



Jatropha fruit.

CONTEXT AND ISSUES

In West Africa, access to energy is still a major challenge in terms of the development of rural, mainly farming, areas and increasing agricultural production. The main sources of energy for rural communities are wood for cooking and **fossil fuels** such as diesel for mechanizing farming activities and providing domestic electricity. However, **the availability and cost of these non-renewable resources** vary greatly depending on season and the isolation of certain areas.

Although long neglected, improved energy access is now acknowledged as **vital to rural economic and social development**, particularly for primary (irrigation, mechanized farming), secondary (mechanizing food-processing) and tertiary (services, telecommunications, catering, etc.) sector activities. West Africa must therefore meet the twofold challenge of **improving access to energy while limiting its impacts on climate change**.

The forms of energy presently used in rural areas do not meet communities' current needs, so **other sources of alternative energy need to be tested and brought on stream** to support the development of rural territories. Various solutions are under consideration, but none is ideal. These include farmer biofuels, representing a **renewable local alternative to diesel**, which have the advantage of being able to meet dispersed demand for varying levels of power output at a **competitive cost**. **They are also a source of local economic development**.



Diesel represents 70% of the charge for the milling service.

OBJECTIVES AND PROPOSED SOLUTIONS

The JatroREF project, 2008 – 2015, was set up to respond to the challenges of access to rural energy in West Africa. In fact, **Jatropha-based biofuels are raising high hopes in the sub-region**, not only to reduce the burden of fuel imports and improve energy access in rural areas but also as a local development factor. However, they are also a **source of controversy** and the opposing positions are deeply entrenched. It has been observed that **little objective, reliable, verified data has actually been compiled and disseminated** concerning Jatropha supply chains.

The aim of the JatroREF project is therefore to establish points of reference to **identify the socio-economic viability and environmental sustainability** of Jatropha-based farmer biofuel supply chains. It focuses on three components:



- Component 1: **Pilot renewable energy production** and access to productive and domestic energy in Koutiala region, Mali, and in Zou department, Benin. Jointly implemented by GERES, IRAM and AMEDD.
- Component 2: **Encouraging the sharing of experience between project developers** in order to establish benchmarks for short Jatropha biofuel supply chains in West Africa. Implemented by IRAM.
- Component 3: **Disseminating benchmarks and inviting debate** to ensure that biofuels are taken into greater account in policies. Implemented by IRAM.

Components 2 and 3 led in 2011 to the creation of a sub-regional network of Jatropha-based farmer biofuel project developers, known as the Jatroref network. Facilitated by IRAM.

THE JATROREF NETWORK

The primary vocation of the Jatroreref network is to **encourage operational exchanges between developers of Jatropha projects in West Africa and between them and the institutional players** and research and support organizations directly concerned by the issues raised by biofuel development. It then plans to **disseminate the information to a wider audience through various publications**.

Network members: **project developers** (economic operators or NGOs) who have been carrying out Jatropha-related activities for some years, with plantations in production or about to start production and functional processing units. All are based on **small-scale production models**, but with different supply chain organization procedures. The network does not extend to large-scale operations on land cultivated under concession arrangements.

Institutional players responsible for the development of these supply chains, while research institutes and farmer organizations are also involved in the dynamics of the network at national or regional level. The objective is to inform, **foster debate and feed into public policy-making processes**.

THE ACTIVITIES OF THE JATROREF NETWORK

The JatroREF network carries out **field studies** in the four countries of operation, thereby offering an insight into existing production models and their role in smallholder farming, on the processes of building up supply chains and their forms of organization. In this way, it offers a documented analysis of the technical, economic and social achievements of short supply chains and the challenges to be taken up.

In addition, the network helps project developers to build up **information for operational and decision-making purposes**: yield measurement on smallholder plots, use of the by-products, knowledge of the equipment and good practice in production and use of the oil in engines, carbon auditing for smallholder Jatropha plantation.

All of this work is covered in **short publications**, accessible to the widest audience and available on the network's website.

A **thematic monitoring report**, presenting a selection of the most relevant international publications and articles on biofuels, is published monthly and sent out to 300 subscribers. Selected documentary resources may also be searched on the website.

Finally, **workshops** are regularly held at national or sub-regional level with all relevant stakeholders, to present and debate the analyses produced and encourage dialogue between stakeholders.



Farmer in his nursery.

IMPLEMENTATION:

- GERES
- IRAM

FINANCIAL PARTNERS:

- European Union
- World Bank
- FFEM - French Global Environment Facility
- ADEME - Environment and Energy Management Agency
- Agentschaap NL - Daey Ouwens Funds
- TATE
- Prince Albert II of Monaco Foundation
- Veolia Environnement Foundation



Members of the JatroREF network.

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Working meeting of the network.

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WEB LINKS

© **Website** : www.jatroref.org

© **Video** presenting the Jatroref network:
<http://vimeo.com/43097314>

CONTACT

FACILITATION OF THE NETWORK

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