Regreening Africa Insights Series #11

TREE VALUE CHAINS FOR RESTORATION AND LIVELIHOODS















As a large scale, multi-country, multi-stakeholder restoration initiative, Regreening Africa offers a unique opportunity to generate actionable lessons on the cost-effectiveness and impact of local, national and global restoration efforts. As part of the Regreening Africa Insights Series, this brief shares key insights on tree value chain development and the learning on stimulating local incentives and business opportunities.

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Photographs by Kelvin Trautman Produced by KANDS Collective hello@kandscollective.com

KEY INSIGHTS



 δ δ Tree value chain development options can no longer be ignored even in short 3 to 5 year projects, as opportunities for

improvements are abundant and results can be very impactful, especially for most vulnerable community groups such as women and youth. An adaptive approach to identification and prioritisation of value chain opportunities is needed.

There is incredibly limited capacity among important change agents to develop and backstop tree-based value chains. The lack of mandated institutions has not helped develop a policy frame for investments.

We need to facilitate locally driven and locally based livelihoods that enhance rather than degrade natural resources management, benefit women, and engage them in decision making.

Business sustainability plans needed with specific strategies that support government and an enabling environment, consider gender aspects and assess growth potential and market share conditions.

Projects can identify and focus on specific elements of tree product value chain development in order to increase chances of success, rather than dwell on developing complete chains and fail. A well thought-out plan involving inputs from other stakeholders is important.

Continuous stakeholder involvement is needed to address prohibitive policies.



A focus on improving the operations of value chain actors in a domestic market can provide a faster means for improving profitability and value in participating in these chains. In particular, improved support for value chain actors in certification/licencing/registration/ branding/labelling/packaging processes increases their value in the market, allowing high and sustained incomes.



Product diversification is crucial due to seasonality, needs and preferences across contexts.



Developing tree nursery enterprises is a successful way to promote regreening, especially nurseries for timber and fruits (e.g. Rwanda, Ethiopia, and Mali) where previously farmers depended on government seedling production for forestry with emphasis on few species, no fruits, and to reliance on temporary/seasonal nurseries.



Short maturity tree crops development with emphasis on moringa, tree tomato, grafted mango, gesho leaves, baobab leaves, avocado and grafted ziziphus in the Sahel and East Africa invariably supported restoration efforts through home-gardening plans in spaces managed and controlled by women.



Ethiopia.

Local business opportunities from farmer-managed natural regeneration (FMNR) plots such as honey production, livestock fodder from cut and carry systems and firewood obtained from pruning earn farmers money to support household needs, as found in the project's work in Kenya and

Regreening Afric



Background

The successful implementation of regreening hinges on strong value chains that incentivise reinvestment in agriculture and agroforestry. Tree-based value chains provide an opportunity to develop community-based businesses, improve employment for rural women and youth, and diversify income streams, thus building empowerment and supporting food security.

TREE VALUE CHAINS AS A REGREEENING INCENTIVE

Trees can provide a range of economic, social, and environmental benefits to local **communities.** Timber is needed for diverse wood products such as furniture, construction materials and as a source of energy. Such wood products offer a high return on investment. Products based on locally available tree resources, such as fruits and nuts, seeds, gums and resins, medicines, honey, and mushrooms, can offer great opportunities for investments by communities, the private sector and development partners to improve livelihoods and the local environment if managed sustainably. It is estimated that communities in forested areas can obtain up to 50% of their income from trading in forest products. This can in turn support efforts on recovery or protection of biodiversity, increased incomes and other livelihood benefits; and increased ecological and social resilience to climate change.

With this in mind, the value chains component of Regreening Africa was designed as part of the

scaling strategy and incentive to auto-motivate land restoration efforts at individual and group levels. It was anticipated that by promoting knowledge exchanges, peer learning, technical support, access to improved planting materials, processing, and marketing information, these interventions will raise awareness on markets for locally available regreening resources.

In turn, non-timber forest product (NTFP) access markets are expected to:

- Provide incentives for continuing regreening work,
- Pacilitate wealth creation to support re-investment in otherwise expensive land restoration practices, and
- Promote re-investment in agriculture and agroforestry.



REGREENING AFRICA'S VALUE CHAIN DEVELOPMENT PLAN



Policies/Regulations

Given the limited knowledge on existing or viable tree value chain options that can provide restoration incentives, Regreening Africa focused on:



Identifying tree-based businesses that could yield benefits in the short, medium and long term horizons.





Developing resource base/tree resources to support value chains through expanded access to tree planting materials or enhancing better regenerative practices such as via FMNR and tree planting.

Actor mapping work within targeted communities, business development trainings and capacity development support (e.g. equipment for processing, packaging and labelling).



Supporting improved stakeholder linkages and exchanges, such as through national tree value chains forums.



Development of knowledge products to enable scaling of tree-based value chain interventions.

This brief describes each of these steps in further detail, and provides an insight into value chain development in each member country, as well as the general successes and challenges met over the course of the project.



Despite an untapped growth opportunity in tree-based value chains compared to agricultural commodity crops, markets for agricultural and agroforestry products remain scarce or disorganised across Regreening Africa's member countries, minimising the return on investment for value chain actors and the potential to scale regreening practices across these project sites.

Some of the factors limiting market success include:

- Limited access to credit and post-harvest technologies, processing equipment, storage / warehousing;
- High transportation costs;

development plan

- ۲ Poor relationships among actors and low bargaining power;
- High transaction costs and lack of credit; and .
- Poor regulatory frameworks. .

Value chain development strategies

IDENTIFYING TREE-BASED BUSINESSES

Priority businesses were identified through a consultative approach involving gendered Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with community producers, trade actors and service providers to understand the business structure, gaps, role, and influence of various actors on different products market performance. The outcome of the consultative process was a list of potential tree businesses for prioritisation and re-prioritisation as shown in Figures 1 and 2.

The overarching plan involved identifying promising tree-based value chains with potential for large benefits for local farmer communities, considering available local raw materials, gender preferences, and realistic or 'quick win' options with potential to bring impacts within a short period and with a relatively small budget, considering trees are generally long gestation investments.

It was important to integrate diverse value chain options, considering the heterogeneity of project sites, product gestation period and the need to close seasonal gaps. Developing diverse tree business options is a valued approach, considering the heterogeneity of project sites, product gestation period and the need to close seasonal gaps. For example, the growing of fruits of different maturity periods complimented by beekeeping and agricultural commodities. An example is growing fruits of different maturing periods, complimented by beekeeping and agricultural commodities.

In Mali, for example experiences and learnings from shea butter and soumbala (parkia) businesses led to diversification, with extra businesses such as baobab, tamarind, balanites and honey products development after learning from initial emphasis on shea and soumbala only. This approach improved interest in regreening activities across sites with potential for raw materials production

Key technical support centred on enhancing raw material production capacity, trainings on product development and installing vital processing equipment such as nut crushing machines for shea or press equipment for balanites, thereby helping to reduce time spent on these tasks, especially by women. The project also installed marketing shop outlets in Mali.



PRIORITISED VALUE CHAINS

Regreening Africa conducted in-country, sitelevel scoping assessments to identify priority tree businesses per country, taking into account factors such as:

- Sources of raw materials;
- Gender roles and participation in the value chain;
- Development gaps and possible options to strengthen the chains, and
- Policy and regulatory support for the prioritised value chains.

Regreening Africa surveyed community producers, key actors and service providers to understand their role and influence on the market performance of different products. Additionally, gender dimensions and women's participation in value chains was assessed. Research activities involved literature reviews, conducting FGDs and KIIs with producers and value chain actors covering value chains such as tree nurseries, poles, firewood, shea, fruits, seeds and nuts processors operating at village, area council and regional levels.





Prioritisation across countries and within countries helped realise better focus, since in most sites more than one competing enterprise was identified. Based on the FGDs and KIIs conducted, the following prioritised value chains were identified per country:



Following the completion of the value chain and baseline studies across project sites, the prioritised value chains were reevaluated in stakeholder meetings, to determine:

- The level of public support and the existence of supportive policies,
- The institutions that work on the value chains, and potential partnerships that may involve private sector and other investments,
- The growth potential of each value chain (as based on the number of people involved in the value chain, the size of the market/demand, and the profitability of the value chain), and
- The sustainability of each value chain, considering factors such as environmental impact and private sector interest.

Furthermore, value-add activities to existing tree businesses were supported. In Kenya, Rwanda and Ethiopia, for instance, bee-keeping for honey production emerged as a value add activity from farms, communal lands with FMNR and area enclosures/

ex-closures for example in Ethiopia. Issues such as poor management of bee colonies and inadequate forage plants which led to low yields, and poor harvest techniques which compromised quality, were addressed through the promotion of FMNR and tree growing to increase the diversity of forage plants, and technical skills on colony management and provision of equipment for honey production and processing. Local artisans in Kenya composed mainly of youths received training on fabrication of modern hives during the project no-cost extension period. Bee-keeping practices in all project countries was supported through training and demonstrations on beehive use, processing equipment and value addition on local products.

Additionally, circular value chains were also promoted. For example, for shea butter, support to establish fast growing multipurpose trees to supply wood fuel for processing of shea fruits was offered in Ghana. Water used in shea processing was recycled using biochar and the shells obtained from nut crushing were used as manure and wood fuel.



Communities in Yarani village (Tominian, Mali), supported by Sahel Eco, develop a vision on priority value chains. (Pic: Jean Martin Coulibaly, Oxfam Mali)



Business incubation trainings within Rural Resource Centres (RRCs) were conducted in Ethiopia, Rwanda and Niger. Beneficiaries have gained knowledge on practices for improving seedling quality which has enabled them to gain higher market value, bargain for better prices for seedlings, and increase production and sales. In Ghana, Niger, Ethiopia, Rwanda and Mali, RRCs have also been supported as a sustainability approach to ensure continued access to quality germplasm and related knowledge.

Other important technologies were supported, such as the establishment of mother blocks to supply high quality fruit scions and grafting skills. Project nurseries in Rwanda received tree seedling business skills and were able to convert their nurseries into income generating enterprise.

In Rwanda, Ethiopia, and Mali business opportunities in tree growing work involving developing tree nursery enterprises have identified emerging opportunities with short maturity tree crops such as moringa, pawpaw, tree tomato (pictured), grafted mango, gesho leaves, baobab leaves, avocado and grafted ziziphus. These efforts invariably support restoration with some involving home-gardening plans by women.

Emerging challenges such as pest and disease have been identified as important setbacks and awareness raised through training on integrated pest and disease management approaches.





Communities were supported in their value chain development by:

- Actor mapping work within targeted communities,
- Business development trainings, and
- Capacity development support (e.g., equipment for processing, packaging and labelling, market outlets).

Regreening Africa focused on supporting value chains development through varied interventions based on local need assessments. Training support, processing equipment, installation, setting market outlets, provision of knowledge products and linkage of actors through dialogue platforms have been provided. Intensive partner trainings on value chain concepts and business plan development such as in Ethiopia, Mali, Ghana and Niger in turn helped greatly strengthen product business development work.

To address production and productivity constraints interventions on mango value chains in Kenya with increasing demand involved diversify locally produced mango varieties on farm. Gaps relating to scion sourcing were filled through establishment of mother block with at least four varieties and trainings on grafting skills supported. In Ghana, the shea value chain actors were linked to facilitate improved product aggregation for better market share.

Mapping of value chain actors helped better understand strategies to facilitate information flow so as to improve effectiveness of the chain. An example of actor mapping for a shea value chains is shown on pg. 9.

Identifying quick wins supported additional aspects such as the need to raise local and national appreciation through business certification involving registration, licensing of producer groups and cooperatives.





Case study: Mapping actors for the shea value chain in West Africa

In West Africa, the shea value chain has a gross production value of approximately USD 284 million and a value add of USD 203 million, mostly captured at the local production level by collectors and processors.

Shea is collected, processed, and marketed by 18.4 million women across sub-Saharan Africa. Women collect about 4 bags of 85 kg of kernels, with 2 bags traded with intermediaries and 2 bags used for local processing of butter for local market consumption. The mean price per bag sold is USD 24. The local market absorbs 5% of sales, with 95% of sales made to the international market. Mali, Burkina Faso and Ghana are major exporters. The annual gross income per woman collector is estimated at USD 75.

Through the expansion of shea parklands and improvement of collector productivity, the gross income per woman collector could increase to USD 167/ year, while the global value chain will reach a gross production value of about USD 593 million, representing 6% growth per year between 2019 and 2032 and a value add of USD 452 million by 2032 (FAO & GSA, 2020).







To further mainstream businesses and promote value chain upgrading, **project support invested in linking value chain actors in order to facilitate dialogue and deeper engagements** with national governments, other projects and businesses.

National linkage forums were conducted in Mali, Niger, and Ethiopia.

These helped mobilise support targeted to each prioritised value chain and provide actor linkages involving B2B and B2G (business to business and business to government). The forums also raised awareness and interest in tree-based commodities and helped discussions around restrictive policy environments in member countries.

In Niger for example, the forum improved visibility on Regreening Africa's development of Ziziphus mauritiana and Balanites aegyptiaca value chains, and recommendations were made to create a coordination platform to bring together all value chain actors, and to create a state-guaranteed fund to microfinance institutions in order to facilitate access to credit for small-scale entrepreneurs. Relations were forged with other actors from other value chains in various regions of the country (Niamey, Maradi, Dosso, Zinder, etc.) and also with other structures (National Agency of Metrology and Conformity, micro-finance institutions, private sector).





National and regional forums supported the participation of value chain groups in exhibitions and trade fairs in Niger, Mali, Ghana, Ethiopia, Rwanda and Kenya.

These activities have promoted B2B linkages and raised government interest in tree value chain development. For example in Ethiopia, the Director for Environment linked bamboo value chain actors to the national office in charge of bamboo in Ethiopia. In Rwanda, 116 fruit producer representatives (96M/20F, including 2 young people) participated in the National Agriculture Show for market linkage and learning exchange tours.

The project has helped raise the profile of several tree product businesses with potential for both local and international markets. Links with private sector actors have been supported for products such as shea, avocado, moringa and balanites. In Kenya, a private actor is interested in contracting farmers to produce products targeting different markets such as tender leaves for pharmaceuticals, vegetables, moringa seeds for the extraction of moringa oil and for the production of powder for use as a food and beverage additive. Other products with high private sector interest and engagement included balanites with value to extract oil, soap, incense and juice, and shea value chains marketed as a cocoa butter equivalent with many applications in food and cosmetics. Products such as balanites, moringa, avocado, honey and shea produced by smallholders in Niger, Mali, Ghana, Ethiopia, Rwanda and Kenya show great promise for increased penetration in regional, national, and international markets, in addition to their local supply.





Социнисти Социнисти Социнисти Социнисти Country findings Specific to value chain development in each Regreening Africa member country are further detailed here.

ETHIOPIA Prioritised value chains: H

Prioritised value chains: Honey, gesho leaves, bamboo furniture, seedlings and wood (poles/firewood)

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Scoping assessments revealed that up to 40% of respondents participated in production activities and about 30% participated in sales (with the exception of Tigray where more people are involved). Product collection activities from community areas was highest in parts of the Amhara region, suggesting other regions rely more on farmland sources.

Despite a strategic market location, with close proximity to Egypt, Sudan, Kenya, the Middle East and European markets, value chain development in Ethiopia faces major impediments involving input systems, factors of production, and regulatory frames especially on timber and fuelwood products. The following challenges were reported most frequently:

- Lack of seed and seedlings inputs;
- Water shortage;
- Shortage of land and high deforestation due to population pressure;

- Poor or unaffordable transport;
- Poor linkages between producers and markets or industry;
- Lack of investment in product value chain and market outlets; and
- Poor availability of tools and equipment.

The major value chain actors supported by the project were honey producer farmers and local collectors, honey traders, timber and firewood producer groups, tree seedling producers, cactus growers, cactus marketing groups, gesho leaves producers and cookstove production and selling groups.





Prioritised value chains: Fuel wood/charcoal and shea

In collaboration with Amazin Consult, value chain assessments were conducted in the three operational districts and key actors in the shea value chains were profiled. Subsequently, business plans were developed for three major actors (Wellam Shea Investment in Garu, Sanzee Gubkatimali in Mion and Hope Givers Company Limited in Bawku West District).

Shea butter, fuelwood (charcoal and firewood), timber, fruits and medicinal plants were the five key value chains of interest identified across the surveyed districts of Bawku West, Garu-Tempane and Mion. The three key value chains for Bawku West District were shea butter, fuelwood and charcoal; while Garu-Tempane and Mion districts were shea butter, fuelwood, nuts and seeds.

Of these, fuelwood, charcoal, shea, fruits and nuts tree products were reported as the most important by

women, while timber and medicinal plants were most valued by men.

Men preferred tree products that (i) have a ready market, (ii) create employment, (iii) generate income, (iv) abundant or produced locally with ease, (v) easy to assemble, and (vi) have medicinal properties.

Women prioritised products that (i) are used in the household such as food, sources of energy or for brushing teeth, (ii) generate income for men, (iii) are available and accessible, and (iv) have multiple uses and high market value.

Actors were supported with tailored training covering packaging, credit, market, and profitability of the groups. Regreening Africa liaised with key departments to provide training and links to low-



cost equipment to facilitate their operations. Shea processing groups were trained on business management skills, marketing and branding. After a training on direct shea seeding in 2019 by ICRAF, monitoring support visits revealed farmers continued to implement the propagation method by themselves at home and on their farms. The training built the capacity of farmers to increase the density of shea on their farms and forest areas.

According to the FGDs, all the products apart from medicinal plants had ready markets but were constrained by poor product handling, limited market access and value addition shortcomings. **Specific challenges that were highlighted included:**



Seasonality of products such as shea nuts and firewood



Expensive inputs and lack of proper equipment and tools for harvesting, processing



Raw material collection hampered by snake and insect bites



Transport challenges to urban market outlets and limited storage space



equent bushfires and droughts



Expensive packaging material and low shelf life of some products



Lack of tree seedlings and poor regeneration



Low tree product prices



Limited knowledge of tree growing and management



Poor value addition skills



Lack of product grading



Poverty, lack of funds and poor access to credit



KENYA

Prioritised value chains: Fruit (avocado/mango/pawpaw), beekeeping, moringa

In Kenya, the validation workshop with stakeholders prioritised improvements on food such as mango, moringa, honey and avocado. Development of woodfuel and timber value chains was not considered due to current government policies regulating charcoal and timber logging. To further sustain community interest, support was given to beekeeping and firewood value chains within the FMNR plots. Following huge demand to participate in avocado value chains, technical support was initiated in two counties.

Some key achievements realised were:

Mango

- Development of local expertise on grafting techniques on seedlings and mature trees
- Mother blocks established with different mango varieties
- Linkage of scion producers with counties, nurseries operators and households to facilitate access
- With improved variety, it is envisioned that productivity and quality of mangoes will increase in the coming years and there will be need for an expanded market for the products.

Pawpaw

Pawpaw emerged as a quick win option for food and household income needs. The project promoted growing of fast growing early maturing varieties that allowed farmers to harvest products within the first year of planting. The early benefits harvested from pawpaws spurred community interest to invest in tree based business as it maintained community access benefit from the early maturing perennials as they wait for products from mangoes, and timber trees that took longer to harvest products.

The households were supported with high quality seedlings and tree management options to maximize benefits. Other than fruits, pawpaw flowers provided forage for bee keeping and honey value chains.

Moringa

- Establishment of moringa farms using high quality germplasm
- Production of moringa seeds used for water purification by local community-based organisations and households, and moringa leaves for home use with surplus for sale
- Product transformation involving crushing of seeds and tender leaves to produce oil for local market
- Opportunities for scaling the value chain is through linking the producers to private sectors to enhance product processing, with further support needed on the standardisation of products to meet external market requirements

Avocado

- Through partnership with private sectors, avocado value chain was developed in the highlands of Elgeyo Marakwet and Baringo counties.
- The private sector provides a ready market for avocadoes while the project focused on community mobilisation, trainings on tree management and establishment of demonstration plots integrating windbreaks and intercropping to diversify avocado production systems.



Honey

- Actors skills on colony management, bee forage production, product transformation and marketing were enhanced.
- To bridge the gap on expensive beehives, 11 artisans were trained on construction of beehives for the group and surplus for sale. The hives are produced from Grevilia robusta trees established on farms and training on sustainable harvesting was provided. The beekeepers have their own tree nurseries to facilitate access to planting materials for bee forage and trees for others uses within the bee farms.

Bulking of firewood harvested from pruning trees during FMNR has enabled farmers to access more incomes. Reliance on firewood for cooking by schools and households in the area provides a ready market for the products. Schools in the area have now embarked on adopting FMNR to minimize their expenditure on buying firewood.



Widespread adoption of FMNR in the areas will boost access to timber and nontimber products, achieving restoration and livelihood goals at the landscape scale.

Overall, men are involved in production and women in collection and product selling. Fuelwood and fruits were reported as the most important for women while timber and poles were most valued by men. Both charcoal and medicinal plants are of value to both women and men. Men preferred tree products that have a ready market, create employment, are a source of income, are abundant or produced locally with ease, easy to assemble and/or have medicinal properties. Women prioritised products that are used in the household as food and sources of energy, that generate income for men, that are available and accessible, and that have multiple uses and a high market value.

Product development is supported

by multiple trees species: woodfuel (Balanites aegyptiaca, Acacia seyal, Grewia bicolor) timber and poles (Balanites aegyptiaca, Eucalyptus spp, Makhamia lutea), Fruits (Mangifera indica, Citrus sinensis, Psidium guajava) and medicinals (Lepisanthes senegalensis, Melia azedarach, Azadirachta indica).



MALI

Prioritised value chains: Shea, soumbala (néré), baobab leaf, honey, tamarind, balanites

With a large rural population dependent on agriculture and natural resources, Mali's National Forest Policy recognises the importance of agroforestry parklands and trees in erosion protection, food security and poverty reduction. There is an existing commitment by the United Nations Framework Convention on Climate Change (UNFCCC) to restore degraded ecosystems and reforest 325,000 hectares, promoting assisted natural regeneration and silt control and strengthening the protection of protected areas on 9 million hectares. However, there remains a lack of support and funding for forest resource management in Mali, with value chains negatively impacted by a loss of biodiversity, scarcity of animal feed and firewood, a loss of land productivity, poverty, and difficult access to markets for agroforestry products.

In total, the project supported 25 EPC groups working on the shea butter and soumbala (néré seed) value chain which are successfully sold on the local market. Additionally:

- Four small processing units and four non-wood forest products (NWFP) collection and sale points/shops have been installed to facilitate the marketing and sale of processed products, and
- Two multifunctional solar platforms have been installed.





NIGER Prioritised value chains: Ziziphus mauritiana, morninga, Balanites aegyptiaca

Scoping assessments undertaken in 36 villages, covering Ouallam, Simiri and Hamdalaye, highlighted that 48 tree species are harvested to supply various products, with the most harvested species being Balanites aegyptiaca (Garbey), Faidherbia albida (Gao), Ziziphus mauritiana (Darey), and Moringa oleifera (Windi Bundu), among others.

Male respondents preferred mango, moringa, eucalyptus, ziziphus and baobab. Women respondents preferred ziziphus, balanites, faidherbia, moringa and baobab.

In the three prioritised value chain species, all the products and byproducts are used, although fruits (Sahel apple) from ziziphus and balanites, and leaves from moringa were focused on. Both men and women ensure the production and marketing of these two products, with low production at the level of women due to a lack of land and input support. Project efforts therefore focused on guaranteeing women's access to land, to support them with inputs and small equipment, to train them to improve and increase their production and to finally develop their access to potential markets.

The value chains were mapped by all stakeholders and actors involved in order to identify the bottlenecks and levers options for project action, to make the production and marketing of these products economically attractive. Capacity building sessions were organised according to the identified needs.

Balanites are processed by women's groups into oil, soap, and incense, while its juice has become a high value product that is well sought after.

Women's groups or mixed groups (men and women) transform **ziziphus** into biscuits for resale in local markets and for export regionally and nationally. The constraint at this level remains packaging to increase profit margins.

Moringa is a common daily diet, and is produced by women on plots of land that generally do not exceed a quarter of a hectare. The main products resulting from the processing of moringa are pre-cooked and dried. All produce is consumed locally and does not meet present demand.





RWANDA

Prioritised value chains: Fruit trees, timber, beekeeping, nurseries

Three main categories of value chain were identified. Timber trees such as grevillea were prioritised, followed by fruits such as mango, avocado, tree tomato and papaya, and crops such as maize and beans. Beekeeping was also found to be of interest in some locations where the project operates. Fruits such as tree tomato and papaya required immediate attention as they bear fruit within a short period, while for timber value chain development, quality planting material inputs were needed to secure profitable enterprise which is long term.

Although the project scope and duration were limited, the project was still successful in establishing and aggregating producers and building capacity of 64 fruit producer groups and 63 nursery



SENEGAL Prioritised value chains: Baobab fruit

Following studies to identify promising agroforestry value chains, the project implementation team embarked on strengthening women's organisational skills and also trained them in entrepreneurship, marketing, business plan development Product diversification and marketing were identified as major challenges to be met.

Regreening Africat therefore focused on improving the availability of fruit trees in community orchards by 10 women's groups involved in seedling production; with 16 beekeeping groups were supported.

The project implemented a number of capacity building activities aimed at increasing the skills of farmers to produce preferred and marketable fruit tree species, and also helped in strengthening their negotiating and marketing skills. A total of 308 (207M/101F) farmers were trained in orchard management in order to grow fruit as a business. In addition, 42 representatives of beekeeper cooperatives (34M/8F) benefitted from a 5-day training on beekeeping value chains that sustain and increase tree diversity on-farm as well as promote honey production.

groups in the project intervention sites: Koupeck Serer (2.7ha), Darou Diadj (1ha), Ngoloum Ndoffane (-1ha) and Ndiaffate Socé (1ha) in the Kaolack region; Niakhène (0.5ha), Sagna (≈ 2ha), Darou Mbané (1ha), Sély (1ha) and Mbané (1ha) in the Kaffrine region as well as the Yayème women's community orchard (1ha) in the Fatick region. A total of 194 seedlings were introduced into these orchards. Furthermore, fruit trees were introduced in five school orchards.



Key successes and challenges

At least 18 enterprise types across sites in seven countries have been supported, with significant progress made over the 5.5 years. Priority agroforestry value chains have been selected in each country and, in Kenya, Rwanda and Ethiopia, beekeeping for honey production has emerged as a value-add activity on farms, communal lands with FMNR and area enclosures/ex-closures.

Activities carried out to improve practices in agroforestry value chains have enabled farmer organizations to better understand development-related aspects, in particular:

- Promoting access to and use of short maturity tree crops such as moringa, tree tomato, grafted mango, gesho leaves, baobab leaves, avocado and grafted ziziphus in the Sahel and East Africa invariably supported restoration efforts through homegardening plans involving women.
- Capacity development at project and farmer levels on value chains and market development.
- Training on processing of priority agroforestry products targeting women associations and youth.
- Training of farmers' organizations in the development and monitoring of action plans around priority value chains.
- Connecting actors involved in agroforestry value chains to create business opportunities.

- Agroforestry product value chain forums held in Niger, Mali and Ethiopia involving various stakeholders intervening in the agroforestry sector (including financial institutions, wholesalers, industries, European Union representatives, international NGO, research institutions, farmers and youth associations, certification agencies, project partners, etc.). The forum was devoted to building capacity in value chain development and how to access valuable markets and enhance incomes.
- Participation in fairs each year to value the agroforestry products at local and national levels.
- Setting up of processing units (e.g. in Sargane, Simiri and Guesse in Niger, more than 600 women from 23 savings groups were supported with capacity development).
- Generation of important income by farmers from NTFP products and processing activities.

HOW HAVE WE POSITIVELY CHANGED BEHAVIOUR?



SUCCESSFUL PROJECT ACTIVITIES THAT NEED TO BE SCALED UP:

Promoting tree growing work involving developing tree nursery enterprises especially for timber and fruits (e.g.
Rwanda, Ethiopia, and Mali) where previously farmers depended on government seedlings production for forestry with emphasis on few species, no fruits, and temporary nurseries.



Short maturity tree crops such as moringa, tree tomato, grafted mango, gesho leaves, baobab leaves, avocado and grafted ziziphus in the Sahel and East Africa invariably supported restoration efforts through home-gardening plans involving women.

Local business opportunities from FMNR plots such as honey production, livestock fodder from cut and carry systems and firewood obtained from pruning earn farmers money to support household needs in Kenya and Ethiopia.



CHALLENGES FACED IN VALUE CHAIN DEVELOPMENT

The following challenges were recorded from primary actors involved in tree product value chain development across project sites:



Across the span of the project, the following factors were found to limit scaling of project activities:

> Linkage with private sector investors and off takers was not possible at scale as most indigenous tree species products are still under-developed. requiring more capital for infrastructure set-ups.

Installing marketing

capacity by individuals and community cooperatives needed larger investment on product development, covering important elements such as processing, packaging, labelling, storage, beyond the scope of this project.

Issues of resource

governance (land and trees), gender roles and benefits in value chain development, improvement on the health of existing resource base (land and tree genetic resources), need continuous support.



A lack of pro-poor policies and institutions

that recognise and invest in sustainable tree-based businesses as a means of rural development.

KEY INSIGHTS AND RECOMMENDATIONS



Tree value chain development options can no longer be ignored even in short 3 to 5 year projects, as opportunities for improvements are abundant and results can be very impactful, especially for most vulnerable community groups such as women and youth.



Projects can identify and focus on specific elements of tree product value chain development in order to increase chances of success, rather than dwell on developing complete chains and fail. A well thought-out plan involving inputs from other stakeholders is important.



There are several 'low hanging fruits' that can be unlocked to support tree-based businesses: creation of local market outlets, business registration and licencing, collective action, and tailored germplasm inputs with technical knowledge.



An impactful and successful approach was the **identification and support of key interventions needed by primary level actors** such as planting materials inputs, business plans development and trainings on records keeping and savings.



It is important to encourage tree planting by individual farmers. With the development of value chain opportunities, interest in tree growing is created for women who do not own land, especially in the Sahel.

Diversify sources of income (to all year

around) for local entrepreneurs working

on tree products value chains (including

Reinforce the processing and usage

of sustainable renewable energy

honey value chains).



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sources (e.g. shea processing is very energy consuming).

Institutionalisation of the National Forum on agroforestry value chains enables this to be annually organized (under the leadership of the relevant environmental ministry) and will sustain value chain promotion action supported by government. It is also important to set up a national platform of tree-based value chain actors.



There is incredibly **limited capacity** on tree-based value chains among important change agents such as NGOs, CBOs, and government technical services to develop and backstop treebased value chains. The lack of mandated institutions has not helped develop a policy frame for investments.



A focus on improving value chains operations of (90%) actors participating in a domestic market can provide faster means for improving profitability and participation in these chains. In particular, improved support for value chain actors in certification/ licencing/registration/branding/labelling/ packaging processes increases their value in the market, allowing high and sustained incomes.



Tree value chains are marketed along with other important agricultural commodities, so **developing associated chains can also improve chains of interest**.



Future restoration efforts must address the following:

- The labelling and certification processes of products that can foster access to regional and international markets are beyond the financial capacity of SMEs.
- Market access mostly at the community level remains limited, despite Regreening Africa's efforts to enable producers and key players in the value chains to make their products known at the regional and national level.
- Difficult access to financing and loans to set-up tree-based business and foster investment in agroforestry products processing, equipment and packaging/labelling equipment, certification, etc.



ABOUT REGREEENING AFRICA

Regreening Africa is an ambitious five-year project that seeks to reverse land degradation among 500,000 households, and across 1 million hectares in eight countries in Sub-Saharan Africa. By incorporating trees into croplands, communal lands and pastoral areas, regreening efforts make it possible to reclaim Africa's degraded landscapes.

As part of a larger global and regional effort to halt and reverse land degradation, the European Union-funded project, Regreening Africa, aims to improve smallholder livelihoods, food security and resilience to climate change in eight African countries. More specifically, it seeks to reverse land degradation over at least one million hectares and benefit 500,000 households, while also catalyzing an even larger scaling effort to restore tens of millions of hectares of degraded land across Africa.

With an initial phase over 2017-2022, this unique research in development is led by World Agroforestry (ICRAF) and implemented by consortium of international non-governmental. The consortium includes World Vision, Catholic Relief Services, Cooperative for Assistance and Relief Everywhere and Oxfam, as well as national NGO Sahel Eco. The eight countries that it is active in are Ethiopia, Kenya, Rwanda, Somalia, Ghana, Mali, Niger and Senegal, with a light touch in Burkina Faso.

Regreening Africa focuses on the incorporation of trees into many landuse types, including croplands, communal lands and pastoral areas, with complementary soil and water conservation and soil improvement practices. It leverages science and research to track the impact of implementation and enhance concurrent social inclusion and livelihoodenhancing efforts as well as creating a sustainable enabling policy environment for land restoration at national and sub-national levels.

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