

# Betim, Brazil

## Community based local action

The neighborhood of “Parque do Cedro”, located in the city of Betim - Minas Gerais, was an informal settlement with no formal basic services such as water or electricity. The neighborhood’s residents took steps, in collaboration with the Minas Gerais Energy Company, the municipal government and the Renewable Energies and Energy Efficiency Reference Center to acquire basic services and to achieve sustainable community development. The establishment of an electricity grid was the first collective achievement. This set in motion a series of positive actions characterized by the strengthening and empowering of community members to improve the socio-environmental and economic conditions of the neighborhood and the wider region.

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### Abstract

The unplanned settlement of the Parque do Cedro neighborhood of Betim is located within an environmental preservation area. Over 400 homes were unofficially built in this area without basic urban services and infrastructure such as electricity, water, sanitation, public transport etc. The local community desperately wanted to gain access to formal basic services but the illegal condition of the settlement prevented from prevented government providing such services. The local community combined efforts to cement action through dialogue and democracy. Three of their most pressing needs indentified included: 1) Reliable energy; 2) establishment of a local administrative center; and 3) a consistent police presence. Also no formal land registry existed. This situation did not prevent the community from obtaining its first public service - a legal electricity network - which improved quality of life and local environmental conditions. The local community stimulated coordinated action by collaborating with an energy provider, the Minas Gerais Energy Company (CEMIG), and the municipal government and support from the Renewable Energies and Energy Efficiency Reference Center (CRER) to achieve tangible improvements in quality of life and social inclusion.

### Informal settlements in Brazil

A larger number of communities in Brazil have been established in areas where residential development is prohibited, for example in protected lands. These communities are in breach of national law. At the same time, the main concern of such local communities is the lack of access to basic services. The lack of a registered land tenure system prevents the government from providing water, basic sanitation, energy, transport and other services to such communities.

The delay in establishing a land registry has a high cost for residents, the government and the environment. For example, while residents wait for energy solutions many houses obtain electricity from illegal connections, resulting in losses to the grid and creating health and safety hazards. As families are not charged for the use they are not aware of or have no incentive to consume energy efficiently. This situation had resulted in households being without energy for long durationsand, as well as infrastructural damage. In the specific case of Parque do Cedro public services had been lacking for 20 years. The local community decided to organize itself to seek access to reliable energy and services.



#### Population / Land area

~ 435,000 (2008)  
346 km<sup>2</sup>

#### Municipal budget

R\$ 1.151 billion  
US\$ 650 million

*Betim joined ICLEI in 1998*

This case study is part of a series of local sustainability case studies compiled as part of ICLEI's preparation for Rio+20.

## Case Study

### City context

Parque do Cedro is located in the northeast region of the municipality of Betim, Minas Gerais. The origin of the informal settlement began in 1980, when permission was granted to divide a rural area into lots. These were then sold illegally by the owner. In the mid-90s, real estate and housing pressures resulted in these lots being further subdivided for development. As these lots were located within an environmentally protected area, approval was not granted by the authorities.

Market pressures and demand led to the sale of small, undocumented non-regulated lots, leaving the inhabitants without any property rights. Since the occupation was illegal and unplanned, with over 600 low-income families living in the area without basic public services and urban infrastructure.



Photo: © Municipality of Betim

Parque do Cedro, Neighborhood, Betim.

### Community action in collaboration with business

Erasmio Carlos, a citizen near Parque do Cedro, began to lead the process of local transformation in 2005, as the president of a non-profit organization. He deemed it unacceptable that a neighborhood in the city with the 17th largest economy of Brazil could live in abject poverty, left behind by the economic development occurring elsewhere in the country.

After winning the trust of the community, through democratic dialog and meetings, a representative commission was created to go to the local government to ask for improvements to the neighborhood.

Although the efforts to receive basic services were initially unsuccessful, because of the land tenure issue, the residents continued to organize their efforts. The local community approached the entrepreneur responsible for the land sales, the Betim local government, and CEMIG in search for alternative solutions. In October 2007, law no. 4,574 amended the Steering Plan of the Municipality of Betim. It allowed Parque do Cedro to be defined as a legal area of urban and socio-environmental interest. The enactment of this law permitted government action in the area. It provided the legal foundation for a local energy provider (CEMIG) to begin its Efficient Energy Program (Conviver Project). The aim of the program was to provide reliable and safe electricity, and to put an end to illegal connections.

Through the Conviver Project, CEMIG established a communication channel with the population and local leadership to explain the program and to provide information regarding conscious energy consumption practices. No one wanted to continue to use illegal electricity or to squander it, so there was widespread support for regulation and the establishment of an electricity grid.

The local community action led to the local government giving greater priority to the demands of the neighborhood. It brought attention to the residents' plight

*"I was driven to transform the reality of that place because I couldn't stand the suffering of those people, who lived in inhuman conditions".*

*"I was a citizen who led the march, but the success belongs to everyone".*

*"Nothing is impossible"*

(Statement of Erasmio Carlos, community leader)

via the Residential commission and by the newly established regional administrative center.

## Results

**Legal institutional framework established.** A legal-institutional framework was developed by the Betim municipal government for the Parque do Cedro community. It is now a legal area of socio-economic interest. This status was needed to enable greater social inclusion and service obligation towards the residents of Parque do Cedro.

**Formalization of the land registry was a key component.**

The local government provided a land registry and a road network, so that the local community received for the first time an official address. This was an important step towards the social inclusion of this population. A fixed postal address enabled the provision of and access to basic services.

**Improved urban infrastructure.** Upon this foundation CEMIG could meet its obligations under the agreement with the local government by establishing a formal electricity network in Parque do Cedro. By 2010, 100 per cent of the families of the neighborhood had access to the electricity grid. Since then other service needs are also being addressed. 400 houses that were previously supplied via illegal connections had now an adequate and safe electricity supply. Furthermore, 285 families received replacements for inefficient equipment in their homes: 32 refrigerators, 25 electric shower heads and 1200 light bulbs. Negotiation with the Minas Gerais Sanitation Company (COPASA) is also underway to carry out the same procedures as with CEMIG for the establishment of water supply and sewage collection systems.



Photo: © Erasmo Carlos

Citizen action, Parque do Cedro.



Photo 1: © Municipality of Betim,  
Photo 2: © Erasmo Carlos

**Improved road network.** The provision of a new road network and the installation of public lighting was a priority. The new network allowed for easier access for garbage collection trucks which improved the local environment as waste was previously discarded into near water source springs. This new infrastructure also allowed better access of school buses and other means of public transport, which improves overall well-being and quality of life.

**Protection of the Environment.** Following the permission for government action in the area, the local government committed to build infrastructures and services, but in a way that would degrade or negatively affect the environment. This was necessary to

From the left: Before: Illegal access  
After: Secure and legal electricity.



preserve the water springs and reserves that supply water to the nearby municipalities. These considerable achievements encouraged further local community action. These included:

- The opening of a Municipal Child Center (day care) for child education and social activity, which provides full-time care for over 120 children.
- Approval of the environmental license needed to build a new school.
- On the advice of CRER, negotiations are under way with CEMIG on the installation of solar heaters. Using its experience, CRER can also provide low-cost solar heaters in the neighborhood.

The actions have resulted in increased quality of living, self-esteem, sense of identity and dignity of families and the wider community.



Laying the foundations for a new road network, Parque do Cedro.

## Lessons learned

### **Benefits to energy companies.**

Apart from addressing the needs of communities like Parque do Cedro, the regulation and service provision through legal channels can also benefit energy companies as a result of the extra revenue they gain from the service they provide. This also provides opportunities to improve energy efficiency, health and safety, awareness and training.

### **Awareness raising and education.**

Increasing awareness about energy consumption is

essential to improve energy efficiency. It is a building block for energy saving measures in energy planning, provision and management.

**Engaging with an energy provider.** The involvement of an energy company committed to the increase of renewable energy utilization can bring important benefits. CRER has influenced important actors to promote energy efficiency and renewable energy in the region. Increasing CRER's status resulted in several new opportunities for action in a well-coordinated and organized community including the supply of renewable energy.

**Addressing challenges can lead to success.** Addressing bureaucratic and/or political challenges was a big challenge for the local community. The key to success was the realization that when acting in an organized and integrated fashion, the community was strong enough to achieve its goals.

## Replication

**Drawing upon lessons learned.** In early 2010, through the CRER Advisory Group, contact was established between CEMIG and COPASA (Sanitation Company of Minas Gerais), so that the latter could gain the expertise needed to introduce basic sanitation infrastructure to the Parque do Cedro neighborhood.

**Setting an inspirational example.** The Parque do Cedro example is seen by both stakeholders and other communities as an inspiration. Replication of actions in other neighborhoods in a similar situation has begun for example in the Alto Cruzeiro (Belo Horizonte) community.

**Continuing environmental education.** This is an opportunity for CRER-Betim to continue active environmental education, particularly regarding energy consumption, energy efficiency and the use of renewable energy.

**A reference center** that gathers people from different areas to form an Advisory Group has shown the important role of encouraging specialists, public organizations and civil society to participate in the process of developing public policy for clean energy promotion. As a space to share information and experiences, CRER can continue with the dissemination of trainings for Low Cost Solar Heater System (LCHS) – an excellent initiative for neighborhoods like “Parque do Cedro” – as well as to look for other replicable experiences, through the Local Renewables Model Communities Network. This is also essential if the example is to be replicated elsewhere.



Photo: © Erasmo Carlos

Road to social inclusion, Parque Do Cedro.

## Budget and finances

CRER did not identify specific expenses for this action. The Local Renewables Project, through which CRER was created, had two phases with the following costs:

Phase 1 (July, 2005 – June, 2007): US\$ 150,000.

Phase 2 (April, 2008 – September, 2012): US\$ 245,000.

## Key Contacts

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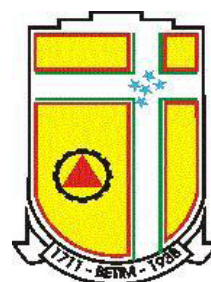
## Sources

- CRER - Betim and Municipality of Betim.
- Erasmo Carlos – Community leader.
- CEMIG - Energy Company of Minas Gerais.

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