NEPAD ENERGY- AFRICA

Energy access in rural areas
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NEPAD ALIGNMENT

• ERADICATING POVERTY (ENERGY, WATER, MARKETS)
• PROMOTING THE ROLE OF WOMEN
• (GOAL OF SUSTAINABLE GROWTH & DEV- HIGHER SCALE)
WHAT ACCESS

• HIGH QUALITY ENERGY-
  MODERN/COMMERCIAL ENERGY
  (electricity, gas, oil, RETS)
• SOCIAL NEEDS- COOKING, HEALTH,
  WATER, EDUCATION ETC
• FOR DEVELOPMENT- MICROENTERPRISES
  + SME?-IMRPOVE INCOMES
• SCARCITY & PROTECTING THE
  ENVIRONMENT
ISSUES OF ACCESS

• INCOME (Lack of employment, low income earning opportunities, low potential of agric production)
• LOW CAPACITY FOR AVAILING AND DISTRIBUTION-SUPPLY CHAIN CONSTRAINTS.
• INFORMATION ON ENERGY CHOICES.
• LOW CONSUMPTION & COST OF SUPPLY
• WHAT COMES FIRST HIGH ENERGY CONSUMPTION OR INCOME
MODES OF MODERN ENERGY DELIVERY

- GRID BASED RURAL ELECTRIFICATION
- PV ELECTRIFICATION
- INTEGRATING GRID AND NON GRID
- APPLICATION OF THE CONCESSION CONCEPT- FOR ENERGY DELIVERY (electrification and thermal)
- MULTIPLATFORM APPROACH
- WIND FOR WATER PUMPING
<table>
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<th>REGION</th>
<th>Electricity Access %</th>
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<tr>
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<td>18</td>
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<td>Southern Africa</td>
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<td>North Africa</td>
<td>86</td>
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Apart from NA average <15% access
RURAL ELECTRIFICATION

• BASED ON GOVT SUPPORT FOR GRID- CREDIT SCHEMES, RURAL ELECTRIFICATION FUNDS/ REPLAN IN PLACE-WIDELY IMPLEMENTED.

• MASTER PLAN-ESTABLISHES STDS, INSTITUTIONAL AND FINANCING MECHANISMS

• WHERE COST RECOVERY SOME IMPROVEMENT IN ACCESS 5 FOLD IN BOTSWANA-IN <7 YRS. AFTER INCREASING DENSITY OF NETWORK- STD COSTING.

• LOW UTILIZATION OF 11% CONNECTED ONLY 1% USED FOR COOKING.
PV ELECTRIFICATION

• PV ELECTRIFICATION- commercial driven (Kenya), Govt supported, P-Pvt (ESKOM), GEF (Zim), Bilaterals/partnerships (Sahel).

• COMMERCIAL VS CREDIT SCHEMES, DONATIONS

• SOLAR PV WITHOUT POLICY FOR COMPLEMEANTARITY.

• GEF BARRIER REMOVAL INITIATIVES-ONGOING

• MASTER PLANS BEING PUT IN PLACE- THROUGH PARTNERSHIPS
LPG

- LARGEST POTENTIAL FOR THERMAL SUBSTITUTION-LIKED BETTER THAN ELECTRICITY.
- SUCCESSFUL CASES OF MARKET DRIVEN LPG DISTRIBUTION E.G. BOTSWANA 4% TO >30% 1993-2001 - FUELWOOD BEING USED
- GHANA GOVT INTERVENTION INCREASED 7 TIMES 1989-1995
- TECHNICALLY LPG CAN SATISFY H/H REQUIREMENTS
- SETBACK IS AVAILABILITY & ADDRESSING SAFETY ISSUES***-COST NOT A STRONG DETERRENT.
- SENEGAL SUCCESS STORY BY IMPROVING SUPPLY CHAINS.
- CAN BE BOOSTED BY TAPPING NG RESOURCES
LESSONS LEARNT

• CASES OF PUBLIC- PVT PARTNERSHIPS BUILT- E.G. ESKOM/SHELL- FOR PV ELECTRIFICATION
• NEED FOR SMART PARTNERSHIPS BETWEEN ANALYSTS, POLICY MAKERS/PLANNERS AND IMPLEMENTORS
• LEVELLING PLAYFIELD BETWEEN GRID/OFF GRID TO BE RESOLVED.
• LEVEL OF ENTREPRENEURS CAPACITY NOT ADEQUATE (AREED)-NEED NGO SUPPORT-ENTERPRISE DEVELOPMENT.
• BEST TO LINK ENERGY DELIVERY TO DEV INITIATIVES- ENHANCE PRODUCTIVITY-
• NEED FOR FINANCIAL RESOURCES TO SUSTAIN RE.
LESSONS LEARNT

• SUBSIDIDY REQUIRED
• PV BEST FOR SOCIAL ENERGY NEEDS BUT NOT RURAL ENERGY FOR DEVELOPMENT
• FOR PV BARRIERS ARE ECONOMIC & FINANCIAL, INFO/AWARE THAN TECHNICAL
• INSTITUTIONAL ISSUES WHERE RETS ARE LARGE.
STRATEGY AND POLICY CHALLENGES

• INCREASE ENERGY SERVICES DELIVERY-INFRASTRUCTURE-FINANCING FOR INCREASED ENERGY ACCESS.

• INVOLVING MARKET FORCES ENERGY DELIVERY AND PROTECTING THE POOR-electricity reforms detrimental to access by poor.

• ENSURING SUSTAINABILITY THROUGH PROMOTION OF PRODUCTICTION-SMME market-INCREASING THE MARKET

• INVOLVEMENT OF RURAL POPULATIONS IN PLANNING-women have special needs- often supported as targets of welfare improvements but not as agents of change.
FOCUS AREAS TO IMPORVE ACCESS

• TAPPING OF SIGNIFICANT ENERGY RESOURCES-FOREST/AGRIC PRODUCTS/RESIDUES/WIND- Electricity-reduce costs of supply.
• SHARING EXPERIENCES OF TECHNOLOGY DEVELOPMENT AND DEPLOYMENT
• POLICY TO SIGNAL INVESTMENT OPPORTUNITIES- FOR PVT SECTOR e.g. Ghana wish list.
• COMMON STANDARDS FOR RETS/LPG- to regulate the market
• INFORMATION SHARING ON ENERGY CHOICES
• POLICY ON RIGHT TO QUALITY ENERGY
• TARGETTING SME AS ENGINES OF GROWTH-e.g. Coffee growers of Kenya
ACTION PLAN

- MARKET DEVELOPMENT SUPPORT-MARKET POTENTIAL & RISK FOR INVESTMENTS & BUSINESS & EASIBILITY FOR PVT PARTICIPATION.
- SUBSIDY TO RE-CRITICAL LEVEL
- WISH LIST FOR ENERGY DELIVERY INFRASTRUCTURE-SIGNAL TO PVT SECTOR
- TT- S-S EGYPT CASE- INFORMATION NETWORKS
- PARTNERSHIPS FOR TECH AND INDUSTRIAL CAPACITIES DEVELOPMENT-tapping on partnerships
- DEVELOP ENERGY PACKAGES FOR VARIOUS RUARL CONSUMERS- SOCIAL & PRODUCTION