Sustainable Energy Action Plan for The Gambia

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ECOWAS Sustainable Energy Policy and High Level Forum
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Agenda

- Country Profile and Energy Situation
- SE4ALL Action Agenda
- National Renewable Energy Action Plan
- National Energy Efficiency Action Plan
- SE4ALL Investment Prospectus

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Country Profile and Energy Situation

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Country Profile and Energy Situation

Area: 11,300 km2

Population: 1,9 million (2013 Census)

GDP per capita: 502 US$

Access to Electricity: 40%

Access to Modern Energy for Cooking: ~37%

Electricity Production: 236 GWh, **0.8% from Renewables (2013)**

Installed Capacity: 65 MW of which **1 MW Renewables** (~1.5%)

T & D Losses: 24.9% in 2013

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The Gambia Sustainable Energy for All AA

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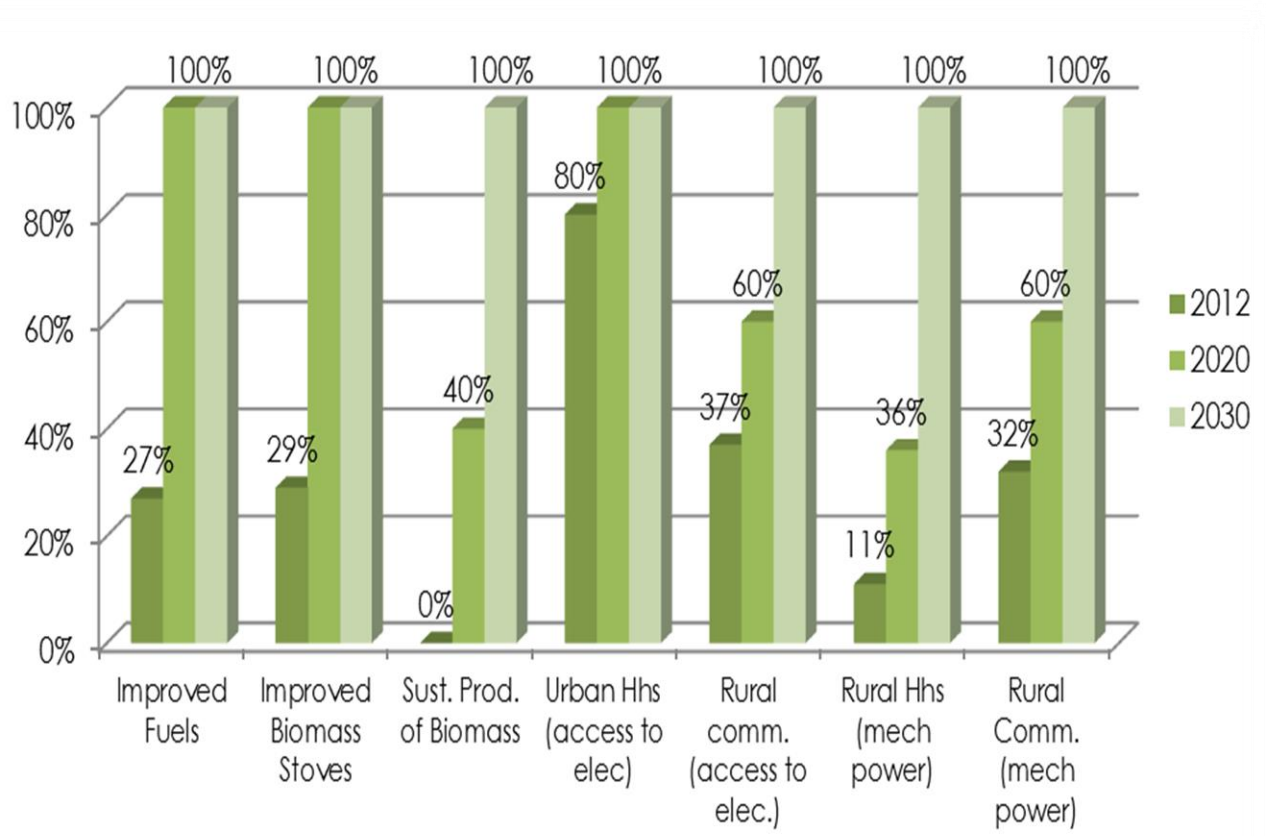
SE4ALL Action Agenda

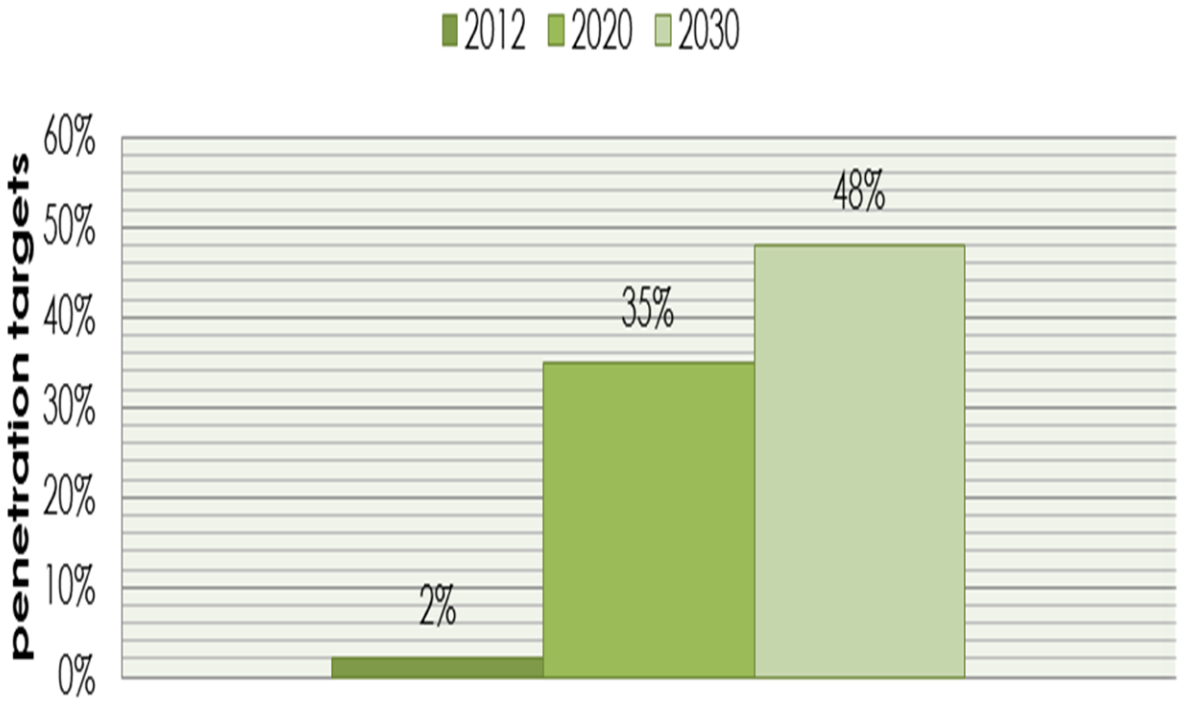
- **Vision:** is to ensure an overall sector-wide coherence and synergy of accumulated efforts towards the three goals of SE4All in the Gambia
- **Targets:** in the AA, targets are being set for the rate of increase in Energy Access (EA), Renewable Energy (RE) & Energy Efficiency (EE) programs

- Energy Access Targets



SE4ALL Action Agenda

- RE Targets for on-grid



- RE Targets for solar thermal systems: 50% for hotels; 25% for agro industries and others

- RE Targets for off-grid, including mini-grids, including mini-grids: 37% by 2030

Items	Value (US $)	# of Units	Total
SHS – 2.5W	70	4191	293370
SHS – 40W	650	2611	1697150
SHS – 70W	1000	2718	2718000
SHS – 150W	2000	673	1346000
SHS - HC	10000	30	300000
SHS - UBS	6300	51	3212000
SHS - SSS	55100	3	165300
SHS - ICT	30000	18	540000
Total			7381120

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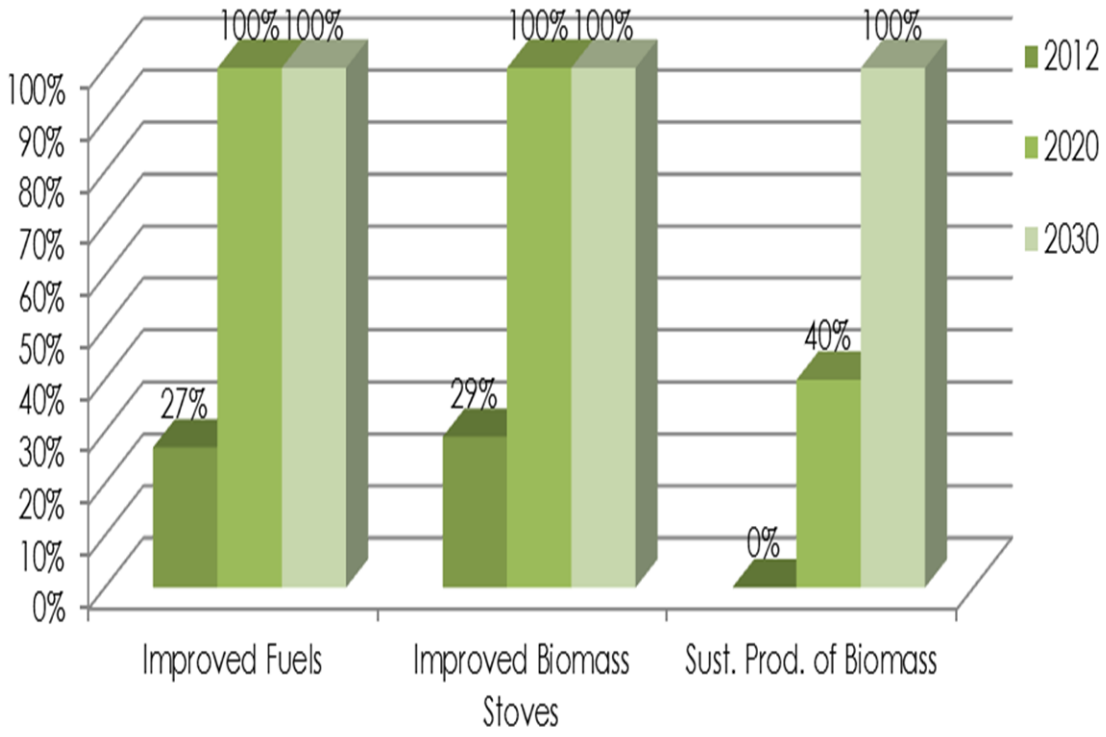
SE4ALL Action Agenda

- EE Targets in the biomass sub-sector



- EE Targets in Electricity sub-sector :
- Gradually phase out ICLs from 2016
- Reduce the technical losses to 10% by 2030

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Gambia – National Renewable Energy Action Plan (NREAP)

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Targets for Renewable Energy

By 2020

- 44 MW of hydro capacity through OMVG
- 17 MW Solar PV + 7 MW Wind Power capacity
- 49.6% Grid Connected RE capacity
- Equip 10% of hotels and of agro-industries with solar thermal system
- Equip 25% of district health centers, maternities, school kitchens and boarding schools with solar thermal system

By 2030

- 50 MW Solar PV + 20 MW Wind Power capacity
- 38.9% Grid Connected RE capacity
- Equip 50% of district health centers, maternities, school kitchens and boarding schools with solar thermal system
- Equip 50% of hotels and 25% of agro-industries with solar thermal system

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Measures to achieve the RE targets

- **Regulate the RE sector to attract Private Investment**
  - Facilitate donor intervention in RE
  - Implement the provision of the RE law to develop feed-in-tariffs for attracting investment in RE power plants
  - Implement the RE Fund provisionned in the RE Law
  - Publish and gazette FiT to give confidence to investors.
- **Support the market for locally manufactured RE products**
  - Formulate and adopt standards of RE equipment imported into The Gambia
  - Enhance institutional and human capacity for the adoption of RE technologies
  - Regulate solar installers to ensure the application of industry-wide installation standards, build consumer confidence on RE technologies and create employment

Strategy to achieve the RE targets

- **Develop the local knowledge and R&D**
  - Develop a specific university training degree in RE technologies
  - Conduct two feasibility studies, one for Solar Home Systems and one for Small Scale Wind Parks, to guide the deployment of solar and wind energy resources of the country
- **Sustainable use of biomass**
  - Develop a Bioenergy National Strategy
  - Conduct studies for the analysis of biomass supply and use if it is not available as well as on future trends and biomass resource availability

The Gambia – National Energy Efficiency Action Plan (NEEAP)

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Targets for Energy Efficiency

By 2016

- Gradually phase out incandescent bulbs

By 2020

- 40% charcoal produced using efficient charcoal production technologies
- 100% penetration of energy efficient lighting in on and off-grid systems
- Reduce T&D losses to 19.9% (from 24.9% in 2013)
- Reach 5% of energy savings in the building sector

By 2030

- 100% charcoal produced using efficient charcoal production technologies
- Reduce T&D losses to 10%
- Reach 15% of energy savings in the building sector

Measures to achieve the energy efficiency targets

- **Efficient lighting**
  - introduction of efficient light bulbs such as CFL (Compact Fluorescent Lamps) or LED bulbs
  - Adoption of Minimum Energy Performance Standards (MEPS) for on-grid and off-grid lighting devices
  - Establish a system for Monitoring, Verification and Enforcement (MV&E) of Minimum Energy Performance Standards (MEPS) for lighting systems
- **Reduction of electricity consumption at user point**
  - Efficient electrical appliances through labelling
  - Thermal regulation for building
  - Solar water heaters
  - Solar protection of windows

Measures to achieve the energy efficiency targets

- **Improve energy efficiency**
  - Introduce mandatory labelling of energy appliances including fridges, air conditioners
  - Impose a variable VAT that discriminates based on performance standards
  - Public sensitisation on energy efficient appliances
- **Regulate the utilisation of renewable energy technologies and promote local manufacturing**
  - Quality standards for Solar Water Heaters
  - Develop the legislation to introduce the obligation for minimum levels of RES in new and newly refurbished buildings
- **Restrict import and use of energy intense electrical appliances**
  - Introduce a regulation restricting imports of used fridges and air conditioners
  - Offer incentives to companies importing new and low energy consumption appliance (fridges and air conditioners)
  - Develop a comprehensive Pubic Lighting Policy that incorporates RE and standards on luminance and energy efficiency of lamps

Measures to achieve the energy efficiency targets

- **Reduce electricity grid losses**
  - Conduct a comprehensive study on network losses
  - Carry out Power Factor improvement project to reduce reactive power
  - Maintain and enforce standards for distribution lines and circuits
- **Promote energy conservation in the transport sector**
  - Develop an information system on the number of vehicles in the country (petrol, diesel, fleet profile, etc.) and determine consumption patterns
  - Provide tax breaks and incentives for low consumption vehicles, new vehicles and increase taxes on older and higher fuel consumption vehicles

SE4ALL Investment Prospectus

- Provides the approach to operationalizing the Gambia's Sustainable Energy Action Plan
- Establishes country priority projects
- IP includes 18 projects at various stages of development
  - 7 projects classified under Access to Energy
  - 6 projects classified under Renewable Energy
  - 5 projects classified under Energy Efficiency
- Total project portfolio is € 57million in terms of need for investment
- Targeted investors are both private and public
- IP is a living document and will be periodically reviewed to include new project proposals to help achieve the targets.

Next Steps

- Presently, The Gambia has developed and validated all SE4ALL documents (including NREAP and NEEAP)
- Political validation of sustainable energy action plan by end of 2015
- Coordinate with partners to mobilise resources:
  - For the development of proposals into bankable project documents
  - For the overall implementation of SE4ALL program in The Gambia

SE4ALL Action Plan of The Gambia

Developed with technical assistance of

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Supported by

UNIDO
gef
AUSTRIAN DEVELOPMENT COOPERATION
MINISTERIO DE ASUNTOS EXTERIORES Y DE COOPERACIÓN
cooperación española
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AfDB
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Within the framework of

SUSTAINABLE ENERGY FOR ALL

Thank You

ECOWAS POLICY and INVESTMENT FORUM
14-17 September, Abidjan

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