Regenerative Cotton Initiative, Banikoara, Benin

Development Stage

Concept — Fundraising — Implementation — Operation — Scaling

The TRACUB project aims to transform 100 hectares of conventional cotton farmland in Banikoara, Benin, into a regenerative agricultural system that restores soil health, enhances biodiversity, and creates sustainable livelihoods. By integrating forest islands, diversifying crops, and establishing a women- and youth-led tree nursery, the project reduces dependency on chemical inputs while generating new income opportunities. Serving as a model farm, TRACUB will train local farmers in regenerative practices, demonstrating how sustainable cotton production can improve both the environment and community prosperity. The initiative seeks to inspire broader adoption across Benin's Cotton Belt.

LOCATION:
Banikoara, Benin

SIZE OF POTENTIAL AREA:
100 ha

COMMODITY:
Cotton (main), Corn, Millet

INDUSTRY:
Textile

GOAL:
Promote sustainable cotton farming that boosts livelihoods and restores ecosystems.

MAIN FOCUS:
Transition 100 hectares to regenerative cotton while empowering local communities.

PARTNERS:
Land and Health Association, Benin

Finance & Planing

€120,000-€150,000
Investment

Roël Dire Houdenon
Initiator

Assignment & Impact

Number of expected beneficiaries

100 farmers will directly benefit, with the potential to impact 500 community members in the Banikoara region.

Development Challenge

Conventional cotton farming in Benin heavily relies on chemical fertilizers and pesticides, causing soil degradation, biodiversity loss, and high production costs. Over 31% of households depend on cotton, making them vulnerable to climate shocks and market fluctuations. Farmers require a transition to regenerative practices to improve soil health, resilience, and long-term economic stability while reducing environmental impacts.

Intervention

The TRACUB project will transform 100 hectares of conventional cotton farmland into a regenerative agricultural system. The project will introduce forest islands to enhance biodiversity and ecosystem services, and establish a women- and youth-led tree nursery as an additional income source. Model farms will serve as training hubs for farmers, providing technical assistance and knowledge transfer to ensure sustainable cotton production. This approach demonstrates how regenerative practices can improve livelihoods, restore ecosystems, and inspire wider adoption across Benin's Cotton Belt.

500

Community Members

71% More

Biodiversity

Objective

Develop a regenerative cotton model that improves soil health, boosts farmer livelihoods, and creates economic opportunities for women and youth.

Inspirational Impact

Through knowledge sharing and the model farm, the project will show farmers how to reduce chemical inputs, restore biodiversity, and increase productivity. By demonstrating a practical and scalable approach, TRACUB can inspire other farmers across Benin's Cotton Belt to adopt regenerative practices and attract support from research institutions, NGOs, and impact-focused investors.

Environmental Impact

Conventional cotton production consumes large amounts of water and depletes soil, leaving fields dry, compacted, and vulnerable. In Banikoara, TRACUB will reverse these effects through regenerative methods. By rebuilding soil organic matter, the land can retain 20-30% more water within 3 years, reducing drought vulnerability and supporting healthier crops. Forest islands and crop diversification are expected to boost on farm biodiversity by 40-50% in the short term and up to 80% long-term as ecosystems stabilize. What once exhausted the land will instead regenerate it, transforming cotton into part of the climate and biodiversity solution.

Social Impact

Cotton farming sustains many households in Banikoara, yet dependence on chemicals and unstable markets has left farmers vulnerable. TRACUB will strengthen community resilience by training 100 farmers, ensuring that at least 40% are women and youth. A women- and youth-led tree nursery will generate an additional income stream, empowering them with both resources and leadership opportunities. Beyond the direct beneficiaries, the project is designed to reach at least 500 people indirectly, spreading knowledge and inspiring other farmers in the Cotton Belt to adopt regenerative practices.

Economic Impact

Conventional cotton ties farmers to expensive fertilizers and pesticides, reducing profitability and creating cycles of dependency. TRACUB will change this by lowering input costs through regenerative practices and diversifying income with corn, millet, and tree nursery products. These changes will improve household stability, while healthier soils and better water retention will gradually increase productivity. Over time, the project will strengthen the local economy by making farms more resilient, reducing financial risk, and creating new opportunities for women and youth. Cotton will no longer drain resources but instead serve as a driver of prosperity for the community.

Impact Metrics

Outcome Metrics

1. Farmers trained in regenerative cotton and crop diversification.
2. Reduction in chemical inputs and improved soil fertility.
3. Increased water retention and resilience to droughts.
4. Greater on farm biodiversity through trees, cover crops, and forest islands.
5. New income opportunities from diversified crops and tree nurseries.
6. Stronger participation of women and youth in farming leadership.

Evaluation Method

1. Baseline and endline soil health assessments through various different methods.
2. Farmer surveys on practices, yields, and income through FAO TAPE.
3. Field monitoring of biodiversity indicators such as tree cover, pollinators, and crop diversity.