

Side Event COP 21: how cities can help to achieve Intended Nationally Determined Contributions - INDCs?

Date: December, 7 2015 (Monday)

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WORKSHOP REPORT

4h00 - 6h00 pm - Panel: How cities can help to achieve Intended Nationally Determined Contributions - INDCs?



Resumo

No último dia 7 de dezembro, em La Défense, o Painel Brasileiro de Mudanças Climáticas, em parceria com a KPMG, realizou o side event COP21 “**How cities can help to achieve Intended Nationally Determined Contributions INDCs?**”. O evento contou com a apresentação dos especialistas Dr^a Suzana Kahn, Presidente do Comitê Científico do PBMC e professora da COPPE/UFRJ, Peta Wolpe (Sustainable Energy Africa), Alfredo Sirkis (Centro Brasil Clima), Dr^a. Cynthia Rosenzweig (NASA Goddard Institute for Space Studies/ Earth Institute – Columbia University), e o Prof. Zhang Xiliang (Head of the division of Energy System Analysis –Tsinghua University), Pete Erickson (Stockholm Environment Institute - U.S.) e, foi mediado por Andrea Santos, Secretária Executiva do Painel Brasileiro de Mudanças Climáticas. As discussões se centraram no papel e contribuições das cidades para o enfrentamento das mudanças climáticas por meio de ações de mitigação e adaptação, baseadas principalmente nos casos apresentados para África do Sul, Brasil e China, e nos estudos do Urban Climate Change Research Network (UCCRN) co-liderados pela Dr^a Cynthia Rosenzweig.

Resume of discussions and key messages

#	Resume	Author/ Institution
1	GHG emissions growth 49 GtCO ₂ eq/year in 2010 (highest in history) and 80% of emission increase is due to fossil fuel. Regarding GHG emissions Countries presented their pledges but there is much doubt about compliance. If they	Prof. Suzana Kahn (President of the Scientific Committee of the Brazilian Panel on Climate

meet, what they promised the gap will be 12 GtCO₂eq in 2030. There is a gap of 12 GtCO₂eq by 2030, to bring emissions to 42 GtCO₂eq. The expectation is that we are in 2030 with an emission of 54 GtCO₂eq. How reduce emissions Gap 2015? 119 Intended Nationally Determined Contributions (INDCs) submitted to the UNFCCC Secretariat by the 1st of October 2015. There is a gap between mitigation pledges and the necessary GHG emissions reduction by 2100. She mentioned that the INDCs has to be consider all options inside cities and specific sectors. The role and importance of cities and the relation to climate change issues, including energy consumption in urban areas and the contribution of cities to climate change. Urbanization is a global trend transforming societies and energy use. The GHG inventory is an important instrument to know the emissions and the boundaries of cities. It is important to consider the role of Brazilian cities. The solutions can includes retrofit, improvement of infrastructure to transportation, etc. She presented the initiative in Rio de Janeiro, a living lab (Fundo Verde Project) that should implement sustainable projects in energy efficiency, mobility and water management. Also, the importance of monitoring indicators. We can use example of cities and their potential of mitigation and adaptation measures. National policies has to address regional level. Cities have a responsibility to contribute to reduce emissions. Cities no longer have to choose between economic growth and emission reduction.	Change and Professor of Federal University of Rio de Janeiro, Brazil).
The Urban Climate Change Research Network (UCCRN) is a global consortium of individuals and institutions dedicated to the analysis of climate change mitigation and adaptation from an urban perspective. The Assessment Report on Climate Change and Cities (ARC3) Report Series represents an effort by over 130 authors from cities in developed and developing countries around the world. The international climate change science research community has concluded that human activities are changing the Earth's climate in ways that increase risk to cities. This conclusion is based on many different types of evidence, including the Earth's climate history, observations of changes in the recent historical climate record, emerging new patterns of climate extremes, and global climate change models. Cities and their citizens already have begun to experience the effects of climate change. The	Dr. Cynthia Rosenzweig (NASA Goddard Institute for Spaces Studies/ Earth Institute – Columbia University)

	assessment brings major findings and key messages on mitigation and adaptation, with a consideration of sectors and case studies (docking stations). To inspire local action three main finds “mitigation potential”, “climate information” and “climate change in cities”. How can we transform cities? Five pathways to urban transformation emerge throughout ARC3.2. These pathways provide a foundational framework for the successful development and implementation of climate action. Cities that do not follow these pathways may have greater difficulty realizing their potential as centers for climate change solutions. The pathways are: Pathway 1: Disaster risk reduction and climate change adaptation are the cornerstones of resilient cities; Pathway 2: Actions that reduce greenhouse gas emissions while increasing resilience are a win-win (integrating mitigation and adaptation deserves high priority in urban planning, urban design, and urban architecture); Pathway 3: Risk assessments and climate action plans co-generated with the full range of stakeholders and scientists are most effective; Pathway 4: Needs of the most disadvantaged and vulnerable citizens should be addressed in climate change planning and action; and Pathway 5: Advancing city creditworthiness, developing robust city institutions, and participating in city networks enable climate action. Cities need to start immediately to develop and implement climate action. Urban planners and decision-makers need to integrate efforts to mitigate the causes of climate change (mitigation) and adapt to changing climatic conditions (adaptation).	
	The citywide mitigation potential for South Africa. South Africa continues to experience rapid urbanization, with approximately 64% of the Country urbanized. 27 major urban cities has been included in the research presented, based on the cut-off point of having an urban population of 100.000 or greater. Presented the energy data picture with the energy consumption for all 27 cities. Transport land is the greater consumer sector, and Industrial (very electricity intensive) is the second one. Regarding carbon emissions, the transport sector contributes proportionally less than the industrial, residential and commercial sectors. The model	Dr. Peta Wolpe (Sustainable Energy Africa - SEA)

	used in the long Range Energy Alternatives Programme (LEAP) and the key inputs were presented. In the Business As Usual scenario, the modelling indicates that by continuing on a BAU trajectory, energy consumption will double by 2034 and will be the triple in 2050. Growth is driven predominantly by commercial and transport sectors. Alternatives scenarios were consider that included energy efficiency in all sectors and introduction of renewable energy including rooftop photovoltaic. The model indicates that the biggest energy demand reduction will come from the transport sector. Challenges and next steps – In tracking energy-related developments within the cities, there is clearly much promising work being undertaken that is slowly changing the local energy and carbon emission profile. In many cases, cities have moved beyond pilot implementation and are mainstreaming more sustainable practices. It's clear that cities hold substantial power opportunity to transform the energy profile of the Country.	
	INDC and low carbon initiatives. To achieve the peaking of carbon dioxide emissions around 2030 and making best efforts to peak early; To lower carbon dioxide emissions per unit of GDP by 60% to 65% from the 2005 level; To increase the share of non-fossil fuels in primary energy consumption to around 20%; and Start to build a national carbon emission cap-and-trade system in 2017. Enhanced Actions on Climate Change from China for Paris COP. Presented the China's Low Carbon City Pilot Program launched in 2010. The energy intensity of Chinese GDP, carbon intensity of Chinese GDP and carbon intensity of energy supply and the progress made regarding energy intensity reduction. The energy consumption by sector in China and the experience of the China's Emission Trade System (ETS) was the main topics presented. Launched in 2010 at 8 cities and now extended to 36 cities; Develop GHG emission inventories; Setting GHG emission control roadmaps; Formulating innovative mechanisms for: - Low industry; - Low transportation; - Low community; and - Low behaviors.	Prof. Zhang Xiliang (Head of the division of Energy System Analysis – Tsinghua University, China)

	Regarding the Intended Nationally Determined Contributions (INDCs) how to achieve mitigation targets? An important discussion has to be included to consider different institutional frameworks from cities and metropolitan level. The INDCs will largely determine whether the world achieves an ambitious 2015 agreement and it's put on a path toward a low-carbon. The CSA steel company is an example of GHG emissions from cities Versus emissions by cities that should be discuss. Positive Pricing of Carbon Reduction was included in the Draft of the Paris Agreement. The pricing of carbon for taxation purposes makes a lot of sense but faces internal political resistance in most countries, enough to keep it blocked in the consensus dependent UNFCCC. It is an uphill battle that will eventually be won, internally in each and every country, one by one, since taxation systems are national. Positive pricing' of carbon reduction is both an alternative and complementary approach. It is based upon the recognition of the social and economic value of carbon reduction and envisions mechanisms to establish it as convertible financial value. It is basically a reward for duly certified mitigation. It does not replace carbon taxation but offers an easier path. In fact, it can be complementary to carbon taxation and carbon markets. All three mechanisms have their specific role in the transition process towards low carbon economies.	Alfredo Sirkis (Executive director of the Centro Brasil no Clima – CBC/ Brazil Climate Centre think tank, former Congressman)
	Overall comments: Integration of National policies and the INDCs can help cities to achieve mitigation goals and adaptation measures. It is important to evaluate how deep and ambitious are the INDCs. Local tools and capacities, knowledge of sectors has to be considered. Exist methodological frameworks (emissions by and from cities) considering different capacities. Data availability, consistency across regions, alignment with policymaking bodies. How can urban policies complement national policies? For some technologies and practices, largely national (e.g., vehicle or appliance efficiency, electricity supply), though with increasing urban interest. For others, largely local (e.g., urban planning and public transport),	Pete Erickson (Stockholm Environment Institute - SEI)

	though with national guidelines and funding. In addition, others often shared (e.g., building efficiency standards). At least one country-specific deep dive assessment of national policy support needed to help achieve urban scale potential.	
	Emission Trade System (ETS) submit the framework? Has a support from government? China's ETS Roadmap - Emissions trading system to help support achievement of CO₂ emissions intensity targets. Interacts with local government? Groups, focus group? Survey? How to implement new possible economics tools; carbon taxation and compensation; low carbon; local policies and experiments. Challenges: Interface between cities and research; delivery basic services for cities.	Questions/ Discussions