

# **CLIMATE CHANGE WILL REDUCE RENEWABLE ENERGY CAPACITY, WARN SCIENTISTS**

Climate change is set to reduce Latin Americas capacity to produce renewable energy, according to Roberto Schaeffer, a Brazilian energy planning expert.

He told the Forum on Science, Technology and Innovation for Sustainable Development underway in Brazil this week (1115 June) that many forms of renewable energy are vulnerable to variations in climate, due to their dependence on water as is the case with hydropower and biofuels as well as on wind and sun.

Schaeffer a researcher at the Federal University of Rio de Janeiro in Brazil said that Brazils biomass, hydroelectric and wind energy sectors are particularly vulnerable.

Two years ago, Schaeffer participated in a Brazilian study entitled The Vulnerability of Energy Systems to Climate Change, conducted from 2008 to 2010. The study found that by 2040, Brazil's climate will display significantly greater variability than it does currently, with higher rainfall in some areas and prolonged periods of drought in others.

He gave the example of overall electricity supply in northeast Brazil, which would be impacted by an increase in drought. And soya bean production, one of Brazil's primary sources of renewable energy, would be impeded by higher temperatures, Schaeffer said. This would have an adverse effect on renewable energy production, he said.

Some good news is that Brazilian coastal areas will be windier, and therefore more suitable for wind power generation.

But because of the effects of prolonged drought, flooding and temperature fluctuations, the country is expected to witness an overall decline in renewable energy generation.

Renewable energy seems more vulnerable compared with conventional forms [of energy], and countries must factor this into their development plans, he said.

Brazil will require about US\$503 billion to prepare its energy system to cope with such an eventuality. It will need more investment in natural gas power plants, he added.

Schaeffer said drought was expected to increase in other developing regions, including Africa, with similar or greater impacts on renewable energy productivity.

Daniel Hugo Bouille of the Bariloche Foundation, Argentina, said that similar problems would affect Peru and Central America.

[We] need to analyse deeply what will happen, country by country, to biofuel production in the face of climate change extremities. At the moment there is not enough knowledge on that, Bouille said.

We are vigorously on the renewable energies path without thinking about the situation in the future in the face of climate change, he warned.

Bouille also recommended that these issues should be further researched, in order to produce climate-proofed energy policies.

Source: <http://www.scidev.net/global/climate-change/news/climate-change-will-reduce-renewable-energy-capacity-warn-scientists.html>