



**ECREEE**  
Towards Sustainable Energy

# Promoting Sustainable Energy Access in the ECOWAS Region

## **Water – Energy – Food Nexus & Circular Economy**

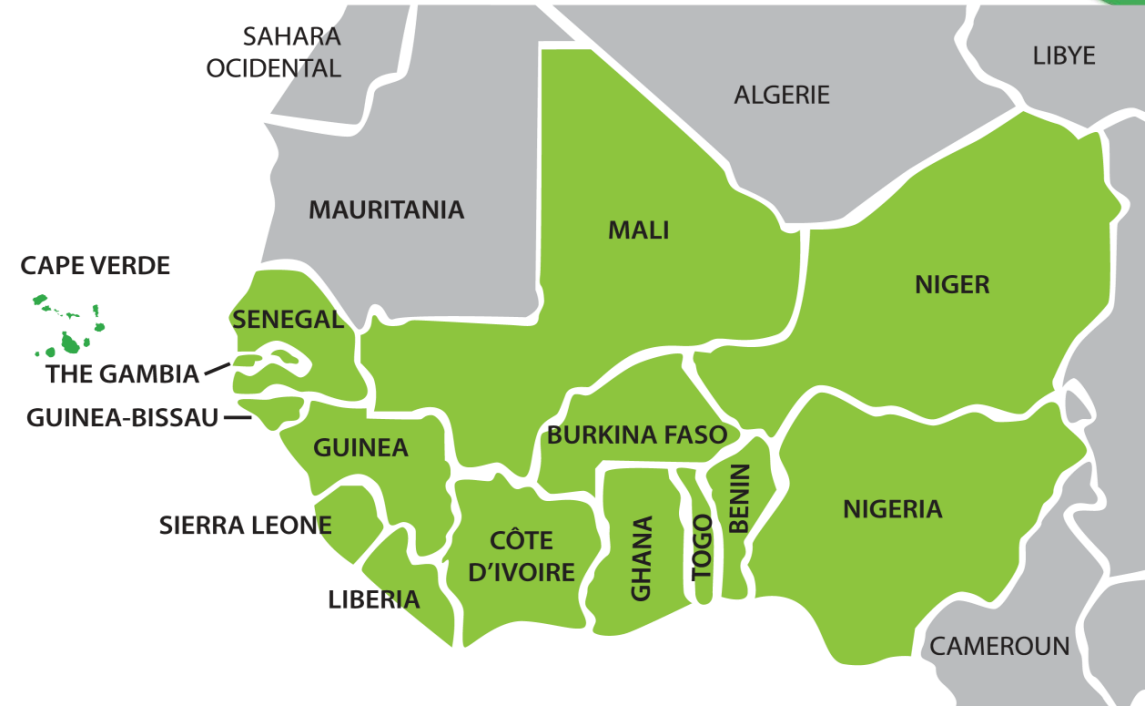
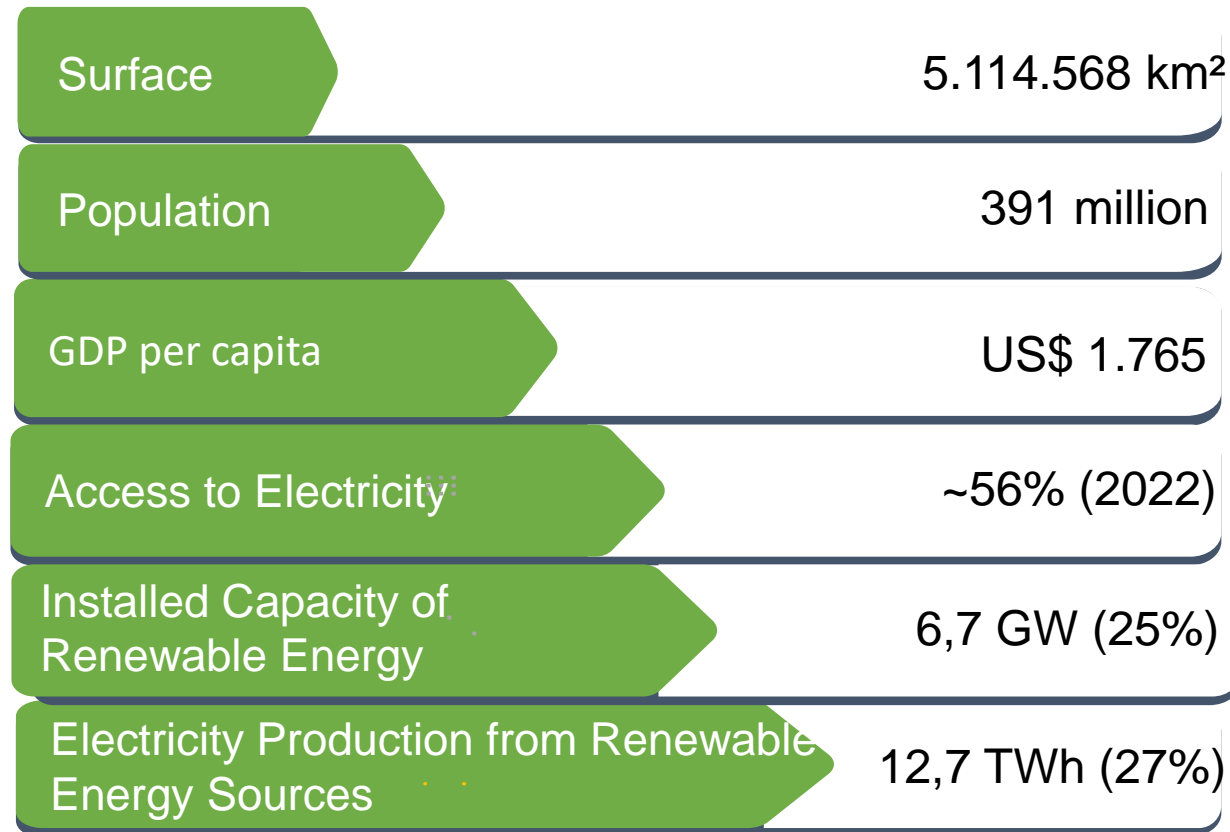
[www.ecreee.org](http://www.ecreee.org)

ECOWAS Centre for Renewable Energy and Energy Efficiency  
Centre pour les Énergies Renouvelables et l'Efficacité Energétique de la CEDEAO  
Centro para as Energias Renováveis e Eficiência Energética da CEDEAO

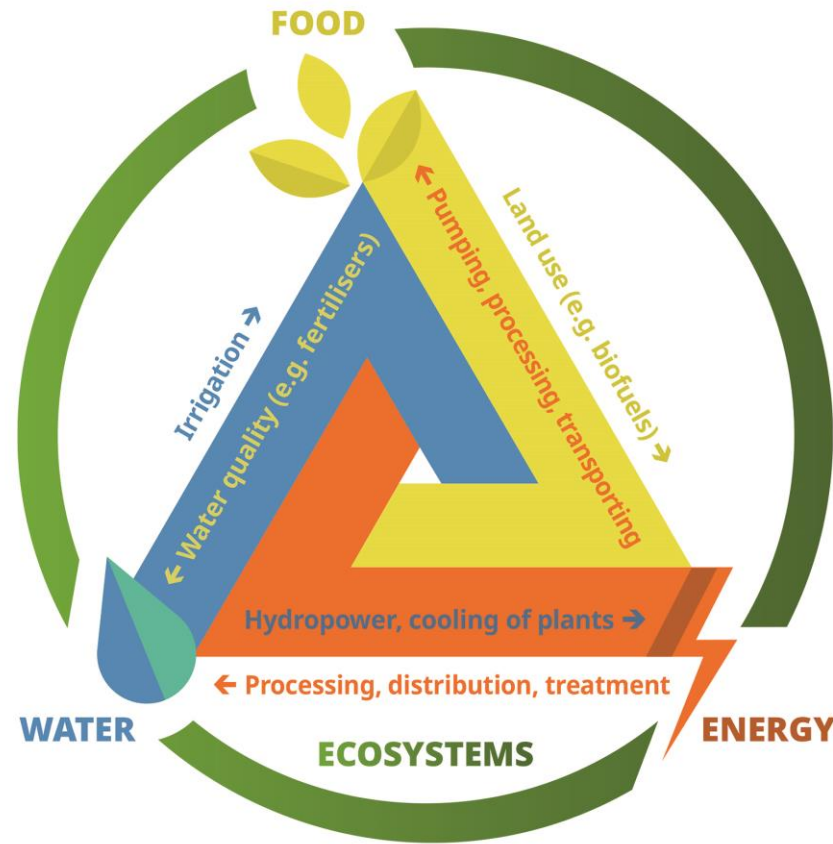


# THE ECOWAS REGION.

## Energy Challenges



# What is the WEF (Water-Energy-Food) Nexus for sustainable development?



# THE ECOWAS REGION. Challenge for economic development

- The agricultural sector contributes to more than 35% of ECOWAS's GDP
- More than 60% of the ECOWAS population works in the agricultural sector
- Agriculture accounted for 31% of greenhouse gas emissions in West Africa
- Post-harvest losses also pose a significant problem
- Modernising agriculture through the introduction of RE and circular economy practices is necessary to:
  - ✓ Harnessing the full potential and meeting the needs of the population
  - ✓ Fostering inclusive growth
  - ✓ Promoting sustainable development



Project PAC-SOLAR Implemented by ECREEE



# ECREEE's PROGRAMMES

## Operacionalization of Strategic Orientations 2023-2027

### REGIONAL PROGRAMS RENEWABLE ENERGIES

Bioenergy

Rural Electrification &  
Mini Grid

Small Hydroelectric  
Power Plants

Solar Thermal

Nexus Water, Energy &  
Food & Circular Economy

Green Hydrogenium

West Africa Clean Energy  
Corridors

### REGIONAL PROGRAMS ENERGY EFFICIENCY

Iluminação e Aparelhos  
Eficientes

Energy Efficiency in  
Buildings

High-Performance  
Electricity Distribution

Energy Efficiency in  
Industry

Energy efficiency in  
transport and e-mobility

Standards and labelling

Clean Cooking Program in  
West Africa

### CROSS-CUTTING REGIONAL PROGRAMMES

Sustainable Energy  
Policies

Regional Electricity and Energy  
Storage Market

Training and  
Certification

Gender Mainstreaming  
in Energy Access

Climate Change

Project Development  
and Finance

Technology Transfer and  
Research

### REGIONAL INITIATIVES

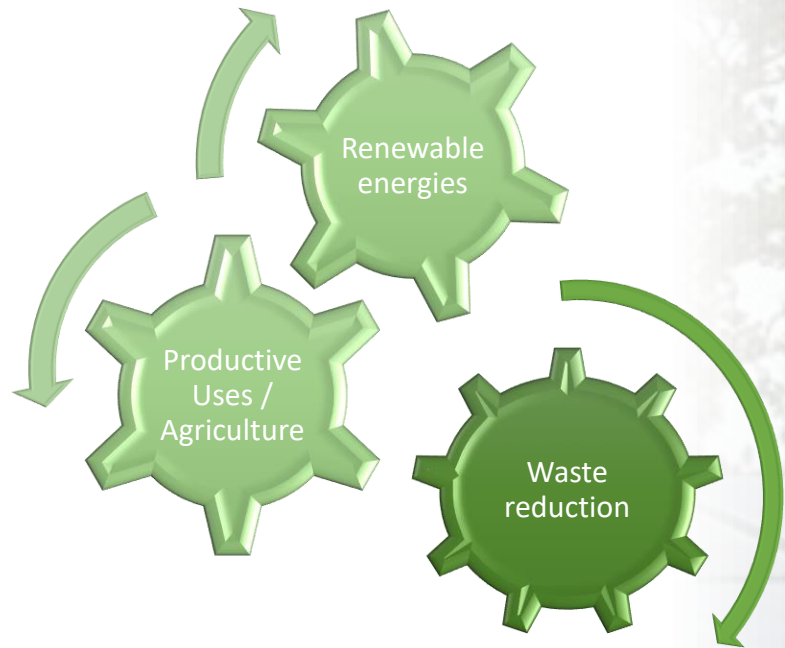
ECOWAS Observatory  
for RE & EE (ECOWREX)

ER & EE Annual Progress  
Report

ECOWAS Sustainable  
Energy Forum (ESEF)







- **Increase food production** along the value chain through more sustainable and efficient use of energy
- **Increase yields**
- Develop innovative solutions to address the challenges associated with the **WE4F Nexus**
- Promoting climate and **environmental resilience**

# Ongoing projects



**Water and Energy for the Improvement of Food Security and Socio-Economic Development  
Promotion of Clean Cooking Solutions and Solar Technologies**

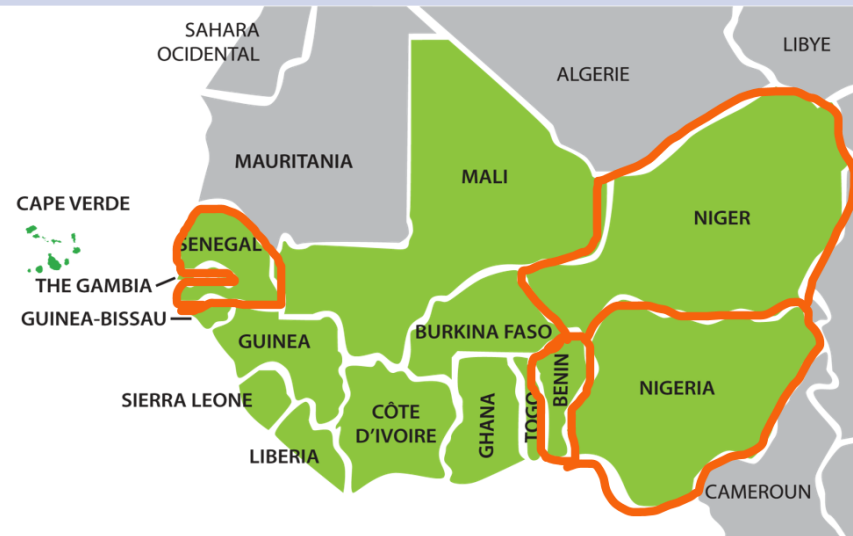


**Regional Pilot Project on Circular Economy.**

*Transition to a Clean Energy Circular Economy by Optimising  
High Energy Value Chains in High Impact Sectors*

**SUPPORT FOR THE PREPARATION OF A NEW  
MULTIANNUAL FRAMEWORK DOCUMENT FOR  
SPANISH AND ECOWAS COOPERATION**

Projects focused on Clean Cooking and the Water-Energy-Food Nexus are considered a priority.



# Ongoing projects



**Pilot Project on Circular Economy through the Water-Energy-Food Nexus in West Africa**

*Phase 1 - Scoping Exercise to Establish the Database*







## Specific Objectives

- **Economic:** Improve energy efficiency to prevent losses and optimize performance.
- **Social:** Strengthening the capacity of stakeholders and promoting job creation.
- **Environmental:** Moving towards clean energy and recycling waste to reduce greenhouse gas emissions.
- **Community development:** Improving people's livelihoods by providing them with access to productive activities.
- **Gender:** Ensuring a balanced representation of women and youth.





Adoption of technologies that promote the use of water and energy to improve food security and socio-economic development.

SOLUTIONS FOR  
CLEAN COOKING + SOLAR  
TECHNOLOGIES + USE OF WASTE



## Water and Energy for the Improvement of Food Security and Socio-Economic Development

### Promotion of Clean Cooking Solutions and Solar Technologies



#### PLANNED ACTIVITIES

1. Conducting BASELINE STUDIES / COMMUNITY SELECTION
2. Stakeholder CONSULTATIONS
3. Providing CLEAN ENERGY SOLUTIONS
4. TRAINING in the use of clean technologies.
5. AWARENESS on alternative energies and energy efficiency.
6. COMMUNICATION materials for the expansion and reproduction of the project.

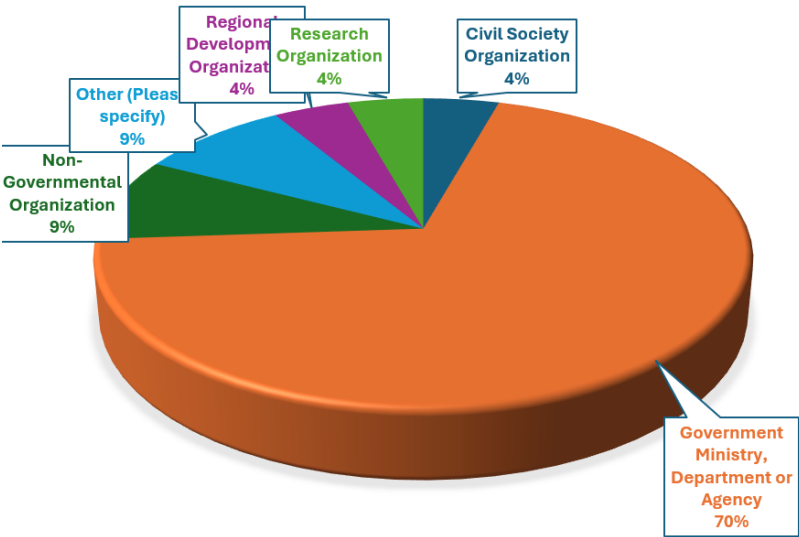


# National Stakeholder Consultation Workshop on Renewable Energy for Productive Use



Participants in the national stakeholder workshop on May 29, 2024 in Praia, Cape Verde

38 participants



Questioned

Fish	# of inquired
Mackerel	16
Tuna	14
Grouper	6

Main crops	# of inquired
Cassava	18
Tomato	22
Coconut	10
Other	38

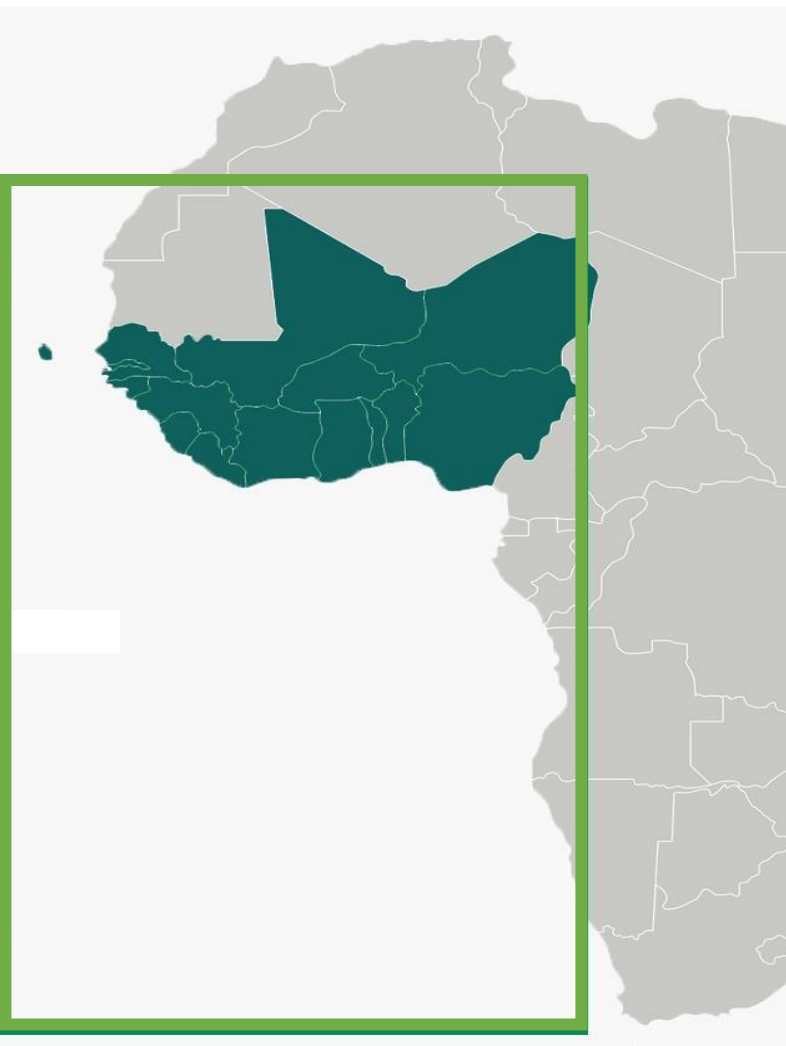


# RECOMMENDATIONS

- Introduction of solar-powered refrigeration units for fish preservation
- Promoting energy-efficient agricultural equipment, such as irrigation pumps
- Improving market access for agricultural products and fish through improved transport and storage infrastructure
- Training programmes on sustainable energy use and business development for local producers
- Harnessing solar energy for agricultural production, processing and yield improvement
- Promoting energy-efficient post-harvest equipment to reduce food loss and increase yields
- Modernising agricultural practices and expanding livestock production on fertile land
- Improving market infrastructure and cold storage for fisheries to increase economic resilience

VALUE CHAINS	RECOMMENDATIONS
Tomato	Tomato production under controlled conditions in a greenhouse with drip irrigation Promotion of tomato processing through solar technologies Integrating tomatoes into tourism growth initiatives
Tuna, mackerel, grouper	Freezing, chilling and processing for preservation and access to the best national and regional markets
Cassava	Combined/fire cooked cassava flour using biogas energy from cassava waste.

# STRATEGY AND ROADMAP FOR COLLABORATION



**CGRH**



**PPDU**



**RAAF**



**CCDG**



# ECOWAS Sustainable Energy Forum (ESEF 2024)



## ECOWAS SUSTAINABLE ENERGY FORUM ESEF 2024

**Towards a Just Energy Transition in West Africa**

Parc des Expositions - Abidjan, Côte d'Ivoire

November 28 - 29, 2024

[www.ecreee.org](http://www.ecreee.org)





## 24. ECOWAS Sustainable Energy Forum (ESEF)

- Ministerial Dialogue: WEF Nexus
- Water Energy and Food Nexus & Circular Economy
- Water Energy and Food Nexus – Private Sector





# OPPORTUNITIES and CONCLUSIONS

- Policies, action plans
- Research – Academy
- Private sector interventions
- Capacity building
- Data and digitalization
- Financing

DIALOGUE BETWEEN  
STAKEHOLDERS

# OPPORTUNITIES and CONCLUSIONS

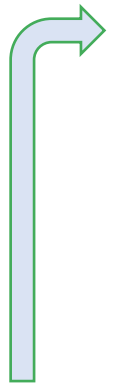
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DIALOGUE BETWEEN  
STAKEHOLDERS

Energy projects for productive use

# OPPORTUNITIES and CONCLUSIONS

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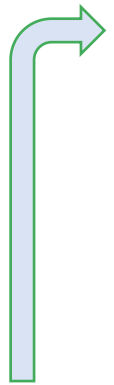


Modelling projects

DIALOGUE BETWEEN  
STAKEHOLDERS

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- Financing



Inter-agency collaboration

DIALOGUE BETWEEN  
STAKEHOLDERS





**Thank you - Merci - Obrigado**

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*Acompanhe-nos nas nossas redes sociais*

