ORGANIZED BY / ORGANIZÉ PAR:

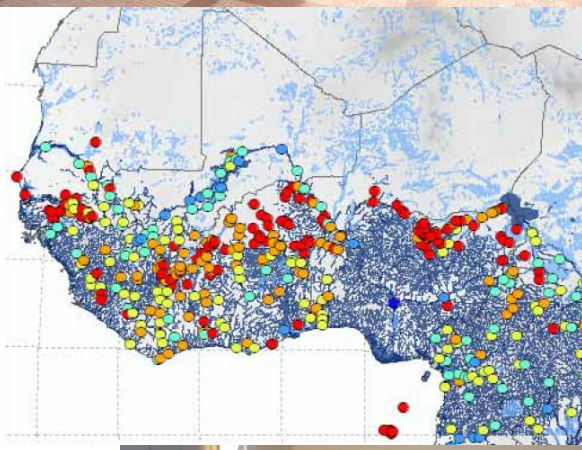
The ECOWAS Small-Scale Hydro Power Program
First Phase: 2013 to 2018




Mr. Mahama Kappiah, Executive Director of ECREEE, Mr. Martin Lugmayr, ECREEE-UNIDO expert, 31 October 2012, ECOWAS High Level Energy Forum

2012 INTERNATIONAL YEAR OF SUSTAINABLE ENERGY FOR ALL

The ECOWAS Small-Scale Hydro Power Program

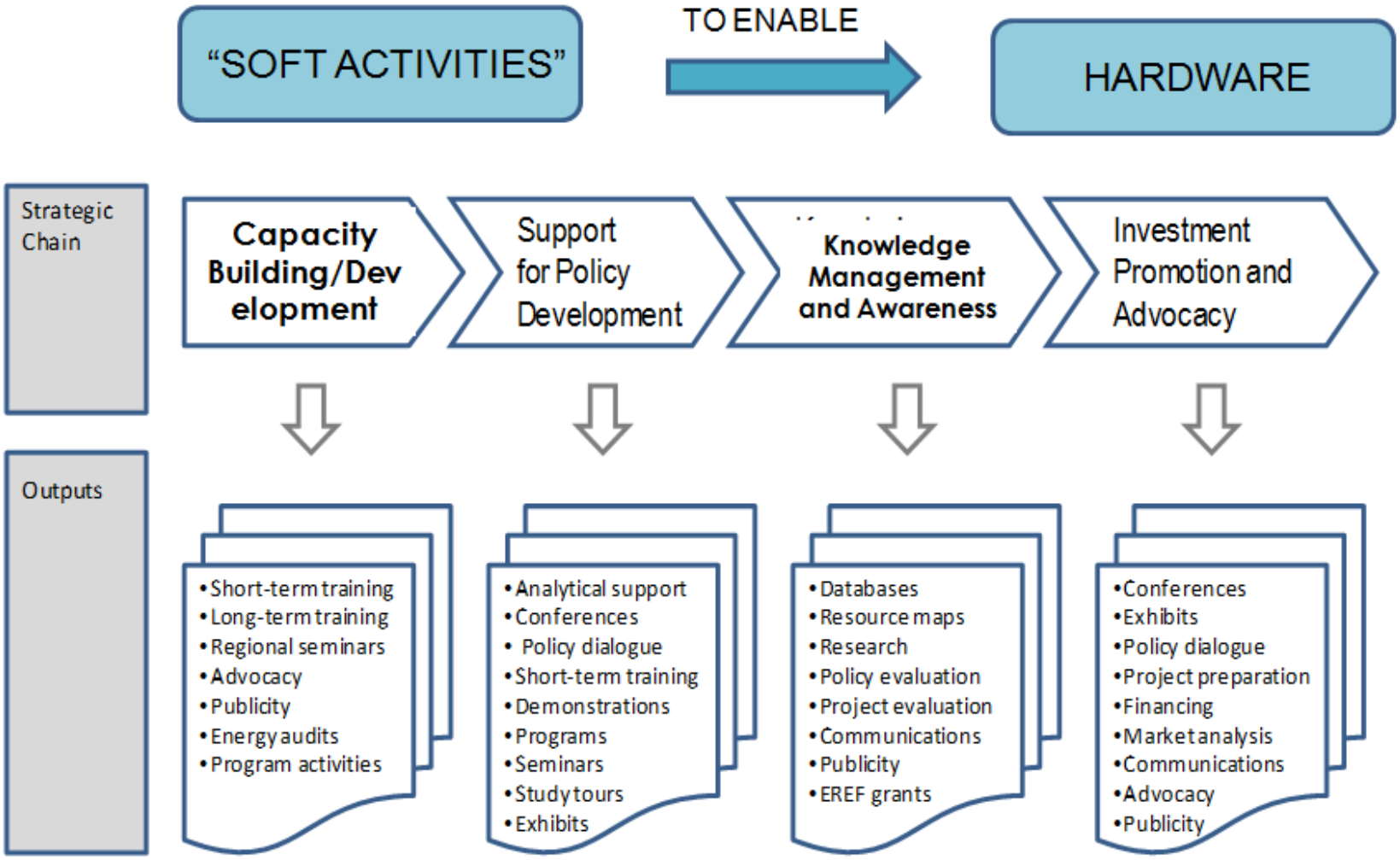


- Developed by ECREEE in partnership with UNIDO
- Validation workshop, held from 16 to 20 April 2012, in Monrovia, Liberia, with assistance of UNIDO, ESMAP, Austria and Spain
- Focus of program primarily on SSHP below 30 MW (partially also MSHP up to 100 MW)
- First Phase: 2013 to 2018
- Required budget:15,5 million Euro
- Program seeks funding partners

2012 INTERNATIONAL YEAR OF SUSTAINABLE ENERGY FOR ALL

OVERALL AND SPECIFIC OBJECTIVES

Overall Objective: Promoting an enabling environment for SSHP investments and markets by addressing existing barriers



ECOWAS SSHP PROGRAM

- SSHP can play an important role to enhance urban and peri-urban energy security and access to rural energy services
- Estimations of untapped feasible SSHP potential (up to 30 MW) range from 1.900 MW to 5.700 MW
- Reliable technology with competetive economics: in average 4,39 EUR/cents generation costs for LSHP and 7,89 EUR/cents per kwh for SSHP
- Complementary to the large hydro power project pipeline of the WAPP Master Plan (exceeding 30 MW)
- Contributes to the ECOWAS RE Policy on- and off-grid targets and the ECOWAS White Paper Implemenation
- Synergies to mini-grid projects of the GEF Strategic Progam for West Africa (SPWA)

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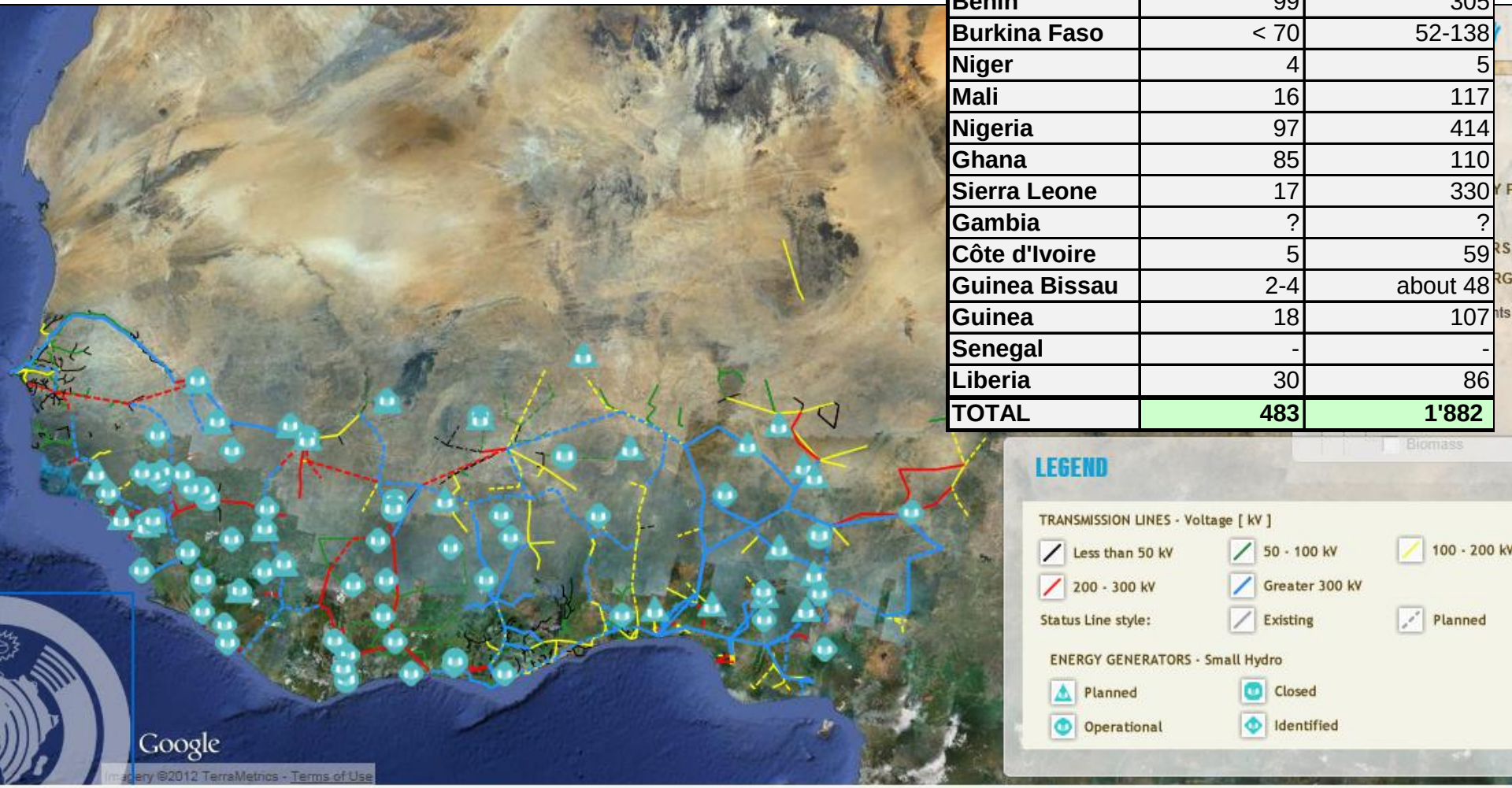
ECREEE SSHP Sites Inventory

483 potential sites with 1882 MW identified!

	sites <= 30 MW	
	no of sites	capacity [MW]
Togo	39	206
Benin	99	305
Burkina Faso	< 70	52-138
Niger	4	5
Mali	16	117
Nigeria	97	414
Ghana	85	110
Sierra Leone	17	330
Gambia	?	?
Côte d'Ivoire	5	59
Guinea Bissau	2-4	about 48
Guinea	18	107
Senegal	-	-
Liberia	30	86
TOTAL	483	1'882



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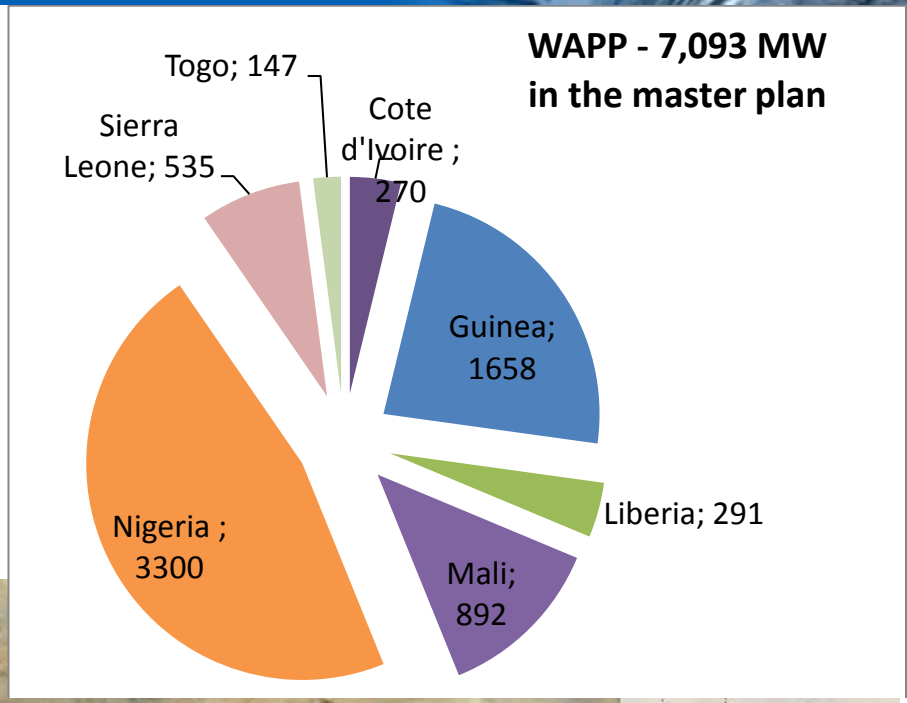
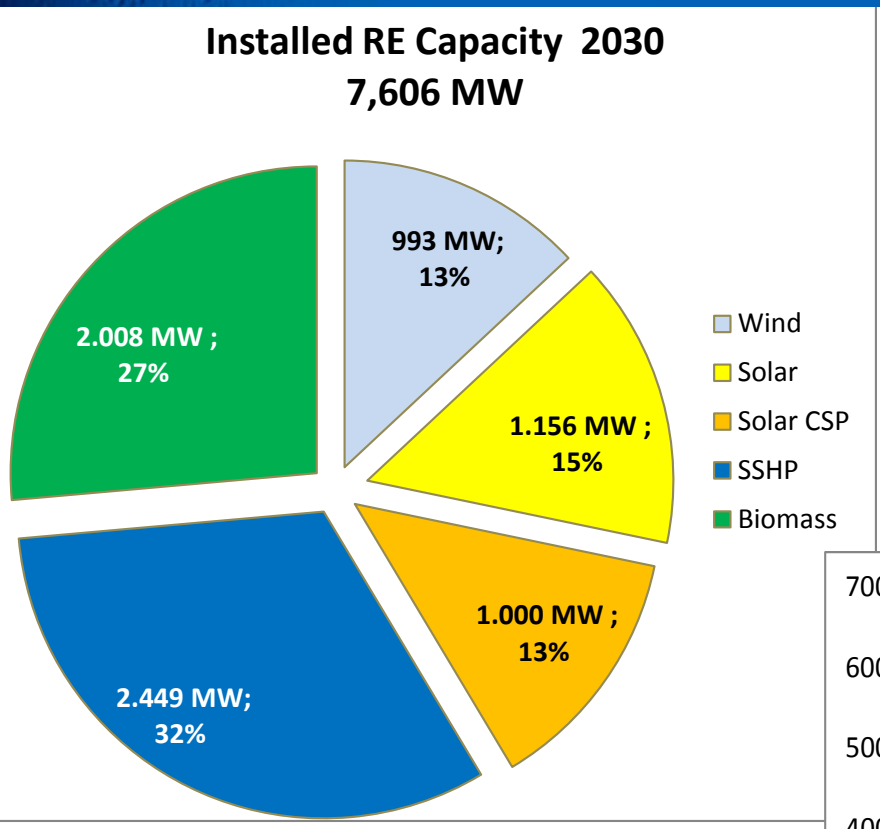
WAPP MASTER PLAN

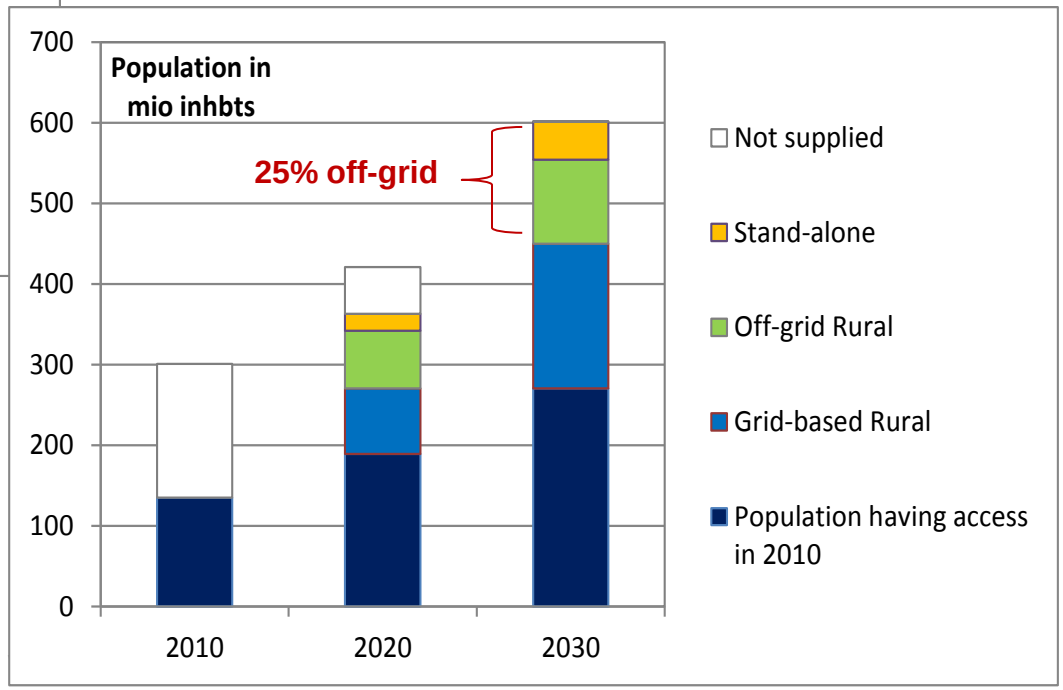
ECOWAS SSHP Program complementary to LSHP and MSHP projects of the WAPP Master Plan



ROLE OF SSHP IN THE RE SCENARIO

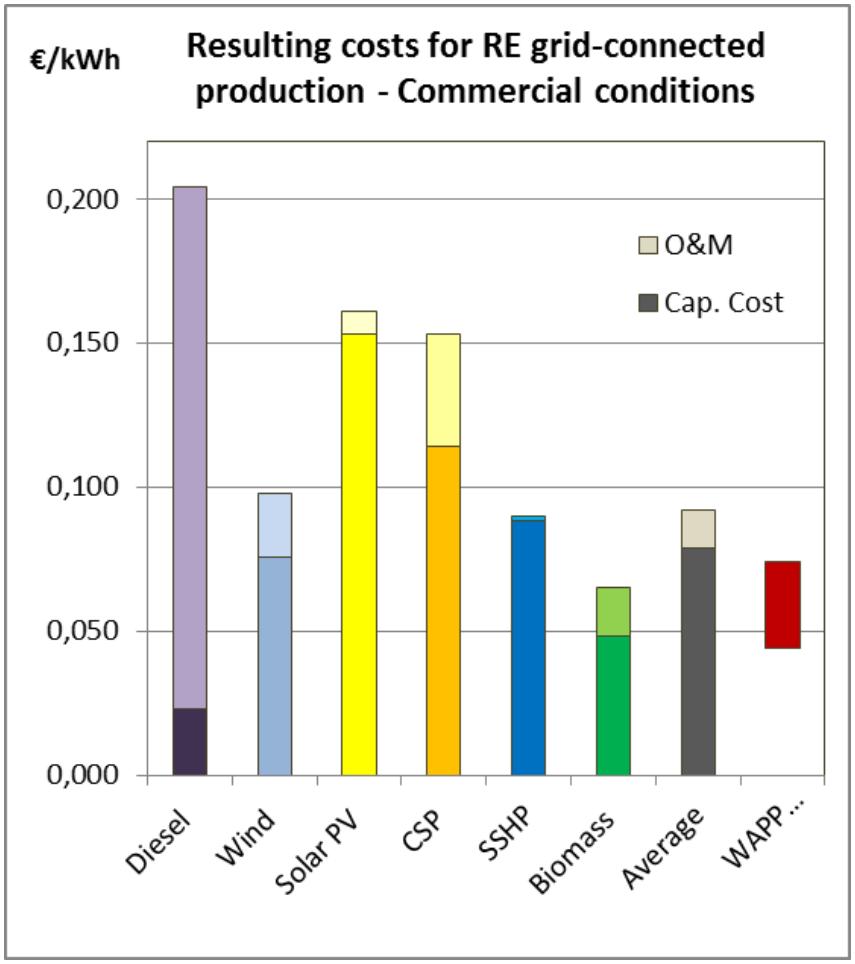


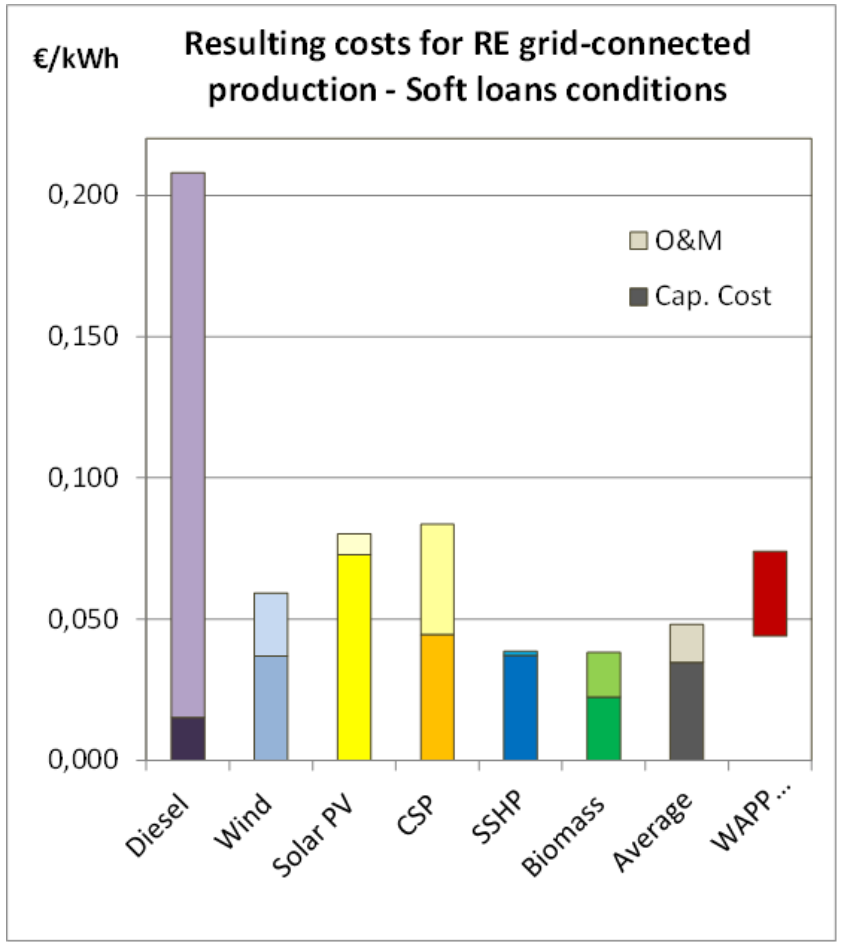
SSHP could contribute with additional 2.449 MW to the regional on-grid targets of the EREP by 2030



SSHP could contribute considerably to the mini-grid objectives of the EREP

COMPETITIVENESS OF SSHP





KEY RESULTS BY 2018

- By 2018, **at least 35 projects** (new projects or rehabilitations) in different ranges of capacity up to 30 MW are **developed to feasibility stage** and at least **5 are brought to financial closure**.
- At **least 5 SSHP projects (< 100 kW) are operating** and - during their planning and implementation - have served as demonstration projects for capacity building.
- At least **2 refurbishment/rehabilitation projects** (< 200 kW) are identified and realised.
- At least **10 companies started to provide various SSHP related services** (planning, operation, repair etc.).
- **Bottlenecks of SSHP project implementation and operation**, of current policies and legal frameworks and roles and shortcomings of relevant stakeholders **are understood** and recommendations for improvement are elaborated and discussed.

KEY RESULTS BY 2018

- ECOWAS countries obviously **improved their legal framework** (poverty reduction impact of SSHP in evidence in the legal framework, feed-in tariff defined, transparent licensing procedure etc.) and SSHP has become integral part of ECOWAS/WAPP planning documents.

- A **capacity development strategy is elaborated** and SSHP initiatives and projects **increasingly rely on local expertise** from public and private sector (with limited international support).

- **Quality guidelines are introduced during trainings and are generally applied** for development and implementation of SSHP projects.

- Facilitate **open knowledge sharing on SSHP aspects** through the ECOWAS Observatory for Renewable Energy and Energy Efficiency (ECOWREX) and the provided tools and contents are utilised.

KEY RESULTS BY 2018

- An **information base on relevant SSHP resources and sites is created** and helps to facilitate the development and implementation of SHP programmes and projects.
- A **communication strategy disseminating achieved progress** and raising awareness about SSHP opportunities is developed and implemented.
- **ECREEE is established as centre of excellence** in the SSHP sector (cooperation with the UNIDO SSHP Centre based in Abuja, Nigeria).

IMPLEMENTATION STRATEGY

ECREEE Executive Board

- See Organizational Chart of ECREEE

Strategic guidance and approval of annual global budget and work plan of the SSHP Program

SSHP Technical Committee

- SSHP Program Management Team
- Donor partners
- Technical experts (ECOWAS/International)

Technical guidance; review and appraisal of documents and identified projects to be co-funded:

ECREEE Secretariat with backstopping of UNIDO HQ

- Int. Program Manager
- ECREEE SSHP experts & Consultants
- administrative staff
- other ECREEE staff

Execution of the SSHP Program (administration, call for proposals, project cycle management, project appraisal, quality assurance, monitoring and evaluation, loan finance for investment phase of projects)

Other local, regional and international financiers

(e.g. loan, mezzanine)

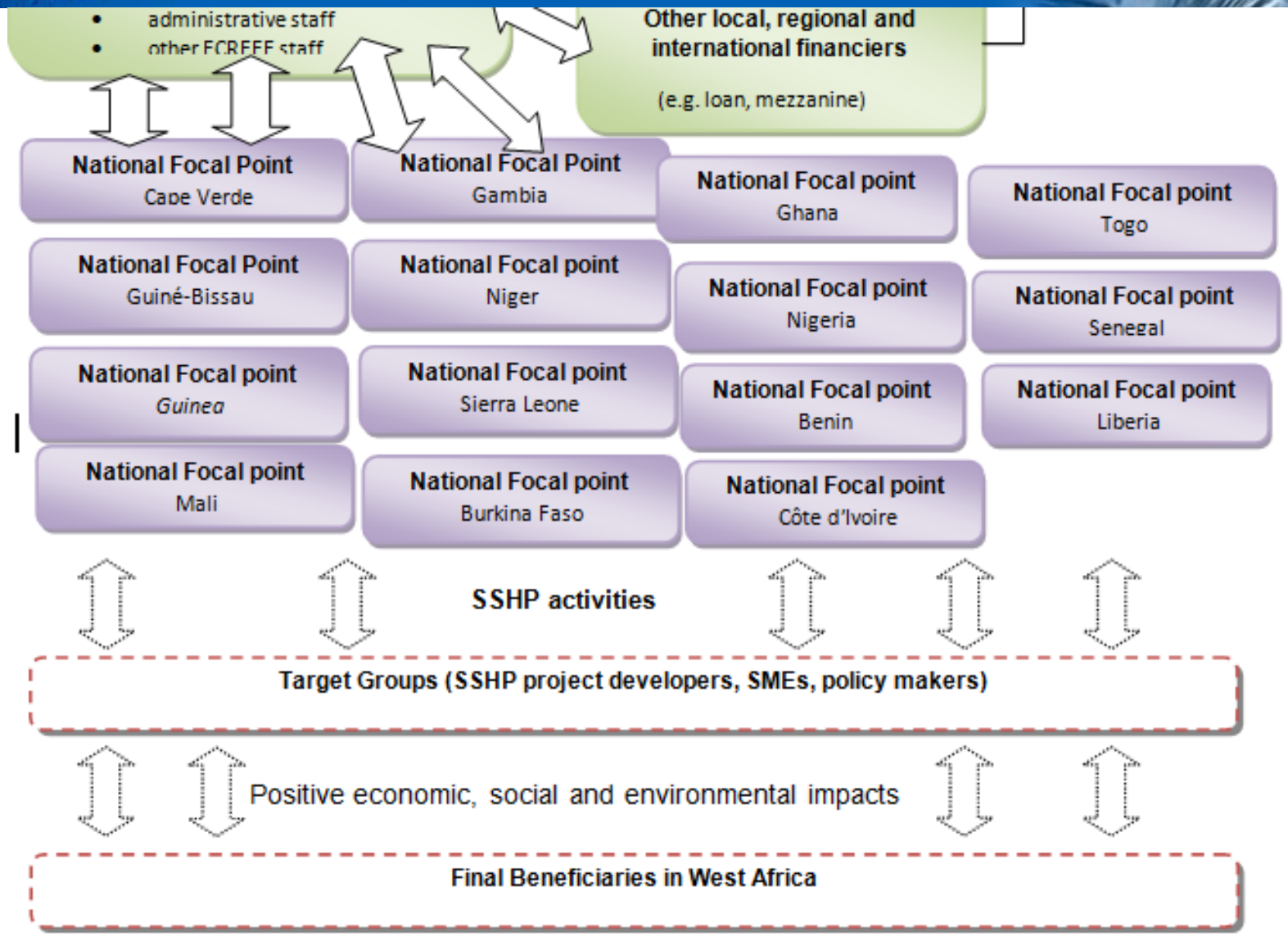
National Focal Point Cape Verde

National Focal Point Gambia

National Focal point Ghana

National Focal point

IMPLEMENTATION STRATEGY



Thank you! Merci! Muito obrigado!

ECOWAS Regional Centre for Renewable Energy and Energy Efficiency

Centre Régional pour les Energies Renouvelables et l'Efficacité Energétique de la CEDEAO

Centro Regional para Energias Renováveis e Eficiência Energética da CEDEAO

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