



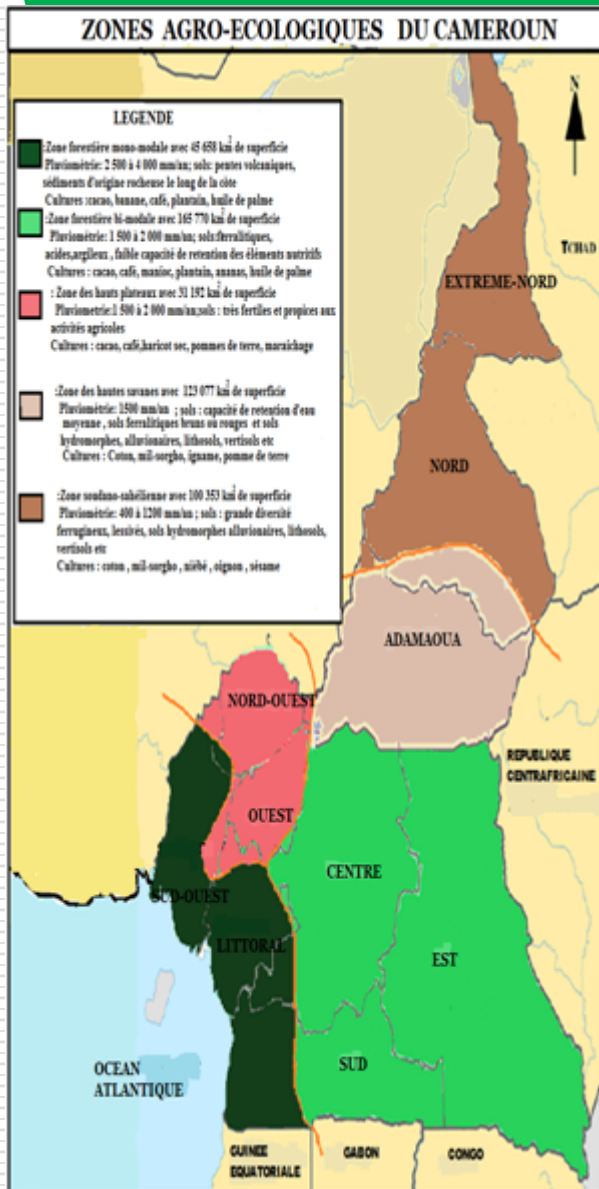
Africa LEDS project: achievements & next steps – component 1

Presentation for Cameroon

BY: TAKAM Michel



Background of pilot actions



- ❖ Agriculture represents more than 30% of Cameroon's GDP.
- ❖ But the latter is the most GHG-emitting sector, with about 45% according to the DSCE.
- ❖ To achieve these objectives as part of its emergence in 2035, Cameroon decided to develop its industry, agriculture, boost its energy production and integrate ICTs along value chains and decision-making.
- ❖ In order to achieve an emergence with a better transition to a digital green economy, sustainable development strategies by 2035 were built after the commitment made by the Head of State at COP 21 in Paris.
- ❖ The ambition is to reduce these emissions to 32% by 2035 (reference year 2010).

Background of pilot actions



Component 1 of the UNEP-EU LEDS project in Cameroon aimed, through demonstration activities, is:

1. To promote and popularize smart agricultural practices among Cassava farmers in two villages JAKIRI and NGOULEMAKONG
2. To promote and popularize renewable energies on farm and in cassava processing such as solar and hydropower.
3. Use ICTs to facilitate access to markets for agricultural producers, reduce stakeholders' carbon footprints and optimize the use of agricultural inputs.
4. The case study from these demonstration activities should not only clearly observe the climate co-benefits (GHG reduction) and socio-economic (increase in employment and income of farmers) of these activities but also guide and inform development of the integrated framework for combating climate change in relation to the NDCs of Cameroon.

Background of pilot actions

BAU TO JAKIRI

- Uncontrolled use or absence of agro-forestry techniques.
- Poor use of soil amendment techniques
- Use of local plants for a yield between 8 and 11 t / ha
- Use of machines (mills) with diesel engines.
- Non-recovery of organic crop waste
- Difficulties of market access



Background of pilot actions



BAU TO NGOULEMAKONG

- Non-use of agroforestry techniques.
- Use of mills with diesel engines at the factory.
- Excessive use of nitrogen fertilizers and chemical herbicides.
- Use of a dryer with wood and diesel as energy source
- Mix of local and improved plants for a yield of 17t / ha



Background of pilot actions

BAU TO NGOULEMAKONG - suite

- Use of motorcycles and old cars for the transport of production to the processing plant
- Drying of products in the open air
- Difficulty of access to markets (products, inputs and people)



DEMONSTRATION ACTIVITY-1: FARMER'S CAPACITY BUILDING ON CLIMATE-SMART AGRICULTURE

- Choice of improved plants with a yield of 25 to 35t / ha and selection of champion cooperatives Jakiri Coop-Ca and Socroproman of Ngoulemakong.
 - The area allocated to the project is about 50 ha with the integration of agroforestry techniques (plant such as "safou".)
 - farmers training.
 - Training of farmers on the use of renewable energy for production, drying and processing.
 - Training of farmers on agroforestry techniques (trees and legumes)
 - Development of two android applications (SAPGA and Afroshop) and training of farmers in their use in soil analysis and product marketing.
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DEMONSTRATION ACTIVITY-1: FARMER'S CAPACITY BUILDING ON CLIMATE-SMART AGRICULTURE

- Training in agro-forestry and processing
- Training in cooperative management
- Training in Techniques of use of solar thermal and photovoltaic dryers
- Training in Techniques for the valorisation of cassava peels in yeast for doughnuts and fish feed.



Achievement

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Achievement

DEMONSTRATION ACTIVITY-2: Use of ICTs to facilitate market access and optimize production efficiency.

- ❑ AFROSHOP to facilitate the marketing of products and inputs



Product delivery

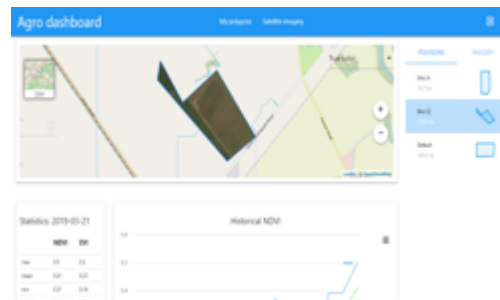
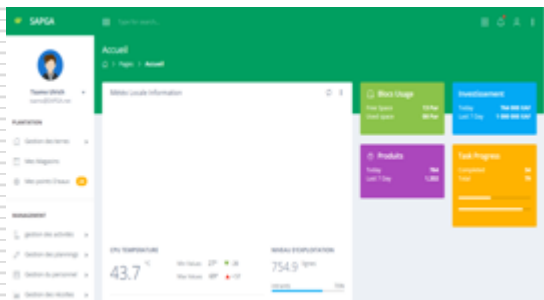


Cassava flour ready for transport



Afroshop Logo

- ❑ SAPGA for plantation management and predictive agriculture



Achievement



DEMONSTRATION ACTIVITY-2: Promotion of renewable energies and impact.

- Facilitation of the rehabilitation of a micro hydroelectric power plant in JAKIRI with a capacity of 30 Kw and connection of the latter to the local processing plant.
- Facilitation of the construction and installation of modern machines for the transformation of Cassava (Mills, Rapper etc.) in the locality of JAKIRI
- Facilitation of the construction of a mixed, autonomous and modern solar dryer in NGOULEMAKONG with a capacity of 900t / year on average
- Replacement of a large 15Kw Gasoil Mill by an electric mill with equivalent efficiency
- Stakeholder training
- Training of producers and managers of cooperatives on renewable energies and their advantages
- Third party training on energy empowerment of plantations
- Training of producers on biogas production techniques and their use (electrical energy, drying, trade, etc.)

Achievement



Power house rehabilitation



Formation des techniciens à l'entretien



Formation à l'utilisation de la centrale

Feed back to policy

Contribution of the UNEP-EU LEDS project to the implementation of NDCs in Cameroon

| NDC priorities Sectors | NDC Strategic orientations | Actions and actions planned in the NDCs | Contribution of component 1 of the UNEP-EU LEDS project | Impact of the project on the political decisions taken |
|---------------------------|---|--|---|---|
| Agriculture / Forestry | Intensification of agricultural, animal and fishery production respectful of the environment and avoiding deforestation | Streamline the use of chemical inputs and facilitate the use of organic inputs; Integrate agroforestry techniques into production | Training programme for farmers in the production of biofertilizers from agricultural residues and the use of agroforestry | Elaboration of the national strategy for an intelligent, sober and climate-resilient agriculture, highlighting the conditions for upgrading the results of the UNEP-EU LEDS project |
| | Promoting sustainable and integrated practices to improve agricultural production capacity and promote | Promote the use of improved cassava varieties and integrate ICTs along the value chain | Training programme for farmers in the use of ICT (facilitating | |

Feed back to policy

| NDC Priorities Sectors | NDC Strategic orientations | Actions and actions planned in the NDCs | Contribution of component 1 of the UNEP-EU LEDS project | Impact of the project on the political decisions taken |
|------------------------|---|---|---|--|
| Energy | Development of sustainable energy solutions for the empowerment of plantations, habitats and small industries | Promotion of solar and hydroelectric energies for the valorization of agriculture | Support programme for the development of microenterprises processing cassava (flour, tapioca, starch, etc.) | <ul style="list-style-type: none"> - Promote the use of mixed solar dryers among farmers and cooperatives. - Strengthening the national framework to stimulate private investment in the energy sector, in particular in solar energy - the creation of green and autonomous transformation SMEs using renewable energies |
| ICT | Promoting ICTs to facilitate the transition to a green digital economy | Develop digital economic actions around the agricultural product value chain | Training programme for farmers in the use of AFROSHOP applications/platform for the marketing of agricultural products and inputs and SAPGA for plantation management and predictive analysis (artificial intelligence) | <ul style="list-style-type: none"> - Signing of partnerships with private and public organizations (mayors, cooperatives, etc.) - interested investors for the financing and evolution (update) of the different platforms |

Feed back to policy



Role of the Political Task Force in taking into account the results of Component 1

- ❑ ensure that UNEP-EU LEDS project strategies are in line with Cameroon's national and international climate change objectives
 - ❑ Assist and motivate ministries to take ownership and integrate the results of Component 1 in the field into their respective sector planning
 - ❑ Facilitate communication between ministerial leaders (delegations, inspections, etc.) and agents implementing the project in the field
 - ❑ Assess the political conditions for upgrading component 1 and integrating the Standards
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Testimonials



Mr. OLAMA, Director of Processing and Marketing of the Ngoulemakong Cassava Cooperative

"We had built dryers that ran on wood and diesel, dryers that did not satisfy the plant. The new dryer delivered by the UNEP-EU LEDS project is much more efficient than the old one and we are surprisingly satisfied with it. The advantage of this solar dryer is that it allows us to be more competitive on the market with an end product that is waste-free, odorless and especially white. The cooperative is preparing for a tonnage of 5 tons of flour per day and the contribution of this dryer comes at the right time."

Testimonials



Mrs. Florence Shyi

Leader of Jakiri Cassava Cooperative (COOP CA)

"We would like to thank the UNEP-EU LEDS project which started by rehabilitating the micro-power plant which had problems, which allowed us to obtain improved cassava seeds, as well as modern cassava processing equipment. In the past we worked in scattered rows but LEDS trained us in cooperative management so that our business plan was produced. Today, women are happy to face the prevailing poverty and improve their incomes. However, we have recently faced an instability with the civil war."

Testimonials



Mrs. Charlotte TCHATCHOUANG **President of GIC Avenir Femmes**

"Thanks to the UNEP-EU LEDS project and the Afroshop application, we were able not only to sell our goods but also to control the distance selling process. We have learned to respect quality standards more and more and to value the work products that are more and more in demand. Our members have learned how to sell before producing. We never could have imagine that the most cost-effective selling way, would help preserve the environment. We are at the LEDS school to stay".

Conclusion



- ❑ The LEDS project in Cameroon has been implemented by NGOs, Ministries, private companies/organizations and universities.
- ❑ In component 1, we observed the adherence and involvement of stakeholders in low-energy and renewable energy production techniques. Their impact on their incomes and the creation of new jobs as well as on the concepts of smart agriculture in the face of climate change.
- ❑ This component has also enabled us to develop and discover new technologies such as SAPGA (Automated Agricultural Management and Forecasting System) and AFROSHOP. Fostering the creation of new green companies.
- ❑ The involvement of local authorities (Mayors) was noted and commitments were made by them to support and extend the project's activities for the community (land donations, premises, etc.)

Next steps



- ❖ **Continue the monitoring and evaluation of cooperatives and projects implemented in the field as well as young companies created**
 - Ensure the effective application of the techniques learned and their expansion to non-recipients of the project
 - Ensure and control the digital market created through the afroshop platform and train farmers in the use of SAPGA to optimize their performance
 - Monitor and maintain the tools deployed (mills, dryers, hydropower plants) and facilitate extension to those not benefiting from the project
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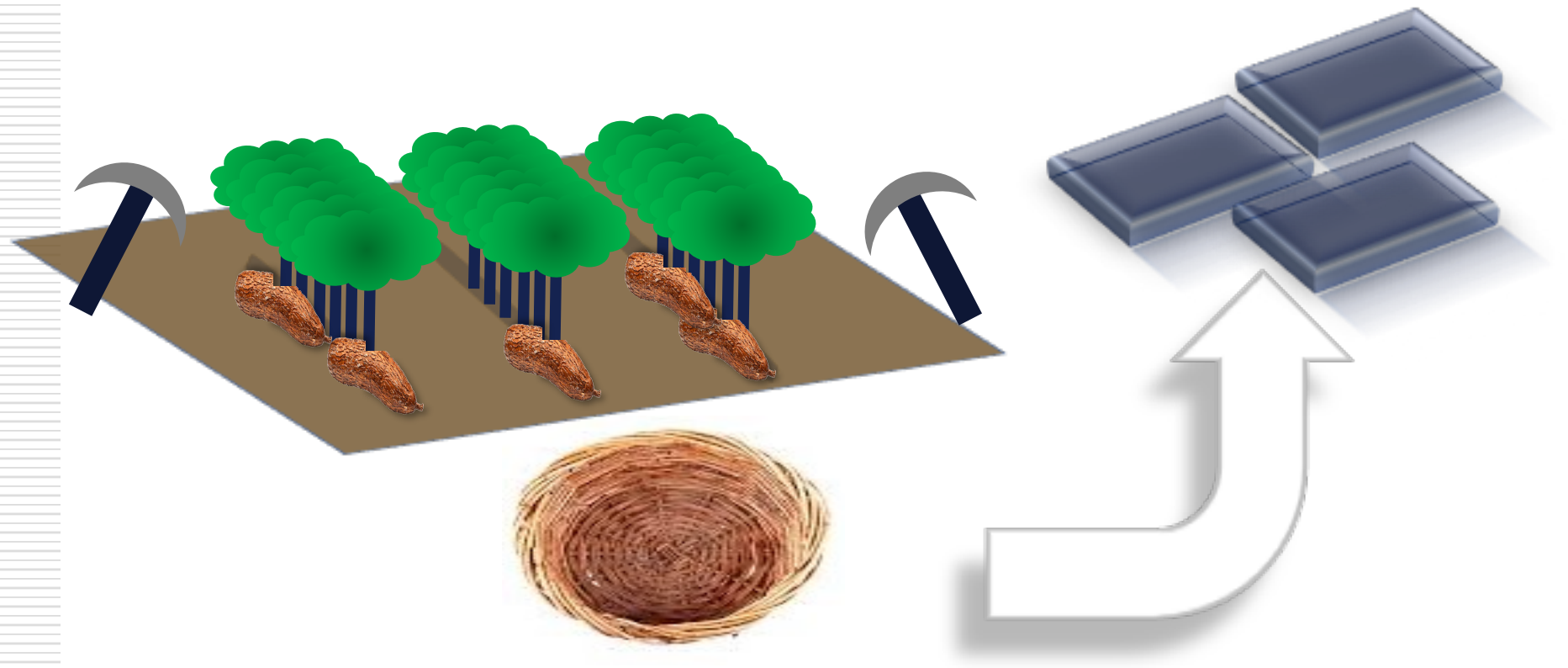
Next steps



- ❖ Adopt policy decisions and develop tools and techniques for data collection in the driving sectors
 - ❖ Set up, in partnership with local authorities, low-cost production, processing and management systems based on the results of the model (Green Village Project).
 - ❖ Produce Handbooks and guides on low-cost production techniques and renewable energies and ICTs for modern high-yield agriculture in order to facilitate the extension of concepts at the national level in partnership with MINADER and MINPEDED
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ICT-SAPGA

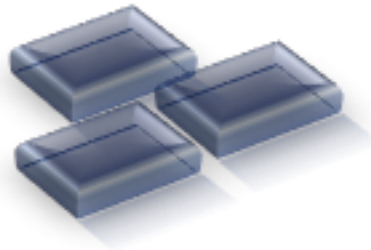
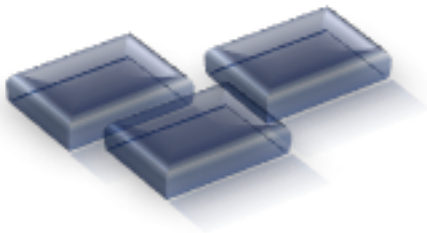
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PRODUCTION

Afroshop

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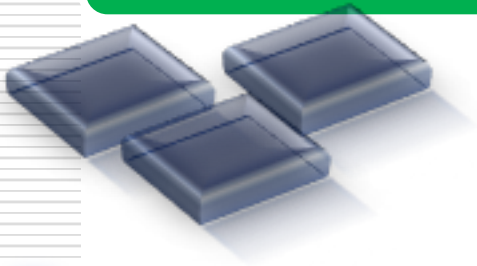


Processing
UNIT

TRANSPORT

Processing

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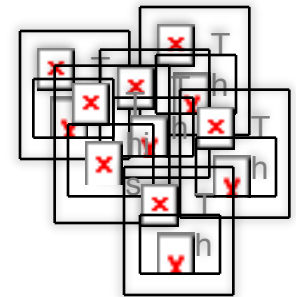
Peel-off



Drying
Milling



Packaging



Cassava Flour

PROCESSING

Afroshop

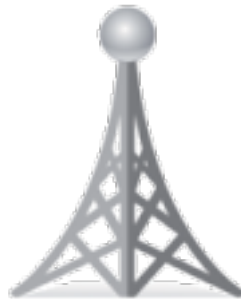
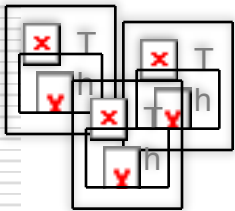
Partnership with “*Afric-avenir*” group for fair trade and market standards

Packaging of organic agricultural products from Cameroon to Europe



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CONSUMER




MARKETING


Agreement with the Ngoulemakong Council for the implementation of LEDS

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Green village project model

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Thank You!

BY: TAKAM Michel

