

# Village Power 98

Inter-American Development Bank  
Experience in Renewable Energy  
Financing for Rural Development

By Jaime Millan

Principal Energy Economist

Sustainable Development Department

IDB

October 6, 1998

# Contents

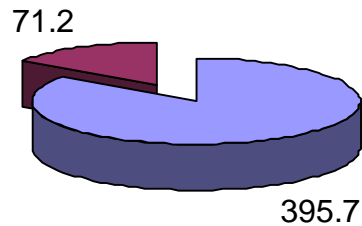
- Markets for rural energy in Latin America and the Caribbean
- The new IDB energy strategy
- Sustainable markets for sustainable energy
- Some examples
- Conclusions

# Markets for Rural Energy in Latin America and the Caribbean

- Electricity coverage is high: close to 84% of population in the most urbanized (75%) region of the developing world , but
  - In some countries rural coverage is poor, less than 20%
  - In large countries with high coverage absolute numbers may be huge. Only in Brazil there are 20 million people not connected to the grid
- In general rural electrification in the past was based on huge subsidies and resulted in inefficient resource allocation, but
  - Power sector reform opens the door for new participants
  - And a whole new rural energy market

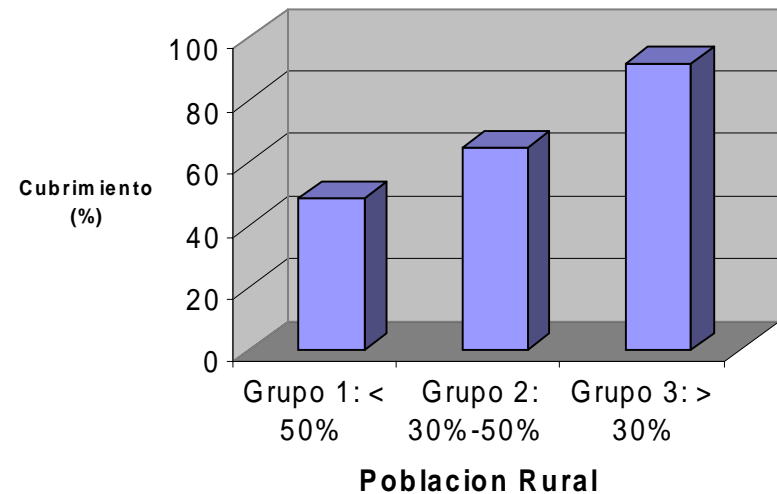
# Most Unserved Population is Rural. Correlation Urbanization Electrification

**Cubrimiento Servicio Eléctrico**  
Region: 84%



■ Población con Servicio de Electricidad ■ Población sin Servicio Eléctrico

**Población Rural y Cubrimiento de Electricidad**



--	--	--

## Unserved Population has been declining in Absolute terms in the Last 20 Years.

Cubrimiento del Servicio de Electricidad (%)						
> 90%	Argentina, Barbados, Brazil, Chile, Costa Rica, Mexico, Suriname, Trinidad & Tobago, Uruguay, Venezuela					
70% - 90%	Colombia, Ecuador, El Salvador, Grenada, Paraguay	Población Rural con Servicio (Millones)		Población Rural sin Servicio (Millones)		
50% - 70%	Bolivia, Dominican Republic, Jamaica, Nicaragua, Panama, Peru	<i>Region</i>	1970	1990	1970	1990
< 50%	Guatemala, Guyana, Haiti, Honduras	<i>Africa N. y Medio Oriente</i>	11	38	66	70
		<i>America Latina</i>	18	50	103	76
		<i>Africa</i>	9	27	213	313
		<i>Asia del Sur</i>	69	209	510	627
		<i>China</i>	270	635	405	159
		<i>Asia del Este y Pacifico</i>	233	482	697	590

Source: IDB, 1997

Fuente: Energy Strategies for Rural and Poor People in LA, World Bank, 1997

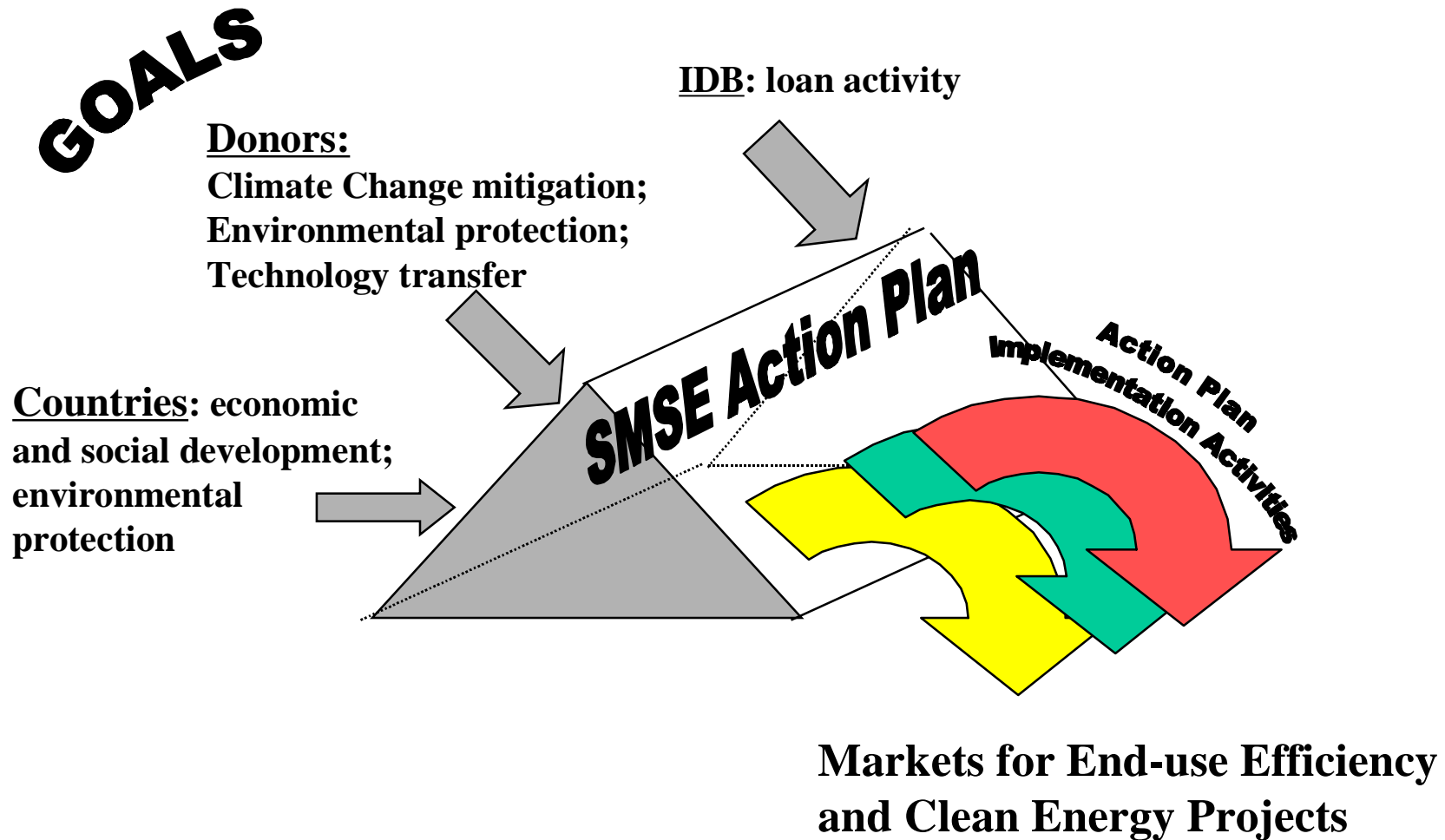
# IDB Energy Strategy

- A set of complementary activities that, as a result of confronting **comparative advantages and limitations with the needs of the market**, help create a unique position for the bank
  - Comparative advantages in:
    - SME and micro-enterprise loans and non-lending services
    - Rural poverty strategy, and gender programs
    - Using donors funds to catalyze markets
  - Limitations in:
    - Putting energy experts to make small, time consuming loans
  - Enable markets for rural energy using our comparative advantage in business development by adjusting means to necessities

# IDB....

- Enabling markets for rural energy
  - Creating the institutional and legal framework that level the playing field
  - Filling the missing links that are required to create demand for existing loans and services
    - Capacity building
    - Putting together customers and lenders
    - Innovative lending instruments
    - Non lending services
  - Experiment with many delivery models

# SMSE Process Transforms Goals Into Markets for Sustainable Energy



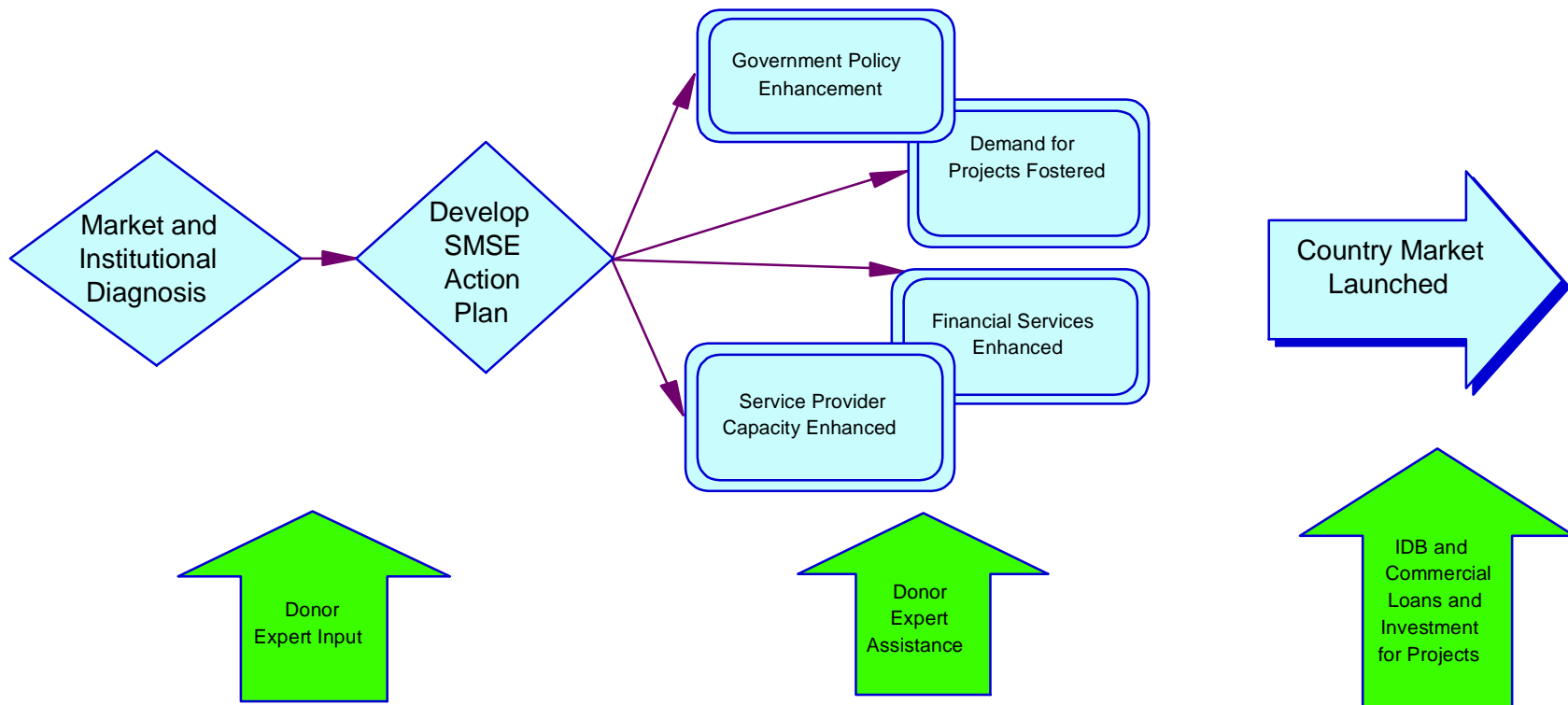


# SMSE Process for Catalyzing a Market in Energy Efficiency or Renewable Energy

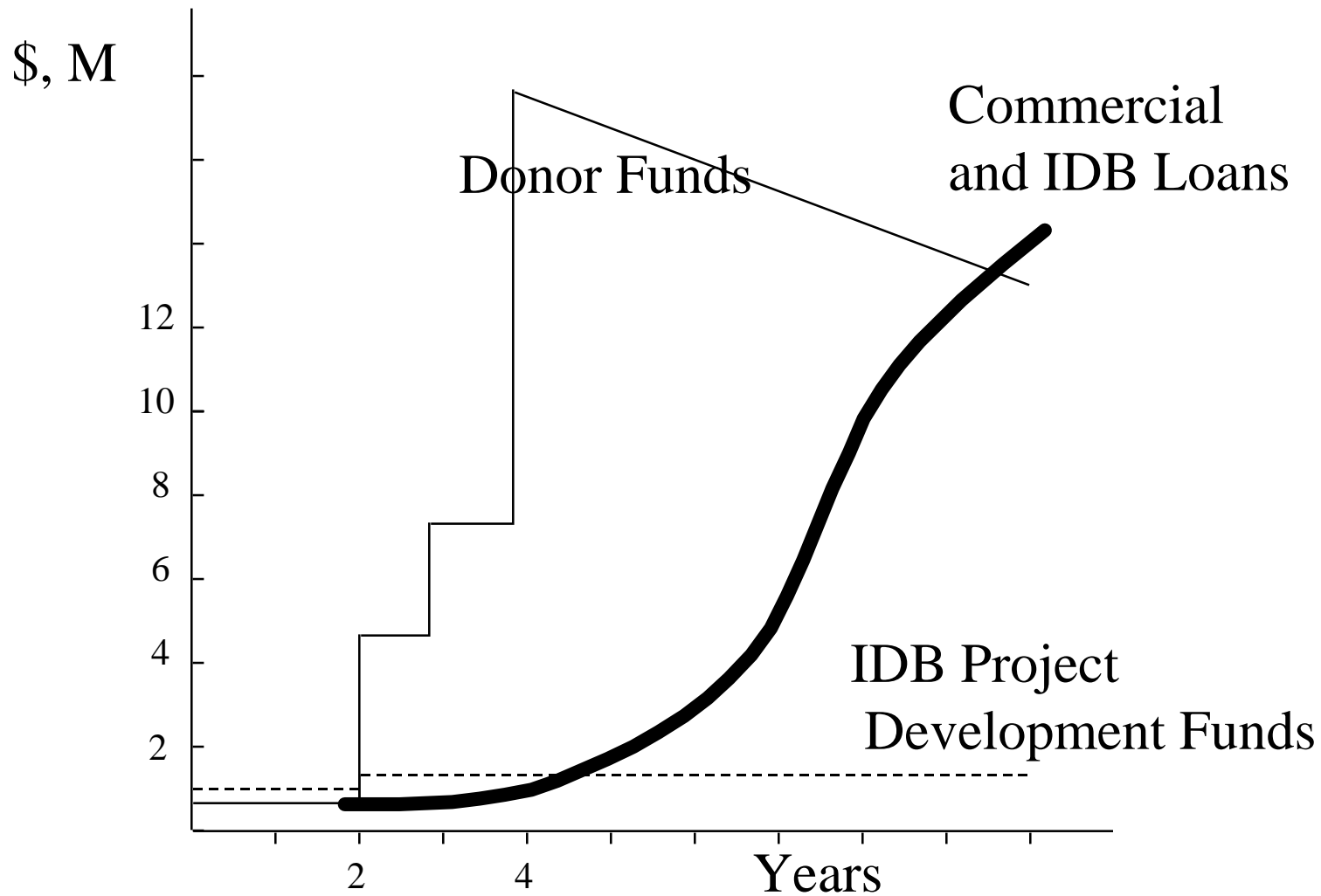
Action Plan  
Development Phase:  
Up to One Year

Action Plan  
Implementation Phase:  
One to Three Years

Market Phase



# Evolution of Funds Required Over Time



## Status of SMSE Activity: Results Achieved and Expected

- **Brazil:** MIC small project loan concluded; SMSE developed rural renewable energy services component of \$400 M SME loan for northeast for 1999; action plan complete and accepted by country; probable funding for implementation by MIF and JSF and other donors
- **Peru:** action plan complete; probable funding for implementation by MIF and JSF and other donors
- **Brazil/parana state:** activity expected to be a component of \$200 M urban development loan in 1999/2000
- **Ecuador:** activity expected to be a component of \$200 M municipal development loan in 1999; probable funding from JSF
- **Argentina:** increased utilization of existing loan funds (science & tech, SME) and possible component of new S&T fund
- **El salvador:** leveraging of private sector activity through existing energy efficiency loan fund

## Example for Brazil of Type of Assistance Provided in Action Plan Implementation Phase

- Demand side: market assessment
- Supply side
  - Service providers: business model development assistance
  - Financing: linking existing credit to demand; innovative finance schemes
- Institutional and regulatory: reorganization of government program to help infuse private sector initiative in place of government

## Examples of Lending and Assistance Vehicles for Rural Energy in Brazil

- Expansion of markets for small & medium energy enterprises through SME Loans
- Creation of microenterprises for rural energy services in northeast Brazil
- Including components in new loans
  - Agrarian reform loan
  - Prodetur

## Other Approaches:

- A comprehensive strategy for rural energy and telecommunications in Central America which, while open to any solution, is ready to replicate other's experiences in an experimental way
- Support other's ideas, like E&CO, follow up and be ready to scale up

# Conclusions

- The bank is changing its approach seeking to adjust means to needs
- In many respects our approach is similar to that of other multilaterals
  - Driven by social concerns
  - Exploit a niche
  - Trust market mechanisms
- Our uniqueness may be found in the way we have tried to use our comparative advantages