



International Conference on
« Energy Environment and Development
Analysing opportunities for reducing Poverty »

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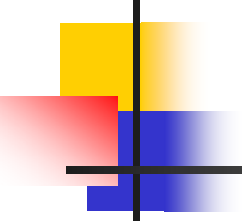
Session 1

Energy the « missing » MDG
Electricité de France's contribution

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- past experiences
 - where do we stand now
 - perspectives



Learning through experience and interactions

- Initial approach via equipments given to communities (in house NGO ESF, french foundation FONDEM, e7)
- Basic services to community (activity Center : solar system + water + communication + health), payment via fee for service
- GECCO village electricity supply via thermal Genset (partnership with ADEME)
- In partnership with Nuon and Total, creation of SSD - decentralised services company - in two Malian regions



Partnering

- utilities : e7 now e8, NUON, ESKOM, WEF .
- Institutions and foundations : ADEME, FONDEM, FRES, Nicolas Hulot's
- NGO : ESF, Red Cross,
- Sharing experience with stakeholders and financing institutions



Achievements

- 1994 : creation of Phambili Nombane ES, JV with ESKOM and EME for construction and operation of the network and customer management of Cape Town Khayelitsha township
- 1999 - 2001 : creation of Yeelen Kura and Koraye Kurumba in Mali (1500 & 500 customer) SSD
- In 2002 : creation with Total of TEMASOL and KES of large scale rural electrification companies SSD



Electrification and MDG

- Availability of good light : MDG 2
- Lesser use of candle & petrol : MDG 5, 7
- Home activities sewing, ironing : MDG 1, 3
- SME activities carpentry, welding : MDG 1
- Enlarging working period : MDG 1, 3
- Possibility of water pumping : MDG 3, 4, 6
- But detailed impact analysis and correlation between electricity and MGD difficult to conduct



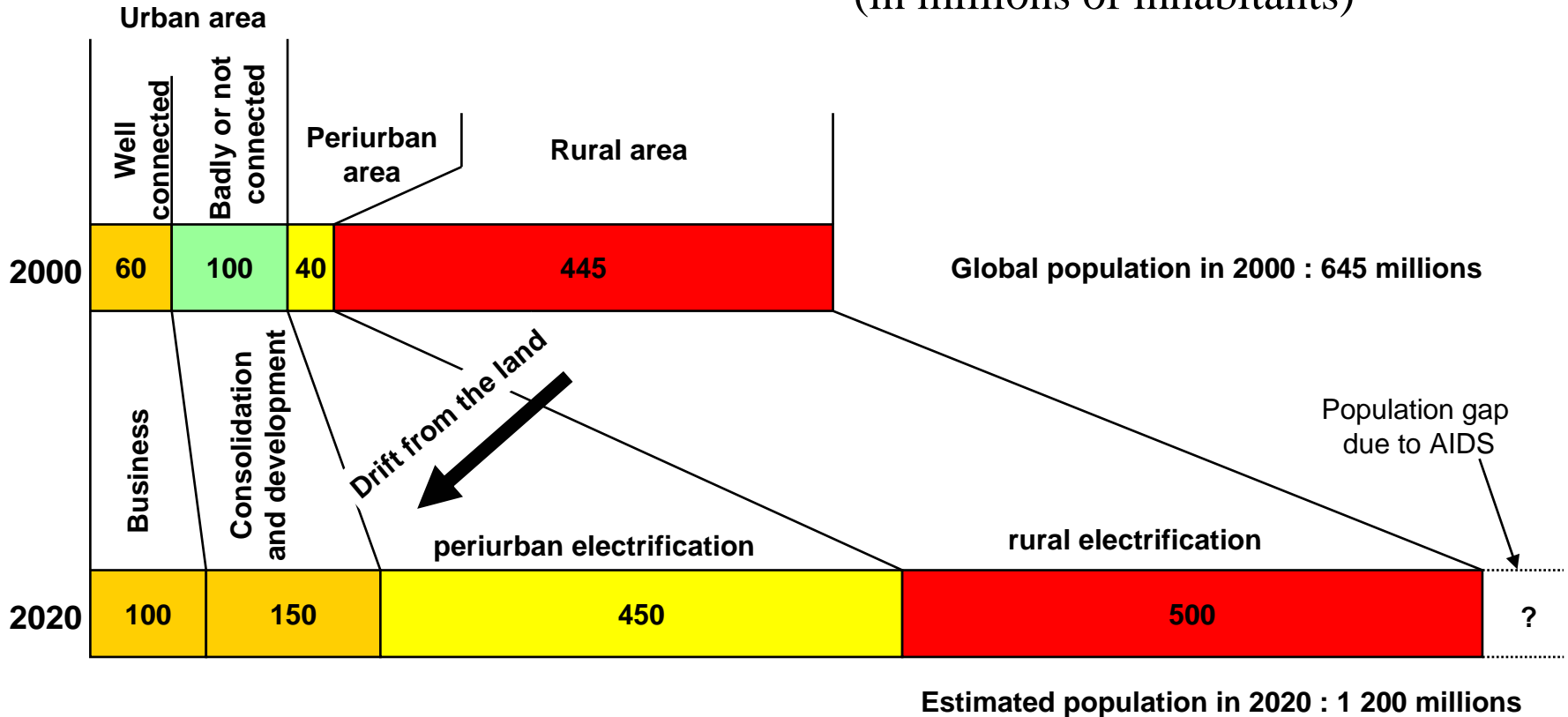
Today's challenge for development: reliable, clean, and efficient energy.

Objectives

- Improving Energy Services for Economic Growth.
- Providing Energy Services for A Better Quality of Life.
- Strengthening Energy Security for macroeconomic stability.
- Change of scale towards universal access to energy via non-grid (and grid) projects

The scene

Demography and needs of energy (in millions of inhabitants)





Experiences from the past : Lessons learned

- No guarantee of sustainability with donation and/or philanthropic projects
- Scaling up only possible with replicable projects
- Not a pertinent profitable “business model” for utilities of developed countries but ...

... They have a main role to play



EDF Group Commitment

- EDF Group commitment is to promote and develop a comprehensive and adapted business model for Rural Electrification enabling expansion and replication by local SMEs
- This Business model is based on the **four** following **pillars** :



The four pillars

1. Promote the best adapted technologies among a broad available portfolio to provide the (clean) energy needed for development
2. Develop both (i) access to affordable basic needs for rural population and (ii) services to increase productivity of small and medium enterprises, to enhance the quality and efficiency of some sectoral programs such as in health, education, water and agriculture, and so, to improve living standards, and focus on rural transformation
3. Promote local O&M competence by capacity building actions on technical, management, financial and commercial aspects of a project and associate a local partner to allow a rapid transfer of responsibilities
4. Contribute to the definition and promotion of a national framework sustainable and replicable financial and institutional frameworks














Business Model

1. Within legal and contractual agreements (concession, financing, authorization ...)
2. Projects of 6 to 15,000 customers
3. Fee for service according to capacity to pay and level of service
4. Adapted technologies
5. 60 to 80% subsidies for initial investment
6. Payment of O&M including replacement by customers
7. Creation of a local company with local partner
8. Return on invested capital at 12 to 15 % after taxes (excluding most of development costs and part of foreign monitoring) allowing interest from local entrepreneur
9. Agreement with local partner for progressive disengagement



Example of projects KES – South Africa

1. Concession and financing agreements with Department of Minerals and Energy (DME), agreements with municipalities
2. Projects of 15,000 customers (to date 9,100)
3. Fixed fee for service defined by DME → 6 €/month for 50 Wp
4. Solar Home System (SHS)
5. Subsidies : > 70% provided by DME
6. Payment of O&M including replacement by customers → yes
7. Creation of a local company (local partner to be defined soon)
8. Return on nominal invested capital expected : 15 %
9. Agreement with local partner for progressive disengagement → not yet

	Koraye Kurumba	Yeelen Kura	Témasol	Kes	PNES	Total
Companies						
Year of creation	1999	2001	2002	2002	1994	
Area	Kayes zone Mali	Koutiala zone Mali	29 Provinces (Settat, Khourigba, Kemisset, Kénifra...) Morocco	Central Kwazulu Natal South Africa	Western cape South Africa	
Type of zone	Rural	Rural	Rural	Rural	Peri-urban	
Partners	 30%	 50%	 35,6%	 35%	 50%	
			 32,2%			
Numbers of employees	14	35	100	36	37	222
Number of clients / Population served	480 / 9 600	1 415 / 28 300	19 412 / 136 000	8 192 / 49 000	60 000 / 350 000	89 499 / 572 900
Commitment within the first 3 years : Number of clients / Population served	500 / 10 000	1 500 / 30 000	58 500 / 400 000	15 000 / 90 000	60 000 / 360 000	135 500 / 890 000
Extension project	Yes + 5 000 clients	Yes + 5 000 clients	No	Yes + 30 000 clients (of which 400 are schools and health centres)	No	



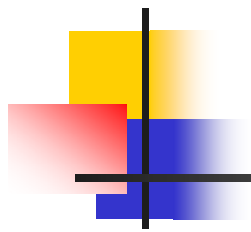
Perspectives

- On site accurate impact analysis with the customer and monitoring of their evolutive demands
- Focusing on triple A rating : Availability, Accessibililty Affordability+ Appropriation
- Implementing new but confirmed technologies such as village solar plant (10 kw), bio fuel and bio diesel...
- Sharing experience among actors and disseminating best practices



New reflections in progress

- How to address the problems of peri-urban areas **a problematic with some similarities with rural electrification in areas outside of formal concession perimeter**
but with significant different approach when regularisation of electricity supply is the real objective (predominance of social engineering)
- **Decentralised generation projects are useful but not sufficient to meet increasing demand**
Great infrastructures will be necessary
How to contribute to their implementation



- Thank you for your attention

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