

# First steps towards a people's university

[ By Klaus Knecht and Stefan Krauter ]

→ This year's World Climate and Energy Event (RIO5) ran for one-and-a-half days in the north-east of Brazil. The state of Ceará seemed a sensible choice for the high-profile event because it will need additional energy in the years ahead to turn the wheels of its economic development. At the same time, politicians from all parties are very open to renewables. The Brazilian alternative energy incentive programme PROINFA makes investment in regenerative energies an economically interesting option. The government in Brasilia now promotes wind power, small hydro and biomass projects nationwide up to a total power output of 1,100 megawatts (MW) for each alternative source: a capacity-dependent 180 to 240 reais (one real = \$0,40) per megawatt-hour (MWh) for wind power, 117 reais for hydropower and 94 (sugarcane residues) to 169 (landfill gas) reais for energy recycled from biomass.

Brazil's north-east coast is particularly suitable for wind power. Conditions in Ceará, for example, are ideal. Local politicians already see the state as a future exporter of energy. At the opening of the people's university, Ceará's

Infrastructure Minister Luiz Eduardo Barbosa de Moraes announced that extra promotion funds were now available. The federal government has agreed to release more money for wind power projects in Ceará. With this help, the state will develop nearly half of the wind power capacity (500 MW) promoted by PROINFA by the end of 2006. The Ceará government itself is assisting in establishing additional 60 MW within the next two years.

Unlike the last three events, this year's RIO conference combined international



Wind farm near Fortaleza.

Photo: ENERCON

The aim of the annual "World Climate & Energy Event" in Rio de Janeiro is spreading awareness of the possibilities of renewable energies and pushing for the transition to a post-fossil age. This year, the organisers shifted parts of the programme to a provincial venue – in the state of Ceará. The idea was to conduct the dialogue on renewable energies in a region with extensive untapped potential. At the same time, the conference in the state capital Fortaleza was a first attempt to transform the conference series into "people's universities".

scientific debate (Rio de Janeiro) with workshops focusing on concrete applications (Fortaleza). In open dialogue with students, politicians and potential users, the organisers used the one-and-a-half-day event in Fortaleza furnishing information about energy-efficient construction, opportunities for cooperation in wind power schemes, Ceará state energy policy and joint German-Brazilian ventures aimed at harnessing solar energy. The present nuclear agreement could be replaced by a new agreement for

renewable energies as early as July, when the German-Brazilian enterprise conference is scheduled to be held. Another issue discussed was the planned international university for renewable energies. Applications (such as a solar-powered and satellite-based rural internet café) were inspected by participants on an excursion.

The RIO events staged since 2002 at the location of the 1992 Earth Summit are focusing on more than just energy generation.



Photo: BRASUS

*Educating the people.*

They are also looking for ways of conserving energy (through appropriate architecture, education, intelligent infrastructure, urban development, transport and communications, lifestyle, visions). RIO5 was attended by 300 participants from 14 countries. Alongside the conference the “Latin American Renewable Energy Fair” was held, with 20 exhibitors from Brazil, USA, China, Spain, Barbados, Italy and Germany. The conference was sponsored by various Brazilian institutions as well as by the World Council for Renewable Energy, UNEP, UNESCO, Greenpeace and the German Heinrich Böll Foundation among others.

German development cooperation promotes the spread of regenerative energies both in its centralised form (like generation of electricity on wind farms) and in the form of local facilities: solar driers for seaweed farming to provide a new livelihood for fishing families, photovoltaic systems running water pumps to irrigate formerly unused land for organic horticulture, solar panels delivering electricity for shavers in remote hairdressing salons. There are now a number of projects underway in Brazil harnessing renewable energies to create new products, jobs and incomes. And each one required a market study before it was realised ensuring that the cost of energy would be covered by the revenues generated.

The examples listed above come from an interdisciplinary further training project entitled “Productive use of renewable energy systems for regional development in the

north and north-east of Brazil”, which InWEnt started creating with local partners in 2002. Since 2003, the project has been implemented in parts of four Brazilian states – in 2004 with an additional “sustainable architecture” component. Under a separate programme, InWEnt also looks back on more than ten years of providing further training for Brazilian wind power experts. The idea of extending the RIO5 conference to include the “people’s university in Fortaleza” also stemmed from InWEnt, which planned and organised that part of the conference.

The north-east of Brazil is the poorest part of the country. With an area of 145,000 square kilometres (half the size of Germany), Ceará is a medium-sized state. Livestock farming and cotton growing play a key role in the economy. Cashew nuts are an important export. Beaches, palm trees and lagoons fringe Ceará’s 560-kilometre coastline, making it an interesting location for tourism. Modern infrastructures provide an added incentive for investors. To pave the way for an influx of new enterprises, the state government executes an extensive public investment programme including an energy grid system, a gas supply system and wind farms.

Local politicians and industry representatives hope that the wind farms created with federal money will help Ceará stabilise its electricity grid and prevent blackouts. Some politicians would like to realise more wind farms as CDM (Clean Development Mechanism) projects. CO2 emissions

avoided as a result of their operation could then be certified and the revenues generated by the sale of Certified Emission Reductions (CERs) would make wind farms an economically attractive investment – even without federal subsidies. The experts disagree. They point out that Ceará gets most of its electricity from the national grid, which is 90 percent based on hydro power. So CO2 emissions would not be saved by building up additional wind power capacities.

To get subsidies from the renewable energy programme, 60 percent of costs need to relate to Brazilian goods or services. That makes economic sense for Brazil, but it also suits German windmill market leader Enercon. Its subsidiary, Wobben Windpower, has two production units in Brazil, one of them near Fortaleza. Except for the first pilot plants – set up in Minas Gerais with money from Germany’s federal ministry of education and research – all the wind power facilities operating in Brazil have come from the production lines of Enercon/Wobben Windpower.

Advocates of regenerative energy are currently thinking about making the “people’s university” a permanent institution. Ideas range from master’s level training to an open forum for experts and lay public. This idea based on the philosophy of the Berlin rationalist and humanist Wilhelm von Humboldt is wholly in line with the philosophy of InWEnt. Because of its capacity-building approach, the organisation not only operates on the institutional level. One of InWEnt’s primary objectives is to show potential users of renewable energies how to implement systems efficiently. The idea of the RIO conference organisers deepening the dialogue with users at a “people’s university” is one that very neatly fits in with that objective. ←



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