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Institutional and Financial Aspects of a Rural Electrification Experience : Case of TUNISIA

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Practical Know-How for Scaling Up Electricity Access in Africa. The Maputo Workshop for SSA Electrification Experts: June 9-12, 2009

(*) ESMAP Study

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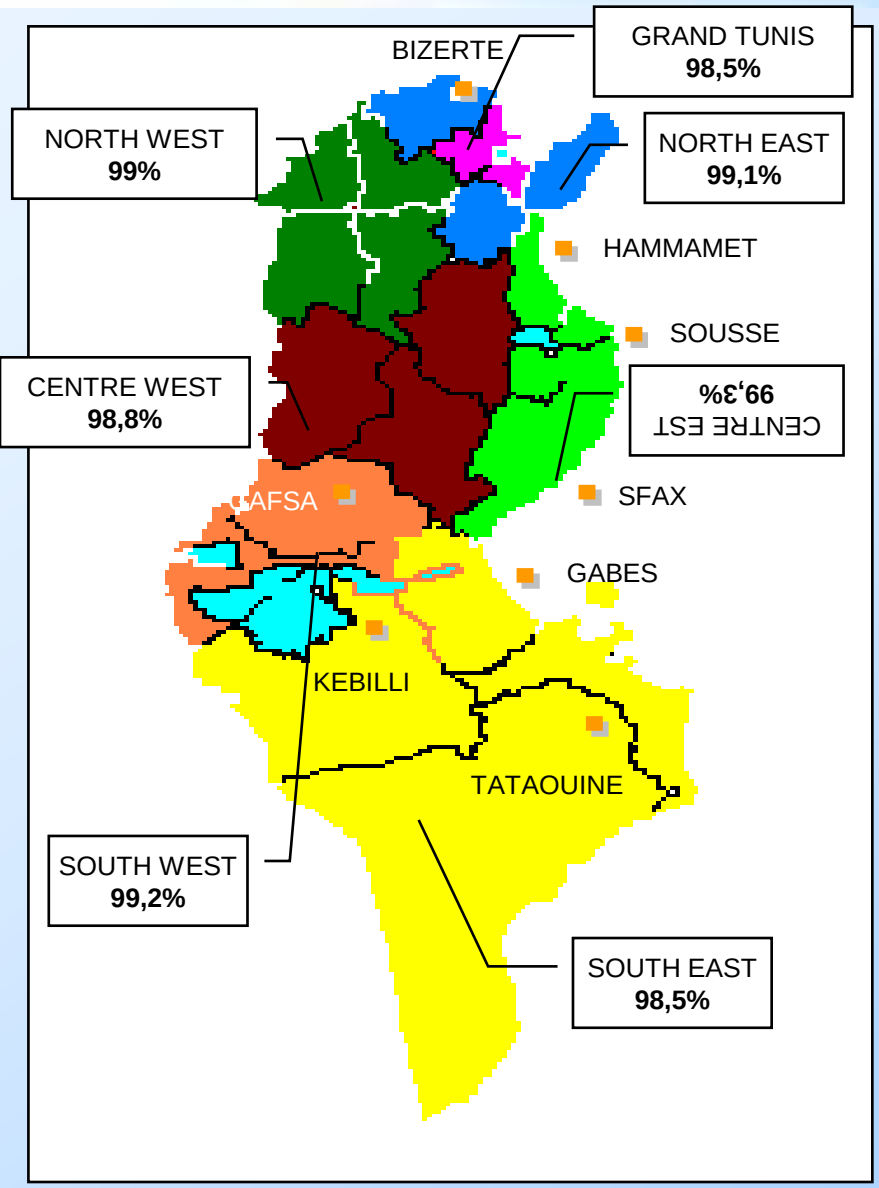


RURAL ELECTRIFICATION PER REGION 2008

Overall Electrification Rate

99.5%

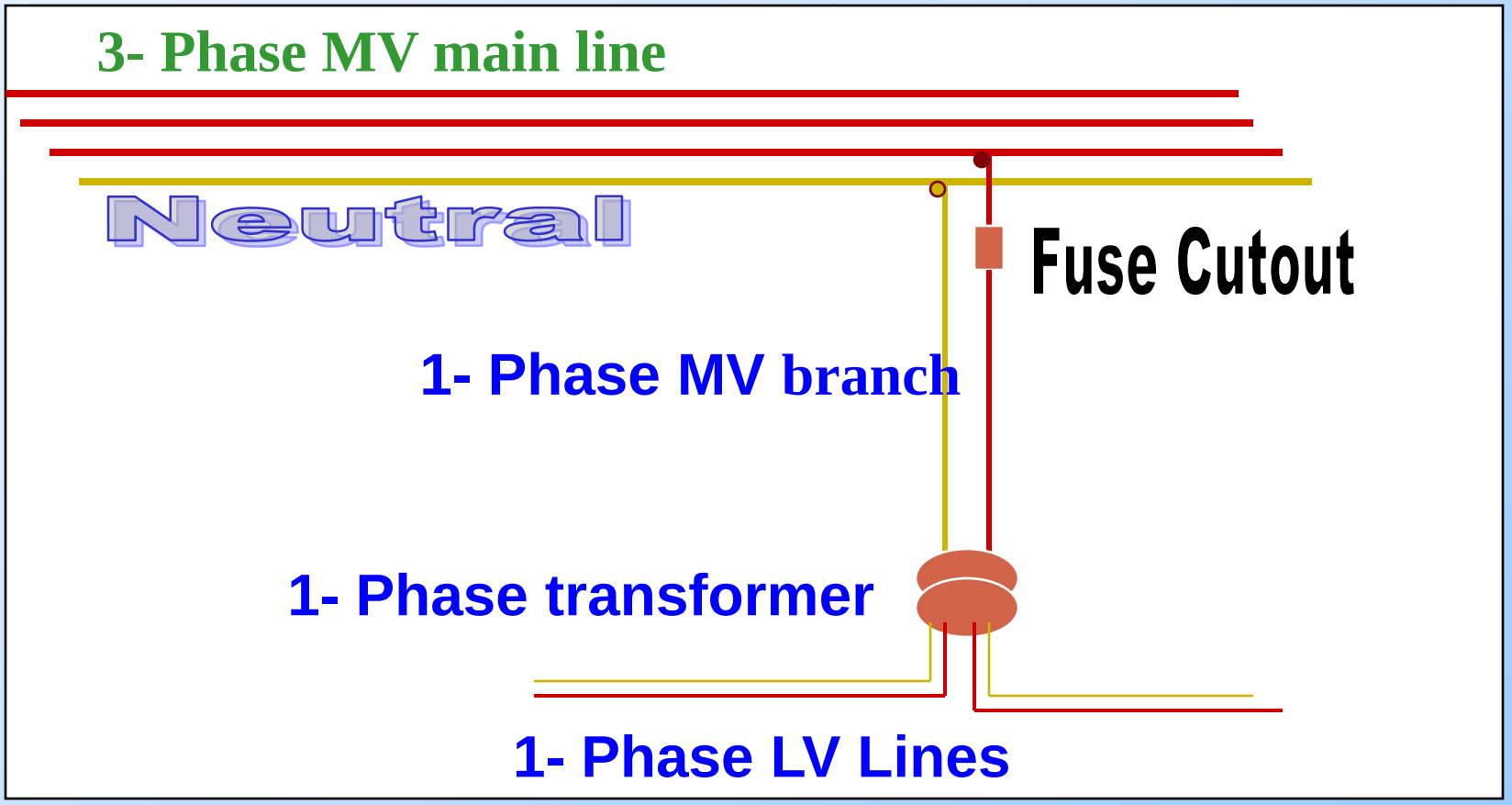
Rural Electrification Rate

99%

Origins of the Program

- **1962: Creation of Société Tunisienne de l'Electricité et du Gaz (STEG)**
- **1973 – 1976: Technico-economic Studies advocating low cost technique of three phases/mono phase MALT**

MALT Configuration



Rural Area

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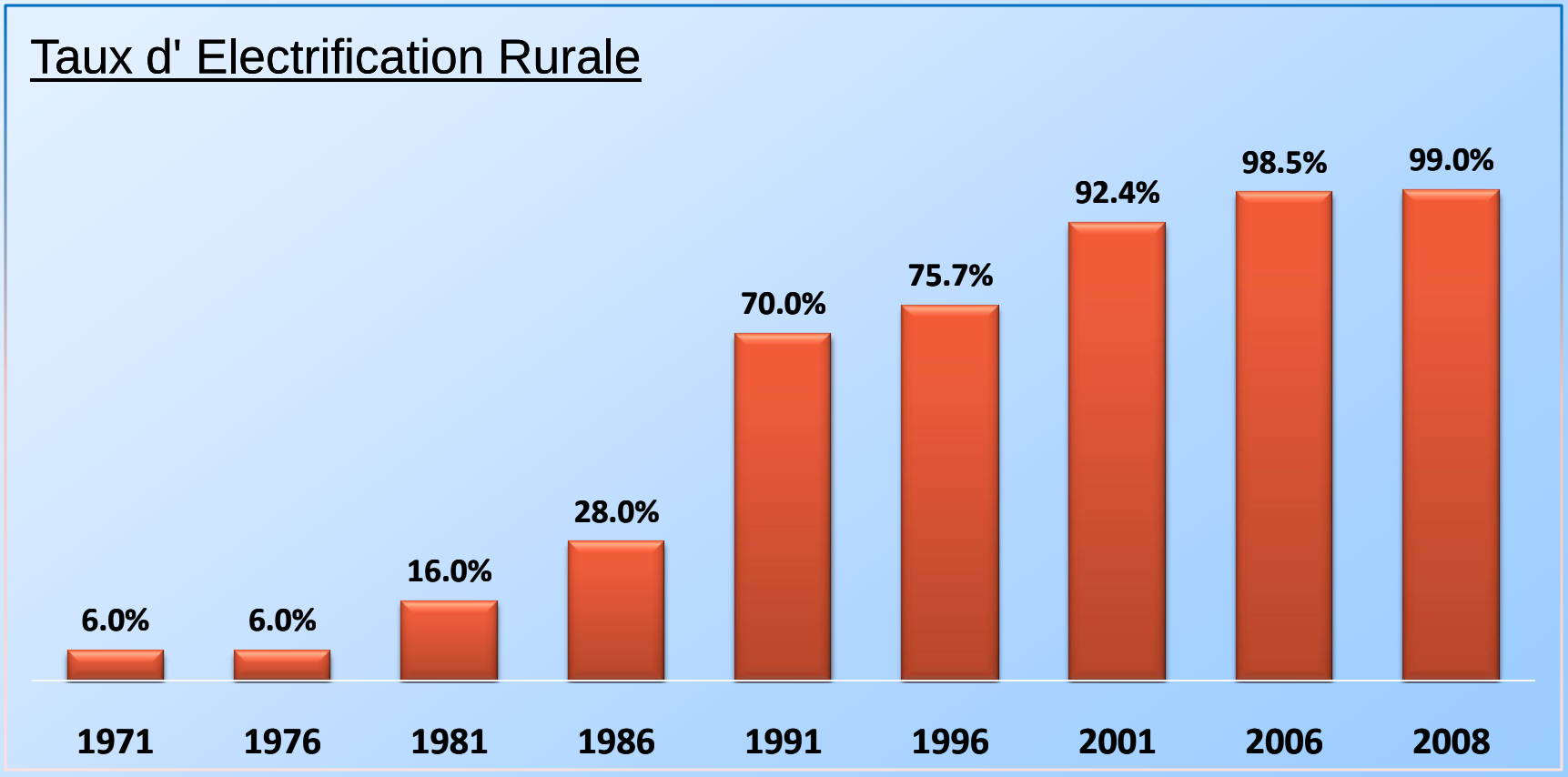
Tunisia Rural Electrification Program,1972-2008



Three Pillars of Rural Development

- EDUCATION (human resource development and legal rights)
- HEALTH (family planning)
- RURAL ELECTRIFICATION (coordination with above)

A Rural Village electrified through a single phase line

Local Level Actors And Main Functions

- Oumda/Rural households
- Governorates
- Delegation
- STEG District

- Represents rural hhlds
- Political authorities
- Implement electrification program

National Level Actors And Main Functions

- Min. of Eco. Dev't & *Commissariat Général de Dévelopment Rural (CGDR)
- Ministry of Industry, Energy and SME
- STEG
- ANME
- Nat'l Solidarity Fund (FNS), Presidential Fund

- Infrastructure investment Plan for 5 years,
- Funding of the Plan

- Define national program for RE
- Grid implementation
- PV implementation
- Extra-budgetary funding

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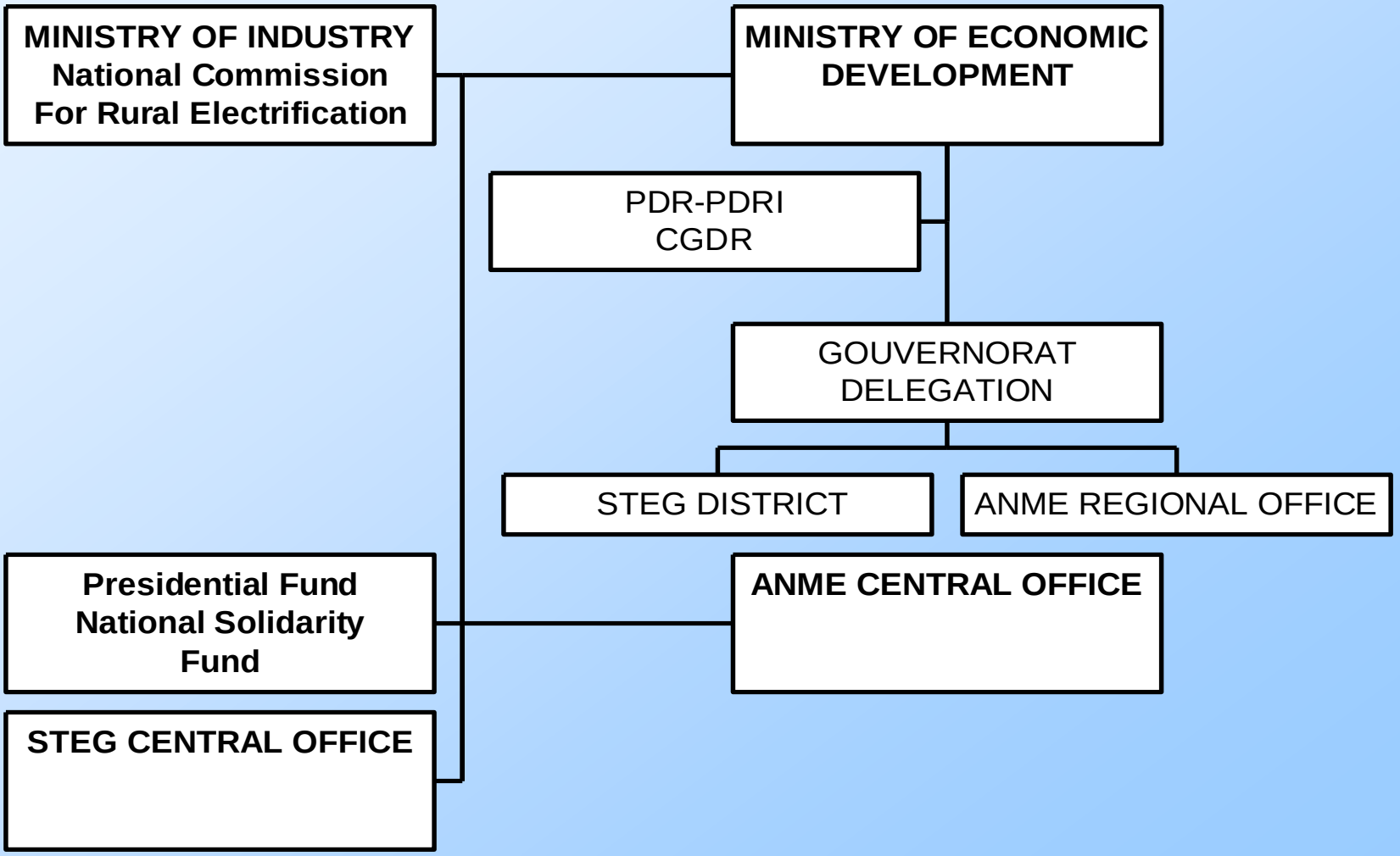
Responsabilités pour l'Electrification Rurale en Tunisie



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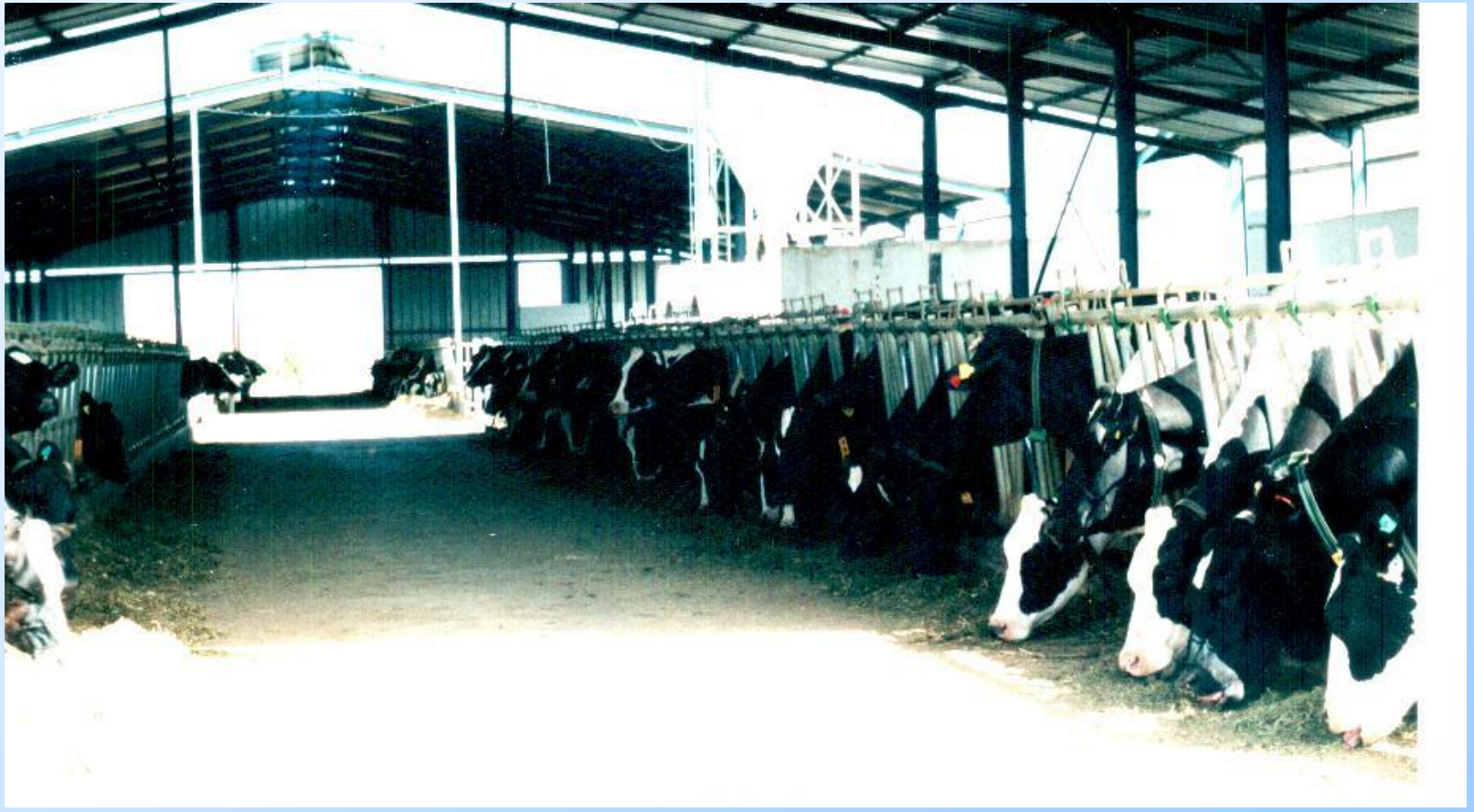

A modern electrified dairy farm

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Silo for local wheat harvest located in rural area

Selection Process: political level

- **Five Year Plan targets areas for rural development (based on income, unemployment, environmental quality, gender status, expected rate of return, costs of job creation and improved living conditions)**

- **Potential RE projects and beneficiaries identified within areas selected at regional level - linked with rural development plans (health, education, water, roads)**

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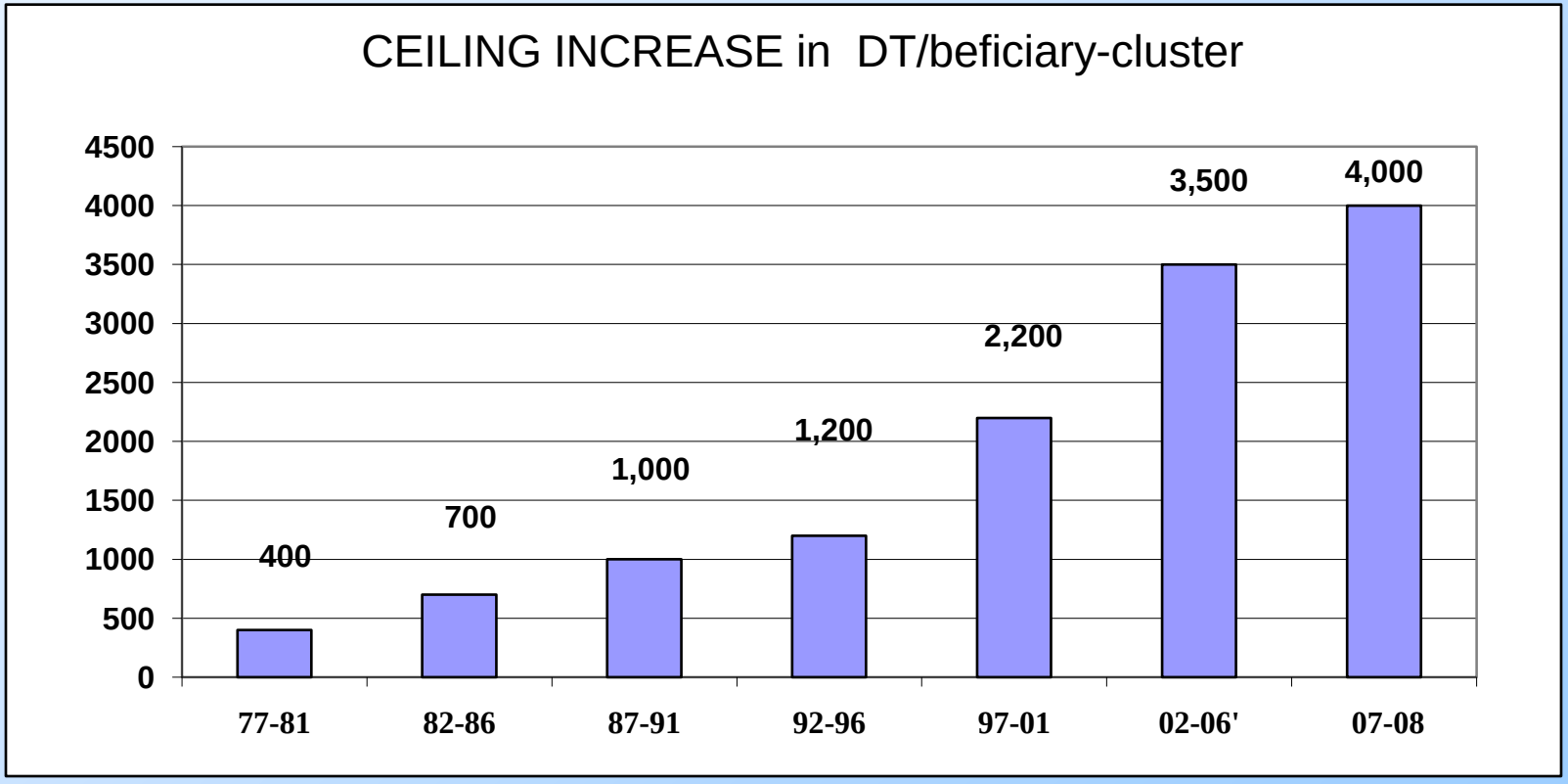
Selection process: STEG

- Construction of cost estimates by STEG at district level (site visits, feasibility study)
- STEG provides cost scenario table to national level planners at MDE: Number of households and costs by cost level and by Governorate
- MDE selects projects by setting cost ceiling
- Five year plan is finalized and regional level receives funds

COST CEILING



Financing Rural Electrification

- Regional Development Programme (PRD)
- Integrated Rural Development Programme (PRDI)
- Presidential Fund
- National Solidarity Fund
- (since 1977) external debt (mainly ADB, World Bank, AFD, Kuwait Fund)
- (photovoltaic program) suppliers, WB credits, NGOs)

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How connection to the grid is financed

BUDGETARY FUNDS FOR AGREED CEILING (example of 9th Plan : 2200 DT)

Agreed Ceiling	US$1530	(2200 TND/beneficiary-cluster)
Household	$140 up to $420	(200 up to 600 TND) depending on the Region (spread over 36 bills= 72 months)
STEG	$140	(200 TND) since 1987
Governorate (subsidy)	up to $1250	(1800 TND) as max, 82% of ceiling cost

EXTRA-BUDGETARY FUNDS (>2200 DT):

- National Solidarity Fund
- Presidential Fund

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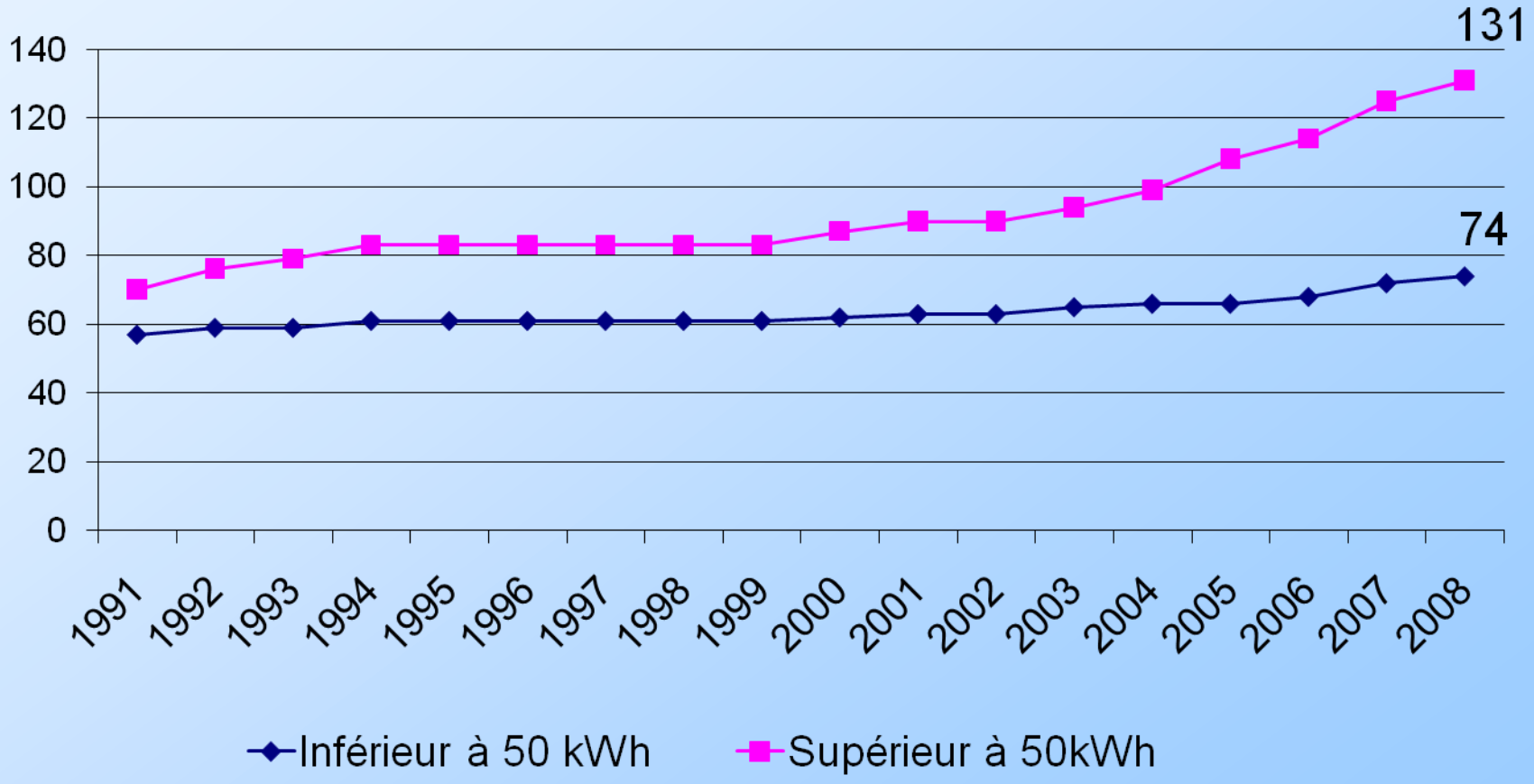
Evolution du tarif BT des Ménages (Mill/kWh)



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Installing electric poles

Reasons for Success - 1

- National commitment: education, health, rural electrification with social equity
- Integrated rural development context: synergy effects of regional planning process
- Effective institutional approach: well-defined, coordinated roles & fair, established procedures include political

Reasons for Success - 2

- Well managed and innovative utility: effective and efficient
- Lowering costs for rural electrification: capacity to adapt technology to meet Tunisian needs
- Effective tariff policy: financial viability
- Complementary PV strategy: commitment and coordination

Conclusions

➔The goal of provision of electricity services to widely scattered rural populations in Africa is achievable

➔Need to adapt technology and funding procedures to local context

➔Need for a strong and consistent support from the State

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Thank You