

Creative partnerships for sustainable energy projects in Brazil



bp

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Finding the right dynamic

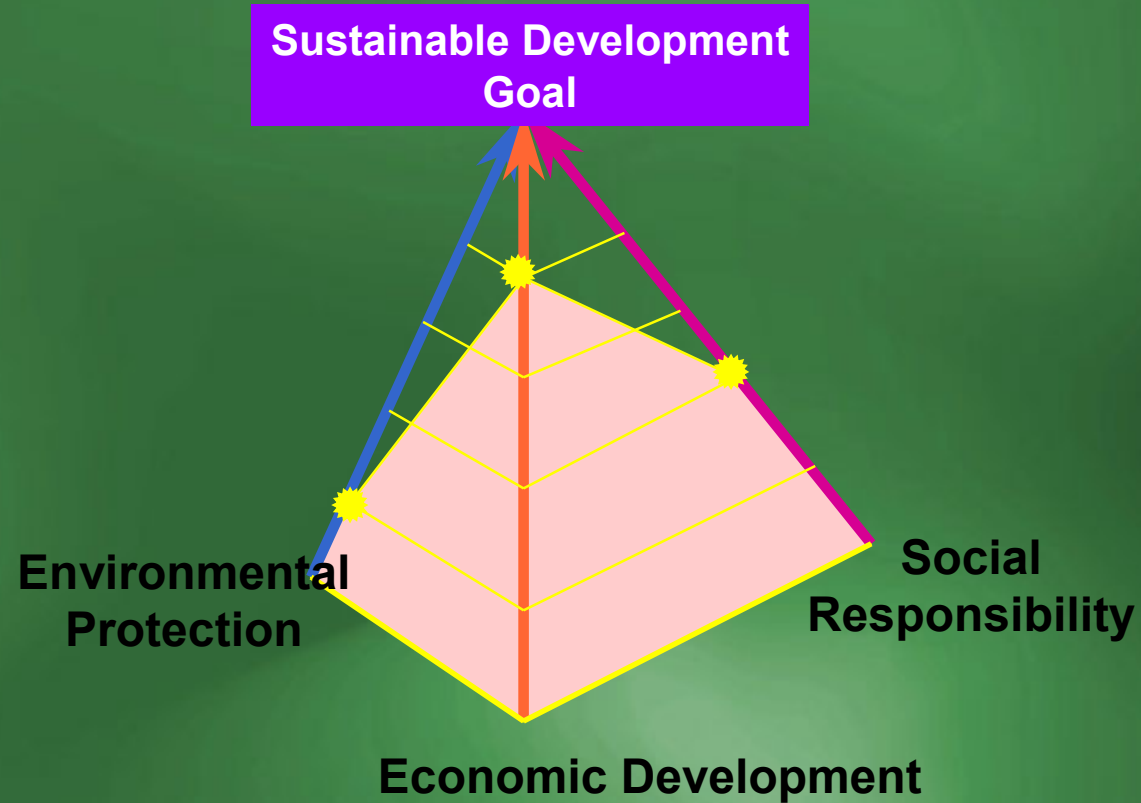
THE PLAYERS

→ Business

→ Government

→ NGOs

→ The individual



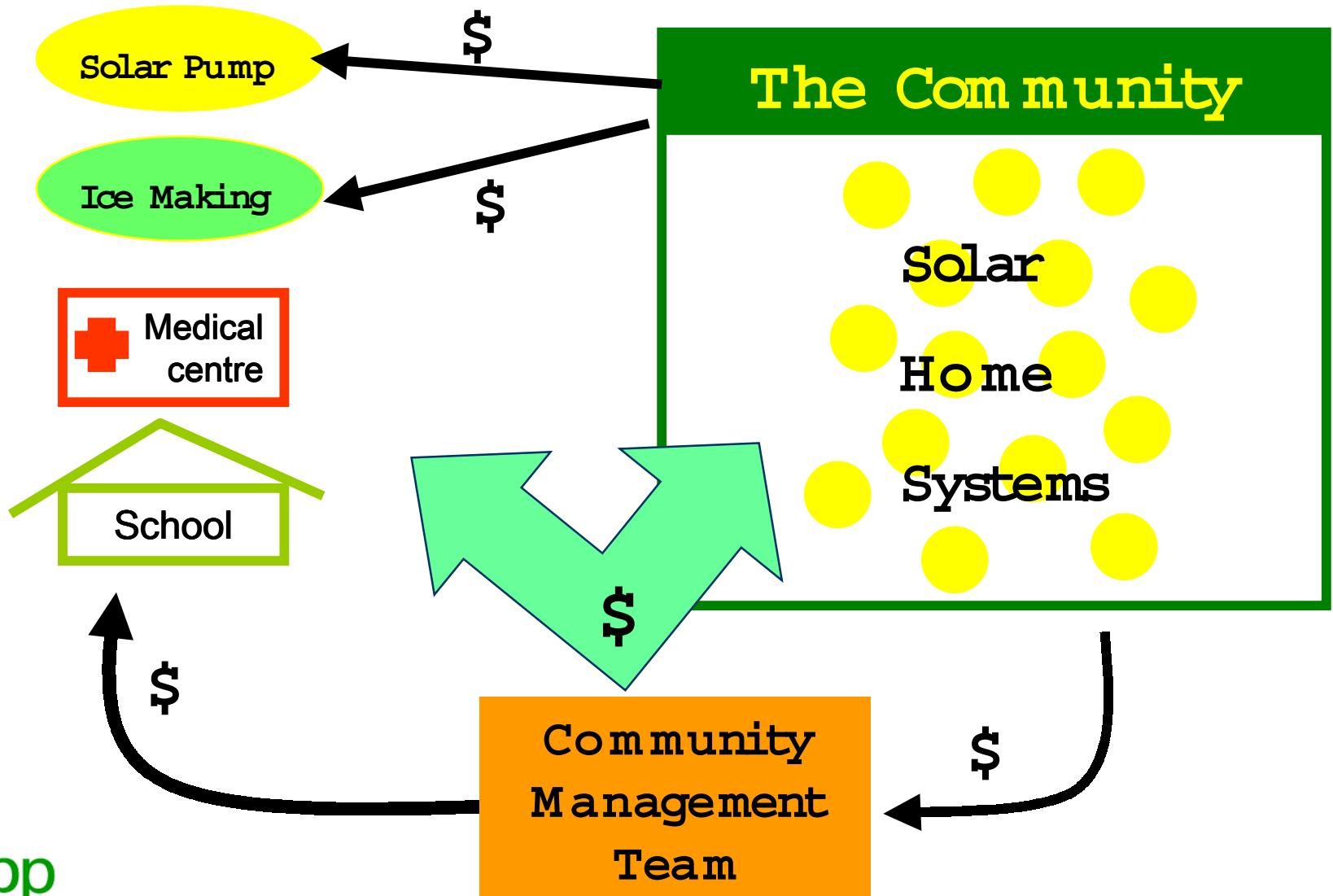
What we we have managed to do with \$150,000

State	What was achieved
Ceara	70 solar home systems in the communities of Santa Maria and Baixo do Cedro. Water pumping and lighting for a school was also provided
Para	Nine health posts and a school in Municipio de Chaves, Rio Curucu, Ilha do Marajo. Solar for lighting and refrigeration for vaccines. Fridges and microscopes were also provided
Amapa	In the municipalities of Oiapoque and Calcoene the team will be implementing 6 health posts powered by solar for vaccination refrigerators, pumps for water and microscopes. Solar was also put into a research base and hotel that does scientific work in the Amazon

How the C D M would have influenced this project

Ceara State	Installation of 70 solar home systems in the communities of Santa Maria and Baixo do Cedro
Amapa State	In the municipalities of Oiapoque and Calcoene health posts powered by solar for vaccination refrigerators, pumps for water and microscopes.
Para State	Solar systems in eight health posts and a school in Municipio de Chaves, Rio Curucu, Ilha do Marajo
Total watts installed	11,550 Watts installed capacity
Total project cost	Project cost US\$150,000
Annual avoided carbon and value at \$20 tonne	Brazil Baseline = 3 tonnes CO ₂ ; \$60 Global baseline = 17 tonnes CO ₂ ; \$340 Diesel baseline = 20 tonnes CO ₂ ; \$400
What was paid in duties and tariffs	US\$ 15,000 was paid on \$US 60,000 of solar panels brought into Brazil <u>Over 26 % was paid in duties and tariffs</u>

Revolving fund type approaches



BP success in PRODEEM

- On December 13, 2001 BP Brasil with a project team consisting of members from Solar and G & P captured approximately \$10.4 million of business through the Brazilian Federal Government's PRODEEM programme.
- The competitive bid was to provide and install solar photovoltaic systems in 1852 schools throughout 11 States in Brazil by the end of September 2002
- The project will be the biggest of its type ever undertaken in Brazil and Latin America and one of the largest off-grid solar projects in the world with over 1.33MW to be installed

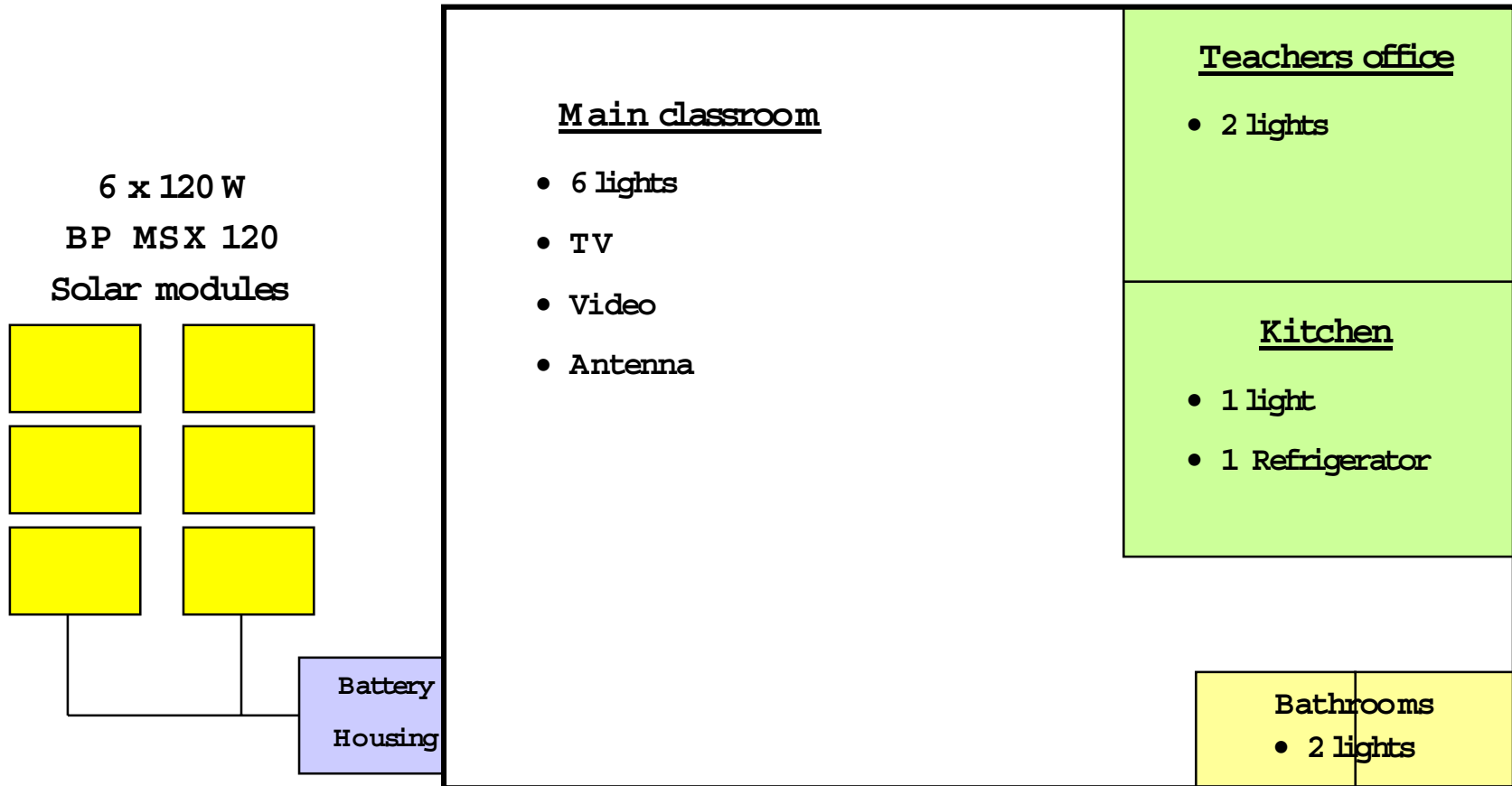


Benefits to communities from this project

- 1852 schools will be installed with solar electricity for televisions, computers and refrigeration for food benefiting the lives of over 60,000 children
- A total of 11,112 panels each of 120W Total watts installed will total 1.33MW

States	No. of Schools
Alagoas, Paraiba, Sergipe, Rio Grande do Norte	421
Piaui and Ceara	558
Espirito Santo, Goias, Minas Gerias and Parana	327
Bahia	546

What will be installed at each school



Energy consumption from lamps and equipment = 1820 (Watts/day)



Challenges and future opportunities

- This will be the first time that BP Solar undertake a project of this type to install turnkey projects of this size in a demanding time frame
- Most of the areas where the schools are located are in isolated areas with limited infrastructure
- This project could establish a foothold in new locations to help develop viable solar businesses
- If sustainability is not central the project is deemed to fail

The results – a school in Para



The results – a health posts in Amapa



For further information contact:

- **BP Website**

- www.bp.com

- **Corporate Social and Environmental reports are available at**

- www.bp.com/corp_reporting/social_perf

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