

## INTERVIEW TO CAROLINA BURLE SCHMIDT DUBEUX



*Senior fellow at the Center for Integrated Studies on Climate Change and the Environment (Centro Clima) COPPE / Federal University of Rio de Janeiro - Brazil, she holds a Ph.D. in Energy and Environmental Planning. Throughout her career she has carried out many studies linking climate change mitigation options with socioeconomic development. She was one of the technical coordinators of The Economics of Climate Change in Brazil (The Brazilian Mini-Stern Report), a study which estimates the adaptation costs of climate change, supported by the Brazilian Academy of Sciences*

### 1. Which are the most visible aspects and characteristics of climate change in your country? What are the prospects for the upcoming decades?

Brazil is a huge country and, therefore, its regions have different climate features. Save for the North where we have the greatest tropical forest worldwide -the Amazon- and the Northeast where climate conditions are relatively adverse because it is mostly semi-arid, the climate is overall favourable for farming, mainly in the Center-West, allowing the country to have an agrobusiness sector which is very important for its economy.

A downscale carried out by the National Institute of Space Research (*Instituto Nacional de Pesquisas Espaciais- INPE*) of the Hadley Center climate model used for simulations throughout this century points out to a high risk run by a great part of the Amazon Forest of turning into a savannah. It also indicates more intense and frequent droughts in the Northeast, heavier rainfall and floods along the coastal areas and in the urban centers of the Southeast and Southern regions and an increase in temperature with stronger heat waves and extreme rain events in the Center-West.

This climate scenario brings about diverse consequences to the economy. The main ones will be felt by the agricultural and energy sectors. In the first case it is due to the natural sensitiveness of plants to water shortages and high temperatures. In the second, because high temperatures increase demand for climatization and therefore for energy, while water shortages impact the electricity supply system as it is mainly generated by hydropower plants (85%).

The study "The Economics of Climate Change in Brazil" (*Economia da Mudança do Clima no Brasil*) recently estimated that these impacts will have high adaptation costs of around US\$2 trillion in 2050. However the highest cost is related to an increase in the economic

disparities among the country's regions. The northeastern economy is already suffering the impacts of adverse climate and will undergo a more important impact than the South and Southeast, leading to the need for greater support to the populations living in that area.

It must be highlighted that there are still many uncertainties in the simulation of future climate changes, their physical and economic impacts at the global and regional levels, which requires science to permanently reassess its estimates.

**2. Which are the most relevant concerns of climate change negotiations in your country? Who are the most relevant actors in this debate?**

Brazil's concerns are similar to those of most developing countries (DGCs) which, in essence, refer to supporting the costs of reducing emissions to be added to the existing high costs of development efforts. This becomes even more serious in an extremely competitive and globalized market. In the case of Brazil, two peculiarities must be borne in mind: the Brazilian energy matrix, which is already very clean, makes our emissions abatement marginal costs be higher comparing to other countries; and the difficulties of curbing deforestation, given the complexity of the economic dynamics which encompasses the whole process of wood exploitation and the opening of agricultural frontiers.

Regarding the domestic decision-making process, until approximately two years ago, only the government played a relevant role. Nowadays, thanks to the actions of local political groups and mainly of the press, the debate increased and climate change became an important concern in the Brazilian society agenda. Likewise, but for different reasons, a significant part of the Brazilian industrial sector -mainly the export sector- became very interested in the matter, leading the government to open communication channels with society and its segments of interest, which allowed Brazil to adopt a forefront position in Copenhagen, at the last United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP), when it announced a pioneer deviation of emission trends by 2020.

**3. From the point of view of the interests in your country and of the Latin America and the Caribbean agenda, how do you evaluate the Copenhagen results?**

The Copenhagen outcomes fell short *vis-à-vis* the size of the challenge. However, the path outlined in the Bali roadmap leads negotiations along a reasonable course as it reinforces the principles of the Climate Convention where DGCs will not be called to face big shares of mitigation costs required to cope with the stabilization of greenhouse gas (GHG) concentrations in the atmosphere. I believe Brazil views Copenhagen as a step forward towards a global emission reduction agreement which regretfully evolves slowly.

**4. Considering the Copenhagen results and conclusions, will it be necessary to review the national strategy in your country in relation with the international negotiations? In which areas and how? Do you see elements for the articulation of regional strategies?**

Brazil has been playing a leading role in Latin America and can help bring the other countries together around clean development strategies financed by developed countries (DDCs). Of

course, countries with an economy based on oil and gas exports will tend to be less cooperative. But Brazil can and must play an important regional role.

It must be underscored that Brazil has come much closer to countries such as India and China, whose future emissions can compromise the 2°C temperature stabilization goal towards the end of this century than to the rest of Latin America. This can be understood to the extent that a small number of countries with a high level of emissions can more easily coordinate and negotiate than a big number of countries with low emissions, either individually or collectively. That is why recently BASIC was set up (including Brazil, South Africa, India, and China) which will indeed have its weight in setting up a new climate agreement as envisaged for the Mexico meeting.

#### 5. Are there chances for regional cooperation in the efforts for mitigation and adaptation? In which areas?

No doubt there are great chances of regional cooperation. The development of partnerships to address topics of bilateral or multilateral interests can bring about significant gains for the parties. In the case of mitigation actions, Brazil can contribute in the area of renewable energies, biofuel, reforestation and many other topics that can easily be adapted to the specific conditions of each country. Regarding adaptation, Brazil has great knowledge on climate modeling and climate related impacts, using high level IT. It also has many research institutions capable of developing prospective analysis and offering cost-effective solutions as, for instance, in the field of genetic modification for adaptation of crops and coastal engineering, among other solutions.



