



**LAHEL
PERMACULTURE
DEMONSTRATION SITE**



REDES
Network for Ecovillage Emergence and Development in the Sahel

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Proposal Summary:

The Lahel Permaculture Demonstration Site aims to plant 2,500 fruit, vegetable, and medicinal plants on a hectare of land in the northern region of Senegal. An agroforestry project will help to jugulate the massive wind and soil erosion; provide essential fruits and medicinal plants to the community, combat malnutrition and desertification. In conjunction with the agroforestry component of the project, REDES wants to train 500 people, predominantly targeting women, to understand the benefits and intricacies that permaculture, renewable energy and technology, and agricultural autonomy can bring to the community. This is a crucial time; starting from 2023 onwards the population growth will add more pressure on the remaining resources. The demonstration site will serve as a local hub for surrounding villages to find work, learn necessary information for planting trees and generating income. With this project we will reverse the many of the causes of poverty in the region.

Organization:

REDES (Network for Ecovillage Emergence and Development) is a community service organization, officially registered in Sénégal in August 2015. Its headquarters are located in the eco-community of Guédé Chantier (7,000 inhabitants, North of Senegal) but the organization is already present in Baol communities (Central region of Senegal), on the Ile à Morphil (or Elephant Island) and in Sahel ecovillage (Southern Mauritania).

REDES, significantly contributes to the improvement of living conditions in Sub-Saharan communities through strategic education and peace building initiatives, regional ecosystem and biodiversity preservation, cultural heritage, and promotion of sustainable livelihoods and best traditions.

REDES intends to expand its activities in the Sahel, a region that is heavily impacted by droughts, flooding, desertification, sandstorms, land erosion and a growing depletion of ecosystems and traditional community activities like farming, fishing and

trading. The results of the large-scale environmental degradation in the region are socio-economic impoverishment, massive immigration fluctuations.

Background on Lahel:

Lahel is located in the very north of Senegal. Lahel' close proximity to the Sahara Desert makes the community susceptible to extreme weather. In the fifties and sixties the rainy season lasted for about three months. It now lasts for a month and half to two months at a time gravely impacting the agricultural calendar. Most farmers in the north of Senegal depend on the rains and floods to grow millet, beans and other crops. The continuous reduction of the rainy season has had a negative impact of the farmers in the region.

Irresponsible agricultural policies consisting of clearing forest for cash crops like rice and tomatoes have added another level of environmental degradation and communal poverty in the region. Today, almost every village in the valley has abandoned traditional crops for rice. As a consequence large forest reserves have been cleared for rice fields.

The result of rice field development utilizes dramatic amounts of chemicals. Pesticides, herbicides and many other 'cides' are now widely used and drained back in the rivers, polluting the water resources in the region. Not long ago people used to drink directly the water from the river, without filtering it. The health issues related to river water consumption were minor and under control.

Actors:

REDES (project lead)

REDES will take the lead in organizing volunteers and partners to help with the sectioning of plots on the land designated to each tree and plant family. Volunteers, partners, and members of the different community associations will help to transport seeds to the reforestation location in Lahel. Everyone will then be organized by REDES to begin planting seeds and plants in the allotted areas. REDES will also be responsible for regular reports, promotional materials, workshops, and contracting construction companies.

Farmer's Association

Guede Women's Association

Guede Youth Association

Damanhur (Sister eco-village of Guede Chantier)

Eco-guards of Guede Chantier

Genetic Research Center

Cape

Service Learning Programs with Universities

Lahel is local hub where surrounding Senegalese villages such as Moundouwaye, Diaw, Alwar, Jarra, Ngame, Diama Alwaly, MBoyo, and Mauritanian villages Ngourdiane and Salayel will be able to find work and learn about the necessity to plant fruit trees to get income and also fight against the desertification. In Lahel, REDES has access to one hundred hectares of land in which the Lahel community has been using it free of charge

for the past thirty years. On this plot of land we hope to bridge traditional farming and permaculture techniques with modern renewable energy practices and technologies.

Break Down of Budget:

See Attached Excel Spread Sheet

Capacity Building:

REDES wants to implement workshops that readies the community to be self-sufficient after the completion of the reforestation project but also to build capacity among members of the community to spear head similar projects by themselves using techniques from the Demonstration Site.

These workshops will be hosted in a Nubian Dome, which eliminate the need for community members to cut down trees for construction but instead uses local materials. The dome is also naturally insulated and conducive to the harsh climate of the north, minimizes utilization of cement for construction, and is totally sustainable.

Along with the Nubian Dome, technologies such as solar panels and biodigester will be introduced, ensuring that clean energy is being used eliminating any potential to spoil the land. The site hopes to be a beacon of total sustainability, a model that can be easily replicated by neighboring villages to build self-dependency and generate income that is solely reliant on a relationship with the environment that is reciprocal, the community feeds the land and nourishes it and the land returns the same.

Workshops

Workshops would be held four times a year and a conference once a year. Focusing on creating a sturdy foundation for permaculture techniques and green enterprise to generate wealth for the community. Reinforcing similar themes throughout the three years, will insure that capacity and sufficiency has been achieved for community members in Lahel, but other regions of the North as well:

- Land Regeneration
- Economic Regeneration
- Permaculture
- Seed Banking (investing and harvesting of seeds in partnership with Seed Bank Association)
- Medicinal Practices
- Water Recycling
- Food Processing
- Biogas/Solar Renewable Energy
- Ecovillage Design
- Financial Literacy and Business
- Food Sovereignty and Security

Strategy:

Strategically the project needs to be durable and sustainable for the inhabitants of Lahel. By breaking the project down by year for implementation of project materials, briefings and consistent involvement by the community the project can be fully sufficient after three years.

Year I: Project Manager, Women's Association, Farmer's Association and Youth associations meet to discuss the trajectory and strategy of implementing project. Including the blessing of the land by community elders, mapping out construction of fence, Nubian Dome, water pumping system, and planning out construction details for the first three months of the project. There is be six months of land preparation, as the land is dry and needs to become workable to plant, after the end of the six months planting by the Associations and volunteers can take place. Workshops will be held during this period to prepare the Lahel community members on topics such as organic and permaculture farming, green entrepreneurship opportunities, benefits of medicinal plants, food processing, and operating of the water pump and solar panels.

-Year II: Project manager and contracted construction company will section the desired perimeter for the solar panel and biogas unit installation. Tracking the solar panels and biogas unit in a strategically placed location in between the farmed land and the Nubian Dome. This mapping will be brainstormed between the Lahel inhabitants and the contracted company. Once agreed upon the contracted company will install the solar panel and biogas unit.

-Year III : The community, will now have both the information and ability to maintain the growth of the reforestation site. There will be an eco-guard to secure the land from any intruders or stray animals. Once the harvest comes, people can then be employed to harvest the crops and new seeds to create and generate a sustainable cycle of wealth and prosperity. A large Ecovillage Conference will be held to commence the project, with partners and communities from the region to come and review the progress of the project. An opportunity will be available to replicate this demonstration site at other community centers.