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Workshop on Renewable Energy and Poverty Reduction in  
Africa: “Best Practices for Productive Use and Job Creation

21<sup>st</sup> – 23<sup>rd</sup> March, 2007

Novotel Hotel, Dakar, Senegal

# Renewable energy and entrepreneurship development

**Case Study: AREED**

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# Outline

- ✍ Drivers for renewable energy (RE): A review.
- ✍ Barriers to RE diffusion ✍ gaps in RE financing and small enterprise development.
- ✍ AREED as response: model, key facts, enterprise types and impacts.
- ✍ Suggested elements of an SME-led RE intensification strategy for Africa.

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# Drivers for renewable energy




## **1970s**

-  Oil price shocks
-  Projected depletion of oil reserves

## **1980s and '90s**

-  Projected drops in RE prices
-  Sustainable development theses

## **2000s**

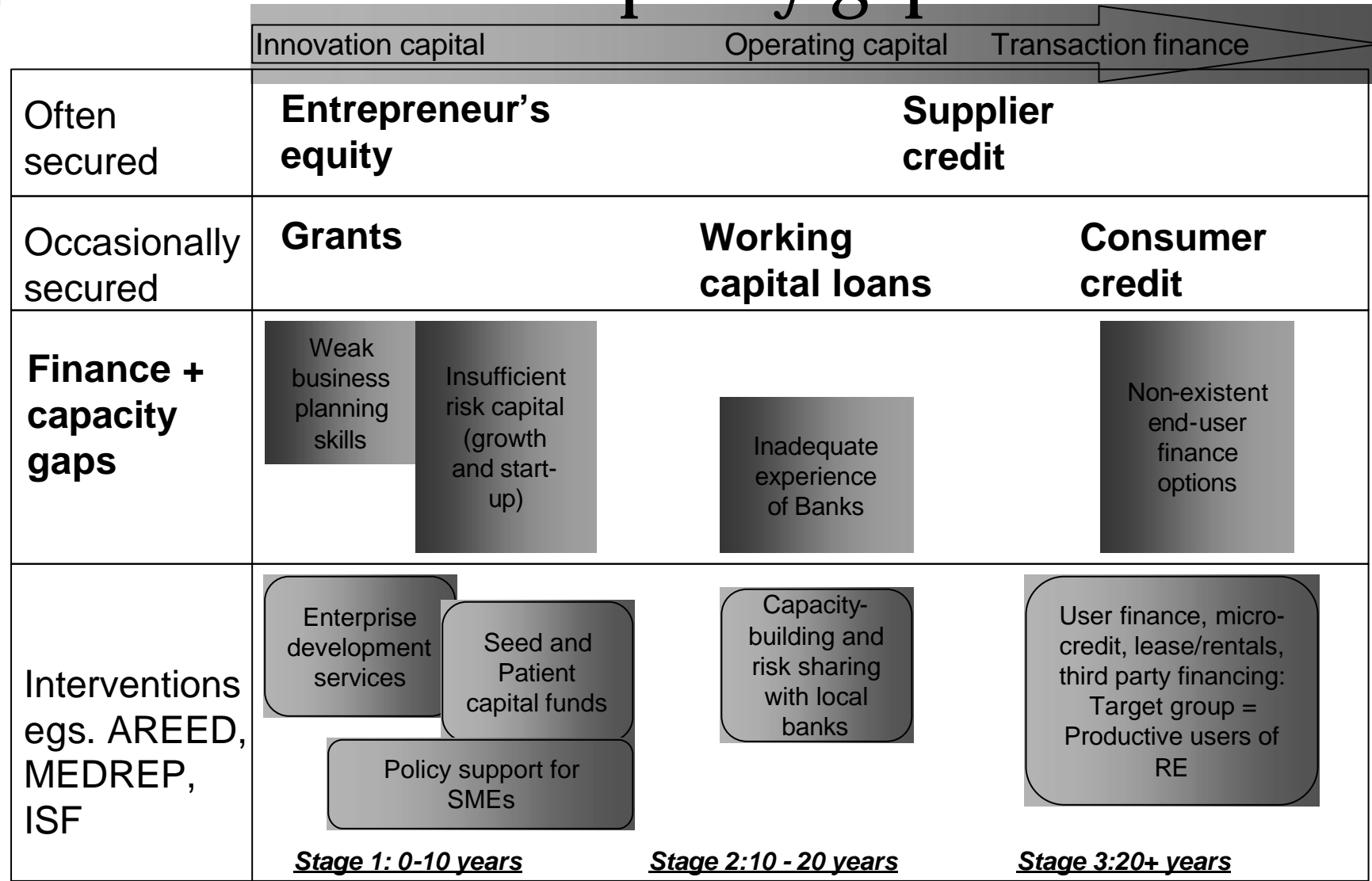
-  Climate change mitigation
-  Security and risk mitigation
-  Poverty reduction/development

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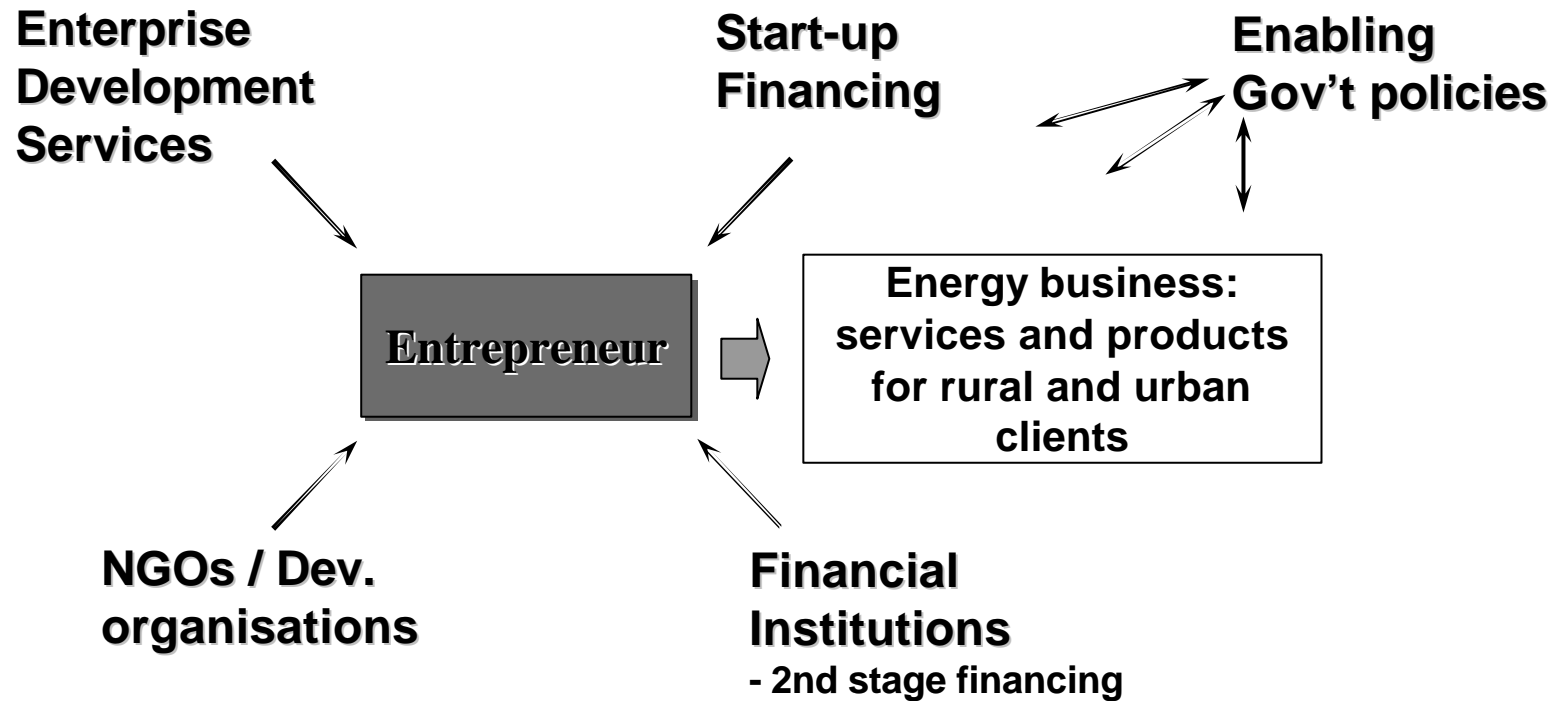
# Barriers

- ✍ Ignorance of RE utilization and investment opportunities on the part of:
  - ✍ Public sector decision makers (partly blinded by short-term political expediency)
  - ✍ Private SME sector entrepreneurs
  - ✍ Programme managers in international financial, development and aid institutions
  - ✍ Utility managers
  
- ✍ Institutional constraints ✍ Hirschman's Thesis (1950s!) revisited.
  
- ✍ Gaps in the 'finance continuum' for SMEs

# SME finance + capacity gaps



# The REED model

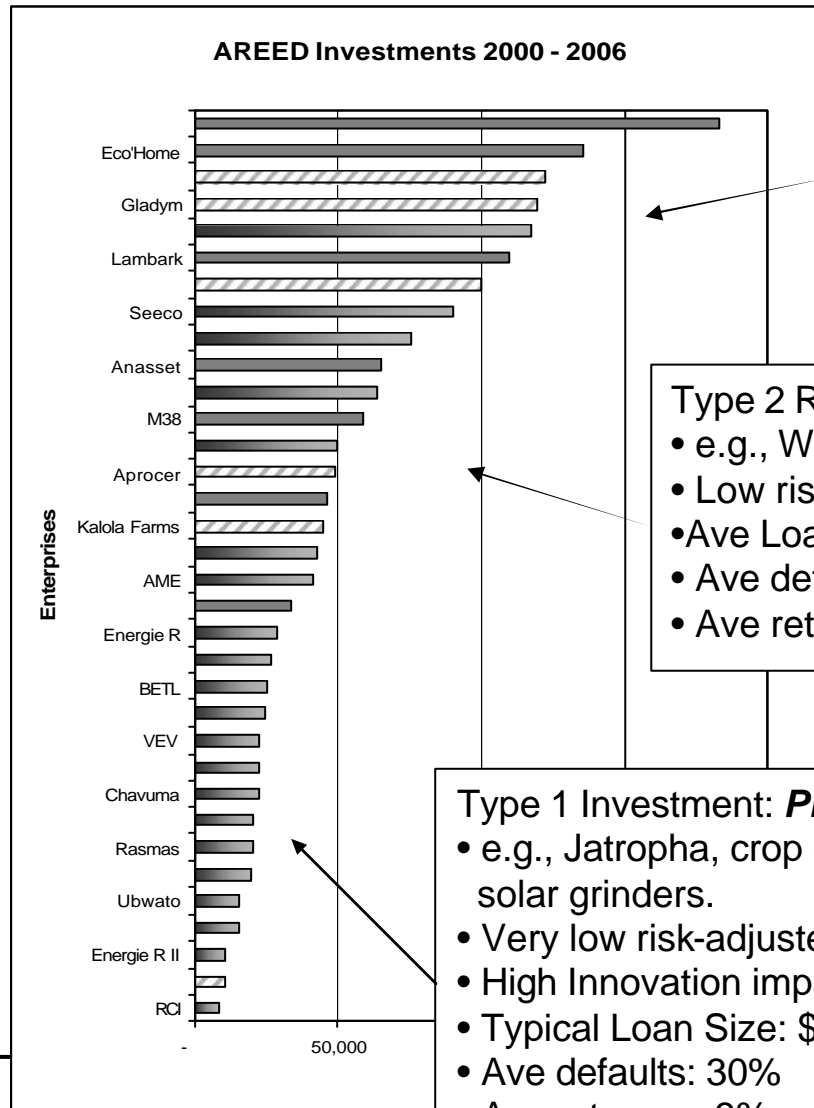


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# Key facts about AREED

- ✍ **Current geographic coverage:** *Mali, Senegal, Ghana, Tanzania, Zambia.*
- ✍ **Donors:** *UN Foundation (\$6.3m), Sida (\$0.7m), BMZ (\$0.4m), Dutch Government (\$0.2m), Other: DBSA, Bodyshop, Domini Investments.*
- ✍ **Seed Fund Manager:** *E+Co.*
- ✍ **Seed fund size:** *\$1.4 m (2000) to \$1.7m (today).*
- ✍ **Country NGO Partners:** *ENDA, MFC, CEEEZ, KITE, TaTEDO.*
- ✍ **Enterprise development costs:** *\$0.20 - \$0.50 per \$1 invested.*
- ✍ **Impacts:** *Slow to produce direct impacts (job creation, GDP effects, GHG mitigation, etc) but can be significant over time.*

# AREED enterprise types



## Type 3 REED Investment: **Expansion**

- e.g., Urban LPG, efficient lighting
- Moderate risk-adjusted returns
- High direct impacts
- Low Innovation impact
- Ave Loan Size: \$130,000
- Ave defaults: 10%
- Ave returns: 5% - 8%

## Type 2 REED Investment: **Commercialization**

- e.g., Waste to energy, rural LPG
- Low risk-adjusted returns
- Ave Loan Size: \$70,000
- Ave defaults: 15%
- Ave returns: 3%-5%

## Type 1 Investment: **Proof of Concept**

- e.g., Jatropha, crop drying, solar grinders.
- Very low risk-adjusted returns.
- High Innovation impact on sector dev.
- Typical Loan Size: \$25,000
- Ave defaults: 30%
- Ave returns: <3%



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# Impacts: Investments, Beneficiaries, Environment

 **# Enterprises supported:**

 35

 **Customers served:**

 331,000

 **Qty CO2 emissions avoided p.a:**

 422,000 tons

 **Qty charcoal/firewood displaced:**

 263,000 tons

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# Elements of an RE intensification strategy

- ✍ Focus on entrepreneurship. Examples:
  - ✍ African Rural Energy Enterprise Development (AREED)
  - ✍ ACCESS (a Malian NGO-led initiative takes off!)
  
- ✍ Close the SME capacity and finance gaps
  - ✍ Create/expand seed and growth capital funds
  - ✍ Increase # of Intermediary Organizations
  
- ✍ Increase funding for inter-agency coordination, structuring enabling policies and financial incentives. Examples: Sida, UNF, BMZ...

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# Thank you!

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