



# 10<sup>th</sup> ECOWAS SUSTAINABLE ENERGY FORUM

## ESEF 2025

**Accelerating Sustainable Energy Infrastructure Solutions for Growth in the ECOWAS Region**

18 - 19 September 2025  
Banjul, The Gambia



Follow ECREEE on Social Media

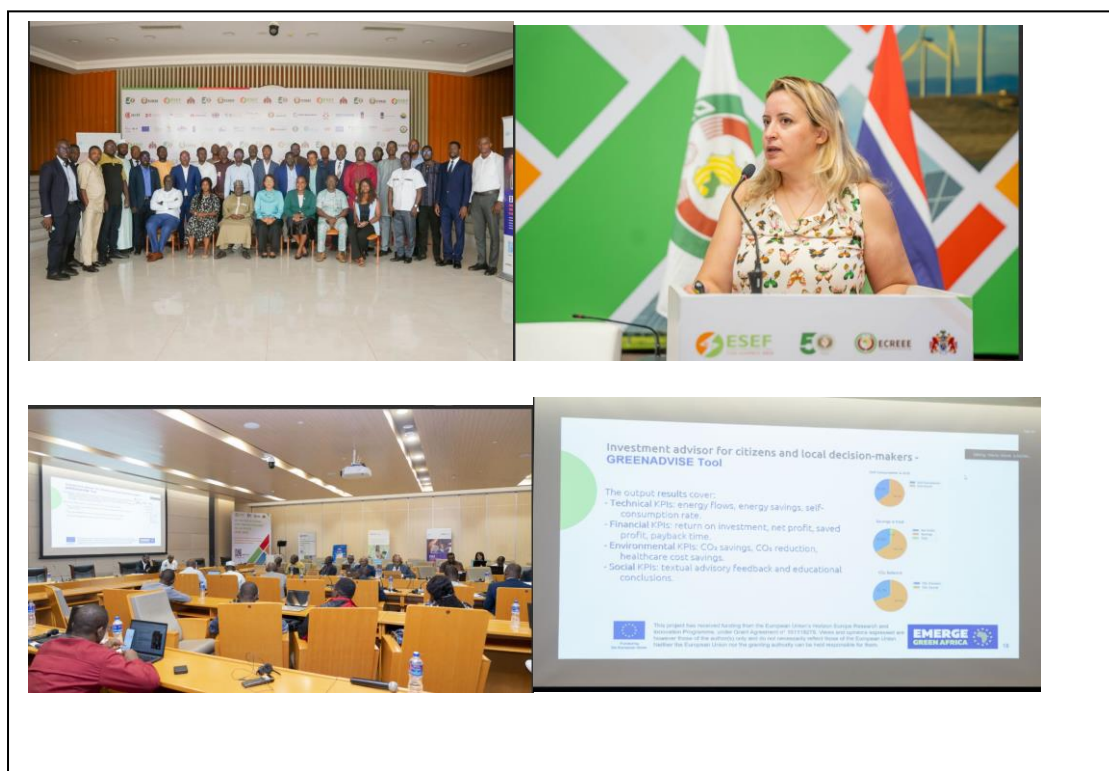
[www.ecreee.org](http://www.ecreee.org)



<b>Session Theme</b>	<b>Climate-Resilient Cooling, Climate Change and Gender Workshop</b>
<b>Date</b>	Tuesday, 17 September 2024
<b>Session Responsible</b>	Dakoua Charles Diarra
<b>Moderator</b>	Mr. Peter Mendes, Principal Energy Officer, Ministry of Petroleum and Energy
<b>Panelists</b>	<ul style="list-style-type: none"> <li>- Dr. Ina Colombo, Sophia project coordinator- International Institute of Refrigeration</li> <li>- Dr. Nikola Matak EMERGE Consortium Project Coordinator, University of Zagreb, Croatia</li> <li>- Dr. Charles Diarra – AGRICOOOL and EMERGE Project Coordinator - ECREEE</li> </ul>

<b>Topics discussed</b>	<ul style="list-style-type: none"> <li>• Sustainable Off-Grid Solutions Program for Pharmacies and Hospitals in Africa (SOPHIA),</li> <li>• Advancing sustainable AGRiculture through off-grid energy and COOLing solutions in Africa (AGRI-COOL)</li> <li>• Energy Modelling System for Green Development of Africa (EMERGE).</li> </ul>
<b>Key recommendations</b>	<ol style="list-style-type: none"> <li>i. Replicate SOPHIA projects in other member states in West Africa, especially in the areas of health centers and schools in rural areas</li> <li>ii. Accelerate the design and the transfer of technology of the AGRICOOOL project cooling chamber, which should be deployed in Boa Vista, Cape Verde</li> <li>iii. Seek additional funding sources from the partners including EU to deploy the initiative in other countries in West Africa</li> </ol>

### Session Pictures



## I. INTRODUCTION

1. The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) and the International Institute of Refrigeration (IIR) organized on September 17, 2025, in Banjul, The Gambia a pre ESEF (ECOWAS Sustainable Energy Forum) was meeting on Climate-Resilient Cooling, Climate Change and Gender Workshop.
2. This pre-ESEF workshop was organize in prelude to the 10<sup>th</sup> edition of the ECOWAS Sustainable Energy Forum (ESEF 2025) held from **September 18-19, 2025**, at Sir Dawda Kairaba Jawara International Conference Center, in Banjul, The Gambia, under the theme **"Accelerating Sustainable Energy Infrastructure Solutions for Growth in the ECOWAS Region"**.
3. The pre-ESEF session also provided opportunities for the presentation and discussion of EU Horizon funded projects particularly:
  - Sustainable Off-Grid Solutions Program for Pharmacies and Hospitals in Africa (SOPHIA)<sup>1</sup>,
  - Advancing sustainable AGRiculture through off-grid energy and COOLing solutions in Africa (AGRI-COOL)<sup>2</sup>
  - Energy Modelling System for Green Development of Africa (EMERGE)<sup>3</sup>.

## II. OBJECTIVE

4. The Objective of the workshop was to present the initial results of the aforementioned projects and contribute to the Cross-Regional Knowledge Exchange, promote the sharing of experiences and expertise between among stakeholders and international partners. The specific objectives were:
  - Presentation and discussions of the results achieved and their impact on clean cooling solutions for Pharmacies, schools, and Hospitals in Africa.
  - Presentation and discussions on sustainable Thermal Energy Storage (TES) system for agricultural products in rural communities in Africa
  - Presentation and discussions of the EMERGE project and the energy modelling system for energy, food and water nexus.

## III. PARTICIPANTS

5. The three projects have similar target groups and as a result the following participants attended the event from West and other parts of Africa:
  - Energy efficiency focal points
  - Policy makers
  - Cold chain experts in air conditioning and refrigeration technologies
  - Academics and research institutions
  - Civil society, ESCOs, and investors
6. The list of participants and additional pictures are attached as **Annex 1** of this report

---

<sup>1</sup> <https://sophia4africa.eu/>

<sup>2</sup> [EMERGE PROJECT](#)

<sup>3</sup> [LISTSERV - AGRI-COOL](#)

7. The meeting was Chair by Mr. Peter Mendes, Principal Energy Officer, Ministry of Petroleum and Energy and the designated Rapporteur is Dr. Charles Diarra who was also responsible for the session

#### **IV. MAIN OUTCOMES OF THE SESSION**

8. The session was opened by Dr. Charles Diarra and the Moderator who welcomed participants to the session. Dr. Diarra, thanked the participants for their availability and interest in the programme and their expected contribution that will result in the better of the project. He also thanks the EU and IIR for their support that led to the holding of the session. The session was formally then.
9. Following the Opening, of the session presentations were made on Energy Modelling System for Green Development of Africa (EMERGE). The presentation on EMERGE covered the followings:
  - Explanation of the goal and relevance of the EMERGE Project which is dedicated to advancing sustainability in Africa by providing key stakeholders with essential tools and knowledge.
  - The EMERGE Approach (toolbox, stakeholder inclusion, policy and regulation)
  - The Common System Architecture which is a comprehensive framework to integrate African-specific parameters (economic, financial, social, environmental, and technical) into the EMERGE Toolbox.
  - The presentation of the key results achieved so far (Promote, raise awareness and facilitate the adoption of the solutions of EMERGE system, AU-EU cooperation activities, evaluation of regulatory frameworks)
10. The Presentation on EMERGE is attached as **Annex 2**
11. The presentation EMERGE was followed by the presentation of the AGRICOOOL which covered the followings:
  - The objective of the AGRI-COOL project, which is to develops smart cold room systems, combining solar power generation, sustainable agriculture, and water management. This is to provide a resilient solution for rural areas facing climate change
  - The AGRICOOOL PV system (AGRI\_PV) : type of solar PV modules, rainwater harvesting, use of the space under the PV array for agricultural purposes.
  - The EMERGE Cold room: smart cold room systems, sustainable agriculture, and water management. The aim is to provide a resilient solution for rural areas facing climate change
12. The Presentation on AGRICOOOL is attached as **Annex 3**
13. The presentation of AGRICOOOL was followed by a video presentation of the SOPHIA project which covered the followings:
  - The countries covered by the SOPHIA technologies (Burkina Faso, Cameroon)
  - The cooling systems in for Hospitals and the schools in Cameroon and Burkina Faso
14. The SOPHIA video and presentations are attached in **Annex 4.1 - 4.3**

15. Subsequent to these presentations, discussions were held. Out of these discussions the following recommendations were made.

- Replicate SOPHIA projects in other member states in West Africa, especially in the areas of health centres and schools in rural areas
- Accelerate the design and the transfer of technology of the AGRICOOL project cooling chamber, which should be deployed in Boa Vista, Cape Verde
- Seek additional funding sources from the partners including EU to deploy the initiative in other countries in West Africa
- ECREEE should consider collaboration with universities in West Africa in the implementation of future similar projects

16. In conclusion the session

- Improved understanding of diverse regional challenges and solutions in clean energy technologies
- Strengthened partnerships among pilot projects to address shared challenges in clean cooling technologies
- Enhanced technical skills and knowledge through observation of successful projects
- Network of stakeholders committed to clean energy transitions

#### **V. FOLLOW UP ACTIONS REQUIRED**

17. Organisation of the AGRICOOL international advanced training in Cabo Verde in June 2026

18. Promote exchanges between African universities and the EU partners universities in research and innovations.

#### **VI. ADDITIONAL INFORMATION**

19. Link to session recording and pictures:

- **Photos:** [ECREEE EXTERNAL SITE - Documents - ESEF PHOTOS - All Documents](#)
- **Session recording:** [EELA pre-event - Zoom](#)