North, followed by North-South, with a small component of South-South financing. She stressed that current financing levels need to increase approximately tenfold to reach the trillion-dollar level envisaged in the Copenhagen climate agreement. She quoted Spanish bullfighter El Gallo, who had said, in a different context, "It is impossible – and also very difficult."

Regarding adaptation, Kish observed that changing temperatures and precipitation patterns could reduce the availability of raw materials, especially agricultural commodities, emphasizing this as a business issue that will likely lead to disruptions in supply chains and manufacturing. She also noted the increasing number of insurance claims relating to natural catastrophes, highlighting a figure from the insurer Allianz, who reported that in 2011 it processed US$2.2 billion in natural catastrophe claims, the highest level of claims so far.

On successes, she presented ACWA Power's development of the Ouarzazate concentrated solar power (CSP) project in Morocco, one of the largest such projects under development in the world. She highlighted innovative aspects of the project, including its delivery of a framework that has enabled IFIs to lend through a government vehicle, the Moroccan Renewable Energy Procurement Agency, on specific terms. She also presented DenizBank's role as an intermediary lender in Turkey, based on partnerships with IFIs and MDBs. She reported that DenizBank has provided over US$100 million in loans for renewable energy and energy efficiency projects, supporting small and medium enterprises that have benefited from a systematic approach

to "due diligence" regarding projects' technical assumptions, an environmental and social action plan, and enhanced awareness of environmental standards.

Summing up, on matching expectations and looking ahead, Kish presented an analysis of clean energy finance and climate finance stakeholders, and highlighted the contrasting views of public and private stakeholders. She suggested that the respective interests of project developers, regulators and policy makers, and investors and lenders lie in: seeking innovative products and business models (market solutions); developing regulations that promote long-term support, consistency and entrepreneurship (policy solutions); and enabling liquidity, access to capital, risk sharing and scale (financial solutions). Noting that equipment costs are falling, she anticipated: an increasingly complex value chain in climate investment; market transformation based on innovation; and increasing standardization of approaches, for example, in the terms and conditions of PPPs. She highlighted the need for stakeholders to work together to match expectations and to drive innovation and entrepreneurship within the landscape of financing activities.

Kish also shared results from the use of electronic polling tools used to elicit audience views and information during the Private Sector Forum. On direct investment viability, participants prioritized "degree of risk-sharing" as the most important factor (42.9%), followed by "scale of investment" (19.5%). On financial intermediary viability, most prioritized "degree of risk sharing" (27.8%) followed by "local engagement" (22.2%). A large majority thought that manufacturers had the least leverage in markets today (81.1%), compared to project developers, financiers and policy makers. Participants indicated that project developers (29.7%) and sovereign entities (28.4%) were best positioned to manage market risk; manufacturers (47.8%) and project developers (42%) were best positioned to manage technology risk; sovereign entities (61.4%) and MDBs (18.6%) were best positioned to manage policy risk; private sector lenders (42.3%) and MDBs (33.8%) were best positioned to manage currency risk; and MDBs (36.4%) and sovereign entities (30.3%) were best positioned to manage country risk.

Panel Discussion

Kish then invited panel members to underscore the key messages they had taken away from the discussions during the Private Sector Forum.

Pasha Bakhtiar, Managing Partner, Investors and Partnerships, Willow Impact Investors, contrasted his own experience of investing in small and medium enterprises with others' experiences of large-scale projects, observing that these are "two parallel universes." He said that whereas the entrepreneurs he deals with require fast access to capital, a project, such as Morocco's CSP project, required two to three years' lead time to be structured, with the involvement of the MDBs and partners. He noted that financial return is not necessarily foremost in the case of such long-term efforts, whereas in small projects with a single investor, the returns aspect is crucial, and due diligence must be undertaken swiftly and efficiently. He reflected that participants had expressed some frustration regarding the process to access funding through the CIF, questioning whether it was aimed at small entrepreneurs or government. He stressed that no value judgment was implied in this comparison, only that "depending on where you are, it's a different ball game" in which success can be defined differently.

Regina Mead, Mb4

Roberto Dumas Damas, Banco Itaú BBA, praised the pragmatic approaches raised during the Private Sector Forum, observing that projects need to be financially sustainable to attract funds. He highlighted that one of the issues they face is conducting due diligence for projects to be financed. He proposed that banks adopt the Equator Principles as a common framework. Regarding project analysis, he distinguished between risk and uncertainty, observing that risk can be measured and conveyed to the client, whereas uncertainty in the policy environment is more difficult to address. He recommended that where clean energy investments are not financially attractive to investors, "governments should step in to make this attractive," investing in innovation for the long term. In the short term, he recommended tax incentives to encourage clean energy investments, citing Kenya's example of removing a tax on solar panels, thus driving a very high level of entrepreneurial activity, and China's example of requiring lower reserve requirements for banks that lend to renewable energy projects.

Regina Mead, Managing Member, Mb4, emphasized the need to promote the importance of clean energy, especially in emerging markets. She noted investors' pullback from clean energy due to political risk and lack of returns, mentioning the Middle East region. She proposed assisting borrowers to package their financial needs, and working with policy makers to enable investors to realize yields that may be lower over the longer term. In response to a question from Kish regarding possible standardization of the terms and conditions of loans as a way to allocate risk and scale up investment, Mead responded that the approach of securitizing loans was problematic.

Josué Tanaka, EBRD, commented that the question of aggregation was complex, and agreed that this did not necessarily involve taking the securitization path. He

noted that the challenge is to persuade conservative investors by presenting commonalities that are simple for people to understand and relate to. He noted the "heterogeneity" of energy projects and recommended packaging projects according to their common elements so as to limit the risk parameters and enable simpler due diligence requirements. He highlighted the EBRD's yearly efforts in bringing together the banks they work with to share knowledge and experience towards improving practice in this area. He emphasized, in particular, the importance of in-depth discussion in relation to specific sectors, for example, regarding energy efficiency in the steel industry or in power plant rehabilitation, observing that each of these sectors represents a whole community.

Question and Answer Session

In the ensuing discussion, Damas and Mead agreed that market segmentation is required to attract potential investors. Damas recommended working with countries to bundle small-scale projects. Mead noted that some funds only deal with specific kinds of investments, for example, airports or marine centers. Kish said that political and currency risks need to be carved out and addressed, and mentioned the CIF's approach of denominating its loan to Kazakhstan in local currency, which had reduced currency risk. Bakhtiar commented that securitization could bring funds flooding into small projects, but would not result in a positive outcome due to investors' lack of understanding of the risks involved.

Tanaka observed that much of the discussion in this session focused on external funds, and turned to address the role of private sector domestic financing, noting that in China, Brazil and Mexico, domestic markets are influential. As an example, he said that in Turkey, external funding has successfully leveraged financing in the domestic market, stating that a challenge for the CIF is mobilizing existing domestic resources for clean energy.

Mead emphasized the value of knowledge transfer activities, while Bakhtiar highlighted the value of learning directly from entrepreneurs, including sharing solutions between developing countries. Tanaka noted competition as a driver for the acquisition of new knowledge, or questioning the prevailing knowledge. He said that building replication in financing was another driver for knowledge acquisition, mentioning the EBRD's training of credit officers in understanding special features of energy efficiency and renewable energy projects.

Tanaka highlighted that the biggest results in attracting private investment through the use of public funds often come from simple inputs, for example "to open the eyes of the Chief Financial Officer to what the paybacks are." He questioned whether public funds should "buy out distortions" in the policy environment, rather than addressing the question of policy reform, cautioning that mobilizing private sector financing is more complicated than it sounds.

To sum up, panelists offered their estimates of when clean energy investment would reach the US$1.5 trillion level, which ranged from five to 15 years. Expressing optimism, Kish urged participants to try and reach this level sooner.

Landscape Approaches – Addressing Mitigation, Adaptation and Poverty Reduction in One Go

This session convened on Tuesday afternoon. Introducing the session, Andrea Kutter, FIP and PPCR Coordinator, CIF Administrative Unit, said

that both the FIP and the PPCR are applying the landscape approach.

Moderator Alistair Clark, Managing Director, EBRD, said the landscape approach looks not only at natural resources in a more holistic manner, but also aims to enhance some of those natural assets, as well as link mitigation and adaptation with opportunities and challenges and broader development issues associated with climate change. He said the session would look at: whether the programs under the Strategic Climate Fund are a good basis for success if used intelligently; threats and opportunities; and how the CIF will contribute to overall global efforts. He said the session would include a keynote address to introduce the subject, a presentation on good practice and a more interactive panel discussion with country representation.

Introduction of the Landscape Approach in Support of Mitigation, Adaptation and Poverty Reduction Objectives

In a keynote address, Gürsel Küsek, Director-General for Agrarian Reform, Ministry of Food, Agriculture and Livestock (MOFAL), Turkey, discussed land consolidation efforts and climate change issues, noting that Turkey suffers badly from land degradation, and that 60–70% of land is at risk from erosion. He mentioned the National Climate Change Strategy, which was prepared under coordination of the Ministry of Environment, and signed by the Prime Minister.

He identified different sectors relevant to climate change and adaptation in vulnerable areas, including water supply, food security, other ecosystem services, disaster and risk management, and human health. He identified as strategic objectives, *inter alia*: fulfilling UNFCCC obligations; controlling greenhouse gas emissions; adapting to climate change; accessing national and international financial resources; developing clean production technology, research and development (R&D) and innovation capacity; and building human resources and institutional capacity. He noted that the Climate Change Coordination Council is composed of nine ministries and private sector representatives.

Regarding actions taken by MOFAL, he identified legal arrangements, preparation of strategies and action plans, project development and implementation, R&D activities, and farmer support programs. He highlighted the aims of increasing sequestration capacity in the agriculture sector, limiting greenhouse gas emissions caused by agricultural production, renewable energy opportunities, and improving the knowledge and information infrastructure to combat climate change.

Küsek said since 1990, MOFAL has begun to manage agricultural lands by separating them into agroecological zones, determining the number of such zones, and applying agricultural strategy accordingly. He discussed: applying an agricultural subsidy system according to the zones; implementing a comprehensive land consolidation project to increase the effective use of agricultural lands as a "whole landscape" rather than as individual parcels, which would eventually apply to all of Turkey, hopefully within 10 years; and planning and establishing an agricultural land management information system in a relatively short period of time. He said this approach has enabled MOFAL to overcome many of the planning obstacles facing the various renewable energy and environmental management investments.

He described two examples of the positive effects of the landscape approach in Turkey: land consolidation works on more than 5.5 million ha of land (the largest land consolidation project in the world); and allocation of 200 ha as an "Organized Solar Energy

Production Industrial Zone," as well as allocating other public lands in Turkey for wind energy, which would otherwise not have been allocated in such a short time.

Küsek said 30 different agroecologial zones had been delineated in Turkey, including land use type and various activities undertaken. He discussed a parcel-based registry and barcode implementation, and expressed hope that in five years, such a database would be ready for use to enable a better management strategy and to calculate what is happening in agricultural parcels.

Selected Examples of Interventions Using the Landscape Approach in Various Geographical Regions

Stewart Maginnis, Global Director, Nature-Based Solutions Group, IUCN, presented on good practice and applying the landscape approach for the "triple win" of adaptation, mitigation and poverty reduction. He said that isolated policies can lead to fragmentation, and argued for promoting integration at the landscape and national policy level, though it can be a risky undertaking. He said the idea that natural resources only play a limited role in rural development is problematic, and that the thinking has shifted regarding resilience and the importance of resources in resilience strategies. He estimated that: around 25% of household income comes from off-farm resources in many tropical countries; US$130 billion per year exist in unrecognized contributions to household income; and only direct benefits are normally captured.

He said the landscape approach is not just about tree planting, but also about social and economic resilience, and needs to accommodate various types of land use and concerns of social groups to deliver a range of goods and services. He said its significant role can only be realized if a balanced package of locally defined goods and services is delivered, noting that diversity underpins social and economic resilience. He said the landscape approach is not about recreating the past, but rather is forward looking as it keeps future

options open. Noting that such diversity is dependent on the local situation, he pointed to some common elements to a landscape approach, including: the need to accommodate different land uses; different stakeholders have different needs, particularly rural women; delivering a range of goods and services, and recognizing this mix will most likely change over time; and, while forests and trees provide multiple benefits, they can only be delivered at the landscape level.

He said "single-fix solutions" reduce diversity, limit society's options for the future, undermine resilience, and reduce the carbon content of landscapes. He said roughly two billion hectares (ha) of land worldwide could benefit from the landscape approach or restoration. He underscored that landscape restoration has already been proven, noting that parts of Europe, for example, have 150 years of experience with landscape approaches. He then went on to outline the example of Pohang, Gyeongbuk Province, Republic of Korea, where the approach was applied when the country was poor and just exiting from a war, degraded landscapes were reinvigorated over a 50-year period, and from 1953–2010, the economy increased 300-fold, population doubled and the national forest growing stock increased 20-fold.

Maginnis went on to debunk some of the myths surrounding the landscape approach, such as high cost, and lengthy waiting periods to achieve results and returns on investments. He discussed the Bonn Challenge, launched in 2011, to restore 150 million ha of lost forests and degraded lands worldwide by 2020, thereby delivering on existing commitments under the UNFCCC and the Convention on Biological Diversity (CBD). He also noted formal commitments for almost 30 million ha and another 20 million ha under discussion. He said economic benefits of meeting the Bonn Challenge could be: around US$84 billion per year; the sequestration of an additional one $GtCO_2$ emissions per year; a reduction of the current emissions gap by 11–17%; and an increase in crop yields by 30% on up to 50 million ha of land. To achieve this vision, Maginnis said blueprints must be avoided as no one-size-fits-all solution exists. He also pointed to examples, such as: Costa Rica, where, in 25 years, forest cover has almost doubled and a successful ecotourism industry has been built; and Tanzania, where in 15 years, 500,000 ha of *ngitilis* (a local, traditional resource management system) and 1.5 million ha of agroforestry were restored by local communities. He said household income almost doubled from restoring these landscapes.

He emphasized that the landscape approach spurs thinking outside the box, and taking a more comprehensive view of delivering multiple benefits to solve multiple problems, by not only sequestering carbon, but also by enhancing resilience and addressing local livelihoods through enhanced agricultural activities.

Maginnis also discussed whether the landscape approach could help accelerate REDD+, noting: a similar mitigation impact through carbon-intensive landscape management; livelihoods, not carbon, are at the center of intervention strategies; proving additionality and permanence might be easier; local decision making is required, thus safeguards are inbuilt; and if based on established products, private sector investments are more likely.

He provided an example of a World Bank-supported project in the Loess Plateau in China, where precipitation has declined and temperature increased, but instead of vulnerability increasing, green productivity has increased by 30% because of landscape restoration, soil erosion has decreased and agricultural yields have increased. He said

in 10 years, 2.5 million people have been lifted out of poverty, household incomes have increased from US$70 to US$200 per year, and significant amounts of carbon have been sequestered.

In conclusion, he reiterated that the landscape approach: is established and proven; can bring about dramatic change in relatively short periods of time; delivers significant net benefits (a triple win); requires integration with other land uses and sectors; and offers a "no regrets" option.

CIF Pilot Country Presentations

José Carlos Fernandez-Ugalde, Head of International Affairs and Financial Development, National Forestry Commission, Mexico, and FIP country representative, explained implementation of the landscape approach in Mexico, and how to trigger it at the national level, using policy levers to mobilize efforts. Noting that his Commission mainly deals with forests, he pointed to many drivers of deforestation outside the forestry sector. Before developing Mexico's FIP Investment Plan, he said a more conventional approach had been taken, based on, *inter alia*, sectoral policies.

He highlighted the distance between central policies and the local context, and complex productive mosaics among communities that engage in multiple activities at the same time. He said making a pitch only for forest-level investments is erroneous, and that investments in sustainable intensification of agriculture must be included and recognized. He discussed opportunities for timber or non-timber production in other areas, and how to create government machinery that address production at scale, noting this is where the challenge of the gap between national level policy and local level implementation becomes obvious.

Fernandez-Ugalde discussed development of a model to operationalize the decentralized application of policies at the landscape approach level, and bridging this gap through: the creation of a public agent capable of blending policy instruments, such as those related to forest and agriculture; a nongovernmental technical agent to support this blending, as traditional extension programs tend to be sector specific; a financial instrument with a simple window that could blend or offer the community the opportunity to incorporate forest investments into other programs, as well as something that could capture international resources, without necessarily devolving part of the federal budget to the municipal level; and a platform for public participation, which is critical at the local scale as 70% of forest land is owned by communities.

Noting that the forest budget is currently 2% of the rural development budget, he emphasized that if part of the remaining 98% can be used advantageously and without sacrificing the objectives of the other sectors, then "we are on the right track." He noted huge potential to achieve multiple objectives with the landscape approach.

Jose Carlos Fernandez-Ugalde, National Forestry Commission, Mexico

Sarafat Khan, Ministry of Water Resources, Bangladesh

Sarafat Khan, Director of Planning, Water Development Board, Ministry of Water Resources, Bangladesh, and PPCR country representative, discussed watershed management in coastal zone areas of Bangladesh. He said 28% of the country's population lives in coastal areas, which are regularly inundated with seawater and not suitable for agriculture. Thus, in the 1960s, Khan explained that a program was implemented establishing special zones suitable for agriculture in coastal areas, which were enclosed by dykes and embankments, and separated and protected from river systems to prevent tidal flooding and sea water intrusion. He said the land was then capable of being converted for agricultural use, resulting in improved livelihoods, food security, and economic conditions.

Stressing the challenge of taking frequent cyclone events into account in this program, he explained that with the more recent impacts of climate change and extreme events, cyclones have damaged agricultural land and resulted in the flooding of embankments and saltwater intrusion. He said: a 2007 cyclone led to the deaths of 3,400 people, and damaged the rice crop and infrastructure; and a 2009 cyclone damaged more than 45 of the protection systems implemented to prevent flooding. He stressed that such frequent catastrophic cyclones, occurring roughly every three years, hinders the government's development process. Thus, he emphasized the need to refocus the government's strategy in coastal areas to cope with climate change's effects.

He discussed a full-scale feasibility study, which called for developing, upgrading and improving the coastal embankment system to withstand such events and to respond rapidly, with the key objective of increasing the resilience of coastal populations. He supported undertaking a programmatic approach to adaptation and said the aim is to make all embankment systems resilient to climate change and improve livelihoods and food security within the next 25 years.

Moderated Discussion and Question and Answer Session

Moderator Clark then asked each panelist to comment on whether they were optimistic about the potential of the landscape approach. Küsek said the landscape approach is a tool and noted the need for data, planning and local knowledge for it to deliver results, and to undertake activities according to the local context. He said if aims and local knowledge are taken into account, the approach can then be scaled up to larger areas.

Maginnis expressed optimism, noting he has been advocating for the landscape approach for several years, although it did not resonate until recently. He cautioned against overloading the approach and said it is not a panacea and will not "take us to utopia." He reiterated Fernandez-Ugalde's point that people living on and off the land do not see life in sectoral or isolated bits, but as a system.

Fernandez-Ugalde expressed cautious optimism, noting a gradual evolution in policy thinking. He said the landscape approach comes loaded with the history of a broad policy set, such as payment for environmental services, community forestry support programs and poverty alleviation programs. He reiterated the approach is not a "one size fits all" or a monolithic concept, but helps blend existing policies. He said when looking at climate or development investment, ways must be found in which sector-specific investment can blend at the implementation level. Khan stressed taking into account the needs of coastal populations in their daily lives, and adapting programs to these needs.

In a question and answer session with the audience, a World Bank representative asked Küsek if the barcoding system is implemented on privately owned land. She also said she was impressed by the involvement and coordination of nine ministries and private sector in the Climate Change Coordination Council, and asked how everyone keeps focused on the same objective, noting difficulties in her own experience with coordination among government ministries. Küsek responded that all parcels are digitized with unique identifications and that all companies should use the coding system on their products before selling and upload the codes to a database. He added that when farmers go to sell, they should show their parcel, and the seller should register the code, which will help determine which chemicals were used for which parcels. He added that most parcels are private. Regarding coordination among ministries, he said each ministry works with the environment ministry and according to its tasks.

Responding to a question about a microcredit mechanism and who pays for investments, Maginnis said public sector investments are central, and play a catalytic role, but that investments are not exclusively public. He noted that in Uganda, the private sector followed initial public sector investment to provide markets and opportunities, and said the most effective mix of public, private and local farmer investment should be looked at and determined.

A World Bank representative asked Fernandez-Ugalde who is paying for investments, and whether insurance exists if an event damages peoples' livelihoods. Fernandez-Ugalde responded that in Mexico, the rural sector is heavily underfunded, and urged coming up with creative ways to engage the private sector. He discussed business opportunities, the role of technical assistance, risk reduction for private sector involvement, and thinking outside box with new innovative instruments, such as forest bonds and new credit lines to avoid crowding out private investment. He said insurance was mainly a combination of private insurance and national disaster funds, and that the opportunity lies not with investing in insurance for companies, but rather in insurance for forest or watershed conservation efforts.

A representative from Madagascar asked Khan about experiences with land use planning in Bangladesh, whether it is possible to protect the coastal zone against floods and cyclones, and whether budgets can be allocated for coastal zone restoration, such as building dykes, noting the particular difficulties and fragilities with coastal zone ecosystems. Khan highlighted restoration activities taking place in Bangladesh, including improving embankment systems that are affected by climate change and infrastructure for system draining. He also stressed the importance of a holistic approach and pointed to an afforestation program that is being undertaken.

In response to a question about types of finance for restoring coastal zone landscapes and possibilities of

collaboration with the private the sector, Maginnis discussed financing available following natural disasters, and complementing funding for responses and hard infrastructure with investments in nature-based solutions. Using Ghana as an example, he said donors are interested in building in a component that deals with water shed management. He also mentioned mangroves planted after the Asian tsunami, and applying some public sector financing to use natural infrastructure.

Hosny El-Lakany, University of British Columbia, expressed cautious optimism and asked Maginnis about countries that increased forest cover without REDD+ funding. He asked about the Republic of Korea's success and the driving factors behind it so that it could be replicated elsewhere. Maginnis explained that coming out of occupation and war, the Republic of Korea's land base was completely eroded, and noting the heavy reliance by rural populations on that land base, he said restoration was initially driven by necessity. Using another example, he explained that in Rwanda, despite 6–7% GDP growth each year, 400 people per square kilometer are living on degraded soils and landscapes, and that without investment in the natural infrastructure, poverty reduction targets will not be met. He stressed that the landscape approach must be tailored to local conditions and needs, rather than based on templates that can be replicated.

An academic from China explained that the landscape approach is a good strategy for responding to climate change, but added that if land use policies in China are not changed so that land is retained for the communal system and for farmers, the landscape approach would not work. He said if food security is not guaranteed to local communities, then land would be required for food cultivation, and reforestation would not be possible. He also stressed that scientific and technical support for biodiversity is required to grow the appropriate trees and to develop long-term forest production technologies. He stressed the importance of locally-managed biodiversity, and suggested including biocultural diversity approaches to generate community knowledge, emphasizing that local communities are familiar with climate change and have their own local indicators.

An NGO representative from Panama asked about community involvement at various stages, such as project initiation, design and implementation. She asked about community inclusion in Mexico, in particular, and working with multiple institutions and sectors. She noted lack of civil society participation in national climate change committees, and urged bringing civil society into the committee or as part of an advisory council.

Noting some difficulties with local community engagement, Fernandez-Ugalde concurred that better management at the local level is desirable, and that coordination between ministries becomes crucial as the project develops. He noted an example in Chiapas, dealing with biological corridors, where a public agent acted as the common technical assistance provider for both agriculture and forestry advisory services. He discussed strengthening the REDD participatory platform at the national level, and establishing a REDD consultative technical community. He highlighted challenges related to ensuring resources to enable participation, timing and dissemination of efforts, but characterized it as a useful, evolving platform. He explained that based on this national platform, four states are already developing state-level consultative technical committees, which illustrates a coming together of national and local platforms. He noted the consultative technical committee is linked to the Inter-ministerial Commission on Climate Change, which is where decisions are made.

An NGO representative from Uganda lamented lack of budgetary allocations for awareness-raising activities. Recalling the intervention by the representative from China, he called for sharing and communicating best practices so they can be applied and replicated, as well as sharing challenges faced.

Noting that successes and triple-win examples had been discussed, a representative from Turkey asked panelists to provide examples of where landscape restoration has failed. Küsek responded by saying that projects will fail without proper resources or sufficient contact with local communities and other stakeholders. Maginnis discussed unsuccessful national tree planning campaigns in East Africa, noting they were highly sectoral and top down, but said much was learned about what does not work. He said a real advantage of the landscape approach is that it allows for making and balancing explicit tradeoffs, instead of attempting to maximize benefits. Fernandez-Ugalde said the landscape approach provides a broad lens for recognizing different opportunities for smarter land use and bringing together multiple policy instruments to do that. He said a basic underlying failure of landscape approach implementation relates to the scale at which it has the approach has been undertaken and its lack of connection with any incentive mechanism. He said early experiences with the approach were attempts to address historical failures, such as lack of incentives, basic planning tools and institutions. Khan noted conditions for the approach vary from country to country, underscoring difficulties with attempting replication.

Wrap Up

Moderator Clark said the landscape approach is a smart tool, and, if used intelligently, can pay great dividends, reiterating it is not a universal panacea. He emphasized its integrated nature, not only at the ministerial level, but vertically down to the local level, involving all actors. He looked forward to future discussions of the potential role of the CIF and other funds in stimulating the landscape approach, and commended the speakers and participants on the presentations and dialogue.

Toward Sustainable Energy for All – Making Big Investments Work in Renewable Energy

This session took place on Wednesday morning.

Introduction

Moderator Josué Tanaka, EBRD, said the session's topic is one of the key questions surrounding the CIF and issues related to how scarce public money can be used to mobilize large amounts of private capital. He noted the SE4ALL initiative as one of the important outcomes of Rio+20, and said it illustrates the scale of the challenge and has a strong federative, action-oriented approach in that it tries to be an umbrella across the public and private sectors and tries to federate as many countries as possible. He stressed that applicability and replicability of approaches should be addressed, as well as ease of scaling up.

Get Fit

Jan Martin Witte, Senior Project Manager, KfW, presented on the GET FiT East Africa Program, which aims to incentivize private sector investment, specifically for on-grid, small-scale renewable energy generation in Uganda. He said the Program is in the experimental stage, and noted the aim of promoting a limited portfolio of 10–15 projects with a combined capacity of 125 MW to come onto the grid within 3–5 years, which would significantly increase

average available capacity by more than 25%. He said Uganda has: a progressive regulatory system; unbundled its power sector; and an energy sector with privately owned companies. He explained that while there has been significant private investment in generation and distribution, Uganda has seen a lack of available energy supply. He mentioned a new 250MW hydroelectric dam, which is the largest privately-financed dam in Sub-Saharan Africa, but said demand growth in Uganda is 9%, the electrification rate is below 10%, and 97% of energy demand is being served by biomass.

Regarding key challenges for leveraging investment, he said, *inter alia*: feed-in tariffs are too low to offer investors adequate returns on investment, and are well below electricity costs for technology; a liquidity crisis at the Uganda Electricity Transmission Company has undermined investor confidence; and Uganda is perceived as a risky investment destination with high political risk, resulting in expensive and high spreads for debt finance.

He said the Program has three key intervention components: a feed-in tariff premium payment mechanism (a results-based subsidy) as an incentive for private investors to bring additional generation on stream; World Bank/Multilateral Investment Guarantee Agency guarantees, that is a Partial Risk Guarantee Facility to address political and off-taker risks; and a private debt/equity facility, that will offer debt and equity instruments to private developers.

He said the Program is a departure from KfW's normal activities, in that it is an output-based system and shifts performance risk of installing new generation capacity to the private sector. He explained that it does not provide grants or concessional loans, and that investors will only get money when the plant reaches commercial operation and is feeding electricity into grid. He noted an existing pipeline of projects, but noted that, since June 2010, no power purchase agreements (PPAs) have been signed. He noted interest from private investors in building up generation capacity since the unbundling of the power sector, and that projects are at various stages of development, but said that developers have not reached financial close due to liquidity issues.

On burden sharing, Witte noted US$70 million would come from donors to leverage US$400 million in private sector investment for the plants currently in the pipeline. He also emphasized relative burden sharing with Ugandan consumers, stating PPAs only provide 7% of the overall cash flows to projects. He said a key objective is helping the Government of Uganda to ensure they do not have to return to procuring diesel, which is expensive. He noted the existence of oil and gas reserves in western Uganda, and power generation based on heavy fuel oil, which is not desirable, but is critical in Uganda to keep the system stable and to maintain supply, adding that heavy fuel oil prices are likely to be higher than the expected average generation costs.

Witte said the project is entering the implementation phase, so its success remains unclear. In terms replication potential, he reiterated that the Program relies on a fairly progressive regulatory infrastructure, where government commitment and a competent regulator are required, which he said is unique, particularly in Sub-Saharan Africa. He said they were also looking into the possibility of setting up similar programs in Rwanda, Zambia and Tanzania.

Innovation Financing Mechanisms toward Sustainable Energy for All (SE4ALL)

Eugene Howard, European Investment Bank (EIB), provided an overview of the SE4ALL initiative, led

by the UN Secretary-General, which aims to achieve three global objectives by 2030: universal access to modern energy services (currently, 1.4 billion people lack access to electricity and 2.7 billion lack access to clean cooking facilities); doubling the share of renewable energy in the global energy mix to 30% (from the 2009 rate of 15%); and doubling the global rate of improvement in energy efficiency.

He said the EU has fully subscribed to the SE4ALL initiative, and has allocated €400 million, which will be funneled through the EU-Africa Infrastructure Trust Fund (ITF), which is an instrument that blends grants and loan facilities together and is being used by the EIB and other European development agencies. He said the EIB finances by project, which is a challenge, and that financing is not readily available and requires donor support. He emphasized challenges associated with small energy efficiency projects, noting lack of resources to finance very small projects. He noted a weakness is rolling out renewable and energy efficiency projects, thus they are looking at local financing and engaging local banks to provide more attractive lending conditions.

He then elaborated on the EIB's specific initiatives to support SE4ALL, noting all are in the pilot phase, and are in the process of determining types of products which will be most effective. He said the Africa Energy Guarantee Fund (AEGF) covers Sub-Saharan Africa, with the aim of guaranteeing smaller energy projects through providing risk mitigation and credit enhancement guarantees for private investors (complementing existing market instruments), and unlocking capacity from the private insurance market through co-guarantees and reinsurance. He said various types of guarantees may be envisaged, ranging from political risk to credit to comprehensive guarantees, which are not currently available, or are available but difficult to obtain. He said it will be structured as a layered fund with a junior tranche from the European Commission, senior participation from the EIB, and other public and private participants. He explained that it will catalyze private sector and commercial guarantees, as well as encourage insurance companies to diversify the risks in insuring any project.

Howard said the Africa Sustainable Energy Facility (ASEF) is a pilot facility for East Africa that aims to engage local commercial banks in the financing of small renewable energy and energy efficiency projects. He said it aims to do this through, *inter alia*: technical assistance to support local project development and targeted interventions for commercial banks to achieve a financial close; and risk-sharing instruments, both funded and non-funded guarantees, including extending the maturity of loan agreements. He said the ASEF is supported with technical assistance from the ITF and the Austrian government, and in partnership with the IFC. He said the ASEF may provide such things as first loss guarantees, home loans, and credit

Eugene Howard, European Investment Bank

or loan extensions for individual projects through participating banks.

He explained that the Renewable Energy Performance Platform (REPP) aims to scale up investment and mobilize private developers implementing small renewable energy, energy efficiency and/or access-to-energy projects. The REPP also provides debt to smaller projects, which is often difficult to obtain. He said the Platform aims to address the gap between what is provided in equity and what is provided in senior debt, and proposes a debt fund to bring costs down and to facilitate the EIB and other institutions to provide mezzanine debt and senior loans, if needed. He said it was a means to channel donor funding by addressing energy access, and putting together a performance-based initiative, as KfW did in its project. He also mentioned looking at how to scale up smaller projects, and at project bundling agreements with commercial providers of partial risk guarantees. He said the Platform aims to establish partnerships, and works with donor money to extend reach and support public institutions. He added that the Platform is open-ended, welcomes participation of other development and financing institutions in Europe and elsewhere.

He also described the EIB's Global Energy Efficiency and Renewable Energy Fund (GEEREF), which provides equity to small renewable energy and energy efficiency projects by financing regional funds. He described the GEEREF as a "fund of funds" and said the EIB is currently managing money from the European Commission to invest in regional funds that have objectives in line with the SE4ALL initiative. He said the EIB is the Fund's manager, but is also looking to invest in the Fund.

Moderated Panel Discussion

Moderator Tanaka asked for a rough estimate of the leverage provided by the mechanisms described. Howard responded that: the ITF grant-leverage ratio is around 13:1 and blends grants and loans; the AEGF is around €600 million, with an expected leverage ratio of 4:5 or €3 billion; the ASEF ratio is about 2:1, using significant grant financing; and the REPP is roughly 10:1, with lower leveraging and a higher level of donor funding and performance-based results.

White added that leveraging depends on the country and project context. He said smaller projects have lower ratios, and that the avoided cost per ton of CO_2 should also be looked at, which, for the Uganda project, is US$8 or US$9. He said donors must understand investments in Uganda are purely grant-based and achieving leverage is a big step forward.

During a panel discussion with private sector participants, Moderator Tanaka asked panelists to comment on the preceding presentations and approaches. Sherife AbdelMessih, CEO, Future Energy Corporation, commended the schemes presented, and noted that no matter the size of the project, the overhead is the same, and large amounts of capital must be deployed. Noting fossil fuel resources are finite, he asked "How long do we want to keep burning dead dinosaurs to create energy?" He noted the high cost of generating fossil fuels in places like Uganda, as opposed to the EU and US, where prices are much lower due to subsidies of up to half a trillion US dollars per year.

He supported shifting from a non-resilient energy infrastructure and finding ways to deploy capital on a large scale. He said the perception that renewables are expensive, require subsidies and do not work is outdated, noting internal rates of return of 5% to 50%. Thus, he dismissed excuses for not investing in renewables at a large scale, because they make money, lead to more resilient energy infrastructure, and address the negative risks of climate change, as well as geopolitical risks related to fossil fuels. He said renewables align all the interests of the development banks because they are not just economically driven, but they have a social impact as well, and that development banks need to leverage their infrastructure and resources to deploy these investment funds there. He said hundreds of renewable energy investors and developers have projects and pipelines, and development banks need to target and interact with those players as distribution vehicles to get that money deployed.

Nat Bullard, Director of Content, Bloomberg NEF, said the case could be made for investment in renewables without ever invoking the word "climate," underlining the strong fundamental economics and increasingly sophisticated assessment of technology of renewables. Countering the persistent perception of a stagnant sector, he noted its dynamic and expanding nature, stating that US$150 billion was spent on solar energy in 2011, the same amount spent on capital goods, like airplanes. He highlighted the fundamental role that institutions can play, and stressed the importance of a strict hierarchy of needs and clearly defined goals and outcomes for scarce capital to play a role. He noted that clean energy and access are not goals in themselves. Bullard emphasized: undertaking activities that banks will not touch, including financing new projects, such as the Ouarzazate CSP project in Morocco; creating funds that provide access where there otherwise would not be; and bundling projects to attract more investment.

Govind Raj Pokharel, AEPC, Ministry of Environment, Science and Technology, Nepal, said decentralized and

small-scale technologies are not seen as commercially viable and public sector money has to be spent. He provided an example in Bangladesh where the government is leveraging US$30 million per year by investing US$4 million as a subsidy for energy access. He also provided household-level examples in Nepal, emphasizing the omnipresence of leveraging, not only in large-scale projects, but in cooking energy solutions as well. He said in the 48 LDCs, almost 2/3 of the energy supply is used for cooking. He lamented that only a miniscule percentage of public money is invested in this sector, which has multiple social issues, such as indoor air pollution. Thus, he said the focus should not only be on access to electricity, but also on access to energy for cooking, which is a critical challenge in the Asian context.

Moderator Tanaka then asked panelists about the impact of energy prices on their efforts. AbdelMessih said in his company's case, business models target countries that do not require subsidies as they have high energy prices, which enables solar to be generated at a lower cost than what people are paying for fossil fuels. He said while price is important, the relative price difference between fossil fuels and renewables is more important. He said this price difference can only be maintained by economies of scale and large scale investments. He stressed that while he would welcome carbon pricing policies, such as a carbon tax, as an additional advantage, waiting for such an occurrence is not necessary as the economics are already working and the returns are good.

Witte stressed that in some countries, such as in Sub-Saharan Africa, coal and other fossil-fuel alternatives are significantly cheaper even without subsidies and, therefore, he did not envision a business model for the private sector without other support. In many countries in Sub-Saharan Africa, he said the overall access rate is below 25%, and while huge investments are needed, he believed the vast majority would be in fossil fuels, not in renewables. He said renewable technologies are still expensive, poor countries cannot take on the costs of technology development, and that technology transfer would be required if clean energy is to be consumed. Witte said it would be futile to try to convince many in Sub-Saharan African to invest in more expensive renewable technologies rather than in natural resources, such as gas. He said the key for economic development is productive use, not just electricity for household use. Responding to Bullard's comment that clean energy is not a goal, Witte said the question then is whether to use clean or dirty energy, and from that angle, he asserted that clean energy is a goal.

Bullard said if renewable energy is a fundamentally distributed solution and cannot compete with wholesale power generation, then it should not be undertaken in a wholesale fashion, and that trying to make a solar system compete with a coal-fired power plant in Zambia is a "fool's errand." He said long-term subsidies are necessary to keep a market going, and to keep prices from going down. Noting different priorities require different actions and solutions, he said SE4ALL emphasizes access as a priority, which is useful, but that those decisions will have consequences in terms of technology choices, partners and financial mechanisms that are used. He reiterated his belief that clean energy is non-actionable and not a goal in itself.

Howard agreed many opportunities are not yet being taken advantage of, and said interventions are required to reduce obstacles that are preventing projects that can be attractively offered to consumers without having to talk about subsidies. He said such obstacles include foreign exchange and liquidity issues, matters related to regulatory frameworks and whether the national utility pays out on time. He identified this as a "low-hanging fruit," in that this is an area that potentially could advance if obstacles

are reduced. He said technology costs are continuing to come down, and supported focusing public money on areas and gaps in the market where obstacles are not currently being addressed, and reducing risks that are out of the control of project developers. He said project developers cannot take risks that are out of their control, and advocated for focusing on this issue over the next five years.

Pokharel described pre-electrification, graduation and productive end users, emphasizing that renewables should be designed in the context of access to energy. He said in LDCs, more than 40% of people live in poverty, and discussed an example of pre-electrification in Nepal, where 5 watt lanterns were used in more than 25,000 rural households. He then described a graduation of energy needs: electricity, cooking, television and radio, and SMEs. He emphasized two goals: enhancing livelihoods by increasing income; and enhancing access to clean energy. He said slowly demand will increase, which will bring in the private sector.

As a concluding question, Moderator Tanaka asked panelists what they perceived to be the next big "low-hanging fruit" that could be picked with minimum effort. AbdelMessih said during the financial crisis, the first thing that gets cut from government budgets is renewable energy funding. He predicted a paradigm shift regarding how renewables will be financed in the future, transitioning from a heavily subsidized industry built on feed-in tariffs and tax incentives to an industry that can compete by itself and is financially resilient, and where investments are recouped quickly. He emphasized low enough production costs to enable competition in certain geographies. He said the low-hanging fruit is pursuing markets: where depending on or lobbying the government for support is not necessary; and with high electricity prices where renewables are already competitive.

Bullard identified, as a low-hanging fruit, a sense of imagination as to what can be accomplished, noting that the technologies are already exist. He suggested using the financing mechanisms and capabilities of the CIF, EIB and KfW to initiate that process, and stressed the importance of ensuring that correct numbers are presented with up-to-the-minute prices. Pokharel said the opportunity to invest in renewable energy in developing countries was a low-hanging fruit.

Enabling Private Sector Investments

Mafalda Duarte, Chief Climate Change Specialist, AfDB, moderated the session on Wednesday morning. Introducing the topic, she said that while it is critical for the private sector to address the challenges of climate change, the discussion would address how governments can facilitate investments in both mitigation and adaptation.

Presentations

Andrea Bacher, Policy Manager for Environment and Energy, International Chamber of Commerce (ICC),

Andrea Bacher, International Chamber of Commerce

described "the big picture" from the perspective of ICC members, who represent 120 countries. She said that, two years ago, the ICC began to consider what policies would create an enabling environment to foster investments for a green economy with economic, environmental and social innovation, outlining 10 framework conditions: open and competitive markets; metric accounting and reporting; finance and investment; governance and partnership; integrated policy and decision making; a life-cycle approach; resource efficiency and decoupling; awareness; employment; and education and skills. She said that these conditions would contribute to bringing together short- and long-term profit needs.

She called for national green growth strategies that will accelerate the development and deployment of products and services for green growth through accessing both private finance and public funds. She suggested that "leveraging private finance" should be a key performance strategy for MDBs and development cooperation.

Bacher called for innovative approaches to financing, such as partial risk-sharing mechanisms, including developing common methodologies or standards, credit guarantees, "green bonds" and co-financing to reduce investment risks. She also called for developing non-financial support mechanisms, such as advisory services to educate local lenders (including banks, institutional lenders and microfinance intermediaries in emerging markets) on how to establish dedicated financial products, incentives, credit lines and capital pools that target specific opportunities for greening economies.

Bacher highlighted the ICC's publication of global business guidelines on investment policies, ownership and management, finance, fiscal policies, anti-corruption measures, legal frameworks, labor policies, technology, commercial policies and competitive neutrality. She emphasized the importance of electricity, telecommunications, water supply and other infrastructure as a major determinant of foreign direct investment coming into a country. She also mentioned the ICC's work with the ADB on: standards and good practice; project preparation; and structuring of PPPs for building infrastructure. Bacher stressed the importance of world trade for recovery of the global economy after the 2008 economic crisis, mentioning the ICC's cooperation with the ADB to establish a trade register for measuring global risk in trade and export finance in order to enable bankers and regulators to make appropriate policies.

Kaushik Ray, Trinity International LLP, spoke about the legal and regulatory aspects of enabling private sector investment. He outlined Trinity's work for the UN on building PPPs to scale up resources for climate-friendly investment.

Ray described Trinity's survey of stakeholders in PPPs, which identified helpful factors in the business environment. He said the survey indicated a lack of seed capital as the prime impediment to renewable energy transactions, which have higher capital costs than most projects and require very long-term financing, thus encountering greater political risk. He said the main requirement for enabling private sector investment is to ensure that a legal and regulatory structure is in place, and added that this also involves addressing investors' perceptions of risk, including through political risk insurance on the part of development banks.

Ray said that governments should practice "joined-up thinking" whereby support structures for PPPs are not stand-alone entities, but involve members from Treasury, environment and planning departments and ministries.

On other enabling factors, he mentioned the availability of long-term debt, noting that very few

actors other than MDBs are interested in such long-term financing. He said that some energy initiatives, such as geothermal feasibility studies, can be very expensive and do not necessarily result in projects.

Ray also highlighted issues of credit-worthiness of off-takers and the need for: credit enhancement measures; capacity training needs within governments; availability of multilateral investment guarantees from development banks; and availability of low-cost connections to the grid, including the advantages and disadvantages of regional projects and regional power pools. He noted the challenge of learning-by-doing when initiatives are being attempted for the first time, referring to South Africa's and Cape Verde's experiences of "pathfinder" projects that have successfully commissioned renewable energy projects in their respective countries. In Cape Verde, he noted that renewable energy now provides 25% of the country's power over a series of islands. He identified the country's success factors as: a clearly identified process; putting in place legislation; a realistic timeline; and a clear allocation of responsibilities among government authorities. He highlighted the key role of PPP units in the government structure, and the need for agreements that permit energy developers to have recourse against government agencies. He noted the experience of Morocco in successfully delivering solar and wind energy projects supported by its own national electricity office, which guaranteed developers access to the grid and the purchase of electricity at attractive tariffs.

Ray concluded that despite current efforts, renewable energy still faces a financing "viability gap," and that filling the gap requires a financial institution to be "the lender of first loss." He also noted the role of tariffs, quotas, fiscal incentives and the CDM market in filling the financing gap.

Timothy Irwin, International Monetary Fund (IMF), offered a fiscal analyst's perspective on PPPs. He referred to the IMF's econometric study of the determinants of investment in clean energy, which reveals that investment goes up with oil prices, feed-in tariffs and carbon pricing. He highlighted the IMF's publication, "Fiscal Policy to Mitigate Climate Change: A Guide for Policy Makers," which conveys that the most effective instrument is revenue-raising carbon pricing, including cap-and-trade policies.

He said that PPPs are also useful in this regard, as they allow governments to concentrate on the outputs they want, while delegating to a private firm the task of providing those outputs. He cautioned, however, that PPPs and other long-term contracts can create debt-like obligations that escape normal budgetary controls as they are not reported as debt, but nevertheless require a series of government payments over time. He said that decisions to enter into these types of contracts are not subject to the same kind of scrutiny as conventional debt, and governments, therefore, could overcommit themselves. He referred participants to the IMF paper, "Fiscal Transparency, Accountability, and Risk" for further information.

Irwin recommended that to avoid fiscal problems, governments need to: first, establish procedures for approving PPPs and other long-term contracts that are similar to existing procedures for approval of ordinary borrowing; and second, improve fiscal transparency. He said this could be achieved by: good forecasts of required or possible payments; measures of public debt that include the value of future payments in PPPs and that consolidate public enterprise contracts; and budgets and accounts describing the risks that outcomes may differ from forecasts.

Moderator Duarte noted that this issue was being debated in Portugal and Greece, as more analysis of risk around PPP agreements has been undertaken. She highlighted the large infrastructure gap in African countries and the need for investments in the coming years. She commented that governments do need structures for PPPs, and that procedures to avoid problems can be put in place.

Karen Breytenbach, National Treasury, South Africa, spoke about her country's arrangements for the procurement of 3,725 MW of renewable energy through PPPs based on a bidding process, noting that competitive bidding enabled regulators to correctly pitch the price of renewable energy. She cautioned that while competition benefits consumers, it should not drive the price so low that closing the deal is not possible. She explained that South Africa had avoided this problem by requiring bidders to include pre-approval from their banks, as part of the bid. She emphasized South Africa's commitment to a green economy and to a decrease in carbon emission levels, and expressed hope for growth in green jobs.

On project development, Breytenbach outlined: ESKOM's role as the buyer and owner of the grid, and its work with agriculturalists and landowners; and capacity needs in the government for developing the structure of PPPs. She described a memorandum of understanding that was signed between the Treasury, energy department and the AfDB in order to appoint international advisors to the process, to ensure that the South African government builds in the capacity to be able to adopt international best practices in the drafting of PPP agreements.

Breytenbach highlighted lessons learned on how to ensure that the evaluation of bids remained a closed process free of interference. She explained that during evaluations computers and cellphones were kept outside the room, and that a dedicated server was purchased to ensure that the information remained in a separate environment. She affirmed that the decision stands up to international scrutiny, and that all reports from the process are available. She noted the need to avoid delays, as this can result in the withdrawal of investment from private sector actors.

In conclusion, she highlighted the government's achievements in the project: creating 13,500 jobs, including 8,000 jobs during the construction phase; reducing the price of renewable energy; and setting the conditions for preferential sourcing (so that developers

source goods and services locally), community development and local involvement to ensure that as many people as possible share in the project's benefits. She noted that investors take into account a country's "fiscal space" and management of debt, underscoring that South Africa had assured investors that there was no risk of the government nationalizing or expropriating profits from the venture. She said bidders were also required to report quarterly and annually on their economic development obligations.

Nintira Abhisinha, Bangchak Petroleum, provided a private sector perspective from Thailand. She described Thailand's policy aim of reducing oil imports and its target of introducing 25% renewables to the energy mix by 2021 through solar, wind, biopower generated through biomass and waste, biofuels, including ethanol and biodiesel, and hydropower.

She described Thailand's plan to promote alternative energy generation and use, including rooftop solar, wind power, hydro and waste-to-energy initiatives, through: providing adequate incentives through feed-in tariffs and corporate income tax waivers; amending related regulations, such as on land use and factories (to provide incentives for solar and wind projects);

Nintira Abhisinha, Bangchak Petroleum, Thailand

improving grid infrastructure, for example through introducing smart grids; undertaking public relations efforts for renewable energy; and carrying out R&D to increase local content in technology.

She outlined her company's shift towards increased use of renewable energy in its current refinery and retail businesses, and its expansion of biofuel and plantation projects. She also mentioned the company's receipt of ADB financing for solar energy development through a Thai baht-denominated loan of US$134 million in Phase 1 of the program, and further financing from the ADB and CTF for US$60 million equivalent funds in Phase 2. She highlighted ADB-supported initiatives at Bangchak for carbon tracking and analysis through an intranet tracking system, carbon-offset investment assessment, and employee training and public awareness activities, saying her company has a history of outreach activities among school children.

Caleb Indiatsi, Manager, Corporate Planning and Projects, Geothermal Development Company (GDC), Kenya, discussed the Menengai Geothermal Development Project, and provided a background on geothermal energy, noting it is power extracted from a heat source beneath the Earth's surface, and that bringing it to the surface requires drilling sometimes as deep as 3000 meters. He discussed the different phases of developing a geothermal project in his country, especially in the case of electricity generation: resource exploration (prospecting, detailed surface expansion, and exploration drilling and well testing); resource assessment (appraisal drilling, feasibility studies, production drilling, and resource management and further development); and power plant development and operations (financing, environmental and social impact assessment for power plant development, and substation and transmission line). He said the first two phases have little or no private sector involvement, but that the third phase would be run by independent power producers (IPPs).

Caleb Indiatsi, Geothermal Development Company, Kenya

He discussed risk and guarantees required as GDC supplies steam to the IPP, which then sells electricity to Kenya Power, the publicly owned utility company. He explained that investors are "sandwiched" between two government entities, GDC and Kenya Power. He explained that the GDC drills for steam, sells steam to the investor, and manages reservoirs, and the IPP generates power and sells electricity, which Kenya Power then purchases and retails. He explained that, with development partners, the AfDB and the World Bank, they were trying to insulate investors from risk, and were looking at partial risk guarantees on the GDC side for steam supply and on the Kenya Power side for electricity purchase so investors feel comfortable with their investment

He said investment opportunities include supplies and services, such as: rigs, geo-exploration tools, instruments and equipment; drilling materials and services; steam field design, equipment supply and steam pipeline construction services; consulting services, including feasibility studies; and direct geothermal resource uses. He identified indirect opportunities as: specialized engineering services; generation equipment; transmission and substation equipment; and civil construction works.

He outlined that Phase 1 of the project entails 400 MW in the Menengai field by 2016, and that the aim is to deploy six rigs (four are currently in the field) and drill 120 wells. He said four investors will be responsible for 100 MW each and will be chosen from the shortlisted 19 IPPs who expressed interest in installing power plants.

He described multiple sources of financing for the various activities, including the AfDB (two rigs and drilling materials), SREP (appraisal drilling program), French Development Agency (two rigs and steam field development), European Investment Bank (local purchases) and World Bank (steam field development), and said project completion was expected by December 2016.

Question and Answer Session

During the ensuing discussion, a participant asked Indiatsi about a possible integrated approach whereby the private sector was also involved in resource development, or if the IPP is only involved in "above-the-ground" activities. He questioned how risk is managed, for example, if not enough steam is produced, will some sort of compensation be paid for not providing the energy. Indiatsi responded that the preferable solution is to have one entity in charge of drilling to ensure steam is available to all IPPs operating in the field for the duration of generation. He said the contracting arrangement is a "take-or-pay" arrangement to ensure steam that is made available is used.

Replying to a question from the World Bank on government procurement and the role of PPPs in South Africa's renewable energy program and whether the utility company Eskom is going to be an off-taker and or if it is for community use, Breytenbach responded by saying the program is still in its inception phase.

She said they were in discussions with development finance institutions (DFIs) with the aim of putting together a package to facilitate the participation of smaller players.

Regarding Breytenbach's presentation, Amal-Lee Amin, E3G, said it was interesting to see: the leadership role the Treasury was playing in overcoming some of the challenges faced in promoting renewable energy and in delivering scale of investment in the sector; and the strong focus from a fiscal perspective in recognizing risks and overcoming them to deliver investment in this sector. She asked about the role of the CTF and to what extent it was instrumental. Breytenbach said the IFC-managed part has been used for the CSP projects, and that the CTF money is going into those projects. She said renewables are still expensive compared to coal, and the government needs to work to ensure the affordability of renewables.

In conclusion, Moderator Duarte underscored that the CTF has been playing an important role in terms of enabling private sector investment in renewable energy, but that more resources are needed.

Sustainable Cities: Investing in Energy Efficient and Climate Resilient Urban Development – Global Perspective

This session convened on Wednesday morning.

Introduction

Setting the context for the session, Moderator Lin O'Grady, EBRD, stressed that half the world's population, or around 3.5 billion people, lives in cities, even though cities only occupy 2% of the Earth's surface. She said cities account for 70% of CO_2 emissions, and that urban challenges include securing clean water, achieving climate resilience, adopting sustainable transport policies and systems and reducing emissions. She highlighted EBRD municipal projects on water, urban transport, district heating and solid waste. She noted the EBRD provides loans, mostly to companies, which are aligned with grants, and said both private and public sector solutions are examined in keeping within the purview of the EBRD's mandate. She said: EBRD finances, *inter alia*, water rehabilitation projects in Turkey and Moldova, compressed natural gas (CNG) and road rehabilitation projects in Belgrade, a metro project in Ukraine and trolley buses in Moldova; and that projects are selected based on their climate resilience potential, and include stakeholder engagement, education, sustainability and tariff components. She said all projects from the outset must define objectives in terms of climate resilience, and that compliance with these targets is monitored at the end of project.

Keynote Address

Alex Nickson, Climate Change Adaptation and Water, Greater London Authority, UK, discussed London's aim to reduce emissions by 60% based on 1990 levels by 2025 through, *inter alia*: decentralizing the energy supply; improving home energy and water efficiency in every London home by 2030; retrofitting 40% of public sector buildings by 2025; and shifting to CO_2-efficient forms of transportation.

Nickson noted: London was not well adapted to a changing climate; in the future, even average weather is likely to present challenges to current coping abilities; early action today will not only manage current risks, but save money, create jobs, attract and retain investment, and improve quality of life in the city; and some changes will take generations to implement and, thus, must begin now.

He discussed the Mayor's six-point plan, which addresses: ensuring all new development is water efficient; improving water efficiency of existing development through retrofitting; raising public awareness regarding the benefits of water efficiency; installing water meters in all properties by 2025; tariffs that incentivize water efficiency; and reducing leakage. He also stressed the connection between water and energy use. In order to manage overheating, he said the city of London aims to, *inter alia*: green the downtown area by 5% by 2030; increase tree cover by 5% by 2025; and seek combined cooling, heat and power opportunities.

In summary, Nickson said: to compete in the global market, cities must be seen as a safe investment; adaptation and mitigation measures are often complementary and more effective if undertaken together; cities need to build public-private-voluntary sector partnerships; and city governments must lead by example.

In the ensuing discussion, Moderator O'Grady said she was surprised by the low uptake of water meters in London.

On raising tariffs to incentivize more rational water use, one participant asked about the political acceptability of imposing and raising water tariffs and how to overcome political resistance to this. Nickson responded that London has a privatized water sector, and is lobbying to raise the tariffs. He explained the "block" tariff system, whereby the first block is for necessities, and each additional block is considered an increased luxury and is subject to a rising tariff, but stressed that a "safety blanket" will protect those who cannot afford to pay for water. He identified giving people the capacity to be water efficient, metering and tariffs as a "powerful" combination, and said if any of these is delivered individually, "you lose the net benefit of the whole being greater than the sum of the parts."

Responding to a query about relevant data and lack of accessibility, Nickson discussed the London DataStore, where data is stored online and openly sharing it is encouraged. Using flood risk as an example, he also discussed building community capacity to understand issues relevant to them so that communities are able to "own the flood risk they live at."

A participant from Mali raised the issue of the green economy and lack of a universal definition up to this point, noting differing views of the concept in developed and developing countries. He asked if developing countries can really own the concept of green economy and what content can be given to the concept in a country such as Mali. Nickson responded that part of the beauty of the green economy term is its flexibility and the fact that it is still being defined. He noted that in London, they are trying to define the "adaptation economy," that is what is needed for climate resilience, such as water efficiency measures, managing green infrastructure and sustainable drainage systems, and looking at solar controls, such as putting films on windows and providing shading. He viewed the adaptation economy as a subset of green economy, but said no one has really captured it yet. He urged defining green economy more broadly to include the adaptation economy, which he said needs to be finessed to each particular situation, noting it creates more of a cottage industry, in contrast to a low-carbon economy, which is undertaken at a greater scale.

Panel Presentations and Discussion

Dayo Mobereola, Managing Director, Lagos Metropolitan Area Transport Authority (LAMATA), Nigeria, discussed the transport dimension of urban challenges in Lagos, which has over 20 million inhabitants. He said challenges include: the pattern of urban growth, with the less privileged often having

to commute long distances; severe congestion, which impacts social and economic activities; an ineffective public transport system, with the poor often vulnerable to high transportation costs; and increasing air pollution, which impacts health and quality of life.

He said the first phase of a bus rapid transit (BRT) system is already up and running, and provides advantages, such as: a potentially less expensive transit mode; an opportunity to take advantage of underutilized rights-of-way; drastically reducing greenhouse gas emissions; flexibility in operations; and fast and reliable travel times. He said in four years, over 220 million people have used the BRT system and that daily ridership exceeds 180,000. He noted: reduction of travel time by 30% and fare by 40%, and an average waiting time of 10 minutes; generation of over 15,000 jobs (both direct and indirect); and reductions in noise level by 50% and in air pollution along the corridor by 13%.

He discussed how the BRT system can be scaled up with CIF support, including through the conversion of high occupancy vehicle (HOV) buses (about 1000 in Lagos) to cleaner fuel/CNG-fuelled buses; replacing mini-buses with new energy-efficient technology; introducing more segregated lanes to improve bus operations efficiency; introducing a well-equipped control center and passenger information system; and expanding e-ticketing.

He identified as challenges: human capacity problems and lack of awareness; acquisition of technology to address current environmental issues; local supply of CNG/cleaner fuel refueling stations; lack of a regulatory approval process for installing CNG/cleaner fuel facilities; a cumbersome process for accessing CIF funds; and lack of standardization in measuring the impact of transport interventions on the environment to access clean technology funds. He said these challenges could be overcome by: training of key personnel; retrofitting; private sector participation and networking with the private sector to secure approval for installing CNG/cleaner fuel facilities; streamlining the approval and disbursement of CIF funds; and developing a standardized framework for measuring impacts, by the World Bank and other relevant agencies.

Mobereola explained that LAMATA's 2020 vision for transportation in Lagos integrates rail, ferry and expanded BRT projects. He also discussed the Blue

line rail project, a private-public project, where the government is responsible for the rail infrastructure, and the private sector is responsible for the rolling stock and operations. He said: the project covers 27 km and has 13 stations; projected daily demand when complete is 400,000 passengers; 15,000 direct and indirect jobs are forecasted to be generated; and air pollution along the corridor is expected to decrease by 30% and noise pollution by 60%. He said the proposed future nine BRT lines are expected to carry up to 2,150,000 passengers per day, which with the proposed seven rail lines in Lagos State, will significantly reduce CO_2 emissions and cost approximately US$10 billion.

Moderator O'Grady said what struck her was how long Lagos has been grappling with traffic congestion. She recalled attempts to try a scheme where cars were restricted on alternate days by plate number. Mobereola responded that the scheme was halted when people started buying second cars, and noted difficulties with weaning people off cars and getting them accustomed to using public transport.

A participant from Brazil said that the problems raised in the two presentations were not a "London problem" or a "Lagos problem" but rather a "planet Earth problem." He advocated thinking about Earth stewardship, and suggested replicating solutions from one city to another to "show by example" that collaboration can generate an improvement in livelihoods. He said the technology, solutions and people willing to implement the solutions are available, but that funding is lacking. Mobereola agreed there was no use in reinventing the wheel, but stressed that systems cannot be imported and expected to work right away, and that solutions must be adapted to the specific situation in Lagos.

A representative from Nigeria asked about measuring the BRT's effectiveness in reducing CO_2 emissions, and whether a registry exists to measure such reductions. She also asked about the development of other modes of transport, such as water transport, to complement the BRT. Mobereola said the BRT was funded by the World Bank and baseline studies were required along the corridor to determine the level of greenhouse gas emissions and that monitoring took place over time. He said that a comprehensive master multi-modal transport plan for Lagos exists, including for rail, buses, ferries and cable cars, but that lack of resources is still a major constraint. He also said they were working with bus operators to ensure they do not lose their jobs or feel the government has introduced a new scheme and sidelined them.

In a final presentation, Dorin Chirtoacă, Mayor of Chişinău, Moldova, said while cities face many similar problems, they differ in dimension and level. He said only through austerity and growth, and through making more money and spending less will partners reach out and sign contracts for projects. He discussed cooperation with the EBRD, noting its support for a water rehabilitation network, and described obstacles that had to be overcome in the relationship. He said obligations undertaken were sometimes not respected by city hall and by water companies, the tariff was not increased and the loan was not paid back, which led to a five-year freeze of the relationship with the EBRD.

Dayo Mobereola, Lagos Metropolitan. Area Transport Authority, Nigeria

He said that when elected mayor of Chişinău, he brought the city back to the cost-recovery level through necessary reforms, and that in 2008 cooperation with the EBRD resumed. He explained that 120 buses were purchased, and he hoped that in 2–3 years, the whole public transportation network would be new. He also mentioned other recent projects, including: district heating, where consumption decreased by 5–10%; new trolley buses that use 40% less electricity; and rehabilitation of water and sewage pipelines.

He described: two feasibility studies, on flood risk in the city and on energy efficiency; and a 30–30–30 building insulation plan whereby the city, grants and apartment owners contribute equally. He added that 16,000 trees are planted annually in Chişinău. He also discussed road rehabilitation on six main city streets, and a trolley project, where every third trolley was EBRD-funded, indicated by a plaque.

During the discussion, one participant proposed synergies between cities and monitoring, reporting and verification of CO_2 emissions. A participant from Brazil: recalled the Rio+20 outcome reaffirmed the importance of cities; indicated that plans from cities were often more ambitious than those from national governments; and asked how the MDBs are working with cities, given that they usually work through national governments. O'Grady said the EBRD does lend directly to cities and companies. A number of participants indicated they had managed to gain the support of MDBs at the municipal/city level. As further evidence of this and using the Chişinău example, Chirtoacă explained that water and district heating tariffs were increased to be at the cost-recovery level, and the EBRD contacted the city and is considered a real partner. He said the international donor community understands what is happening in each country regarding development or lack of development, and knows better than us what must be changed to begin a new project. Noting the former dictatorships and historically centralized structures, particularly in Eastern Europe, he pointed to delays in decentralization, and said his city is working within the current legislative frameworks instead of waiting for the laws to change. Chirtoacă suggested that "if you do the right thing, the MDBs will come by themselves without an invitation."

In contrast, Mobereola lamented that Lagos did not enjoy the same situation as Chişinău regarding MDB support, and noted MDB money in Nigeria goes through the national government and that politics often take precedence over economic, environmental and social benefits. Due to different ruling parties at the state and national levels, he said the national government often blocks funds from going to the state level. He supported establishing a mechanism that would allow banks to directly approach local and subnational authorities rather than going through national governments, noting this process is slow and can often take two to three years.

In closing, O'Grady said cities differ in scale and population, but many of the climate issues faced by cities are similar, and that work must be under taken at the global level to address these issues.

Measuring Results and Impacts in a Meaningful and Practical Way

This session convened on Wednesday morning.

Introduction

Moderator Robert Kramer, American University, introduced the session's two objectives: inviting three pilot countries to showcase lessons learned about making M&E more practical and meaningful; and

inviting participants to learn through asking questions of the presenters.

Guido Geissler, CIF Administrative Unit, discussed the purpose of M&E, urging countries to draw on their own practical experiences and Theory of Change. He acknowledged that combining climate action and development aims increases the complexity of projects exponentially, and called on countries to be pragmatic and flexible in adopting the results framework and to view it as a learning opportunity.

Geissler highlighted that an M&E system will only work if it has a purpose and provides useful information. He emphasized that the primary objective of M&E is to provide the evidence base for better decision making. He also highlighted the role of M&E as a way to provide accountability within countries for its use of domestic resources, as well as external accountability to donors.

Showcase Presentations – Cambodia, Mozambique and Nepal

Meas Sophal, PPCR National Program Director, Ministry of Environment, Cambodia, presented activities relating to the SPCR investments in Cambodia of US$400 million. He discussed the monitoring of 26 core indicators related to 16 outputs based on the Cambodian Millennium Development Goals, highlighting that most indicators did not include consideration of climate change and resilience, and stating this was an opportunity to encourage the adoption of such targets in the national development framework.

Sophal described the establishment of a working group in August 2012, comprising 10 representatives of key ministries and agencies, to build on existing national and sectoral M&E systems, and incorporate climate resilience into the national strategic development plan.

He said that water resources, agriculture and infrastructure were the three sectors identified by the working group as being the most adversely impacted by climate change, and emphasized four key messages to colleagues: build on existing national and sectoral M&E systems rather than creating a separate framework for the PPCR; rely not only on quantitative indicators, but also on qualitative and binary indicators; set a clear baseline and consider the need for a longer timeframe to observe transformational impacts; and, crucially, complementing individual project and program evaluation with overall assessments of trends in the country's vulnerability to climate change.

Xavier Chavana, PPCR Coordinator at the Ministry of Planning and Development, Mozambique, said his country had made the decision to prepare a national M&E system related to climate change, rather than only responding to CIF and PPCR requirements. He noted that Mozambique is one of the most vulnerable countries to climate change on the African continent, mentioning recent flood events as the worst in 150 years. He said the M&E framework will need to report to national authorities on how they are implementing the national development agenda, and that it should, therefore, integrate all existing initiatives within a results framework. He noted that sectoral M&E frameworks in agriculture, water, transport, energy, forestry and other sectors already exist. He highlighted that 2014 will be the end of the monitoring cycle covered by Mozambique's Poverty Strategy Reduction Paper and current development strategy, saying this will help assess to what extent the activities carried out have contributed to national development goals.

Chavana said a challenge for Mozambique is that robust indicators and data on climate change are not available at present, and there will need to be agreement as to how these gaps will be addressed. He envisaged that the development of a vulnerability index for the country would help in targeting further interventions to the most vulnerable areas. He said that current development of an M&E system is being carried out in three phases: design and initial operation in the first two years; system refinement from the second to seventh years; and further development from the seventh to the twelfth years. He stressed that development of M&E is an evolving process, for which capacity needs to be improved for data collection and analysis, in order to support better decision making.

Govind Raj Pokharel, AEPC, Ministry of Environment, Science and Technology, Nepal, presented key indicators to help capture the impact of the SREP. The indicators relate to: the number of households supplied with electricity through renewable energy; leverage of additional funds for renewable energy investments; and environmental co-benefits. He discussed the SREP's transformative impact in: scaling up investments and energy access through on-grid and off-grid renewables; innovation in the introduction of project financing mechanisms; poverty reduction through promotion of productive end-use of energy in off-grid solutions; gender and social inclusiveness; and mitigation of climate change by eliminating the use of kerosene for lighting purposes.

He described several different types of M&E being practiced in Nepal: performance monitoring; poverty monitoring and analysis systems; results-based M&E; and managing for development results. He noted that various institutional frameworks exist for M&E, and that several ministries have their own

Xavier Agostinho Chavana, Ministry of Planning and Development, Mozambique

M&E action committees. Furthermore, he said that monitoring may be conducted at macro and micro scales, from the national to the village level, and that "input-output" monitoring is most widely practiced in Nepal.

Pokharel said the main challenge in M&E for the PPCR and SREP is to design and align it to the national context. He commented that energy and climate indicators are weak in current frameworks, and that M&E could be improved in focus, coordination, accuracy and clarity, instead of being currently practiced as "a ritual rather than a tool for management." He provided examples of ministries reporting different data on the same issues, and of M&E being seen as a secondary task rather than as a priority.

He proposed improvements in, *inter alia*: ensuring that baselines and indicators are adequately defined; improving inter-ministerial coordination; building capacity; and developing a national learning and sharing platform. He added that successful coordination among stakeholders, and development of a coherent M&E framework, could be a welcome output of the SPCR.

Intermediary Lending for Energy-Efficient Housing

Claudio Alatorre, Inter-American Development Bank (IDB), presented the Ecocasa project implemented by Sociedad Hipotecaria Federal, Mexico, which provides intermediary loans to housing developers for energy-efficient housing. Alatorre described the objectives of the loans, which enable the building of houses with better thermal insulation, energy-efficient water heaters, and other energy savings devices. He explained that the technologies used in housing present uncertainty regarding actual emission reductions as this will depend on many variables, including whether houses are built according to plan, the number of occupants and their habits, such as how often they open their windows.

He highlighted preparations for conducting impact evaluation, with the IDB and CIF support, to inform future homebuyers of savings from an energy-efficient home, and provide input into the design of future policies of donors and governments. The preparations included the use of control groups in different cities, and avoidance of potential bias in the composition of groups, through random allocation, as well as identification of indicators, including gas consumption, humidity and house appliances.

Group Discussions and Question and Answer Session

Participants then broke into subgroups with the panelists, and had the opportunity to discuss M&E

issues and challenges, and share their experiences concerning M&E. Group discussions were followed by a plenary session, with a brief Q&A session with showcase countries responding to some of the questions raised.

A participant from the German Ministry for Economic Cooperation and Development reported back that her group had discussed using the PPCR results framework to enhance capacity at the national level for M&E of harmonization and mainstreaming adaptation issues. She noted that the results framework has been greatly simplified, and asked if it could be made more ambitious, so as to better contribute to this objective.

A participant from the CIF Administrative Unit emphasized the need to strike a balance between over-complicating M&E approaches and being too simplistic. She recalled that the committee meetings had agreed to begin with what is possible, so as to achieve consistent efforts across a small number of indicator areas. She noted that this, however, does not preclude measuring additional indicators according to national and sector-specific interests and needs, and encouraged countries to undertake more ambitious M&E, relevant to their policy aims.

Meena Khanal, Ministry of Environment, Science and Technology, Nepal, asked panelists how they visualized the role and involvement of civil society in M&E, referring to SPCR guidelines on implementation. Alatorre affirmed the importance of civil society's role in measuring long-term changes taking place in institutions and in the country. He suggested their involvement would be important at the beginning of an IP or project, to define what policy results are desired and anticipated over the long term. He proposed that in future, civil society could be involved in assessing whether those aims have been achieved. Beyond project impacts, he suggested it is even more important to talk about "changes in the rules of the games," which he said are relevant not only for civil society but for governments as well.

Chavana commented that participation varies from country to country. He highlighted different aspects of participation, citing Botswana as a good example for governance and transparency, and Mozambique for decentralization. He noted the need for evidence to show that stakeholder consultations have been carried out, and have been productive.

Sophal referred participants to a published booklet on how Cambodia has been implementing the PPCR, including matters related to civil society engagement. He stressed the importance of project design, giving examples of how the government has worked with civil society through identifying common indicators, and providing funds for joint implementation of projects. A participant from the ADB added that about US$2 million has been provided for technical assistance to the Cambodian government to mainstream adaptation into operations at the local level, including funding to NGOs that will be involved in local-level activities and also in monitoring and evaluation of the whole program at the national level.

A participant from Forum Syd, Cambodia, urged participants to focus on applying lessons learned to future projects. She asked them to consider how M&E frameworks can be constructed to the satisfaction of civil society and not only those involved in the PPCR, and proposed considering participatory M&E approaches.

Pokharel provided the example of small-scale energy projects being implemented through a multi-stakeholder approach in Nepal, which includes joint monitoring by stakeholders.

Chavana highlighted that Mozambique is using SPCR funds to build up its own M&E system, and that its national climate change agenda is based on several pilot investments that will be reported on jointly as outcomes of the national climate change strategy.

A participant from the Ministry of Finance, Tonga, commented on managing the relationship between national plans and the M&E system. Comparing their situation to Mozambique's, where the SPCR is helping to deliver the government's existing objectives, she said that some countries may not be ready for that, and capacity building is, therefore, required. She highlighted her country's work in designing a system for capacity building before the program started.

A participant from the Ministry of Finance, Nepal, urged participants to be transparent about their programs, and suggested disseminating information through television and other media.

Wrap Up and Key Messages

In summing up, Geissler said that one of the main lessons learned from setting up the M&E system was that the process of doing so is as important as the resulting system. He expressed appreciation for the solutions developed by countries, including: Cambodia's initiative to establish a technical working group across government ministries; efforts by Cambodia and Nepal to integrate M&E into the national system; adoption by Mozambique and Nepal of an M&E system that relates to the national development agenda rather than to a single donor; and Mozambique's use of technical assistance for a coordination mechanism to establish an M&E system.

He highlighted several key messages: the possibility of diversity and different solutions in the application of M&E; building a reliable M&E framework requires time to communicate and involve stakeholders, and is not a "quick fix"; and the need to build capacity, work together and support each other. He noted that much of the discussion had focused on M&E, and urged participants to keep the "E" for evaluation in mind from the project design stage. Finally, he accepted that there would be tension between programmatic and project-based approaches, and encouraged everyone to continue with the dialogue. He proposed holding webinars as a way of keeping in touch between Pilot Country Meetings, and suggested participatory M&E as a relevant topic within a programmatic approach.

Civil Society Participation in the CIF: Finding New Opportunities and Overcoming Barriers

Introduction

Moderator Clifford Polycarp, WRI, introduced this session on Wednesday afternoon, noting it was about stakeholders, and invited panelists to present lessons learned regarding improving efficiency and effectiveness of projects, drawing on stakeholder input throughout the project cycle.

Introduction to CSO Participation – Survey and Results from the Civil Society Forum

Sergio Sanchez, Clean Air Institute, Mexico, reported on outcomes of the Civil Society Forum, which was held on Sunday 4 November, which included approximately 125 participants from civil society, indigenous peoples' groups, the private sector, parliaments, governments, academic institutions and IFIs.

He discussed the outcomes of the Forum in a presentation titled "Finding new opportunities and overcoming barriers: Civil society participation in the CIF." He said that participants agreed on the need to transform technologies, foster

Sergio Sanchez, Clean Air Institute

sustainable forest management, increase energy access and promote climate-resilient development, and also stressed the importance of drawing out the key principles on which these actions should be based. He listed the principles discussed by participants as: good governance; inclusion (e.g., social, gender, multiple stakeholders); rights recognition; representativeness; mutual respect and trust; cooperation between sectors; accountability; transparency; and democratic access to knowledge.

Sanchez said participants had identified the need to: establish a structure to link observers from the global to the national level; develop and implement a knowledge sharing platform based on stakeholder needs, access, preferences and language; develop and implement stakeholder engagement strategies at the country level; and enhance transparency and public access to information at the national level.

On a structure to link observers, he raised issues related to: limited capacities for stakeholder engagement at the national level; frequent questioning of whether designated groups are truly representative of civil society; and poor involvement of stakeholders. He stressed that some stakeholders are also rights holders, and suggested that opportunities exist in: a CIF platform for observers at the global level; linking consultation processes across countries and regions; and national stakeholders' eagerness to participate and collaborate.

On a knowledge sharing platform, he highlighted: limited knowledge sharing across sectors and regions; limited technical capacity; and scarce opportunities for sector interaction. He suggested that opportunities exist in: regional dialogue and knowledge dissemination; and stakeholder willingness to contribute to knowledge sharing.

On country-level strategies, he noted limited consideration of stakeholder needs, access, preferences and languages, and that language and communication technology also pose barriers. He suggested that opportunities can be found for expanding access to information technologies, and using traditional media channels, such as radio and TV, which are accessible to the targeted audiences.

On transparency and access to information, he pointed to a lack of trust, and that stakeholders have limited access to data and reliable information. He said that opportunities are seen in MDBs' progress on implementing transparency standards, and the possibility of building on existing frameworks at the national level.

Sanchez called for: national plans to include sufficient resources in their budgets for stakeholder engagement activities, implementation of communication strategies, technical assistance for learning and knowledge sharing activities, and participation of key stakeholders in regional activities. He presented the forum's recommendation that the proposed actions be discussed at the next CTF-SCF meeting, and that a decision be adopted, implemented and followed up through inclusion as part of an M&E framework.

Moderator Polycarp then invited the panel to provide their perspectives from the grassroots level, reflecting on lessons and recommendations for the CIF.

Panel Discussion

Marion Verles, Executive Director, Nexus – Carbon for Development, Cambodia, introduced Nexus as a non-profit membership organization comprising development agencies that have banded together as a vehicle to access innovative financing, and to share the risks of this undertaking. She described several climate change initiatives in Cambodia, including a

national climate change alliance, adding that climate initiatives provide a means for building capacity of local organizations, which was necessary in order to elicit enlightened, constructive and timely feedback to the CIF committees. Referring to her experience as an official observer to the CIF from the region, she proposed that observers come up with a joint common strategy and speak with one voice, including with regard to the design of the Green Climate Fund (GCF). She welcomed the CIF webpage to which observers can contribute, saying this would support national actions and the global coordination of observers, and could help monitor their work. She affirmed that observer contributions should be evaluated, and that having the right tools could help do so in a structured manner.

Mafalda Duarte, CIF Coordinator, AfDB, commented on the diversity of CSOs and the need to address these differences, saying that the CIF community has been on a learning curve with regard to CSO engagement. She noted that the MDBs have procedures for engaging with civil society and that there is a need to learn how CSOs can contribute to the CIF in terms of its governance, and in designing procedures and processes. She said that further work is required on how best to ensure that CSOs are truly representative of their communities, and affirmed that while this is not easy, the role of CSOs is critical.

Duarte said that at the program level, the views of intended beneficiaries are critical in discussing investment projects to be selected, and identifying which ones will be socially relevant and sustainable. She acknowledged that this has been a challenge at the IP phase, because countries do not always have the mechanisms, understanding, resources or capacity for such engagement. She stressed that this issue cannot be easily addressed through an IP process, as it relates to a country's systems, and to strengthening systems as a whole. She said the CIF community has tried to find ways to improve in this area, referring to earlier discussions of country coordination mechanisms, regional and national forums, and the web platform to be established, and to their publication, which was on display at the Knowledge Bazaar, about engagement at the IP level.

At the project level, she emphasized that all MDBs have procedures for stakeholder engagement, although the application of some procedures may need to be improved. She pointed to different types of CSOs, noting that the AfDB has contracted some of them in designing, monitoring and evaluating projects.

Summing up, she highlighted that: all parties are continuing to learn in this area; the CIF is a new community with processes in place at some levels but not others; CSO engagement is key to the CIF; CSOs have used the CIF community to engage better with their own governments on climate policies and priorities; and innovative instruments, such as the forest program, have been established. She noted that some CSOs have cited the CIF approach of engaging with observers as a potential model in the GCF design.

Artur Cardoso de Lacerda, Deputy Assistant Secretary for International Affairs, Ministry of Finance, Brazil, presented on Brazil's experience with the FIP. He emphasized transparency and democratic access as important principles, and highlighted the use of both Portuguese and English in activities in Brazil, saying that, "communication is essential in the right language." He regretted the limited availability of translation at the Partnership Forum, which he said had restricted the engagement of some stakeholders, and suggested that access and transparency issues, including translation, be addressed in GCF operations.

He also called for a clear vision on the role of CSO observers in this process, saying this has not always been clear. He expressed doubt regarding the nomination of national focal points due to issues of representativeness and legitimacy, preferring instead to work with existing institutions and networks, including regional representative institutions that have a constituency of local organizations. He cautioned against creating something new, where networks and structures already exist.

On knowledge sharing, he highlighted the diversity of stakeholders in Brazil, including indigenous peoples, regional constituencies and other networks. He stressed the need to reach out to as many people as possible through established tools of communication, for example, through existing community centers and radio services. He said it would be possible for MDBs to receive CSOs' views about IPs directly, and not only through their respective governments.

On transparency and access, he acknowledged that the MDBs have instruments in place, but that some improvements could be made.

Amal-Lee Amin, International Climate Finance, Third Generation Environmentalism (E3G), United Kingdom, affirmed the CSO session as a welcome innovation. She recalled that governments had invested large amounts in the CIF due to recognition that all countries need to transform their economies in a changing climate. She affirmed that the CIF have demonstrated what it means to have transformational investments and have raised some good case studies, but that there has not yet been an opportunity to discuss the real difficulties, and that this is where civil society plays an important role both at the international and national level.

In relation to the policy-making process, she emphasized that civil society should be engaged not only to ensure accountability, but also to design policies that will deliver socially beneficial outcomes. She stressed that such engagement underpins successful policies, delivering transformational change is more complicated than designing a "business as usual" policy, and that civil society engagement is therefore even more important. She praised the international collaboration among MDBs through the CIF, and the inclusion of civil society representation on CIF committees, referring to these as transformative approaches.

Abigail Demopulos, Deputy Director, US Department of Treasury, expressed satisfaction with the CIF's progress from the perspective of the US. She welcomed CSO participation as a positive aspect

of the CIF's work, highlighting the importance of learning-by-doing, among other things. She looked forward to gaining ideas from this participation, and urged participants to focus on what is achievable. She called on CSO observers on the Trust Fund Committee to build connections with local stakeholders, in order to be to be as broadly representative as possible.

She noted diversity among countries participating in the CIF in terms of size and how people organize themselves, which requires different systems within the CIF adapted to national and regional needs. She welcomed the proposal to build off of consultation processes occurring within countries, and compared the CIF's approach favorably with those of other organizations in the past. She acknowledged that the information in project documents is complicated, and requires finding appropriate modes and channels of communication, possibly through web-based discussions, to enable full understanding and the possibility of providing comments before documents are finalized.

Noting the CIF were designed to work through the MDBs, she supported Duarte's view of the MDBs as "the critical piece" in the CIF, pointing to their in-country presence and responsibilities. Finally, she invited comments from observers regarding ways to organize the Partnership Forum so as to foster discussions.

Question and Answer Session

Moderator Polycarp then opened the discussion to the floor. A participant from Niger expressed concern over the discussion, which he said was focusing on initial CSO contributions, rather than on the role they have already played. He urged everyone concerned to move on to the operational level of project implementation with the involvements of CSOs. He noted CSO participation in the local governance of natural resources, where governments have decentralized functions.

A participant from the Pan African Climate Justice Alliance, Kenya, expressed appreciation for the presentations and responses from panelists. He reflected views expressed by participants regarding the need to increase the pace of civil society engagement. He queried whether the role of CSOs includes monitoring and implementation, and whether funding windows for NGO implementation would be available. He asked how funds would be channeled, and whether the process for doing so would be consistent with other multilateral processes, for example under the UNFCCC. He also asked whether funding would be in the form of loans or grants, expressing concern about poor countries becoming over-burdened with loan repayment obligations. He sought clarification about the role of the World Bank and the CIF in relation to the GCF, and whether it would potentially compete with the GCF.

Abigail Demopulos, Deputy Director, US Department of Treasury

A participant from a Mexican indigenous network expressed concern about how indigenous peoples' role in the CIF is viewed. He stressed that indigenous peoples are possessors of the territory where programs are being conducted, and that they wish to be seen not only as observers or beneficiaries, but also as participants. He highlighted the rights of indigenous peoples that are enshrined at the international level in the UNDRIP and the CBD, and warned against developing programs without the consent and participation of indigenous peoples, in cases where they are principally affected.

In response, Moderator Polycarp commented that indigenous peoples have some observer seats on committees, and that the issue raised relates to representativeness. He also referred to the comment regarding the role of CIF vis-á-vis the GCF, and potential changes and improvements that could be undertaken during a transition process.

De Lacerda acknowledged the presence of diverse stakeholders, which necessitates different forms of engagement. He highlighted the need for inter-sessional work to be conducted, and called for "permanent dialogue." To address the issue of representativeness, he suggested trying to reach as many organizations as possible at the country level.

Amin cited the example of the Amazon Fund as a fund with a good governance structure, mentioning its participatory engagement with civil society and existence of a funding window for project implementation by CSOs. She noted that while the CIF have an open and participatory structure, especially in the FIP and SREP, CSOs had not been actively involved in the CIF design, resulting in their feeling disenfranchised. She suggested that regional dialogues could be valuable in building stronger CSO ownership and engagement.

Verles emphasized the need to rely on existing networks and levels of engagement at the country level, pledged to create a working group in Cambodia involving key stakeholders, and expressed interest in organizing a workshop in Cambodia to present outcomes and continue discussions. Regarding the role of civil society in monitoring or implementation, she expressed interest in trying out solutions in Cambodia, and providing feedback.

Duarte called on participants to use the CIF to strengthen country systems for experience sharing, transparency and accountability, rather than promoting a separate "CIF system." She said that the MDBs have procedures in place to promote civil society involvement in project implementation, as well as mechanisms that CSOs can use to reflect on existing procedures and make suggestions for improvement. She explained that whatever is learned through the CIF experience will be channeled through GCF structures for consideration.

Demopulos added that the GCF's first board meeting recently took place in August 2012, and that 2013 will be an important year regarding how the design of the GCF. She commended the work of the observers on the Trust Fund Committees in building bridges to local stakeholders and making information more accessible.

This session convened Wednesday afternoon. Moderator Rose-May Guignard, Senior Urban Planner, Inter-Ministerial Committee for Land-Use Planning, Haiti, said the session's key objective is to understand the role that a science-based approach and technology play in delivering climate information services, and to recognize the pivotal role of climate services in delivering development.

Hydromet and Climate Services:

Can Science Help Countries Deliver?

Introductory Remarks

In introductory remarks, Mustafa Yildirim, Deputy Director, Turkish State Meteorological Service (TSMS), said climate is the most important factor determining national and environmental conditions, and that information gathered, managed and analyzed by the Service helps decision makers and users plan and adapt their activities and projects to expected conditions. He then shared some information about the TSMS, which is the only legal organization providing meteorological information in Turkey. He said the observational infrastructure has been strengthened through the use of equipment, such as automated weather observation systems (AWOS), Doppler radars, upper air stations and satellite receiving systems, and the aim is to invest more in observational infrastructure in the near future. He said they expect to increase the number of AWOS from 753 to 6,000, and will add seven Doppler radars.

He discussed various technologies for marine forecasting, dust transport, forest fire early warning systems and climate projections, and said a super computer is used to run models efficiently. He said the TSMS prepares weather forecasts and daily warnings, using SMS, television, radio and web messages to alert the public. He also discussed web-based services for the agriculture sector, and monitoring systems for the Black and Mediterranean Seas.

Yildirim explained that in 2009, the Service became host to the Eastern Mediterranean Climate Center for the World Meteorological Organization (WMO), offering climate monitoring and seasonal forecasting services. He said Turkey provides full climate services in climate-sensitive sectors, such as water, transport, health, forestry, tourism, fisheries and disaster risk reduction, and that the Service carries out research in, *inter alia*, climate change, acid rain and transboundary air pollution. He said the TSMS actively contributed to the preparation of Turkey's Second National Communication and the National Climate Change Adaptation Strategy and Action Plan. He said that, as WMO's regional training center, the TSMS has organized more than 50 international certified training courses since 2001, which have benefited more than 500 experts from developing countries.

Keynote Address: Global Challenges, Partnering with Service Providers and Users

In his keynote address, Jeremiah Lengoasa, Deputy Secretary-General, WMO, highlighted the role of the CIF in helping countries "manage the unavoidable," including weather-related shocks, changes in rainfall and economic impacts of disasters, particularly in cities and coastal areas. Referring to a diagram showing the relationship of disaster risk management elements, he recommended shifting attention from recovery to mitigation and early preparedness.

Lengoasa underlined the importance of building community resilience, which he said would require changes in policies and their focus, as well as bringing in critical infrastructure for early warning capability, including hydrometeorological services. He cited new building codes and local planning regulations, as examples. He affirmed that focusing on early preparedness would reduce immediate impacts of a catastrophe, enable rapid recovery and diminish the long-term negative impacts. Referring to temperature and precipitation charts, he noted that extreme weather is on the rise and is resulting in loss of life and livelihoods, but that early warning capability has helped to mitigate the loss of life in recent years.

Lengoasa further reported that 10-year data from 2001–2010 shows the occurrence of more hot days and heat waves, fewer cool nights and intensification of heavy rainfall. He noted that global temperature trends continue to rise, and that record low levels of sea ice in the Arctic have been measured.

He displayed a visual representation of a climate prediction framework, explaining that advances over the past 30 years have enabled the provision of long-range forecasts and climate scenarios over decades and centuries. He highlighted their usefulness for many socioeconomic sectors, despite containing some uncertainties.

Lengoasa described "a revolution" in the application of climate services, which he said are moving from:

Jeremiah Lengoasa, World Meteorological Organization

mitigation, to both mitigation and adaptation; few users to many; global scenarios to regional predictions spanning days to decades; climate change, to climate change and variability; general predictions, to including weather characteristics, extremes and impacts; and operational delivery, to regularly updated monitoring, forecasts, products and services.

He then presented the Global Framework for Climate Services (GFCS), a planned global integrated approach to hydrometeorological services, which the WMO has been mandated to develop. The GFCS is built around five "pillars": observation and monitoring; research, modeling and prediction; an information system; a user interface platform; and capacity building. He introduced a user interface platform for the GFCS, which provides a structured means for users, climate researchers and climate data and information providers to interact, and which is intended to operate at global, regional, national and community levels. He highlighted that the aim of the platform is to promote effective decision making by delivering information in a timely manner to relevant users, and noted the potential for users to have a voice in driving the development and use of climate services. He described opportunities to build upon established dialogues and partnerships, including regional climate outlook forums, and government agencies for civil defense, health, agriculture and water services. He further described research, modeling and prediction activities in various areas, including regional climate information, regional sea-level rise, the cryosphere (frozen areas), atmosphere and climate, changes in water availability, prediction and attribution of extreme events, and climate and socioeconomic factors.

Noting that around 60% of the most vulnerable nations do not have the basic capabilities to provide climate services to their population, he described the WMO's efforts in building: human resource capacity to generate, communicate and use climate information that is relevant to public decision making; and infrastructural capacity to generate, archive, communicate and use relevant climate information, and to control its quality.

He predicted that user demands would result in increasingly complex science, modeling and prediction systems, as well as increasingly complex user requirements, including multidisciplinary and multiscale approaches. He underlined the importance of scientific partnerships and partnerships for service delivery, and dialogue with the end-users of climate information.

Lengoasa depicted the climate information "value chain" in a visual representation of government agencies' interaction with technical infrastructure and data management systems, highlighting food security, agriculture, disaster risk management and water as four key sectors that would use climate information and services.

He mentioned the transition to a low-carbon economy as an example of a cross-cutting issue requiring interdisciplinary and transdisciplinary approaches, and the desire of climate information users to be able to predict events. He also highlighted the release of a new Atlas on Health and Climate, published by the WMO jointly with the World Health Organization and launched at the WMO's Extraordinary Congress held in October 2012.

Science and Technology in Climate Services Provision

Paulo Nobre, Senior Researcher, Center for Weather Forecast and Climate Studies, National

Institute for Space Research (INPE), Brazil, described the development of climate services in Brazil, including at the institutional, programmatic and infrastructure levels. He stressed the need to translate scientific information for users and to bridge conflicting stakeholder interests, and for sustained investment in research and observation, and capacity building.

He talked about, *inter alia*, customizing climate information at the state and user levels, downscaling climate information for local applications, and holding media events year round. He stressed the importance of close proximity to and engaging users, and of translating information in a manner that local society can understand. He said this evolved into a national monitoring and early warning center.

He discussed the Brazilian Network for Global Climate Center Research, the largest research network in the country, which consists of 13 subnetworks, 40 research institutes and universities, 23 graduate programs, 200+ fellowships and 400+ researchers. He also described the Brazilian Model of the Global Climate System, highlighted South-South cooperation by bringing students from Brazil, South Africa and India together to work on climate modeling, and presented INPE's new supercomputer for climate change research.

In summary, Nobre emphasized that: state of the art science and technology is essential for the provision of skillful hydrometeorological information; usefulness depends on translating information, such as maps, based on users' common language and experiences; program longevity depends on bringing conflicting interests and stakeholders together; and sustained investments in research, observations and capacity building are critical.

Addressing the Needs of Climate Service Users

Rishi Ram Sharma, Director General, Department of Hydrology and Meteorology (DHM), Nepal, discussed whether science can help countries deliver services for end users, and presented on his country's PPCR project on building resilience to climate-related hazards. He said Nepal is rich in water resources, has a high potential for hydropower, although it has only harvested less than 2% of this potential, and is the fourth most vulnerable country to climate change.

He said that Nepal's SPCR risk assessment found that the primary concerns of all communities involve securing water for drinking and agriculture, and protecting communities from floods and waterborne diseases. He also discussed the risks from glacial lake outburst floods. He said that between 2001 and 2008, flood and landslides killed 1,673 people, affected more than 200,000 families, killed more than 33,000 livestock, destroyed more than 52,000 homes, washed away or destroyed over 22,000 ha of land, and had an economic cost of roughly US$25 million. He explained that a study undertaken in Nepal suggested that spending one dollar in hydrometeorological services will result in a return of US$5–10.

On whether hydrometeorological services can help, Sharma underscored that: a well-functioning early warning system was identified as a key priority for disaster risk management; at present, capacity is insufficient and manual (as opposed to automated), and that irregular transmission hampers quality and timely information to end users and results in a large data gap; extensive mobile phone coverage supports the dissemination process to end users, whose numbers are growing; and favorable developments for launching DHM services include availability of high resolution climate models, increased computing

facilities, easy access to the regional climate center, recent adoption of the GFCS by the WMO, bilateral cooperation and funding availability.

He stressed the importance of the PPCR in this regard, noting it is a five-year project (2013–2017), which aims to: diminish the impacts of extreme climate-related events; protect lives and assets; support agricultural livelihoods by establishing multi-hazard information management systems; and improve the accuracy and timelines of weather and flood forecasts and warnings. He said the PPCR intends to meet these objectives by: strengthening institutions and sustainability of the DHM, and building capacity; modernizing observation networks and forecasting; enhancing service delivery systems to the DHM, including through automation; and developing an agriculture management information system.

He said end-user advisories and services were particularly helpful for farmers, as roughly 80% of the population relies on agriculture for their livelihoods. He said the PPCR is expected to reduce asset losses and loss of human life from disasters, and enhance productivity, particularly in agriculture.

Rose-May Guignard, Inter-Ministerial Committee for Land Use Planning, Haiti

Tufa Dinku, Associate Research Scientist, Climate and Environmental Monitoring, Health and Climate Services, International Research Institute for Climate and Society (IRI), Columbia University, presented a case study from Ethiopia on enhancing climate services by improving the availability, access and use of climate information. He stressed that climate data is the foundation for climate services, and that improving such services requires the availability of information. He said users must be involved and trained so they understand and can use the information. He said data availability could be improved by combining station data with data derived from satellite observations. Since satellite data has excellent spatial coverage and is available for most parts of world, he said this could be used to alleviate station problems related to data gaps.

He noted: the training of National Meteorology Agency (NMA) personnel; processing raw satellite data from the past 30 years; and generating a 30-year climate time series for every 10 km across the country. He discussed improving access to data by providing online access to products and analysis tools, which involved: transferring the IRI Data Library technology to the NMA (the first time it was installed outside the IRI); developing information products for specific applications; and making the information products and tools available through the web to users.

He presented the newly modified NMA webpage, outlining new products, such as map rooms for climate analysis, climate monitoring, agriculture, water and health. Noting that information can be, *inter alia*, extracted for any level (district, zone, regional), and rainfall or temperature trends over various time frames, Dinku stressed the unprecedented nature for a climate service, particularly in Africa, to provide such information with the "click of a mouse."

On improving use and training users to understand, demand and use climate information and facilitating the formation of a community of practice, he provided the example of training health professionals and establishing a climate and health working group to maintain constant dialogue between information users and providers.

He said the project was launched in December 2011 and thus far the data has been used for: assessing the effect of climate on malaria interventions; assessing water resources over southwestern Ethiopia; monitoring potential flood areas; monitoring the season's progress for food security; weather-based index insurance; and research by university students.

Beyond Ethiopia, Dinku noted that similar projects in Tanzania and nine West African countries had been or were nearing completion. He said in the near future, projects were expected in Burkina Faso, Mali and Niger (funded by the WMO), and Madagascar (partially funded by the World Bank).

He said next steps include: strengthening the Ethiopian model, especially the user engagement aspect; completing projects in West Africa and Madagascar; evaluating the approach by an external, independent body; if positively evaluated, forming a global consortium (if scaled up, IRI cannot do it alone); and scaling-up to more countries in Africa and elsewhere.

Question and Answer Session

During the ensuing discussion, a representative of the Sustainable Business Institute and the UN Finance Initiative noted development of a project proposal that complements efforts discussed in this panel, and expressed interest in addressing the gaps between data that is available and the information that investors need. He suggested complementing all the efforts to bring climate services to companies and the private sector, and proposed a joint research project to bridge the gap and structured dialogue between those who have and those who need data, and asked those who have an interest in contributing brain power, financial support or time to come forward. Lengoasa concurred that the private sector feels that access to existing data is lacking, as is the kind of science and knowledge required for decision making in their respective sectors.

Wilbur Ottichilo, Member of Parliament, Kenya, asked Lengoasa how much support the WMO is providing to developing countries, especially in Sub-Saharan Africa, to develop capacity to acquire climate data in real time, particularly satellite-based data. He asked about capacity building programs, the types of training programs undertaken, who qualifies to participate and whether they are funded by the WMO or other agencies. He also asked about the current status of Meteosat Second Generation (MSG), and if a program is in place to launch a Meteosat Third Generation (MTG).

In response, Lengoasa mentioned the Addis Ababa Declaration for implementing the GFCS suggested a commitment by the African Union and regional economic communities to utilize what is available to them through the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), and said that the EUMETSAT would help with implementing the GFCS. He said the Declaration was followed by the establishment of the EUMETSAT User Forum in Africa. He discussed the MSG, explaining that during the early stages of the project, qualifying countries were supplied with satellite receivers and stations, but that they sometimes went silent due to lack of project sustainability. He said the MTG will build on what already exists. Regarding training, he identified IGAD Climate Prediction and Applications Center (ICPAC) as a key

training center based in Nairobi, with regional climate outlook forums, in which scientists, the media and users participate.

Ottichilo asked Nobre what convinced the Brazilian government to invest so heavily in data collection, which is normally very difficult, particularly in developing countries, and how the programs were funded, particularly the design and launching of Brazil's own satellite to obtain data. He asked if funding was external or generated by Brazil. Nobre responded that Brazil has developed a very strong reliance on agriculture and the government realized that weather and climate information was crucial to keep the economy running, and, with scientists, built its own prediction center and invested in data collection, with money from oil exploitation. Regarding the satellite, he noted that Brazil opted for aerospace development, which was funded by Brazil. When climate change became an issue, Brazil funded products and committed to reducing CO_2 emissions from forest fires. He also noted a heavy dependence on hydroelectric power generation, with both public and private sector investment.

Responding to a question from Ottichilo on whether Turkey has managed to put its own satellite in space, Yildirim said that, while they do not have their own satellite yet, Turkey is a member of the European Union Satellite Centre, and is able to benefit from those satellites and others. He also mentioned that private investors in Turkey have invested in solar and wind energy.

Responding to a question from Ottichilo on whether Nepal invests in data collection or depends on donor funding, Sharma explained that all observation is done manually, which is not enough, as they have more than 460 hydrological and meteorological networks. He stressed the need for upgrading, as well as for automated stations and translating data to real time, which required money from donors. He said the current scenario is managed by the government, but they are getting funders.

A participant from Ethiopia asked Dinku his views on climate variability vis-à-vis climate change based on his assessments in Ethiopia and other African countries. Dinku replied that both are happening and it is a matter of priority as to which is addressed first, adding that climate variability today will consequently help to address climate change.

Responding to a query about connecting high-tech information to early warning systems, Lengoasa stressed the importance of investing in early warning capability infrastructure, including national hydrometeorological services. He used the earthquake in Pakistan as an example of a non-hydrometeorological event for which early warning was useful since it occurred at the onset of winter and the disaster support community was able to respond to that.

Lengoasa commended the CIF for being one of the few funds that includes meteorological services in its programs, and for building resilience of communities into early warning systems. He also stressed the direct link between investments in hydrometeorological services and early warning capability for communities.

Participants discussed decision making from a social science perspective, as well as from a hydrometeorological perspective. They also shared knowledge and experiences about working, communicating and cooperating with the private sector.

Nobre said a great opportunity existed for large investments in ocean observation, and that getting people interested and connected with information

sources and being able to decode and understand what a warning means is crucial for making information gathered and products available meaningful for people.

Yildirim highlighted four factors with respect to early warning: good observation systems; obtaining satellite images; putting in place high-resolution models; good forecasting based on information, while ensuring good communication and collaboration with between meteorological services and local authorities.

A botanist from China asked about experiences with the impacts of climate change on biodiversity, particularly relating to endemic species survival and the spread of invasive species. Nobre said that in Brazil, changes had been mapped in the habitat and migration patterns of birds due to changes in temperature and land use. He said as a function of these two factors, temperature and land use, the program is able to monitor and predict how much biodiversity is going to change.

Wrap Up and Key Messages

In conclusion, Moderator Guignard asked the audience to indicate three key messages or "takeaways" from the session, which participants identified as: the useful development of early warning systems; the need for equal access to climate-related technology to build climate resilience; and clearly defining "resilience," which has been elusive, as a composite of bouncing back, adaptation and absorption of shocks. Moderator Guignard said the session had highlighted a new definition of resilience, the need for training technicians and users, and dealing with risk management from an earlier stage in the process.

Closing Plenary

Patricia Bliss-Guest, Program Manager, CIF Administrative Unit, moderated this session on Wednesday afternoon.

Closing Speeches

Josué Tanaka, EBRD, welcomed Taner Yildiz, Minister for Energy, Turkey. Tanaka then thanked the Government of Turkey and Turkish colleagues for their preparation and support of the meetings during the week. Noting that the work of the Trust Fund Committees has shifted from program definition to on-the-ground implementation, he welcomed the Turkish authorities' presentation of results that have been achieved.

Tanaka highlighted the unique nature of the CIF in sparking collaboration among the MDBs in addressing the global climate challenge, and affirmed that the MDBs have built their own capacity and knowledge in the process. He expressed hope that their work will provide a valuable contribution to defining the future architecture of climate finance, and that the CIF will be able to bridge funding gaps in the interim. He commended Turkey's achievement of meaningful power sector reforms, which he said has resulted in significant growth in renewable energy and energy efficiency, and a reduction of around 1% of the country's carbon emissions, saying that these

Josué Tanaka, EBRD

achievements demonstrate the potential for concrete results within a short time period.

Taner Yildiz, Minister of Energy and Natural Resources, Turkey, said the country aims to increase cooperation with the private sector, is developing many energy efficiency projects, and has published a strategy document on energy efficiency. He anticipated savings of US$15 billion by 2023 through these projects, saying this is a realistic target as Turkey imported US$54 billion worth of fuel in 2010. He emphasized the potential for investors to realize returns on their investment in five to six years, or sooner.

Minister Yildiz highlighted Turkey's rapid growth rate and its commitment to environmental protection, noting the government's previous suspension of projects that had negative impacts on the environment. He added that Turkey aims to be in harmony with EU policies, stressing that managing the country's rapid growth will be vital, to ensure, *inter alia*, that future generations inherit a better world. He listed Turkey's current involvement in various types of energy initiatives, including wind, solar, geothermal and biomass projects, emphasizing the need to ensure that future generations inherit a better world. Finally, he expressed gratitude to the international community and NGOs for their know-how and engagement in the policy-making process.

Reports Back From Plenary And Panel Sessions

Forum Co-Chair Diane Barclay then invited session moderators to provide one-minute summaries of key points from the various sessions held during the Partnership Forum.

On **innovations in engendering climate finance**, Lucy Wanjiru, UNDP, highlighted that: women should be seen as agents of change; gender considerations can be a transformational driver for change in mitigation and adaptation; and collaborative partnerships and sharing lessons learned will promote gender inclusion in CIF programming and implementation.

On the session **toward sustainable energy for all and financing energy access for the poor**, David McCauley, ADB, said the panel had discussed: how to provide energy access while remaining on a low-carbon path; carbon finance, which may be more helpful in the medium term than the short term; the need to identify, scale up and replicate the best business models for energy access; various forms of finance, including subsidized programs, social capital, microfinance, community loans and blended forms of these approaches; and community ownership, flexibility and affordability.

On the session **reporting from the CIF Private Sector Forum**, Joumana Asso, CIF Administrative Unit, presented a chart showing the regions and sectors represented by the approximately 220 participants. She said the event had considered differences in public and private sector perspectives based on how success is viewed, and their differing concerns, focus and style. She said participants in the session had discussed the landscape of financing, market transformation, value chains and the possibility of creating a securitization market for climate-related investments. In closing, she reiterated the quote used by Michael Liebreich in his keynote presentation at the Private Sector Forum, from bullfighter El Gallo: "It is impossible – and also very difficult."

On **enabling private sector investment**, Mafalda Duarte, AfDB, said participants had discussed: the importance of seed capital; availability of long-

term debt; credit-worthiness of off-takers; and fiscal risk in PPPs. She recalled that case examples from South Africa, Kenya and Thailand were presented, which indicated that different models worked well in different situations, rather than a one-size-fits-all approach. She said that information gaps should be addressed to develop regulatory frameworks,.

On the **landscape approaches – addressing mitigation, adaptation and poverty reduction in one go**, Andrea Kutter, CIF Administrative Unit, summarized the key messages from the discussion, highlighting that the landscape approach: is climate-smart and can yield multiple benefits; puts livelihoods at the center; must meet the needs of countries and local communities; requires an integrated approach linking the national level to local levels and various sectors; provides investment opportunities for public and private sectors; and could benefit two billion ha of stressed land.

On the session **toward sustainable energy for all and making big investments work in renewable energy**, Andreas Biermann, EBRD, recalled the three key objectives of SE4ALL, to: enable access for all; increase renewable energy production; and improve energy efficiency. He described presentations by KfW and the EIB on specific instruments that make efficient use of public funds to attract private finance into the SE4ALL initiative. He said the session concluded that: the private sector does not always require subsidies; and there is a need for identifying clear objectives and targets, as well as opportunities, risks and gaps, including those beyond the control of project developers.

On **sustainable cities,** Marta Simonetti, EBRD, summarized the discussions during the session as follows: all cities are facing challenges in mitigating the adverse effects of climate change, as well as in adapting to it, although the scale of the problem varies across regions; sustainable urbanization, optimal resource management, and foresight in managing future events are important for resilient cities, given that the majority of the world's population will live in cities; both national and local-level responses and solutions are needed; and the need for people to exercise personal responsibility for their choices regarding the management of available resources.

On **measuring results and impacts in a meaningful and practical way**, Guido Geissler, CIF Administrative Unit, said that presentations from Cambodia, Mozambique and Nepal offered both challenges and solutions. He highlighted that: the CIF have committed US$7.2 billion to pilot investments in REDD+, renewable energy, clean technical and climate resilience initiatives around the world; and 48 developing countries are involved in this process of transformational change by 2025. He recommended that simple but comprehensive results reporting should be adopted to capture successes achieved by 2025. He summarized key messages from the session that: M&E is not a "quick fix"; diversity should be embraced; building a reliable system takes time; and stakeholders can be involved in "participatory M&E."

Taner Yildiz, Minister of Energy and Natural Resources, Turkey

L-R: Diane Barclay, Australia, and Elvan Ongun, Turkey, close the CIF 2012 session with a handshake

On **civil society participation in the CIF, and finding new opportunities and overcoming barriers**, session moderator Clifford Polycarp, WRI, said the discussion focused on what participants had learned from stakeholder engagement, and their ideas for improving practice in this area. He highlighted two key messages emerging from the session, on the need to: strengthen the link between observers' roles and activities on the ground; and create structures to engage the diversity of stakeholders and enable their contributions.

On **hydromet and climate services, and whether science can help countries deliver**, Rose-May Guignard, Haiti, displayed a picture of a butterfly, and questioned whether science can provide the answer to the "butterfly effect," whereby small actions have large impacts elsewhere. She reported on discussions that science and technology can contribute to a climate-resilient earth, but that equal access to climate-related technology will also be needed.

She said the session had discussed: the need to translate data into meaningful information that can benefit the population in sectors, such as agriculture, health, early warning systems and disaster risk management; the importance of improving technology access through training and dialogue between users and providers of services to ensure users understand the benefits of climate information services; and the need for partnerships between science and delivery organizations in order to unlock the potential of climate services, citing examples of the PPCR, the WMO's GFCS, regional initiatives and the private sector.

Electronic Voting Session

Led by Patricia Bliss-Guest, participants then used electronic voting tools to provide opinions on several issues, for comparison with opinions expressed at the start of the Partnership Forum.

More participants (85% compared to 80% before) indicated they understood global climate change challenges well enough.

Fewer participants (78% compared to 83% before) believed that the private sector was a key stakeholder in reducing greenhouse gas emissions.

More participants (59% compared to 44% before) felt that mechanisms were in place to help developing countries leapfrog dirty technologies.

Half of the participants (50% compared to 54% before) felt that civil society was empowered to make a different on climate action.

The same proportion of participants (74%) expressed concern that with the financial crisis and the end of the fast-start period for climate finance, the flow of climate finance would decrease.

Closing Remarks By Partnership Forum Co-Chairs

In conclusion, Forum Co-Chair Barclay commented that a refreshing aspect of the Partnership Forum had been its focus on practical measures. She noted that CIF actors, including microfinance and technology providers, investors, indigenous groups, academics and countries contributing to the CIF, had addressed a broad range of issues at the Forum, from sustainable cities to M&E, energy access and adaptation. She conveyed thanks to the Government of Turkey for hosting the Forum, and the staff at the CIF Administrative Unit for their work. Looking forward, she quoted the writer Ralph Waldo Emerson, stating "Good thoughts are no better than good dreams, unless they be executed."

On behalf of the other Forum Co-Chair Cavit Dağdas, Elvan Ongun expressed appreciation for the opportunity to share lessons learned and experiences, and urged participants to take home ideas from the Knowledge Bazaar that was held alongside the meetings. She thanked the EBRD for their role as co-hosts.

Co-Chair Barclay then declared the 2012 CIF Partnership Forum closed at 6 pm.

Glossary

ADB	Asian Development Bank
AEGF	Africa Energy Guarantee Fund
AEPC	Alternative Energy Promotion Center (Nepal)
AfDB	African Development Bank
ASEF	Africa Sustainable Energy Facility
AWOS	automated weather observation system
BRT	bus rapid transit
CBD	Convention on Biological Diversity
CIF	Climate Investment Funds
CSO	civil society organization
CSP	concentrated solar power
CTF	Clean Technology Fund
DHM	Department of Hydrology and Meteorology (Nepal)
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites
FIP	Forest Investment Program
GCF	Green Climate Fund
GDC	Geothermal Development Company
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GEF	Global Environment Facility
GFCS	Global Framework for Climate Services
ICC	International Chamber of Commerce
ICPAC	IGAD Climate Prediction and Applications Center
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IFI	international financial institution
IGAD	Intergovernmental Authority on Development (East Africa)
IMF	International Monetary Fund
INPE	National Institute for Space Research (Brazil)
IPP	independent power producer
ITF	EU-Africa Infrastructure Trust Fund
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
LAMATA	Lagos Metropolitan Area Transport Authority
LDC	least developed country
M&E	monitoring and evaluation
MDB	multilateral development bank

MSG	Meteosat Second Generation
MTG	Meteosat Third Generation
NGO	nongovernmental organization
NMA	National Meteorology Agency (Ethiopia)
PPA	power purchase agreements
PPCR	Pilot Program for Climate Resilience
PPP	public-private partnership
REDD+	reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
REPP	Renewable Energy Performance Platform
SE4ALL	UN Sustainable Energy for All
SCF	Strategic Climate Fund
SPCR	Strategic Program for Climate Resilience
SREP	Scaling Up Renewable Energy Program in Low Income Countries
TSMS	Turkish State Meteorological Service
UNDP	United Nations Development Programme
UNDRIP	UN Declaration on the Rights of Indigenous Peoples
UNPFII	UN Permanent Forum on Indigenous Issues
UNFCCC	United Nations Framework Convention on Climate Change
WMO	World Meteorological Organisation
WRI	World Resources Institute

CLIMATE INVESTMENT FUNDS

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