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# Report EU regional workshop project 2021

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Resume of the workshops and studies on the enabling environment of  
Uganda, Burkina Faso, Guinée-Bissau and Mali, carried out between the  
period from June to August.

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# Introduction

Between the period of June to July 2021, workshops were held in all four FRESCO countries which were organized by a local consultant together with the FRESCos and FRES NL.

The main objectives were:

1. To strengthen collaboration and communication with national policy makers and authorities at the policy dialogue level, and increase cross-national learning in the areas of green energy and rural electrification;
2. To share good practices in the region and gain more understanding on how to influence on more enabling policy environment for private sector actors on green rural electrification.

All workshops were successful, all objectives were obtained and on top of that the FRESCO's have gotten the opportunity to increase their visibility. Bringing all these different actors together has shown the need for closer collaboration and communication between all actors of the RE sector in order to streamline regulations and activities.

Apart from the workshop an analysis of the enabling environment and the FRES model has been carried out for each FRESCO. In this report you will find a resume of the workshops and the key findings of the analyses.

# FRES UGANDA



From left to right: GM of FRES Uganda Joselyne Musiime; Group picture of FRES team and conference speakers; FRES Uganda stand; Sales manager Ibrahim Byekwaso with FRES client Mr. Robert Bayona; DG of FRES Ido Verhagen; panel members: Richard Mwesigwa, Ag. CEO, Uganda Solar Energy Association (USEA), Winnie Grace Onziru, Standards Officer, Uganda Bureau of Standards, Eng. David Birimumaaso, Senior Energy Officer, Min. of Energy and Mineral Development and Esther Nyanzi, CEO, Uganda National Renewable energy and Energy Efficiency Alliance (UNREEEA); Regional operations Manager Mark van Niekerk.



# Workshop FRES Uganda

**Theme:** UPSCALING USAGE OF CLEAN AND AFFORDABLE ENERGY IN RURAL AREAS OF UGANDA

**Date:** Tuesday 1st June 2021 | 8.00 am - 2.00 pm

**Venue:** Banquet Hall - Golf Course Hotel, Kampala-Uganda

**FRES Uganda was the first FRESKO to kick off the workshop series on the 1<sup>st</sup> of June from 8.00 am - 2.00 pm.**

Approximately 110 delegates participated in the workshop whereof 30 participated physically and 80 participated virtually. The delegates included renewable energy industry experts, policymakers, faculties in renewable energy, government/relevant ministry officials, electricity regulators, development partners, diplomatic missions, researchers in the energy sector, expert implementers of renewable energy policies, tax experts, bureau of standards officials, and other relevant actors and policy influencers/makers.

**The presence of the following key actors resulted in relevant information and discussions of topics that are critical to FRES Uganda's activities:**

the commissioner Renewable Energy Ministry of Energy and Mineral development Republic of Uganda, Uganda Solar Energy Associations (USEAS), Uganda National Renewable energy and Energy Efficiency Alliance (UNREEEA), Uganda Bureau of Standards (UBS) and Ministry of Finance, Planning and Economic development.

**Presentations and discussions on thematic areas that are challenging and critical to FRES Uganda's activities included:**

- Rural electrifications plans and projections in Uganda;
- Tax policy in renewable energy sector in Uganda;
- Quality and standards in the renewable energy sector;
- Partnerships and funding opportunities in the sector.

**The event led to the following outcomes:**

- Increased visibility of the FRES Brand across the nation through media publicity;
- Increased expansion calls to other regions of the Uganda, especially the northern regions;
- Better understanding among stakeholders of how our service is a sustainable solution to the after sales service problems in the sector;
- Strengthened relationships and partnership with key industry stake holders: Uganda Revenue Authority, Ministry of Energy and Uganda National Bureau of Statistics. These relationships enabled us to have tax exemption on the PayGOps switches and penalty wavier off;
- Insight in plans of the UNBS who are establishing a call centre which would encourage the public to interact with the association for mutual benefit. Solar users will have an opportunity to access information on good quality solar services, among others.



## GOV'T ASKED TO WAIVE TAXES ON SOLAR ENERGY ACCESSORIES



PICTURE CAPTION

The government has in the recent past waived taxes on solar panels and batteries to develop the solar energy sector.

**Henry Sekanjako**  
Journalist @New Vision

The government has in the recent past waived taxes on solar panels and batteries to develop the solar energy sector.

However, according to the solar energy dealers, the government needs to completely do away with taxes on solar energy accessories in Uganda.

According to Josiah Musime, the general manager of FRES Uganda, a solar energy company, the government has already waived off the taxes on solar energy accessories and re-introduced the tax in 2018.

The push for taxes is on accessories, the batteries and panels are exempted but other accessories like wires and fuses are taxed if the government cut off some of the services.



### Fake Products

The dealers also asked the government to take action against people dealing in fake solar energy products, which have flooded the market.

The fake products, according to Musime, have affected the market for solar energy in Uganda by solar energy users and prospective users.

"Someone goes to the market to buy a solar system and within a few days the system is down, he goes back he says a battery, so you find such a person really tired up first saying solar doesn't work."

Government should ensure that quality solar comes on the market. We quality with ensure value for money for the end users," Musime said.

She made the remarks on Thursday, during celebrations to mark 10 Years of FRES in Uganda. The solar energy company provides solar energy to rural communities in Uganda, on a fee for service model. Unlike other solar energy service providers, FRES solar energy, installs, maintains, repairs and replaces the worn-out parts of the system as long as the customer is using the solar system.

"We walk the journey with the customer, we install the system and keep ownership of the system, but we make the customer satisfied we do maintenance, replace, replacement be it one year, five years we are with you as long as you are paying the monthly service fee," Joshi said.

The company currently operates in 33 districts in Western, southwestern and central Uganda among other parts of the country.

To speed up the solar energy products on the market, Musime urged the government to step up its support of the sector and make the service of installation, which has been a challenge, more efficient.

# Key findings study Uganda

The Quick Scan Study has demonstrated that the potential and opportunities for the Solar PV market in Uganda is still largely untapped, in spite of several solar PV companies being active in the market.

## Critical barriers to development and exploitation of the sector:

- Limited access to affordable finance for both business working capital as well as consumer finance needs;
- Non-uniform tax incentive application;
- Weak enforcement of quality standards;
- Poor distribution infrastructure in off-grid communities.

## Key opportunities for FRES Uganda:

- Displaced people settlement market; The growing need to make these communities have sustainable livelihoods presents a good business case for deployment of productive use of energy solutions. ***Due to dependency on UN allowance that has been decreasing this would require us to only do this with partners and/or strict selection of clients;***
- Rapid urbanization rate and growth of cities → potential for solar street lighting for security (households and institutions), urban centre beautification as well as green growth strategy fit for urban centres. ***In other words there are opportunities in both the on-grid and off-grid market, which could increase our market share;***
- Increased participation of financial Institutions in scaling adoption of RETs (renewable energy technologies) for business and consumers → Postbank, Centenary Bank, FINCA Uganda, Stanbic Bank, DFCU bank, Hofokam and Tujenge;
- Productive use of energy in agriculture market: irrigation, milling, cold chain storage (especially for dairy), drying etc. Improving productivity is part of Uganda's Green Growth Development Strategy;
- There is more market for the larger systems compared to the smaller systems.

## To do's for expansion and sustainability of FRES Uganda:

- Investment in sales and marketing;
- Develop innovative distribution models;
- Develop innovative financing models: model that addresses the ability and willingness to pay;
- Building strategic alliances with SACCOs, Cooperatives and other actors in the value chain in order to address the costs of distribution which ultimately affect the price of the products.

## SWOT FRES Model findings

Strengths	Opportunities
<ol style="list-style-type: none"> <li>1. FRES has a wide variety of Solar PV product options</li> <li>2. Pricing of FRES products is competitive compared to similar tiers of products</li> <li>3. FRES products are of a competitive quality</li> <li>4. FRES has village mobilization infrastructure in place – in Western Uganda</li> <li>5. FRES has a strong brand in the solar space</li> <li>6. FRES has a strong business track record since 2010</li> <li>7. FRES offers free repair and maintenance for its customers</li> <li>8. FRES offers lifetime warranty for its products</li> <li>9. FRES offers various payment options including mobile payment</li> <li>10. FRES model is flexible and transferable</li> </ol>	<ol style="list-style-type: none"> <li>1. The payment for service model reduces the high upfront costs associated with solar PV systems</li> <li>2. There are several emerging technology options in the RE space</li> <li>3. There is increasing favorable behavior patterns – Increased adoption of solar technologies</li> <li>4. There is a strong umbrella body for solar companies advocating for the interests of solar companies</li> <li>5. There is an increasing number of clients willing to pay higher fees if ownership of the products is guaranteed</li> <li>6. There is more market for the larger systems compared to the smaller systems with institutional clients</li> <li>7. There is a favourable policy and legal framework in place</li> <li>8. Grid extension has only reached a small proportion of the population</li> </ol>
Weaknesses	Threats
<ol style="list-style-type: none"> <li>1. There is weak debt follow up mechanisms in place currently</li> <li>2. FRES has a flat monthly fee for all clients irrespective of usage</li> <li>3. FRES rates are currently higher than the national grid rates for a unit of power</li> <li>4. FRES has only been operational in Western Uganda</li> </ol>	<ol style="list-style-type: none"> <li>1. The expansion of the national grid into areas that would constitute potential off-grid clients</li> <li>2. National grid rates are low and are projected to go lower as power generation capacity increases</li> <li>3. Most RE customers prefer to own their systems as opposed to paying for a service</li> <li>4. Clients tend to tamper with the system resulting in increased need for repairs</li> <li>5. Current solar market is very competitive with a number of players</li> <li>6. Solar system battery life span tends to be short and needing regular replacement</li> <li>7. Emergence of technological alternatives that could become more effective and efficient than solar PV</li> <li>8. Solar technologies often suffer interferences that make supply unstable</li> </ol>

## How can FRES position itself to hedge against market constraints?

No.	Market Constraint	Proposed Strategy
1	Perceived high upfront costs and limited purchasing power	Develop and deploy affordable financing mechanisms for the different solar PV technologies targeting the different market segments in rural and urban communities (households, SMEs, Institutions and Displaced people settlements)
2	Proliferation of solar market with poor quality products	Develop a clear differentiation strategy to position FRES products as preferred high quality products: <ul style="list-style-type: none"> <li>• Develop and communicate a clear value proposition on the quality of your products</li> <li>• Deploy customised products with distinctive branding features.</li> </ul>
3	Uncertain grid extension plans in the Country	Develop and nurture close collaboration with the MEMD and REA in order to regularly be updated on grid expansion plans
4	Limited after sales services offered to customers	Develop and deploy an innovative customer care and after sales strategy
5	High cost of capital for solar PV businesses due to relatively high interest rate	<ul style="list-style-type: none"> <li>• Explore approaches to minimise the cost of operation and develop relationships with FIs to secure affordable working capital needs</li> <li>• Leverage on the working capital facility provided by the Uganda Energy Credit Capitalization Company.</li> </ul>
6	Limited reach of technologies to remote off grid areas	<ul style="list-style-type: none"> <li>• Establish innovative and inclusive distribution channels that reach last mile customers</li> <li>• Leverage on the growth of the digital market places as distribution channels</li> <li>• Enhance partnerships with SACCOs, VSLAs, Cooperatives and MFIs as well as organised women and youth groups.</li> </ul>
7	The need for PUE technologies that support productivity and value addition in agriculture	Diversify the product offering to include PUE technologies especially solar powered irrigation, solar powered refrigerators etc.



# FRES BURKINA FASO



From left to right: GM of FRES Yeelen BA Bourama Keita; Conference room in Sonia Hotel; Mr. Saliou Tall of the Burkina Agency for Rural Electrification (ABER); Group photo with FRES team, speakers and consultant; DG FRES Ido Verhagen, GM Bourama Keita, Ms. Aida Siko form the National Agency for renewable energy (ANEREE), Mr. Aziz M. Zida of the ANEREE; participant workshop; Mr. Christophe Bako from the General Management of Taxes (DGI).



# Workshop FRES Burkina Faso

**Theme:** ACCROITRE L'UTILISATION DE L'ENERGIE PROPRE ET ABORDABLE DANS LES ZONES RURALES DU BURKINA FASO

**Date:** Le 15 juin 2021 | 8.00 am - 15.40 pm

**Venue:** Sonia Hotel, Ouagadougou-Burkina Faso

**FRES Burkina Faso organized the 2nd workshop in the series of workshops on the increase of the use of clean and affordable energy in rural areas of Burkina Faso.** The workshop took place on Tuesday June 15th, 2021, and was held in the conference room of the Sonia Hotel in Ouagadougou. Led by FRES YEELEN BA - FRES Burkina Faso, the workshop benefited from technical support from the National Agency for Renewable Energies and Energy Efficiency (ANEREE). The session brought together about 50 participants (physical and virtual) coming mainly from ministerial departments, public and private companies, civil society, technical and financial partners as well as from universities and research centres.

**The presence of the following key actors resulted in relevant information and discussions of topics that are critical to FRES Yeelen Ba's activities:** the National Agency for Renewable Energies and Energy Efficiency (ANEREE), The Green Climate Fund (AND/FVC), The Burkinabè Rural Electrification Agency (ABER) and the Litigation and Legislation Department of the Directorate General of Taxes (DGI).

**Presentations and discussions on thematic areas that are challenging and critical to FRES Burkina's activities included:**

- Rural electrifications plans and projections in Burkina Faso;
- Tax exemption regulations in the energy sector;
- Financial instruments and the Green Climate Fund;
- Partnerships and funding opportunities and accessibility for the sector.

**The event led to the following outcomes**

- The event and the high media coverage enabled FRES YEELEN BA to increase its visibility and has given the opportunity for a better understanding of the economic model.
- Insight into the rural electrifications projections.
- Better understanding of the tax advantages for operators.
- YEELEN BA got invited by the Green Climate Fund to the national consultation on the process of accreditation of direct access for entities to the green climate fund on June 22, 2021 in Koudougou. They also got invited to a workshop on 06/29/2021 in Ouagadougou reforms and business opportunities for the energy sector in Burkina Faso, which was organized by the National Agency for Renewable Energies and Energy Efficiency.



# Key findings study Burkina Faso

Although there is no national electrification plan, in 2001, a national renewable energy action plan (PANER) was drawn up. The PANER aims to increase the capacity of power plants operating on renewable energy to 318 MW in 2030. PANER plans to increase the rate of the rural population served by off-grid energy-based systems with 27% in 2030. The plan focuses on localities with a population of less than 500 inhabitants and on those with a population between 500 and 1500 inhabitants. For localities far from the national grid and with a population of more than 1,500 inhabitants, the rural electrification options selected are the implementation of hybrid systems and / or mini grids. Apart from the PANER, SONABEL has started to develop a 2022-2027 strategic plan, of which the objective is to reach an electrification rate of 75%, of which 50% concerns the rural areas.

## Funding:

There are currently no specific funds promoting rural electrification. However, there are several financial mechanisms at the national and international level that offer funding opportunities. This is the case of the solar project window of ANEREE, Solar Cluster, climate funds such as the Green Climate Fund (GCF), Global Environment Fund (GEF), Fund for Sustainable Energy in Africa. (FEDA) and commercial banks, etc.

## Regulatory information:

Regulatory information for private actors such as FRES on legal and regulatory information can be found on the **ASS website**: <https://www.arise.bf/spip.php?rubrique6> and **UEMOA**: <http://sie.uemoa.int/>.

## Critical barriers to development and exploitation of the sector are:

- The obsolescence of certain production and transport infrastructures;
- Lack of control of imported solar equipment;
- The cumbersome construction process of power plants through Public-Private Partnership (PPP);
- The high cost of energy production and distribution;
- The weak legal framework in the energy sector.

## Key opportunities for FRES Burkina:

- Most sectoral, national and transnational (local) plans take into account the use of off-grid solutions for energy generation. This is the case with the national strategy for the creation of ecovillages 2018-2027 which foresees to support the construction of solar-powered boreholes pumps;
- Diversification opportunities through: the promotion of solar thermal energy, public lighting, productive use, (mini) solar PV plants, solar installations on public buildings, schools and health infrastructure in rural areas, electrification of peri-urban areas, installation of solar kits for both on and off grid individuals and water heaters;
- The MCC (Millennium Challenge Corporation) projects: Development of Networks and Access to Electricity Project, Reform and Capacity Building Project and the Project to Increase the Supply of Less Expensive Electricity.

## Recommendations for the expansion and sustainability of FRES Burkina Faso:

- In the context of solar thermal, a project to install solar thermal systems in social institutions such as schools, hospitals, garrisons and prisons can be initiated by FRES YELEN BA and discussed with ECOWAS and the government;
- Diversification of the services by promoting solar thermal energy, public lighting, providing solar energy for productive use appliances and of mini solar PV plants;
- Regarding the national strategy for the creation of ecovillages 2018-2027 Yeelen BA could register for opportunities for the construction of mini solar power plants and / or the installation of solar PV kits;
- Adapt the cost of the fee to the socio-economic conditions of customers;
- Improve the quality of service in terms of capacity;
- Set up a customer loyalty mechanism;
- Establish a CSR policy ;
- Continuously strengthen the capacities of staff;
- Make spare equipment available in local shops;
- Establish relations with SONABEL and ABER to be continuously informed and to be able to respond to short, medium and long term projects;
- Ensure continuous communication of the advantages of the FRES model to the government.

## Advantages and disadvantages FRES Model

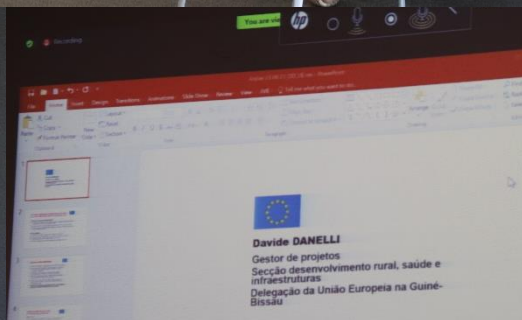
## SWOT FRES Model findings

Avantages	Inconvénients
<ul style="list-style-type: none"> <li>✓ Réduction du coût initial pour le consommateur et une structure de paiement rentable pour le client ;</li> <li>✓ Réalisation d'économies importantes vis-à-vis des alternatives (bougies, kiosque du village pour charger le portable, etc.) ;</li> <li>✓ Facilitation de l'accès à l'énergie propre et durable (bénéfices santé) ;</li> <li>✓ Circonscription du risque technologique chez l'opérateur/distributeur et non chez le consommateur (le paiement est seulement exigé si le service fonctionne) ;</li> <li>✓ Disponibilité continue de l'énergie ;</li> <li>✓ Développement de l'économie en milieu rural surtout chez les femmes et les jeunes ;</li> <li>✓ Accès aux crédits car les kits peuvent servir de garantie pour d'autres prêts (ouvre la porte au financement d'autres produits et appareils, y inclus les usages productifs) ;</li> <li>✓ Etablissement d'un moyen pour sécuriser les revenus des sociétés nationales ainsi que des opérateurs de mini-réseaux tout en permettant la mise en œuvre d'un service électrique viable ;</li> <li>✓ Meilleure planification des investissements et amélioration de la fiabilité ;</li> <li>✓ Garanties de maintenance et de remplacement (pas de dépenses imprévues pour les réparations ou les remplacements) ;</li> </ul>	<ul style="list-style-type: none"> <li>✓ Maîtrise des prix de cession du KWh aux consommateurs ;</li> <li>✓ Solvabilité des clients (impayés) ;</li> <li>✓ Défaillance des réseaux téléphoniques ne facilitant pas parfois les paiements.</li> </ul>
<ul style="list-style-type: none"> <li>✓ Facilité d'utilisation (les clients n'ont pas à installer le système eux-mêmes) ;</li> <li>✓ Accès facilité aux nouvelles technologies coûteuses et difficiles à trouver.</li> </ul>	

Forces	Faiblesses
<ul style="list-style-type: none"> <li>✓ Disponibilité de ressources humaines compétentes</li> <li>✓ Collaboration avec les autorités nationale et transnationale</li> <li>✓ Modèle économique « fee for service »</li> <li>✓ Qualité des équipements</li> </ul>	<ul style="list-style-type: none"> <li>✓ Faible compétitivité avec la SONABEL du fait des coûts et des options d'installations limitées ;</li> <li>✓ Insuffisance de ressources humaines pour assurer la maintenance ;</li> <li>✓ Faible capacité des répondants ;</li> <li>✓ Rupture de stocks dans les boutiques.</li> </ul>
Opportunités	Menaces
<ul style="list-style-type: none"> <li>✓ Cluster solaire</li> <li>✓ Appui financier de l'UE</li> <li>✓ Niveau d'ensoleillement élevé du Burkina Faso</li> <li>✓ Existence de l'expertise nationale</li> <li>✓ Guichet projets solaires de l'ANEREE</li> <li>✓ Financement vert et climatique (FVC, FEM, FEDA, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Projets et programmes d'électrification ruraux ;</li> <li>✓ Crises sécuritaires et sanitaires ;</li> <li>✓ Concurrence déloyale à cause de l'entrée massive d'équipements et matériels de moindre qualité et bon marché.</li> </ul>



# FRES GUINÉ-BISSAU





# Workshop FRES Guiné-Bissau

**Theme:** RENFORCER LA COLLABORATION ET LA COMMUNICATION ENTRE L'ÉTAT ET LE SECTEUR PRIVE PAR UN ENVIRONNEMENT PROPICE A L'ELECTRIFICATION VERTE EN GUINE-BISSAU

**Date:** Le 23 juin 2021 | 9.00 am - 1.00 pm

**Venue:** l'Hôtel CEIBA, à Bissau, Guiné-Bissau

**FRES Guiné-Bissau organized the 3rd workshop on Wednesday 23 June 2021 at the CEIBA Hotel in Bissau.** The workshop focused on "strengthening collaboration and communication between the state and the private sector through a favourable enabling environment for the green electrification sector in Guinea-Bissau". The session brought together thirty (30) participants (physical and virtual) coming mainly from National Institutions, the Private Sector, Investors, Commercial Banks, National and International Companies and the International Community.

**The presence of the following key players made it possible to obtain relevant information and discussions on subjects essential to the activities of FRES GUINE-BISSAU:** representative of the Directorate General of Energy (Ministry of Energy and Natural Resources), representative from the Ministry of Environment and Biodiversity, representatives of 2 commercial banks: BDU and Banque Atlantique, Resident Representative of UEMOA in Guinea-Bissau and his Special Advisor, representative of FED in Guinea-Bissau, EU representative for Guinea Bissau, 2 loyal FRES customers who came especially from Gabu for the occasion and the FRES GB's customs agent.

**Presentations and discussions on thematic areas that are challenging and critical to FRES Guiné-Bissau's activities included:**

- Rural electrifications plans and projections in Guiné-Bissau;
- Customs and fiscal regulations;
- Accessibility to financial instruments and funding opportunities.

**The event led to the following outcomes:**

- Improvement of stakeholder relations, which have led to follow up meetings with: the EU representatives and the Ministry of Natural Resources and Energy regarding the construction and financing of two minigrids in GB and with the Ecobank on financing future SME/SMI clients with large systems.
- Direct contact and dialogue with the ministry has also enabled to discuss essential topics such as, temporary exemption from customs duties, the MoU renewal and the extension of activities with drink water appliance and the expansion to other parts of the country.
- Led to other leads for potential partnerships: Ministry of economy and Regional Integration, UEMOA and the West African Economic and Monetary Union.



## Key findings Guiné Bissau

Despite the fact that solar energy is the most used renewable resource for especially the production of electricity, Guiné-Bissau's government efforts to establish a policy and regulatory framework favourable to the clean and off-grid energy sectors are limited. As a result the country's new and renewable energy resources, have not yet been explored. Today there is no specific plan associated with renewable energies approved by the Council of Ministers. Nevertheless the country is adopting a clear strategy (view full report for details). Currently the largest producer of electricity from solar energy is Bambadinca Sta Clara (mini-grid system), managed by the Bambadinca community development association. The 10 MW solar power plant in Bissau is also under construction, the output of which will be fed into the grid.

### Funding:

The state does not have a mobilization funding mechanism for green rural electrification. Commercial banks do have these mechanisms, but the procedures for accessing these funds are very complex and difficult in comparison to regional institution like the UEMOA, who unfortunately currently only finances the state. Other available sources for funding, of which some of them are currently funding projects and programs for which deployment has started, are the following institutions: BOAD (Funding the Bôr Solar Thermal Power Plant projetct in Bissau, 22 MW), UEMOA bissorã (Funding public lighting in Bissorã and in other regions) the ADB , the World Bank (Funding the WorldPRAE Project: electrification of 14 localities and the WACA project), UNIDO, GEF, IRENA, GIZ, EU (Funding the TESE Project - Bambadinca - Reg Bafata e Bolama) UNIDO (Funding the mini Solar Power Plant in Bissorã).

### Critical barriers to development and exploitation of the sector:

- The country's unstable political and economic environment;
- Lack of financial resources;
- Inadequate policies;
- Lack of regulation and inadequate technical capacity.

### Key opportunities for FRES GB:

- Almost no competition;
- Possibility of creating mini networks in areas where homes are concentrated;
- Request for service in the village of Djabicunda in the region of Bafatá. The population of this village, with the authorization of the local authorities (political and traditional), wants to provide FRES with land for the installation of a solar power plant.

### Recommendations for the expansion and sustainability of FRES GUINE-BISSAU:

- Improve communication between FRES and clients;
- Improve relations with government authorities; the central government (Ministries of Natural Resources and Energy - Directorate General of Energy, Ministry of Economy and Regional Integration - Directorate General of Planning) and regional governments and traditional entities in order to create partnerships;
- Improve timeliness of processes for; new installations, preventive and curative maintenance.



## SWOT FRES Model findings

### ANALYSE SWOT

<p><b>FORCES</b></p> <p>Satisfaction des clients</p> <p>Demande croissante et constante.</p> <p>Utilisation exclusive d'énergie propre.</p> <p>Pionnière dans son domaine en Guinée Bissau.</p> <p>Leader dans sa zone d'intervention.</p>	<p><b>FAIBLESSES</b></p> <p>Mauvaise communication au début des activités: plus de 70 % des répondants (bénéficiaires avec des contrats datés de 2013, 2014) avaient l'information trompeuse selon laquelle après trois ans de paiement, ils deviendraient propriétaires des systèmes.</p> <p>Inflexibilité de FRES d'accepter d'autres formes de paiement (paiement des paiements via les produits agricoles).</p>
<p><b>OPPORTUNITÉS</b></p> <p>Quasi absence de concurrence.</p> <p>Demande croissante et constante.</p> <p>Possibilité de créer des mini réseaux dans les zones où se concentrent les habitations.</p> <p>Avec FRES, les jeunes des zones rurales ont pu développer des activités (exemple des maisons de jeux, charge de téléphone...)</p>	<p><b>MENACES</b></p> <p>La ligne à haute tension du projet OMVG HYDRO ELECTRIC et la construction d'une centrale photovoltaïque d'une capacité de 2 MGW pourraient constituer un handicap pour les activités de FRES dans les centres de la ville de Gabú et Bafatá.</p> <p>Absence de législation et de réglementation sur l'énergie.</p> <p>Forte invasion de matériaux solaires sur les marchés nationaux par les commerçants locaux à un prix beaucoup plus attractif mais, sen qualités.</p> <p>Recyclage des matériaux obsolètes (batteries, panneaux et lampes). Lors de la visite au siège de FRES à Gabú, un grand nombre de matériaux obsolètes ont été trouvés, attendant le processus de recyclage.</p> <p>En attendant leur exportation au Ghana pour le recyclage, l'exposition de cette quantité de matériaux à des températures élevées peut présenter un énorme risque d'explosion.</p>



# FRES MALI



From left to right: GM of FRES YEELEN KURA Djibril Semega; Participant workshop; Minister of energy M. Traore Seydou Lamine; AER project manager Traore Beidar; EU representative Mali Mr. François Flamant and DG FRES Ido Verhagen; FRES team in conversation with representatives GERES; Groupe picture from left to right with: Abbdoulaye Ouattara AER; M. Sidibe Adama DNE, M. Verhagen Ido FRES, M. Traore Seydou Lamine the Minister of Energy, M. Dembélé Souleymane CNT, M. Semega Djibril, SSD Yeelen Kura, M. Fane Souleymane SSD Yeelen Kura, M. Diallo Souleymane, SSD Yeelen Kura, M. Traore Beidari AER.



# Workshop FRES Mali

**Thème:** ATELIER NATIONAL SUR L'AUGMENTATION DE L'UTILISATION DE L'ENERGIE PROPRE DANS LES ZONES RURALES AU MALI

**Date:** Le 8 juillet 2021 | 8.30 am - 16.15 pm

**Venue:** l'Hôtel ONOMO, Bamako, Mali

**FRES Mali organized the 4th workshop in the ONOMO Hotel in Bamako, on July 8, 2021.** The FRES Mali workshop under the title: National workshop on increasing the use of clean energy in rural areas in Mali was organized in collaboration with the supervisory ministry of energy through the AER -Mali.

**The workshop brought together about twenty experts and professionals from the technical services of the state, legislative bodies, civil society, and journalists.** The guests of honour were the Minister of Mines, Energy and Water, the representative of the Energy Commission of the National Council for the Transition (CNT), the Representative of the European Union in Mali, the Director of FRES PAYS-BAS and the Representative of Embassy of the Netherlands in Mali. In addition, a webinar enabled FRES partners to follow the workshop online. The presence of these actors made it possible to obtain information and relevant discussions on subjects essential to the activities of FRES Mali.

**Presentations and discussions on thematic areas that are challenging and critical to FRES Mali's activities included:**

- Rural electrifications plans and projections in Mali;
- Challenges of access to energy in the rurales areas of Mali;
- Energy for productive use;
- Tariffication policy ;
- Accessibility to financial instruments and funding opportunities.

**The event led to the following outcomes:**

- This workshop sparked debate and united stakeholders around the energy issue, challenges faced on an institutional level, legal framework, the setting of tariffs and capacity building;
- Understanding of rural electrification legislation is strengthened. The presence of the member of the National Transition Council (CNT- commission in charge of energy) made it possible to expose the challenges that the private sector faces. In addition it also showed that the lawmakers are not well informed on the issues in the sector. As a result the CNT has communicated their support for the private sector and planed an inquiry with the minister of energy to discuss the issues;
- Political dialogue on rural electrification is initiated. As a result of the workshop and the presence of the minister, the following day the EDM (Energie du Mali) released a press statement wherein all the operators where invited to discuss collaboration possibilities. This has not yet taken place;
- Approaches to influence the more favourable political environment are identified and implemented. FRES MALI has been invited by the Environmental and Sustainable Development Agency (AEDD) for a meeting in Bamako about climate change and how to achieve objectives by 2030 on 20/08/12.
- Exchange of good practices with other stakeholders, such as GERES, l'AER, l'AMADER, l'OSER in the sector.





# Key findings Mali

Despite its potential, Mali's rural electrification rate is only at 25%. The analysis shows that legal and regulatory efforts have been made by the Malian authorities to promote the emergence of private operators in the field of rural electrification and that different policies and strategies are in place (see full report for details of plans) to increase rural electrification. Nevertheless, in practice the absence of consultation and coordination between the authorities and other key actors in the sector hampers progress and stands in the way of a favourable environment for private actors like Yeelen Kura.

## Funding:

- There are several projects and programs at the national level (AMADER, AER-Mali, ELCOM GIZ) and sub-regional (PRODERE, EREF / CEREC) which YK can explore for funding. Other programs and projects that offer investment grants are SHER, PERSHY and PHARE;
- YK could also explore the BOOT (Build Own Operate and Transfer) method for large power plants. The National Directorate of Energy facilitates the implementation of BOOT projects within the framework of Public-Private partnership.

## Critical barriers to development and exploitation of the sector:

- Lack of knowledge and of the regulatory documents. Very few texts are developed to promote supervision, encourage promotion of the sector or those which are elaborated are not shared;
- Tariffication of services: the fixed premium set by Amader is very high and does not take into account the risk for operators, the investments costs and the purchasing power of population;
- Lack of supporting fiscal measures and/or subsidies in order to keep the cost of investment for private actors down;
- The country has few qualified human resources in the field;
- The lack of consultation, coordination and exchanges between actors: they each work at their own level and do not share information with others.

## Key opportunities for FRES Mali:

- Interesting projects / program: Regional Off-Grid Electrification Project (ROGEP (Rural Off-Grid Electrification Project) / ECOWAS), National Action Program for Sustainable Energy for All (SE4ALL);
- Opening of the sector for independent power producers in BOOT;
- Availability of program and projects at the national level (AMADER, AER-Mali, ELCOM-GIZ) and sub-regional (PRODERE, EREF / CEREC).

## To do's for expansion and sustainability of Mali:

- Further develop the service for the productive use of energy;
- Change the bulbs used for public lighting;
- Inform / sensitize beneficiaries on the conditions of access to services and the methods of setting prices;
- Inform the authorities on the conditions for awarding contracts for the provision of decentralized services;
- Get more involved in OSER association activities in order to jointly defend the interests of private operators;
- Create a framework for dialogue between the beneficiaries and YEELEN KURA.

## SWOT FRES Model findings

Forces	Faiblesses
<ul style="list-style-type: none"> <li>- Disponibilité de ressources humaines qualifiée et compétentes ;</li> <li>- Appartenance de la société à un réseau international œuvrant dans le domaine des énergies renouvelables ;</li> <li>- Expériences avérées avec le modèle de fourniture de service durable durant plusieurs années ;</li> <li>- Modèle avec un service après-vente pour les SHS ;</li> <li>- Mécanisme de comptage innovant avec le prépayé pour le mini-réseaux électriques</li> <li>- Disposition de facilité de paiement pour les clients à travers le PAYGO ;</li> <li>- Connaissance des sites d'intervention ;</li> </ul>	<ul style="list-style-type: none"> <li>- Absence de communication ciblée sur le modèle pour le SHS et les avantages du système de « fee for service » ;</li> <li>- Absence de communication sur le coût élevé des primes fixes pour les mini-réseaux ;</li> <li>- Point de paiement de service sont souvent éloigné du village pour les mini-réseaux électriques ;</li> <li>- L'incompréhension des clients potentiels et certains clients du SHS sur la particularité du modèle ses avantages et sa durabilité contrairement aux autres modèles base sur option vente cash ou vente à crédit ;</li> </ul>
Opportunités	Menaces
<ul style="list-style-type: none"> <li>- Potentiels de l'énergie solaire du Mali</li> <li>- Faible taux d'électrification du pays</li> <li>- Exonération sur l'importation des équipements solaires</li> <li>- Politique nationale d'énergie favorable à l'électrification rurale par le secteur privé</li> <li>- Disponibilité des codes d'investissements favorable au secteur de l'énergie</li> <li>- Mise en place d'une cellule de PPP pour la réalisation des projets dans le domaine des énergies</li> <li>- Ouverture du secteur pour les producteurs indépendants d'électricité en BOOT</li> </ul>	<ul style="list-style-type: none"> <li>- Le mode de fixation des prix par l'AMADER, ne tient pas compte de la rentabilité de l'entreprise ;</li> <li>- L'insécurité du nord du pays,</li> <li>- L'instabilité politique avec les coûts d'État, et les mouvements sociaux,</li> <li>- Le transfert de gestion des mini-réseaux à l'EDM-SA dans les zones d'électrification rurale pour les mini-réseaux électriques ;</li> </ul>



# Sources

## To watch the workshop back go to:

### Uganda:

[https://fresteam.sharepoint.com/:v:/s/fresprojects/EcPrZwu-7UFIkj0\\_mXeJstUB3clxXj8SePc40AzMkCToRA?e=RHLgCE](https://fresteam.sharepoint.com/:v:/s/fresprojects/EcPrZwu-7UFIkj0_mXeJstUB3clxXj8SePc40AzMkCToRA?e=RHLgCE)

### Burkina Faso:

<https://fresteam.sharepoint.com/:v:/s/fresprojects/EcqWGiAO0GVGik6D02jPgOkBbdz4ZFQe6a3oRrcfPABYqA?e=h7o2dl>

### Guinée-Bissau:

[https://fresteam.sharepoint.com/:f:/s/fresprojects/Eoa2Bw53IBRMoPh2fU\\_uStUBoxkf4MORo77-a8Z3sdja\\_A?e=FzJUPg](https://fresteam.sharepoint.com/:f:/s/fresprojects/Eoa2Bw53IBRMoPh2fU_uStUBoxkf4MORo77-a8Z3sdja_A?e=FzJUPg)

### Mali:

<https://fresteam.sharepoint.com/:f:/s/fresprojects/EuwLyYy3i9NIhFpkTOGZYX8B6SlyfoO7YeAe3cRgBG8mSg?e=eCuzL0>

## For more pictures go to:

### Uganda:

<https://fresteam.sharepoint.com/:f:/s/fresprojects/EoEGLq5Q1C1Htw9DDHhZsEoBIMYCB6ikd-8i17FOOI-F3Q?e=8VqAAI>

### Burkina Faso:

<https://fresteam.sharepoint.com/:f:/s/fresprojects/EvHpUShq26NDkyy1WcE9xZoBO-iLJgi6-P9AOVWij95v4A?e=BssmLd>

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### Mali:

[FRES Projects - Photos&videos - Alle documenten \(sharepoint.com\)](#)

## Media:

### Uganda

<https://fresteam.sharepoint.com/:f:/s/fresprojects/Et510vWarytFpehgPHmnB5cBvaPWICQPdVroalFP1tGy4A?e=CAfYXM>

### Burkina Faso:

<https://fresteam.sharepoint.com/:v:/s/fresprojects/EVZd9EdUMF9BmqDjcHuYmRkBSJOft6dmaFPZJkARFJvX1w?e=ow0wfg>

### Guinée-Bissau:

[https://fresteam.sharepoint.com/:f:/s/fresprojects/Eoa2Bw53IBRMoPh2fU\\_uStUBoxkf4MORo77-a8Z3sdja\\_A?e=gevkUJ](https://fresteam.sharepoint.com/:f:/s/fresprojects/Eoa2Bw53IBRMoPh2fU_uStUBoxkf4MORo77-a8Z3sdja_A?e=gevkUJ)

### Mali:

[RAPPORT FINAL ATELIER FRES 01 09 2021.pdf \(sharepoint.com\)](#)

## For the complete quick study go to:

### Uganda:

[https://fresteam.sharepoint.com/:b:/s/fresprojects/EYA\\_5x9n8WJOvN4oJYNki7IByzhnPJ5WaREggdAtHRKloA?e=4JfJyQ](https://fresteam.sharepoint.com/:b:/s/fresprojects/EYA_5x9n8WJOvN4oJYNki7IByzhnPJ5WaREggdAtHRKloA?e=4JfJyQ)

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### Mali:

[RAPPORT sur L'analyse rapide de l'environnement propice et l'évaluation du modele fres \(sharepoint.com\)](#)