

Let's make the desert green!

Lignaverda is an international non-governmental organization (NGO), certified by the United Nations UNCCD, founded in 2008 with the mission of combating desertification in semi-arid areas. With over a decade of experience, Lignaverda has expertise in participatory landscape restoration projects through reforestation, in collaboration with, and for the benefit of local communities. The latter is a crucial prerequisite of the long-term sustainability of newly created forests. Lignaverda operates in several African countries and contributes to the Northern Great Green Wall Initiative, implemented across the continent from Senegal to Djibouti as well as to its Southern equivalent which covers Namibia, Botswana, Zimbabwe, and Mozambique. This ambitious pan-African project, led by the African Union with support of the United Nations, aims at combatting the alarming desertification resulting from climate change and landscape degradation.

Unlike many other organisations, Lignaverda exclusively focuses on developing sustainable and long-lasting forests which are managed by communities and create livelihood benefits for them. The organization achieves this by using different water harvesting techniques adapted to semi-arid areas. The latter greatly increase tree survival rates and soil quality. Lignaverda's approach involves communities in all project stages, starting by inventorying community needs, raising awareness, and providing necessary resources and training. Furthermore, Lignaverda aligns the stakeholders' interests to maximize the chances of the forest to grow and to ensure that trees are conserved over the decades following land restoration.

To address this challenge, Lignaverda focuses on making the forest cash-generative by creating new income layers through agroforestry crop production and non-timber forest product harvests and sales. It enables to unlock the dormant value of these nature-based assets. In addition, and to align interests with locals, in-kind contributions are provided under a milestone socio-economic support system during the first years, when the forest is maturing and less cash-generative. With a decade of experience, Lignaverda has been able to implement sustainable projects that benefit local communities, ecosystems, climate, and economies in the areas where it operates.



Uniqueness

Lignaverda had unparalleled reputation and experience in combating desertification and restoring degraded lands in African semi-arid regions. While operating in humid tropical areas may result in faster forest growth, landscape restoration in semi-arid regions addresses the most urgent climate adaptation needs. This is because these regions face particular challenges resulting from high livestock and human pressure on natural ecosystems which are aggravated through the effects of desertification. Moreover, Lignaverda operates in areas with very vulnerable communities who have limited access to cash income and other resources, making them less sensitive to the long-term sustainability of their environment. Neglecting livelihood needs of the semi-arid population, increases the risk of surging migration towards Europe and other continents. Lignaverda's work in these areas is therefore critical from an environmental, social and economic perspective.



Environmental impact

Landscape restoration in dry environments requires a specific approach. Lignaverda tackles drought challenges with different water harvesting techniques. The so-called Vallerani technique consists of ploughing of half-moon-shaped bunds following terrain contours, which retain rainfall so that tree seed germination and survival rate are greatly enhanced. The bunds are used to create micro-catchments collecting rainwater and directing it towards the seedling roots. This technique was proven to be effective in areas with rainfall as low as 100 mm per year. By trapping water, the bunds enhance soil moisture contents and prevent soil erosion. They allow the seeds to germinate and grow in areas where they otherwise would not survive or would result in a much lower tree density per hectare. Additionally, the bunds help to replenish groundwater reserves, which can benefit both trees and the surrounding vegetation.

Moreover, Lignaverda exclusively uses native tree species with economic value. In each community a wide range of specific tree species are suggested by the local communities. This results in a much higher biodiversity compared to monoculture forests or forests with just a few tree species.

An often-overlooked fact is that growing trees is not the greatest challenge. Protecting them and taking care of them until they become a mature forest is more difficult. Lignaverda's climate mitigation approach relies on removing greenhouse gases from the atmosphere and storing them in forest trees. Forests can therefore never be cut down in the future. Lignaverda ensures long-term protection of restored plots by actively involving local communities in all project stages, thus creating passive and active buy-in for reforestation.

Local community benefits

The alignment of ecological and local socio-economic interests is a key aspect of Lignaverda's approach. Without local buy-in, young tree shoots will be eaten by livestock or – once mature – will be cut down as a fuelwood resource. As a result, Lignaverda emphasises that (i) involving local communities in all stages of the project, as well as (ii) addressing socio-economic needs (particularly food security), are key elements for successful landscape restoration.

Lignaverda involves local communities in the project from the beginning. We take into account their needs and desires and raise awareness about the benefits of restoring degraded land areas. We involve communities into the entire planning process. Moreover, Lignaverda provides training and (non-) financial resources to enable them to participate effectively in the project. The organisation involves community members, in particular women, and pays them a fair salary for seed and manure collection as well as for sowing activities. As such, Lignaverda creates one-time job opportunities for all community members. In addition, Lignaverda creates long-term job opportunities for community members who can annually harvest crops and tree products. Moreover, locally hired guards gain an income from continuously monitoring the restored lands and protecting them from human and livestock pressure. Finally, to further secure buy-in from local communities, Lignaverda provides in-kind contributions that meet their primary needs, especially during the first years of limited (but growing) forest productivity, thereby ensuring a robust alignment of interests.



A real game changer is when locals change their perception of the forest from a firewood resource to a cash-generating resource. The latter perception change is the sustainable and long-term key to restoration success. The forest must generate a greater economic value than the value of its wood. To achieve this, Lignaverda only uses robust, native tree species that have a local economic value.

In the future, different types of crops will be grown in between the trees, including cereals such as sorghum and millets. These crops will be annually harvested to be used as feed or fodder. Surpluses will be sold on the local market. Moreover, when trees are mature, non-timber forest products will also be harvested. The latter will add a significant revenue layer to the local income. Finally, the emergence of the voluntary carbon market enables extra revenue derived from carbon credits, leading to several income layers on a medium to long period. This transforms the forests into a local economic value creator. While the first income layer will be available from the first year, the others (such as non-timber forest products, crops and carbon credits) will take time to be generated as the trees need to reach maturity (estimated at the age of 5 years).



CVC

"Over the past 12 months, we have been able to plant over 1.2 million trees in Senegal, which is in line with our commitment to SBTi's Net-Zero standard."

Steven Buyse
Managing Partner
CVC CAPITAL PARTNERS

Conclusion

In a nutshell, Lignaverda's unique approach to combating desertification and restoring degraded lands African semi-arid regions, entails significant ecological, social, and economic impacts. By involving communities in all project stages and aligning stakeholders' interests, Lignaverda not only succeeds in restoring degraded landscapes but also in contributing to food security and local livelihoods. With over a decade of experience and a proven track record, Lignaverda stands out among similar organizations worldwide in its commitment to create sustainable and long-term impacts in the fight against climate change.

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Answer in 48 hours.

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