

CONTEXT

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APPROACH

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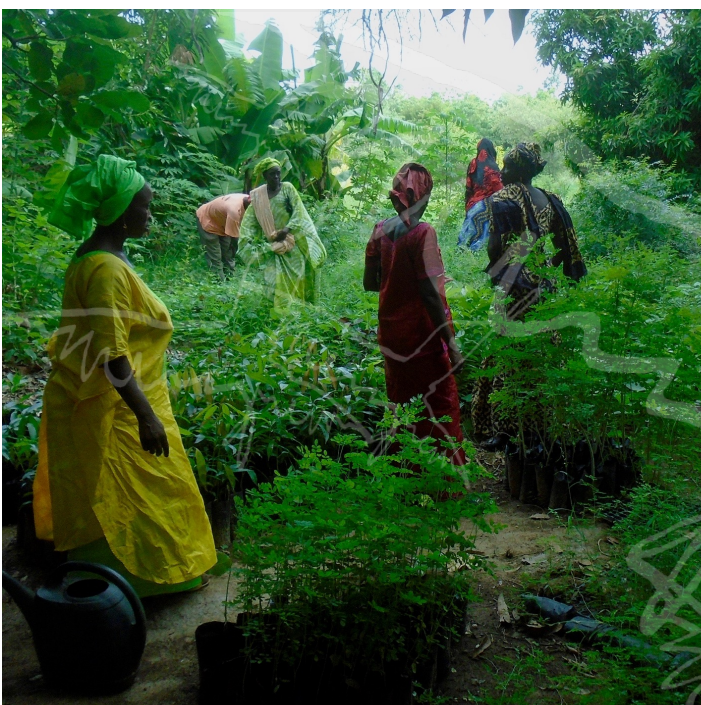


SOLUTIONS

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CASE STUDY

Senegal



NAME: Increasing Food Security, Income Generation and Environmental Sustainability in the Podor Region, Northern Senegal

PERIOD: 1 April 2014 to 31 March 2017

PARTNERS: Guede Chantier, Lael, Mounduwaye and Diarra Villages, Gaia Education, CIFAL Scotland, Le Partenariat

FUNDED: UK AID

CONTEXT:

Misguided industrial agriculture policies over decades turning once productive soils into barren wasteland
Small-scale production under threat
Transfer of the most productive land to export for consumption



THE AGRICULTURAL VIABILITY of small-scale producers in the Podor region is under threat, due mainly to the transfer of the most productive land from food production for local needs to export for consumption by the global consumer class. Misguided industrial agriculture policies over the decades have undermined traditional

methods of food production, turning the once productive soils by the River Senegal into a barren wasteland. The difficult situation is compounded by the relentless desertification of the Sahel, forcing small-scale producers to continually adapt with innovative solutions to keep feeding their communities.



APPROACH:

Participatory design combining both traditional and modern land-use systems, also storing carbon, preventing deforestation, increasing biodiversity, protecting water resources and reducing erosion



landing
PROGRAMME

PBL
PROJECT
BASED
LEARNING

A 3-YEAR FOOD SECURITY PROJECT engaging four villages of Podor Region of Northern Senegal – Guédé Chantier, Lahel, Moundouwaye and Diarra, aims to develop 16 hectares of community land to produce organic food more efficiently and increase the communities' resilience and capacity to adapt to the advancing effects of climate change. The project combines both indigenous and scientific knowledge into productive agroecological systems. The project aspires to strengthen the communities' social, economic and ecological competencies and build skills in agroforestry,

permaculture, food processing and trade. It is directly benefiting over 3,000 community members, especially women, by enhancing their agricultural and socio-enterprise knowledge and skills.

GAIA EDUCATION HAS BEEN CONDUCTING with its international and regional experts permaculture, agroforestry and food-processing capacity building activities. Agroforestry practices are regenerating the fragile ecosystem by storing carbon, preventing deforestation, increasing biodiversity, protecting water resources and reducing erosion.



SOLUTIONS:

Villagers adopted **3 main permaculture** techniques
100% are using compost
80% liquid manure
55% fish tonic

Cessation of agro-chemicals
 Soil nutrient tests increased phosphorus and potassium levels without chemical additives.

AT THE END OF YEAR 2 we have seen outstanding results in the permaculture gardens. There is an abundance of produce demonstrating the effective transfer of knowledge and skills. Surveys related to the permaculture gardens conducted in March 2016 by local M&E agents trained by the project (Eco-sentinels) showed 100% of the students are using compost, 80% liquid manure and 55% fish tonic – the three main permaculture techniques promoted by the project. Permaculture techniques and methods offered by the project have resulted in the cessation of the use of agro-chemicals on the 16 hectares. Soil nutrient tests performed in March 2016 and compared to January 2015 show the project has increased phosphorus and potassium levels without chemical additives. Additionally, villagers are now producing and consuming a more diverse array of food, which is improving nutrition and health.



AGROFORESTRY NURSERIES have been initiated in each village allowing beneficiaries to gain skills in raising tree seedlings from seed to allow replacement of trees that perish while continuing to develop agroforestry systems after the project. This approach is 250 times cheaper than purchasing trees. Several people have been trained in how to operate and maintain pumps. The fencing perimeter will be planted with spikey plants to ensure a sustainable barrier to local predators.

IN TERMS OF ATTITUDINAL STUDIES, pre- and post-surveys for 20% of participants were conducted for Agroforestry Training, Permaculture Training, Change Agent Training, Food Processing and Preservation Training, amid beneficiary-led demo events. In all cases, 100% reported the trainings to be relevant and beneficial. Furthermore, 120 beneficiaries were surveyed in March 2016 using one-on-one interviews, with the following results: 100% said they no longer spend anything on chemicals, 97% said they consume a more diverse diet, 100% said they buy less from the market, while 82% reported an increase in food production.

IT'S IMPORTANT TO EMPHASIZE that women represent 85% of beneficiaries involved, a fact which is contributing to women's

empowerment. Overall, women want to take an active part in reversing the trend of progressive destruction of their life support systems, both by the forces of climate change and the forces of globalisation. They are harnessing their creative efforts together, reviving traditional ways of gardening to ensure their families' security and well-being, and in the process reclaiming their land and their sovereignty.

