

Local Government Climate Roadmap

Strong and
Comprehensive
Post-2012 Global
Climate Agreement

Copenhagen 2009
UNFCCC COP 15

Poznan 2008
UNFCCC COP 14

Bali 2007
UNFCCC COP 13

LOCAL ACTION FOR CLIMATE PROTECTION AND ADAPTATION — A SERIES OF LOCAL STORIES

Betim, Brazil

Solar thermal heaters benefit low income families

STORY IN SHORT: Since 2003, Betim, in partnership with the Energy Company of Minas Gerais State (CEMIG), has been installing solar thermal heaters in all low-income neighborhoods in the city. After these heaters had been in use for a few years, research was carried out into their efficiency, the satisfaction of residents and the reduction of energy bills. The average results reveal that the energy consumption decreased by 20% and energy bills were reduced by 52%, representing a significant increase in the residents' income.

Renewable energy lights up Betim

In 2006, Betim became the first Model Community in the Local Renewables Model Communities Network in Latin America and the Caribbean. This network is part of ICLEI's Cities for Climate Protection Campaign, and supports and strengthens local governments, to promote the generation and supply of renewable energy and energy efficiency in the urban environment.

In addition to installing solar heaters in low-income areas, the Resource Center on Renewable Energy and Energy Efficiency of Betim has promoted courses for the public on how to build low cost solar thermal heaters in their own homes. The Municipal Decree, which gives preference to the use of ethanol in the municipal fleet of vehicles, also gives incentives for the use of bio-fuels in the city.

Betim has also focused on the efficiency of public lighting, replacing all lighting in the municipality and installing sodium vapor lamps instead of mercury lamps. This measure brought a reduction of 15% on electricity consumption during peak time.



Housing Unit "Decalino Cabral", Betim
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Facts and figures on solar heater savings

Average consumption before installation: 95.11 kWh/month

Average consumption after installation: 76.01 kWh/month

Average decrease on energy bill costs: 52% (from R\$ 72.31 to R\$ 34.64)

There has been a significant increase in family income and 100% of those interviewed are satisfied with their heaters.

Adaptation to Climate Change

In 2003, the municipality produced its Greenhouse Gas Inventory and has been working to educate the population on the environment. Currently, 50% of the city has access to waste recycling services, a significant percentage in comparison to other cities in the region.

Putting citizens first

Betim has a high unemployment rate and consequently a high rate of needy families lacking adequate housing. The local government has been trying to remedy the deficit of housing through popular housing, with affordable pricing for these communities.

During the planning stage it was predicted that the installation of solar heaters would take place without any extra cost for the families. This action increased their incomes significantly, contributing to social development and also encouraging the use of renewable energies.



Solar thermal heaters at „Decalino Cabral“ housing unit
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“Searching for sustainability”

Mayor of Betim, Maria do Carmo Lara says, “the action of the municipality aimed at reducing green house gas emissions go along perfectly well with a city constantly searching for sustainability and the well-being of the population.”

Involvement in international climate initiatives

The city of Betim was involved in the Campaign Cities for Climate Protection (CCP – ICLEI) from 2001 to 2003. This resulted in the creation of the GHG Emissions Inventory. Currently, the municipality is a member of the Local Renewables Model Communities Network, which focuses on the development and promotion of new technologies in renewable energy and energy efficiency (from 2003 to 2010).



Betim is a city in the state of Minas Gerais in eastern Brazil.

City profile & contacts

Betim is located in the Southeast of Brazil. The city's economy is tied to the auto industry, oil and gas. This economic profile attracted and still attracts people looking for jobs and to increase their income. However, much of the population does not have adequate qualifications to meet market needs.

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