



## Towards a climate resilient and low-carbon systems

Laura E. Williamson  
HELIO-International, France

Side Event "Climate-proofing Affordable Energy Services"  
Doha Convention Center, December 5, 2012

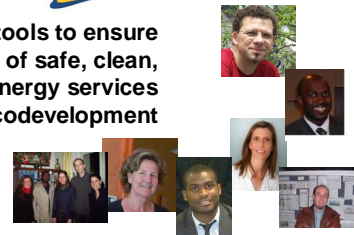
## Who are we...?

International, non-profit think tank



Network of energy experts

Develops tools to ensure delivery of safe, clean, affordable energy services that support ecodevelopment



## How do we work ...?



## Energy, climate... and Sandy

U.S. Department of Energy - Sandy resulted in:

- More than 8 million customers in 17 states w/o power.
- Three of the region's nuclear units shut down, two reduced.
- Two oil refineries lost power, four operating at reduced levels.

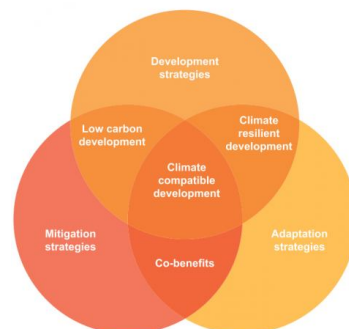
Sandy was not necessarily due to climate change, but illustrates the climate vulnerability of the energy system, in **industrialized countries** and in **developing countries**, where climate vulnerabilities reinforce already existing vulnerabilities

## Climate-proof energy systems?

- **Hydropower** seasonal variability
- Water thermal impact and efficiency loss of **fossil fuel and nuclear power plants** during summer
- Accelerated use of **air-conditioners** (*bad adaptation*)
- **Energy shortages** due to flooding and extreme events
- Availability of sustainable **bioenergy**, including traditional biomass

▼  
Policymakers need to **anticipate** future impacts in decisions made today to ensure that **food, water and energy** supply and use, **all together**, will be sustainable and resilient

## Energy, climate, poverty: Climate compatible development



**Adaptation**  
=  
**Also energy**

**Energy**  
=  
**Mitigation and Adaptation**

Climate and Development Knowledge Network (CDKN)

## Tools for action

- Knowledge sharing , including case studies
- Data and Information / Knowledge building
- Process guidance

## From knowledge building to process guidance : TIPEE project



*Processing Information for Energy Policies Conducive to Ecodevelopment (Traitement de l'Information pour des Politiques Énergétiques favorisant l'Écodéveloppement )*

- **Tool for decision-makers** to assess national energy policies in order to ensure that they contribute to climate resilient and low-carbon energy strategies
- **Developed by HELIO International**, supported by the Institut de l'Énergie et de l'Environnement de la Francophonie (**IEPF-OIF**) and by the Climate & Development Knowledge Network (**CDKN**)



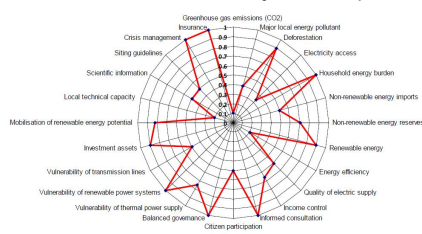
Institut de l'énergie et de l'environnement de la francophonie IEPF



## TIPEE: to enhance knowledge for better action

**24 indicators easy to compute and to understand**

Technological, environmental, social, cultural and institutional facets + resilience of energy systems and policies



The desired value is 0, which indicates a very low footprint whether it be from an environmental, resource use or vulnerability perspective.

## TIPEE: underlying principles to guide decision-making process

- **Participatory and multi-disciplinary process** in the work and the validation
- Tool to **think differently**
- **Beyond the numbers**
  - « No data is not a reason for no action »
  - « Better to be approximately right than precisely wrong »
  - « Evolution is what counts »
- Beginning of a **Soft Energy Path**

## Toward a Soft Energy Path (Voie Énergétique Douce Autonome VEDA)

- **Clean, renewable, efficient, flexible and affordable** energy system
- **Energy services**, not only electricity, for poverty alleviation and development
- Focus on meeting needs of people (**demand-side oriented**)
- Based on **participatory governance** principles
- **Resilient** to external factors, including weather and climate fluctuations

*Least polluting energy is the one not consumed*

*The best technology is the one that matches user's needs*

*Energy is too important to let energy engineers alone make decisions about it*

## Backcasting for a Soft Energy Path

- To define the vision of a desirable future → normative
- To build the bridge between this future and the present
- Most important = the future we want

*Based on*

- Stakeholders concertation
- Available (in-country) knowledge and expertise

*“Think in jumps, act in steps”*

Thanks!

[www.helio-international.org](http://www.helio-international.org)

