

International Workshop

“Clean Energy and Water: an Assessment of Services for Local Adaptation to Climate Change”

September 23th - 24th, 2011
ENOTEL, Porto de Galinhas, Recife - Brazil

DRAFT AGENDA – updated August 31st.

Background

The [IDRC Climate Change and Water \(CCW\)](#) program has launched an project called “**Clean Energy and Water: an Assessment of Services for Local Adaptation to Climate Change**” that supports high-quality research aiming to better understand the different physical and socio-economic factors that influence intertwined use of and access to energy and water in developing countries.

The overall goal is to analyze the way clean energy and water services can be combined and improved to enhance resilience and adaptive capacity of local communities to climate variability and change, and to enable equitable access and robustness of those services under growing conditions of uncertainty.

While encouraging the use of clean energy sources, IDRC has identified a need to think critically about the socio-economic and environmental effects of energy needs on water resources because increasing access to energy can easily lead to unsustainable water use (and vice versa) and other negative impacts. The entry point of the project recognizes that access to energy and water resources are often two sides of the same coin – both of which are crucial for building adaptive capacity to changes in climate.

Status of the project

Four research teams are involved in this initiative and are producing in-depth reports and case studies in LAC countries, Southern Africa and Eastern Africa.

- [Fundacion Bariloche](#), Argentina: focusing on an assessment of alternative energy options for agricultural water use in regions of increasing water scarcity in northern Patagonia. With case studies from photovoltaic pumping from deep wells in Catamarca, pumping with low power wind turbines in Comahue-Neuquen, grid connected high-power turbines for irrigation in La Rioja.
- [The Clean Energy Incubator](#), **University of Texas at Austin**, USA: focusing on an assessment of water and energy services in Mexico, with case studies from Mexico City, Southern Mexico (Oaxaca and Chiapas Regions) and the Rio Sonora Watershed in Baja California, Northern Mexico.

- **The [Energy Research Centre, University of Cape Town](#)**, South Africa: focusing on a study of the viability of energy mini-grids and renewable energy technologies for enhanced provision of mechanical energy in drought-prone areas of Southern Africa, with Case studies from Botswana, Namibia, South Africa, Lesotho and Mozambique.
- **The NGO [AFREPREN/FWD](#) in Nairobi**, Kenya: focusing on an assessment of the use of renewable energy technologies for agricultural and domestic water pumping, and of the role of policies to increase water security at the community level in the Greater Horn of Africa With case studies from Kenya and Tanzania.

The Workshop

With the present workshop, IDRC plans to present and discuss the findings of the third draft of the research reports and the related case studies. The workshop will share the same focus themes of the exploratory project, namely:

- The analysis of factors and costs limiting or promoting decentralized renewable energy technologies for water services in areas/regions at climatic risk or under water stress;
- The role of policies, regulations knowledge tools and technologies in enhancing efficiency and equity of water & energy services, security of provisioning, and adaptive capacities of communities;
- The socio economic consequences and environmental impacts, in particular on water resources, of enhanced use of renewable energy for water services by communities.

Intended Outcomes

1. Enhanced understanding on key knowledge and research gaps identified by the workshop participants and by the IDRC CCW program initiative;
2. Emergence of specific suggestions for new partnerships and research opportunities in the regions under assessment or in regions facing comparable research problems.
3. Outline of a Research Agenda, with priorities, for the interface of climate change adaptation, renewable energy technologies and water services

Round table discussions – Questions

The closing each of the two days will be dedicated to intended outcomes 2 & 3. Participants will be asked to react in hands-on sessions covering questions such as:

- What are the topics/issues that emerge more clearly from the reports and that the CCW program initiative could focus its attention on in the immediate future?
- What are the main challenges found during the preparation of the reports, and what has been overlooked? Can these challenges be turned into a research opportunity?
- What are the key research players for the CCW program initiative to interact with, on the basis of the set of research questions more clearly emerging from the reports? Where do the best conditions for this interactions lie?

Day 1 - FRIDAY SEPTEMBER 23th

Approximate Time	Topic	Lead	Documents	Intended Outcome
9:00 – 9:15	Welcome, presentation of Agenda and review of intended outcomes.	<i>Michele Leone</i>	<i>Agenda and Intended Outcomes(this document)</i>	Introduction to the workshop
9:15 – 9:45	Round of presentations (1 minute each)	<i>All participants</i>	<i>List of Participants</i>	Participants introduce themselves in one minute each
Morning Session – Mexico (Moderators: Kelly Twomey and Michele Leone)				
9:45– 0:05	Framing the energy-water relationship and conflict	<i>Kelly Twomey</i> <i>University of Texas at Austin</i>		Framing the Energy-water nexus in a global context
10:05–10:30	The Water-Energy Nexus in a Global Context	<i>Chris Scott</i> <i>Associate Professor, School of Geography & Development University of Arizona</i>		Framing the Energy-water nexus in a global context, with specific attention to selected LAC countries.
10:30–11:00	<p>Main findings of the First Research Report:</p> <p>Clean energy and water: assessment of Mexico for improved water services with renewable energy</p>	<i>Kelly Twomey</i> <i>University of Texas at Austin</i>	<i>Third Draft Report</i>	Outcome 1
<i>Break 11:00</i>				
11:10-11:30	Questions and Answers	Moderators.		Outcomes 1 & 2
11:30– 11:50	Case Study – Mexico:	Arturo Pedraza.		Outcomes 1 & 2

	Alliance to Save Energy. Watery – Water & Energy Efficiency	Alliance to Save Energy – Mexico	
11:50-12:10	Case Study- Mexico: The work of Isla Urbana	David Vargas Isla Urbana - Mexico	Outcomes 1 & 2
12:10-12:20	Questions and Answers	Moderators	Outcomes 1 & 2

Lunch 12:20 – 13:40

Afternoon Session – South America (Moderators: Osvaldo Girardin and Michele Leone)

13:40-14:20	Main findings of the Second Research Report: Assessment of alternative energy options for agricultural water use in regions of increasing water scarcity in northern Patagonia	Osvaldo Girardin. Fundación Bariloche	<i>Third Draft Report</i>	Outcome 1
14:20-14:40	Case Study - LAC Decentralization and provision of water services: a public policy perspective from Latin America.	Andrei Jouravlev. ECLAC (CEPAL)		Outcomes 1 & 2
14:40-15:00	Case Study - Chile “Water, energy, agriculture and climate change nexus in one of the most important hydroelectric basins in Chile”	Sebastián Vicuña Centro de cambio Global. Universidad Católica de Chile.		Outcomes 1 & 2

Break 15:00

15:10-15:30	Case Study – Argentina: “Climate, water management and	Ana Murgida. Programa de Investigaciones en		Outcomes 1 & 2
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	adaptation in the Chaco Salteño region of Argentina”	Recursos Naturales y Ambiente		
15:30-15:50	Case Study - Brazil. "A Study of the Vulnerability of Rio de Janeiro State water resources to climate change - an indicator to evaluate the future hidroenergy potential"	Maria Silvia Muylaert. Instituto Virtual Internacional de Mudancas Globais, Federal University of Rio de Janeiro		Outcomes 1 & 2
15:50-16:10	Case Study – Argentina: “ Pueblos Solares Andinos ” (Solar Towns in the Andes).	Virginia Bauso. Fundación EcoAndina		Outcomes 1 & 2
16:10-16:30	Questions and Answers	Moderators		Outcomes 1 & 2
16:30-17:30	Roundtable discussions	Moderators	<i>Workshop Intended outcomes and List of hands-on questions</i>	Outcomes 2 & 3
	5min summary and thanks	Moderators		

Day 2 – SATURDAY SEPTEMBER 24th.

Approximate Time	Topic	Lead	Documents	Intended Outcome
Morning Session – Southern Africa (Moderators: Gisela Prasad and Michele Leone)				
9:00 – 9:15	Recap from previous day and review of the agenda	Michele Leone CCW - IDRC	<i>Agenda</i>	Recap of the day and connection to the second day presentations
9:15 – 9:55	Main findings of the Research Report : An assessment study of the viability of Clean Energy Technologies for enhanced provision of mechanical energy in drought-prone areas of Southern Africa, with case studies from Botswana, Namibia, South Africa, Mozambique and Lesotho.	Gisela Prasad. The Energy Research Centre, University of Cape Town. South Africa	<i>Third Draft Report</i>	Outcome 1
9:55– 10:15	Case Study. TBD	Sebataolo Rahlao ERC, Cape Town		Outcome 1 & 2
10:15– 10:35	Case study - Mozambique: "The potential of renewable energy supply systems in enhancing the increase of access to clean and potable water in rural areas"	Boaventura Cuamba Eduardo Mondlane University in Mozambique		Outcome 1 & 2
10:35– 10:55		Moderators.		Outcomes 1 & 2

Questions and Answers

Break 11:00

11:10– 11:30	Case Study. TBD	Holle Wlokas, ERC Cape Town	Outcomes 1 & 2
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11:30- 11:50	Case Study – South Africa TBD	Chris Moseki <i>Water Research Commission, Pretoria, South Africa</i>	Outcomes 1 & 2
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11:50-12:10	Case Study – Botswana: “ The role of policies in enhancing access to energy and water services: The Case of Botswana”	Buti Mogotsi. <i>Independent Consultant. Ex officer at the Ministry of Minerals Energy and Water Affairs. Acting Director of Energy, MMEWR. Gaborone, Botswana</i>	Outcomes 1 & 2
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12:10-12:30	Questions and Answers	Moderators	Outcomes 1 & 2
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Lunch 12:30 – 14:00

Afternoon Session – Eastern Africa (**Moderators: Stephen Karekezi and Michele Leone**)

14:00-14:40	Main findings of the Research Report : An assessment of the use of renewable energy technology for agricultural and domestic water pumping and of the role	Stephen Karekezi. <i>AFREPREN/ FWD. Nairobi, Kenya.</i>	Third Draft Report Outcome 1
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	of policies to increase water security at the community level in the Greater Horn of Africa			
14:40-15:00	Case Study – Kenya: Climate Change and water services in Kenya: emerging patterns. TBD	Benedict Muyale.		Outcome 1 & 2
		<i>AFREPREN/FWD, Nairobi</i>		
15:00-15:20	Case Study – Kenya: assessment of the use of wind pumps in arid and semi-arid Kenya. TBD	Mr Ayago Esmubancha Wambille.		Outcome 1 & 2
		<i>Cornell University and AFREPREN/FWD</i>		
Break 15:20				
15:30-15:50	Questions and Answers	Moderators.		Outcome 1 & 2
15:50-16:50	Roundtable discussions	Moderators	<i>Workshop Intended outcomes and List of hands-on questions</i>	Outcomes 1 & 2
16:50-17:20	Next Steps	Moderators		Outcomes 2 & 3
	15min Summary and Thanks – Closure of the Workshop			

Dinner with All workshops participants Saturday 24th at ENOTEL Restaurant. Details to be provided soon.