



Agroforestry Network

FOUNDED BY VI-SKOGEN

Loranse Mukarutagwenda and Domitila Mukanyirigira from Gasabo District, Rwanda are members in a farmers' cooperative. They are preparing seedlings to be planted on their neighbours' farms. Loranse and Domitila are two of many farmers that have been trained in agroforestry by Vi Agroforestry partners in East Africa.

POLICYBRIEF – MIGRATION AND AGROFORESTRY

For agroforestry to support migrants and rural households, policy- and decision-makers can contribute by making agroforestry visible and promoting agroforestry projects and policies, for instance by:

1. **Supporting knowledge** transfer between in-migrants and local knowledge holders.
2. **Supporting incentives** to invest in long and short-term agroforestry practices that are culturally, gender and migrant sensitive.
3. **Creating support** for agroforestry investments through remittances and rural credit systems.
4. **Creating incentives** for land-tenure insecure in-migrating households to invest in agroforestry practices.
5. **Supporting in-migrant's** access to markets for agroforestry produce.

This policy brief addresses the interactions between agroforestry and migration. The aim of the brief is to improve the understanding of how policy and programs can be developed to support agroforestry practices that enables and support sustainable livelihood of people in the context of migration.

THE MULTIPLE BENEFITS FROM AGROFORESTRY – FOOD SECURITY, RESILIENCE AND CLIMATE CHANGE

Around the world, 1.5 billion people are smallholder farmers, who deploy a variety of farming techniques. Agroforestry practices are where, livestock, crops, multi-purpose trees and shrubs are integrated parts of the farming system. Crops are typically grown under, or side by side with trees and shrubs. It is the ability to hold multiple and broad varieties of functions that makes agroforestry highly valued, especially for small-holder farmers. Agroforestry as a land use system can contribute to achieving at least nine out of the 17 Sustainable Development Goals (SDG).³



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Agroforestry, if correctly implemented, can lead to less reliance on one commodity while improving soil fertility, which are important aspects of increasing food security. Moreover, the integration of high-value products can allow farming communities to diversify their income. This is often essential for smallholder farmers, especially in sub-Saharan Africa where the majority rely on diversification for their livelihoods. Agroforestry is also important for food and nutritional security, as for example fruits are high in nutrition and leaves can be used for food and fodder. As such, agroforestry farming can lower the burden of decreased crop yields and “hunger gap” periods in-between the crop harvesting seasons. This is particularly important for poor households who lack means to purchase nutritious food or invest in agricultural development. In this sense, agroforestry fights poverty and hunger, as the approach can contribute to higher yields and a more diverse livelihood to help ends meet for smallholder farmers living in poverty. Agroforestry can furthermore support wood fuel demands and increase biodiversity. Specifically, as trees on farms

Migration in short

Around the world there were about 258 million international migrants in 2017. Out of these about 70.8 million are “forcibly displaced persons” including 25.9 million refugees. Migration is driven by a complex interaction of factors. People migrate due to for example job or education opportunities, conflicts or political instability. Importantly, migration can occur at different levels, such as by necessity, by choice or non-voluntarily, short-term, seasonal or permanent, and intra-national, regional or international.²

In Africa for example, a majority of migration is internal and for some countries such as Burkina Faso and Kenya, the majority is intra-continental. Most people in Africa migrate from rural to urban areas or urban to urban areas, with the exception of Kenya and South Africa where the majority migrates to rural areas. Between 60–70 % are people in the ages between 15 and 34 and mainly male, although this varies between countries in Africa.¹

258
million international migrants in 2017

Photo: Robin Asselmayer.

provide a habitat for multiple species, provide a “buffer zone” against deforestation and can act as a “green corridor” which allows species to migrate across landscapes. Adding to this, the integration of trees on farms is a key tool for both climate mitigation and adaptation, as trees help to store carbon, and the multiple benefits can increase farming women’s and men’s resilience to climate-related shocks and erratic weather.

MIGRATION AND AGROFORESTRY

The linkages between migration and agroforestry practices are not well understood or researched. However, in general, migration can affect agricultural systems both negatively and positively.²

Up to date there is extensive knowledge of the “push and pull” factors that impacts why people migrate.⁵ For farming households in the Global South, and especially for African labor migration, it is often an important income diversification strategy to lower economic risks.^{7, 8} Studies from Africa suggests that households who diversify incomes through migration are not only more resilient to aggregated shocks, such as the Ethiopian famine in the 1980’s, but also have better advantages to adapt to policy reforms.⁶ As such, migration can be deployed for farming households to cope with sudden and disastrous events such as flooding or droughts which decreases or erases crop yields.⁶ On the other hand, income diversification opportunities from agroforestry farming can potentially reduce labor migration driven out of necessity and enhance the possibility for people to choose whether to migrate or not.

Labor, gender and agroforestry

Previous studies have indicated that the negative impacts of migration on agriculture is related to the loss of able-bodied young people.⁹ The labor loss can thereby lead to decreasing crop yields.¹⁰ The loss of male labor means that the agricultural work burden can increase for women, who are often already hampered by a heavy work-load.¹¹ Policy and program development need to be gender sensitive and include both women, men and youth in technological and knowledge production related to trees on farms, to ensure a continued and viable agroforestry if family members migrate. However, as already mentioned, agroforestry is an important food security and livelihood diversification resource for the women and other family members such as youth and elders, who stay and manage the farmland. One strategy to deal with the decrease in access to labor force is to shift the farming into less labor-intensive practices. In this regard, policy and programs that promote agroforestry need to be attentive to the changing household dynamic of migration. Specifically, regarding the gendered labor roles and how policy can

Migration can contribute to the transfer of skills and knowledge



Photo: Jenny Friman.

Tree seedlings who Robert Kientega, a farmer from Burkina Faso has grown from mango seeds. The seedlings are sold at the local market and contribute with income for Robert and access to seedlings in the village. Robert gained the knowledge of growing tree seedlings and trade as a migrant in Ivory Coast.

Positive outcomes of migration can be related to the effects of remittances and the transfer of skills and knowledge. An example of the latter is Robert Kientega who is a middle-aged farmer from Burkina Faso. He spent seven years in Ivory Coast where he learned how to grow seedlings. Now he has started the first seedling business in his home village in Burkina Faso where he sells the small tree plants at the local market. Robert says that “it was through seeing how other people did in Ivory Coast that I got the idea to introduce seedlings to my home village”. This example shows how the knowledge acquired through migrating can benefit the market and agroforestry practices at the place of origin.



support and create rights for women to own, harvest and sell trees. Capacity development and advisory services in agroforestry practices should be targeting both women and male farmers, for example in tree seed collection, seedling growing, pruning techniques, value addition and commercialization of agroforestry produce.

The impact of remittances

More recent findings show how migration is related to positive outcomes for the agricultural productivity. Remittances can lower the impact of decreased access to labor if it is used for agroforestry investments.¹² People can also gain skills and knowledge which can be shared with for example the household of origin. Evidence from a study on migrants in South Africa, indicates that the loss in labor leads to a short-term productivity decrease in their household of origin. In the long-term however, the remittances enhanced the productivity due to increased investment capacity (Lucas, 1987). In general, the remittances can also even out the loss through increasing the household capacity to purchase subsistence products. However, the costs of sending remittances are in Sub-Saharan Africa 9 % of the total amount. This delimits positive outcomes on agricultural productivity. Thus, programs need to be developed that specifically aims at decreasing the costs towards the 3 % target set in SDG 10.¹³

Remittances and land tenure rights

The strengthening of agricultural productivity through inflow of cash is less relevant for households with insecure land tenure rights as they tend to lack incentives to make long-term agricultural investments.¹⁰ In-migrating households is one category of households who often rent or borrow land. In Africa, insecure tenure rights specifically hinder investments in agroforestry practices due to that traditional regulation restricts land renters from planting trees. Farmers who borrow land also tend to be restrictive to long term soil improvements as it is connected to risks of the landowner claiming back the land. From a policy perspective these are complex structures to address, as dimensions of power, social class, gender and traditions of use needs to be accounted for. Thus, in order for migration to benefit poor and land insecure households, policies and programs need to be directed not only towards securing tenure rights, but also towards creating support and market opportunities that includes both landholders and land insecure households. Policies also need to be developed so that land lessors get incentives to support planting of multi-functional tree varieties on their leased-out land. Policies furthermore need to address the mechanisms that forces people to migrate. Such policies and development programs should ensure the establishment, improvement

1.4
million refugees
were living in
Uganda in 2018



Photo: Jenny Friman.

This picture shows the naturally regeneration of small Shea trees on the agroforestry farmland.

Agroforestry for refugees

In 2018, about 1.4 million refugees were living in settlement areas in Uganda. The high dependency on forest products for woodfuel and income has put a high pressure on natural resources with the pace of deforestation being five times the natural regeneration pace. A recent FAO report indicated that 60 % of the refugees are moderately food insecure and 16 % severely food insecure.¹ The Ugandan state has implemented generous refugee policies and allocated land plots for refugees. In a joint project *Vi Agroforestry* and *Uganda Red Cross Society* are introducing an agroforestry component in the West Nile region and Parolinya refugee settlements tailored for integrated tree and crop planting on land plots for refugees.

The project promotes multi-purpose and fast-growing shrub/tree species for food, fodder and woodfuel such as *Calliandra carlothus*, Pigeon pea (*Cajanus cajan*) and Moringa (*Moringa oleifera*), which supports and increases yields from other crops. The 30x30 meter plots will hopefully help refugees with securing food and nutrition as well as woodfuel. The project also creates meaning and income possibilities for the refugees. In addition, the individual farm plots relieve pressure on surrounding woodlands and can thereby decrease possible tensions with surrounding communities.^{4, 5}

← Fissi Nikiema from Burkina Faso carries Hibiscus flowers which she has collected on the household's agroforestry farmland. The flowers are sold at the local market and provides a small but important income.



Photo: Elin Larsson.

Francis Nakitto, Uganda, hugs her first tree planted together with Vi Agroforestry 25 years ago. Francis explains that her yields have increased because of agroforestry and sustainable agricultural methods. The family members are healthier and the livelihood has improved. "I pass this amazing tree every day and it reminds me on how important it is to take care of our environment. It also makes me feel proud of myself and my improvements".

and strengthening of formal, gender inclusive, rural credit systems, a sector which often is deficient in rural areas. This could enable farmers to make technological and market-oriented investments to enhance household's production efficiency and thereby reduce the need for labor migration and subsequently remittances.

IN-MIGRATION AND LOCAL KNOWLEDGE

How agroforestry matters for in-migration is also an under-researched area. One challenge relevant for policy and program development is related to how in-migrants can access knowledge about indigenous tree species which are beneficial to use in the area. Studies have shown that in-migrants need incentives to invest in agroforestry practices and support to get access to local specific natural resource knowledge. In a study from the Bolivian Andes, Brandt et al.¹⁴ shows how migrants and young farmers have less knowledge about the multi-functionality of native tree species than the elderly generations. Migrants and young people tended to favor fast growing tree species such as Eucalyptus, as it provides economic return faster than slow-growing native species. Fast growing tree species are often favored as they reduce agro-pastoral production risks for households.

A study of the integration of tree species in cocoa production in Ivory Coast showed that in-migrated farmers who had a pre-knowledge of agroforestry strongly preferred to integrate fruit trees among the cacao plants for diversification and food security purposes¹⁵. However, specific local knowledge about how certain trees can be hosts for cocoa tree pests and diseases had not reached the immigrants. As such, language and cultural barriers bring socio-ecological impacts as it impedes knowledge sharing between local communities and migrants. Policy and program should therefore be attentive for how institutions can support and build knowledge sharing between different actors such as locals, in-migrants and other knowledge hubs. In order to enhance in-migrants possibility to strengthening their agroforestry farming this knowledge sharing should be directed towards ecological properties of certain tree, crop and animal species that can be useful components for a viable agroforestry system. Likewise, attention is also needed for how in-migrants can cross the socio-cultural barriers that are relevant for gaining access to indigenous tree species that are locally specific. It is equally important that in-migrants can access markets with their agroforestry produce.

STRENGTHENING AGROFORESTRY PRACTICES TO SUPPORT IN-MIGRANTS

In order to enhance the multi-functionality of the landscape there is a need from policy and program development perspective to promote knowledge production of tree species and their products for both non- and in-migrant farmers. Moreover, to provide incentives for migrants to grow indigenous and multi-functional tree species with medium and long generation cycles. Successful incentives have for example shown to be free or subsidized seedlings. However, this needs to be matched with training for in-migrants in how to manage agroforestry trees and integrate with crops and livestock. As such, in order to enable and strengthening agroforestry practices, farmers, including women, youth and in-migrants, should be offered appropriate and culturally sensitive, technical training.

Insecure land tenure rights and short-term migration is likely to pose the largest challenge as it might refrain from making long-term investments. In this sense agroforestry programs need to create incentives for farmers to invest in agroforestry both in order to meet short- and long-term needs. This is especially important in food and nutrition

insecure areas as well as for providing livelihood opportunities. Another important aspect, in order to increase incentives to invest in agroforestry, is to review legal texts that might restrict people's use of their farmland trees, such as felling, transporting and selling wood and non-timber forest products.

Successful incentives have shown to be free or subsidized seedlings.

In order to effectively strengthening the ability of agroforestry to support households, it is key to promote access to markets as well as developing value chains, know-how of refinement of agroforestry products and business skills. Another central point is to improve market information on specific agroforestry goods to households. This needs to be done in a gender, age and social class sensitive manner in order to include the most vulnerable community groups in rural areas. These recommendations are in one sense general and could strengthen the livelihood of agroforestry households. This in turn could lower the need to migrate for diversifying income. On the other hand, there is a need to specifically develop policy and programs that targets in-migrants and the cultural, knowledge and language barriers that might restrain people from adopting strong and locally adapted agroforestry practices.

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Photo: Edward Echwalu.



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