



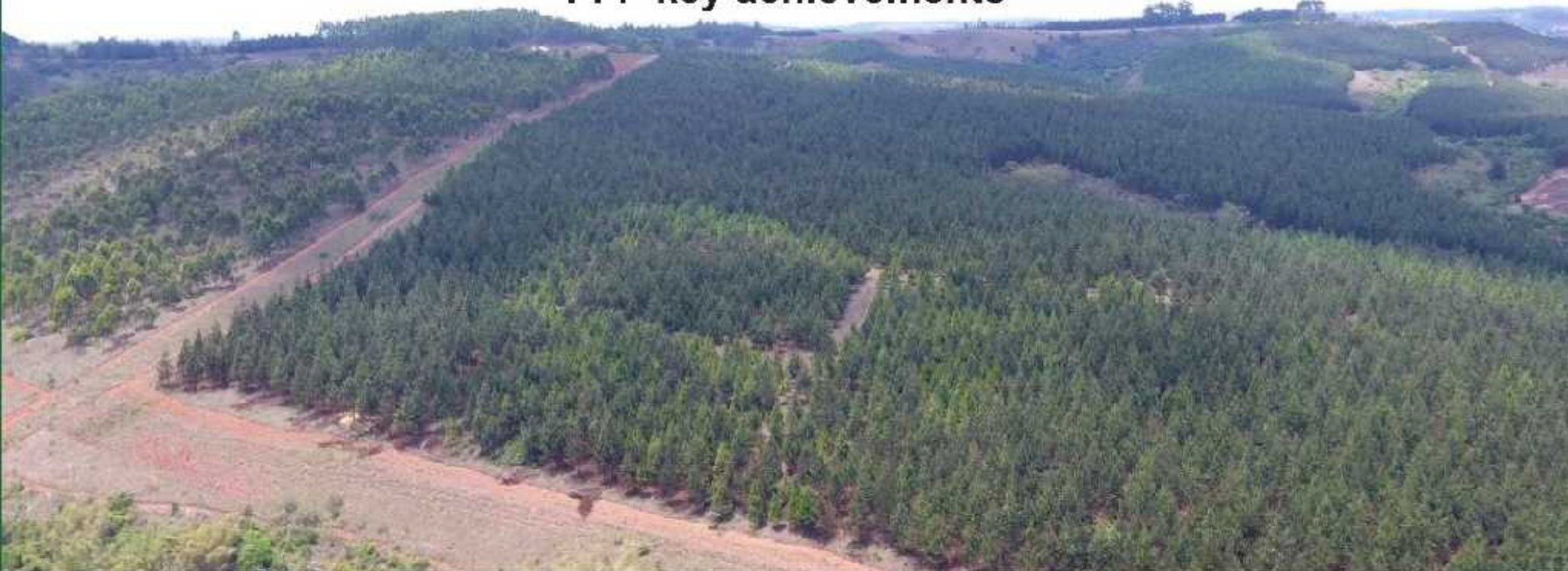
United Republic of Tanzania
Ministry of Natural Resources and Tourism
Forestry and Beekeeping Division



SUOMI
FINLAND



PFP key achievements



Woodlots of TGA members in Iboya village, Njombe district- Tanzania. Seedling support were provided by PFP 2 and planted in 2014/15 planting season.

Participatory Plantation Forestry Programme - PFP 2

PFP 2 is the second phase of Private Forestry Programme (PFP 1) that was established as a bilateral development cooperation project between the governments of Tanzania and Finland. It works to increase rural income by promoting the commercial management of smallholder plantations and wood-processing enterprises.

Goal

To promote sustainable and inclusive private forestry that contributes to Tanzania's economic growth and alleviates poverty. To ensure that, the plantation forestry sector in Tanzania is all-inclusive, PFP 2 was formulated with a human rights-based approach (HRBA).

Intended outcome

A socially sensitive, environmentally sustainable, financially profitable private forestry sector, including tree growers, SMEs as well as their organisations and service providers, exist in the Southern Highland of Tanzania. In addition, the rights of vulnerable groups will be safe guarded and their participation in the forestry value chain supported.

Results

The programme focuses on two result area:

1. Tree growers establish and manage plantations
2. SMEs establish and manage value-adding processing enterprise

This photo book highlights PFP key achievements. The details of the progress achieved by PFP 2 is found in www.privateforestry.or.tz



Hon. Dr. Hassan Abbasi, Permanent Secretary Ministry of Natural Resources and Tourism in Tanzania.

"Leading discussions with Ambassador Embassy of Finland in Tanzania, on Furniture manufactured at FWITC during their visits to PFP 2 and FWITC"

Photo was taken at FWITC, Mafinga - Tanzania, on 18 April 2023



Hon. Theresa Zitting, Ambassador Embassy of Finland in Tanzania.

"Holding a *Pinus maximinoi* Seedling raised from seeds harvested from seed stands established through PFP programme".

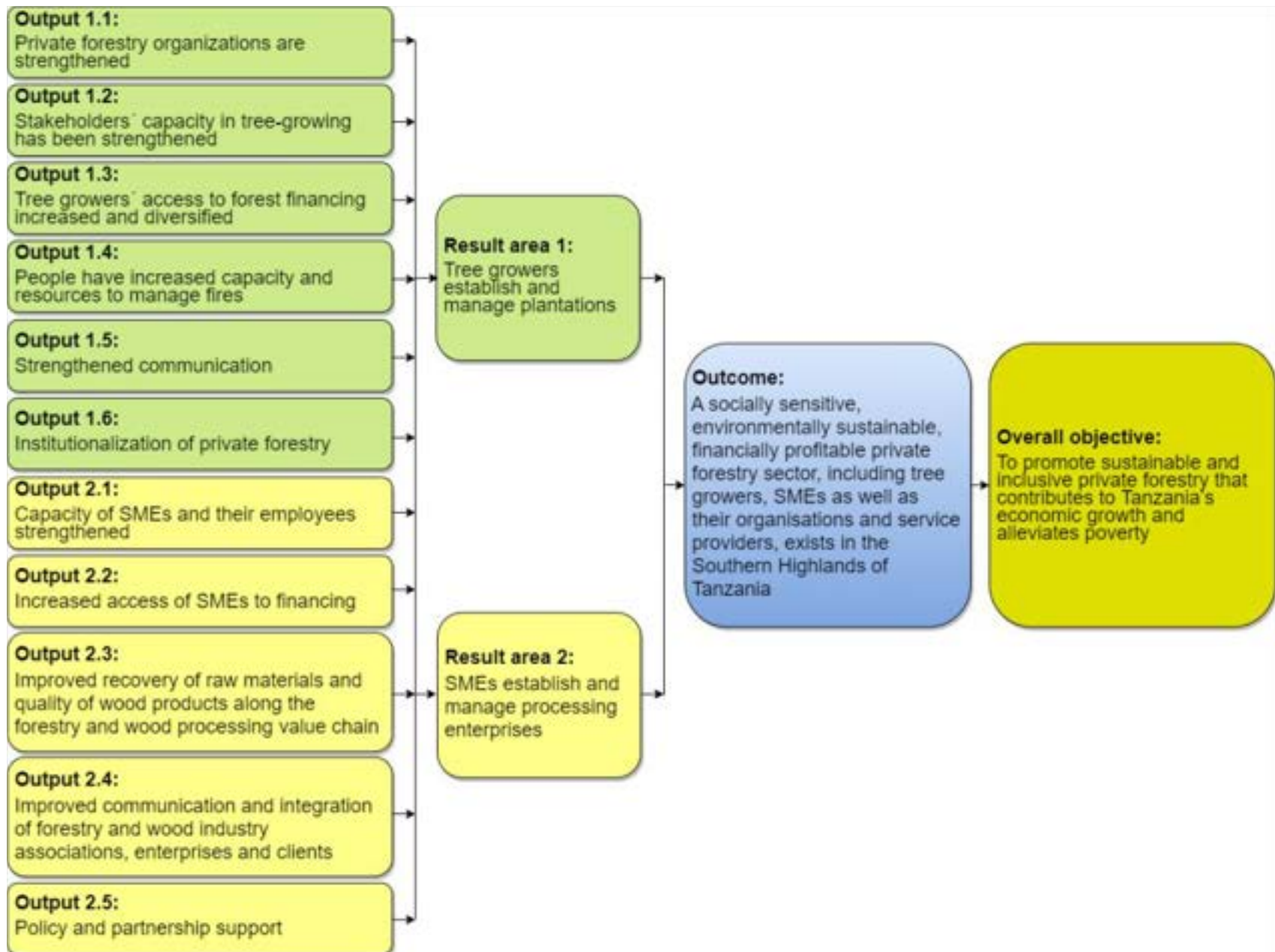
These seeds are the first improved tree seeds harvested in Tanzania.

Photo details

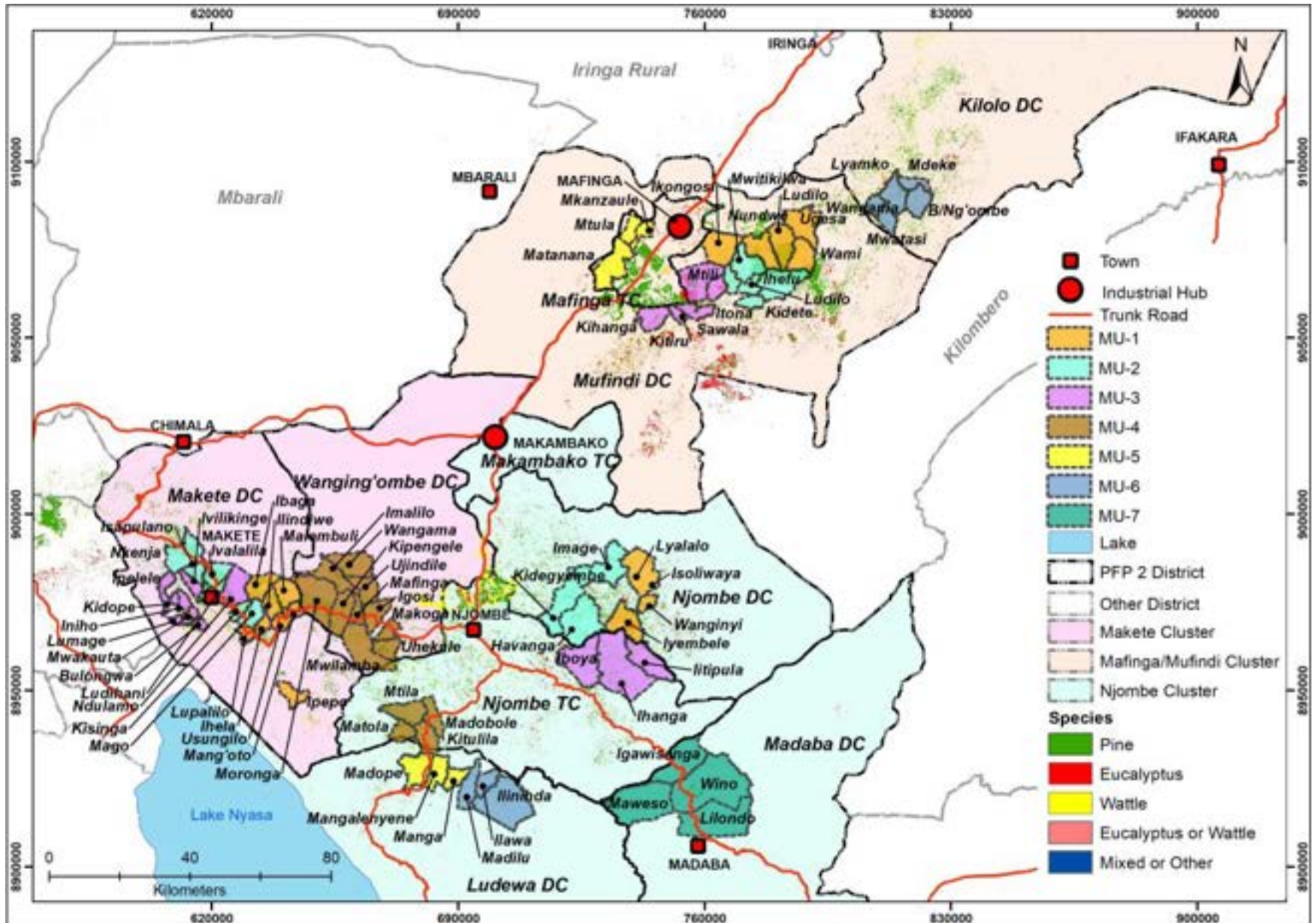
Location: FWITC, Mafinga - Tanzania

Date taken: 18 April 2023

PFP 2 RESULT CHAIN



PROGRAMME AREA



IMPACT

The private forestry is both sustainable and inclusive, contributing to economic growth and alleviating poverty.

The value of forest to GDP increased by 0.4 percentage point (approximately 1.2 trillion TZS) in 2021 compared to 2014.

The increase in absolute value and forest contribution to GDP was attributed by various enabling environment improvements done by the government in collaboration with various levels of stakeholders including PFP. Such enabling environment improvements includes access to improved seeds, access to technologies, reduction of import and export taxes and access to market.

Despite such advancements in the enabling environment, Tanzania's forest sector still has a long way to go before it can be considered successful.

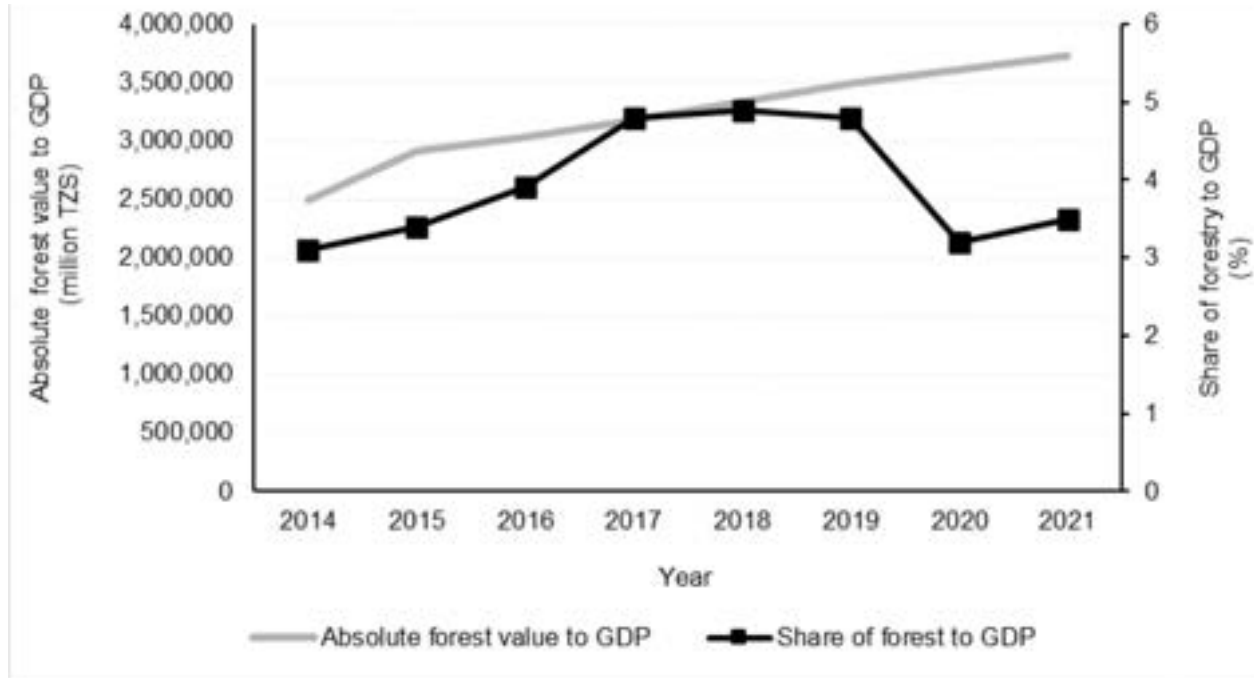


Photo taken at Ukwama village, Makete - Tanzania. Seedlings supported through PFP.



Photo taken at Njelela village, Ludewa - Tanzania. Seedlings supported through PFP.

Contribution of forest to the national GDP



Source: National Bureau of Statistics-NBS. (2022)



VALTRA Tractor for operationalising the mobile training unit at FWITC.

RESULT 1: TREE GROWERS ESTABLISH AND MANAGE PLANTATIONS

Result 1 focuses on people growing trees, commencing with the planning of the plantations, deployment of improved germplasm and seedlings, establishment of nurseries, application of best practice silviculture and harvesting leading up to the sale of the logs to the processor.

Result 1 is structured into six outputs: 1) Private forestry organisations are strengthened; 2) Stakeholders' capacity in tree-growing has been strengthened; 3) Tree growers' access to forest financing increased and diversified; 4) People have increased capacity and resources to manage fires; 5) Strengthened communication; and 6) Institutionalisation of private forestry.

The landscape appearance before planting



The landscape appearance after planting

The plantation woodlots owned by TGA members in Madope village, Ludewa - Tanzania

Tree growers' associations (TGAs) formation, strengthen and development

80 TGAs formed, strengthened and provide services to 3,873 members

The share of women in these 80 TGAs membership increased from 34% to 36% (1,385/3,873)

The share of vulnerable people in TGA membership increased from 7% to 8% (298/3,873).



Guideline for facilitation of tree growers' association establishment and strengthening developed

Gathering of tree growers' views as baseline for developing the guideline



Stakeholders workshop to validate the guideline





Some of the TGA (UWAMIMO TGA) members in Moronga village, Wanging'ombe district. The TGA has an amount of 1.1 million (500 euros) which they use for loaning TGA members, to support in plantation management and other income generating activities.

UWAMIMO TGA pine natural regeneration woodlots



Members of TGA in Mago village, Makete district. The TGA bought two chainsaws which they use for renting, logging, and in charcoal production as income generating activities.



The Programme Steering Committee members field visit to support TGAs



TGA in Madobole, Njombe district



TGA in Ludilo village, Mufindi district

The capacity of tree growers in silviculture and best plantation management practices strengthened



Hon. Theresa Zitting, Ambassador Embassy of Finland in Tanzania and Kilolo district commissioner Hon. Peres Magiri discussing plantation management with the TGA in their demonstration plot at Lyamko village. (Date: 17 April 2023)

Contributed to development of the plantation management and productivity technical order number one by MNRT of 2021. The programme facilitated printing of over 4,000 copies and distributed it to TGAs.



Some of the TGA members in Matanana village discussing plantation management practices depicted from the technical order number one by MNRT of 2021.

Smallholder tree growers capacitated on plantation management activities

Forestry extension services and trainings delivered to all 80 programme supported village. The training included pruning and thinning.

Demonstration plots were established

Exchange visits organised



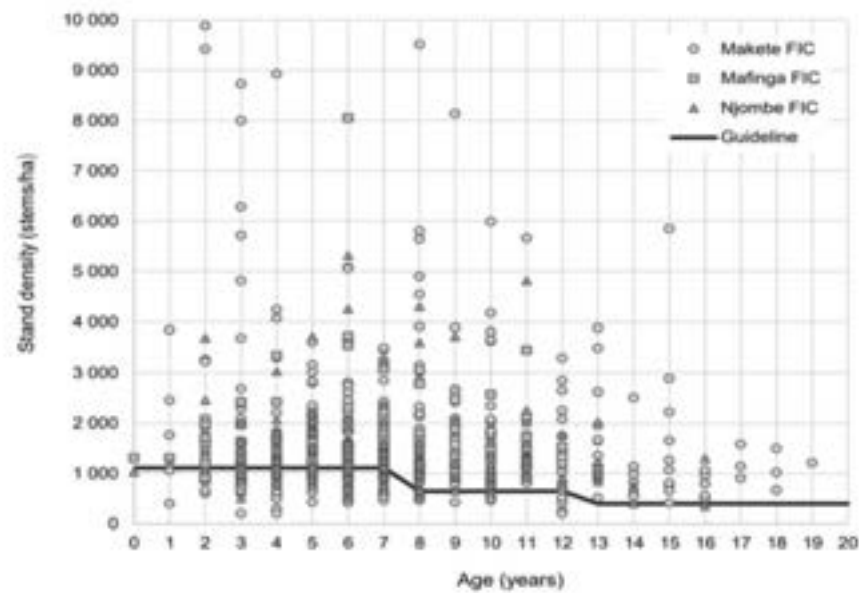
TGA members in Wanginyi village, Njombe district, reading a brochures. (2021)

A TGA member in Moronga village, Wanging'ombe pruning her woodlot

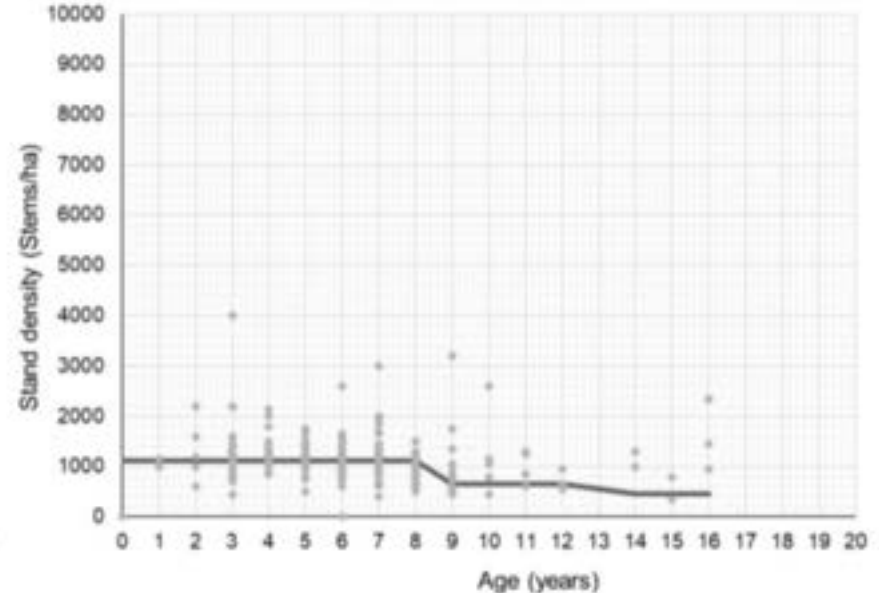


According to the woodlot outcome assessment conducted in June 2022, there was significant adoption of best silvicultural plantation management practices by smallholder tree growers

Comparison of the baseline stand density with that of 2021/22



Baseline (over 800 observations)



2021/22 Status (206 observations)



Mr. Teophil H. Miyamba (55 years), a TGA member in Madobole village Ludewa district.

We received thinning training and implemented it in our woodlots.

Previously, we did not manage our trees, and we harvested small size sawn timber for minimal income. After receiving PFP 2 training and implementing it in our woodlots, we will be able to obtain large size sawn such as 6', 8' and 10', which will increase our income.

So I believe after harvesting I will be able to provide better education to my children.





Unmanaged pine
natural regeneration
woodlot

Managed pine natural regeneration
woodlot



Mrs. Beatha Mapile (40 years), a TGA member in Iboya village in Njombe district.

She is grateful to PFP 2 for facilitating the establishment of a TGA in Iboya village. The TGA united and connected the tree growers.

PFP supported them with free seedling (during PFP 1) and continuously taught them how to manage including pruning and thinning their woodlots.

Initial tree were not managed, but after PFP 2 trainings trees are well managed.

After harvesting, I will be able to support my family, provide better education to my children and build a house for the family.



TGA plantation in Iboya village in Njombe district.

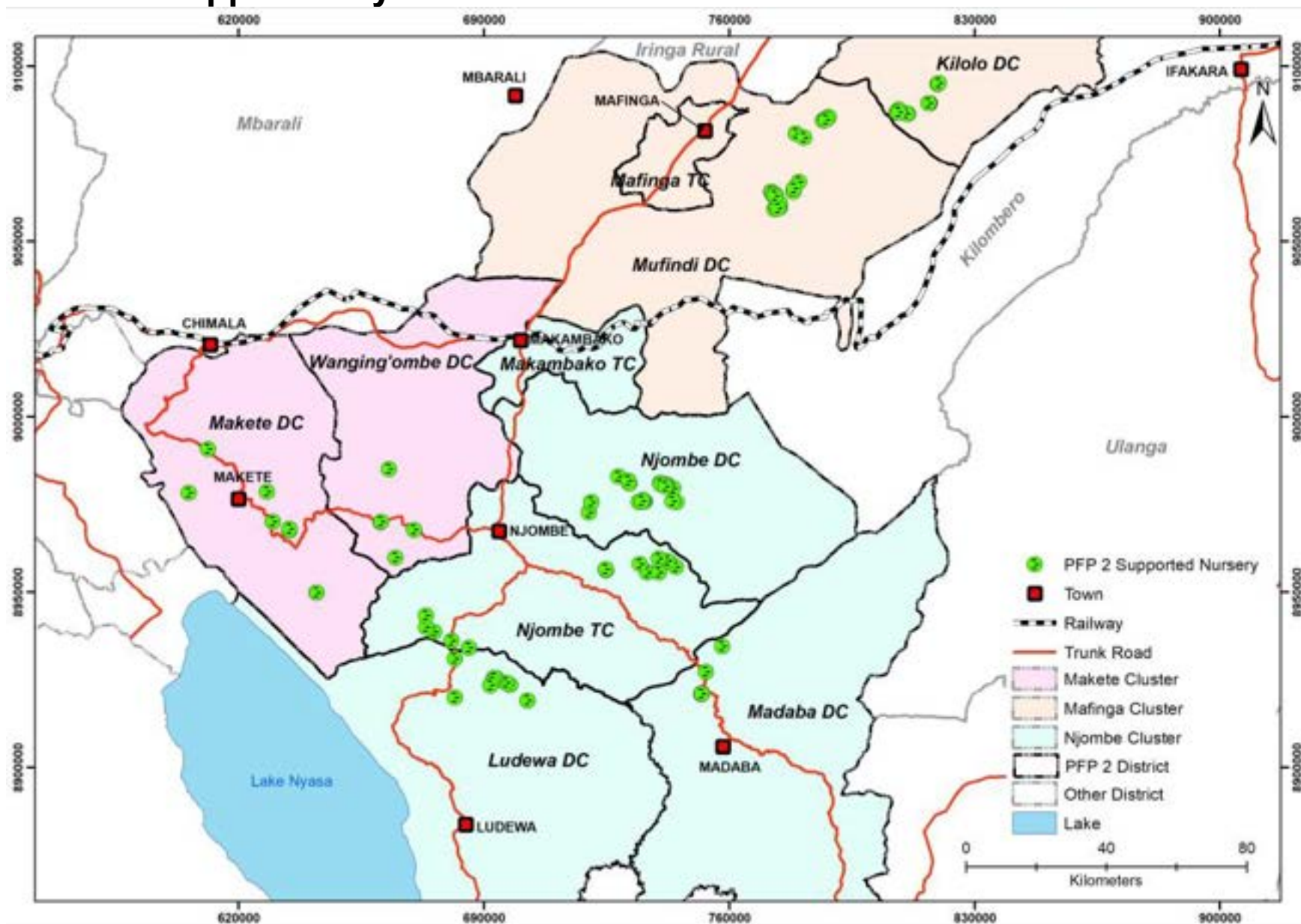
The TGA received seedling support in PFP 1 and planted in a common area designated for tree planting in accordance with their Village Land Use Plan that was developed with PFP support.





**Nursery
establishment and
management
capacity building
delivered to over
130 nurseries**

Nurseries supported by PFP 2



Supported development on improved tree seed production by ensuring management of the 15 seed orchards and stands established during PFP 1



The establishment of seed orchards and stands was primarily motivated by two goals: first, to diversify Tanzania's pine and eucalyptus species and secure future supply of wood for industries and allow a broader range sites to be planted; and second, to have a domestic source of affordable improved seeds that accessed by smallholders.

Idete seed stand



Pinus tecunumanii cones



Seed packaging



Seed processing

Tree growers' access to finance promoted

A total of 214.9 million TZS (equivalent to 88,000 euros) accessed by 10 TGAs in programme area from the local government authorities. The TGAs received this interest free loan for nursery establishments, charcoal production, and beekeeping.



Wanawake Forestry group has 7 female members who are also members of the TGA in Matola village, Njombe district. They are engaged in charcoal production since 2022.

Beehive shade



Iboya village TGA beehive grant

They currently own 28 beehives donated by Njombe town council. Since 2022 the TGA harvested about 180 litres of honey. They sell 20 litre bucket for 120,000 TZS (equivalent to 48 euros) and the money generated is deposited into the TGA account.



Madobole TGA was established in 2021 and has 28 members including 8 males and 20 females.

The TGA received 7 million interest free loan from the Njombe district council for

They have repaid the loan, and the profit obtained was used to procure a 2.5 acre woodlot in the village.





Matola village TGA was established in 2021. It has 40 members (15 male & 25 female). They received 10 mil. TZS interest free loan from Njombe town council for nursery business.





Wanawake Pine is a group of five women from the Ihangha village. It was established in 2022 with the goal of establishing a tree nursery. PFP 2 taught us about business and how to start and manage a tree nursery. We grew 80,000 seedlings in 2022 using Tanwat's improved seeds. In 2023, we raised 50,000 pine and eucalyptus seedlings, as well as 40,000 avocado plants. We charge 70 TZS for each seedling.

People have increased capacity and resources to manage fires

More than 200,000 tree growers in 214 villages trained on fire management. In addition, 40 Knapsack sprayer, 800 fire beaters, and 400 pruning saws delivered to villages.



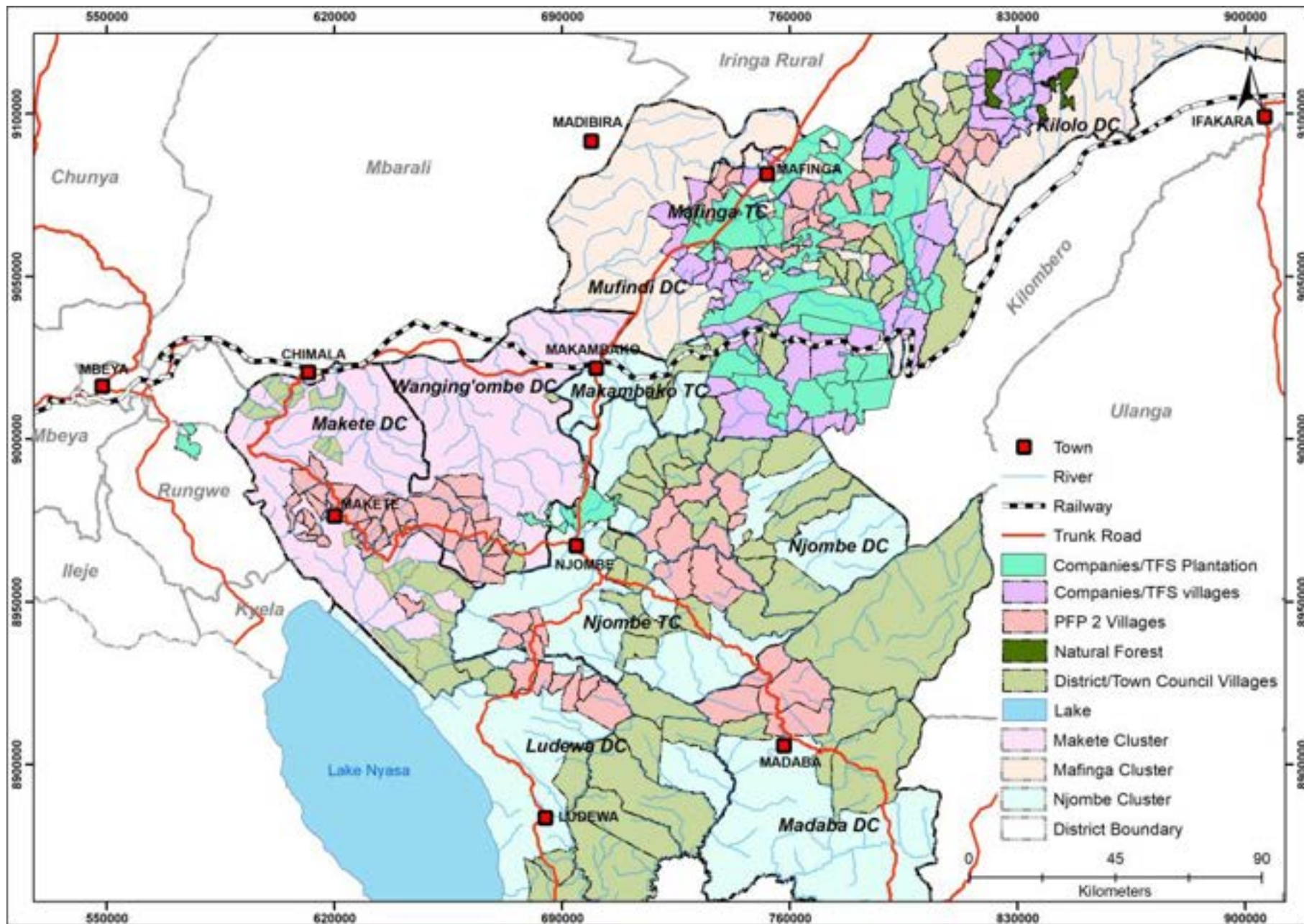


INTEGRATED FIRE MANAGEMENT (IFM) VILLAGES AND PFP 2 OPERATIONAL AREA

PFP 2 enabled the development of three documents to assist and guide the execution of MNRT's integrated fire management strategy. These documents include 1) Bylaw template for fire prevention and suppression of village council, 2) The Kidete fire management plan, and 3) the integrated fire management instructions booklet.

To ensure stakeholders can smoothly implement various components of the above three documents, PFP 2 facilitated the development of the integrated fire management training manual. The IFM training manual was developed and published in the PFP 2 website in both Swahili and English version.

In collaboration with the TFS, LGA and other stakeholders, the programme expanded the IFM intervention to 220 villages in southern highland to reduce forest fire damage. The programme's main role in this collaboration was capacity building.



Enhancing Stakeholder Engagement and Collaboration: Active Involvement and Informed Participation in Programme Implementation

In 2021 PFP supported the Iringa Forest Investment Forum in which the honourable guest was the Prime Minister of Tanzania government Hon. Kasimu Majaliwa. The MNRT technical order number one of 2021 for plantation management, and framework and guidelines for engineered wood production were inaugurated and in use.



Furthermore, the programme collaborate with various stakeholders in the implementation of programme initiatives including linking TGAs with potential forestry markets.



On 22 July 2022 the programme hosted three Zambian Forest companies including the state-run Zambia Forestry and Forest Industries Corporation (ZAFFICO) and Zambia's other two private forest companies. The visit was coordinated by the Finnish Embassy in Tanzania and Lusaka. The purpose of the visit was to learn from PFP 2 support for small-scale tree growers. PFP 2 briefed them about the programme and then familiarized them to FWITC. Also, they visited Ludilo TGA and Vikula SME group. The TGAs were linked with these companies for potential timber trade.

Local government officials equipped with the necessary skills and knowledge to facilitate VLUP processes and CCRO issuance

PFP supported development of village land use plans (VLUP) for 60 villages in PFP 1 and 20 villages (19 completed) in PFP 2.

The regional and district land officials in the programme area were trained on the VLUP development process, specifically on the newly updated processes to ensure the intervention's sustainability.



869 CCRO were issued to 277 tree growers and 21 institutions in Ibage village Makete district (138 were male and 139 were female)



RESULT 2: SMEs ESTABLISH AND MANAGE VALUE-ADDING PROCESSING ENTERPRISES

Result 2 is concerned with the value-addition part of the forestry value chain and particularly the roles and capacity of SMEs involved in the processing of forest products, especially logs grown in the woodlots. This part of the value chain has the potential to make a meaningful contribution to the local economy through direct employment of people and by bringing in revenues through the sale of timber products to other parts of the country and abroad.

Result 2 is structured into four outputs: 1) The capacity of SMEs and their employees strengthened; 2) Increased access of SMEs to financing; 3) Improved recovery of raw materials and quality of products along the value chain; and 4) Improved communication and integration of forestry and wood industry associations, enterprises, and clients.



Small and medium-sized enterprises (SMEs) empowered through hands-on practical trainings and extension services

SME development manual prepared through action research with SMEs and published in the programme website (www.privateforestry.or.tz)

Attendance at trainings and extension events for SMEs owners and employees reached 7,100. They included timber traders, charcoal producers, sawmillers, saw-doctors, transporters, pole production, veneer production, timber treatment, carpentry, pine resin collection and bio-energy production.



Chainsaw training



Chainsaw operators from the programme area received training in chainsaw operation, as well as occupational health and safety.

Timber seasoning training

Timber is highly impacted by moisture content, resulting in wobbling, cracking, heavy weight and blue stain. In contrast to wet timber, a properly dried timber is easier to transport due to less weight. Timber dealer in the programme area were trained on proper and affordable techniques of timber seasoning.



Improper technique of timber seasoning



Proper & Affordable technique of timber seasoning



Charcoal and briquette production awareness raising and training

Potential raw materials for the manufacturing of charcoal, briquettes, and biochar include sawdust and other wastes from sawmill, as well as forest plantation wastes that remain on smallholder plantations. Smallholder tree growers and SMEs received trainings and awareness campaigns on various charcoal, briquette, and biochar production techniques.

Wastes from sawmilling (AMEC operations)



Sawing for high recovery training, occupational health and safety, circular saw blade alignment and bench setting



Mr. Elisha Nyagawa (69) and his wife Elice Kibiki (60) own a mobile circular saw (AMEC) machinery in Ihangá village. They have been in the sawmilling business since 1989. PFP 2 trained them in sawing for high recovery, occupational health and safety, circular blade alignment, and bench setting. Accidents and sawmill equipment maintenance costs have decreased since training.



Sawing doctoring training

Circular sawmill (AMEC) machine owners and saw doctors in villages received training in many aspects of saw doctoring, including workplace health and safety.



Kazi ni Kazi is a Moronga-based SME that offers saw doctoring services. It was established in 2021 and consists of six members (two females and four guys). In 2022, the group received saw doctoring training at FWITC via PFP 2. They services a total of 35 circular saw blades till November 2023.



Promoted active pedagogy and modernised professional skills in Tanzanian technical and vocational forestry education

Through a project to activate pedagogy and modernise professional skills in Tanzanian technical and vocational forestry education (TVET - TZ project), PFP 2 collaborated with Häme University of Applied Sciences (HAMK) to support FWITC, FITI, and FTI training institutes, as well as PFP 2 extension staff, with pedagogy.

Note:

FWITC - Forestry and Wood Industries Training Centre

FITI - Forest Industries Training Institute

FTI - Forestry Training Institute





PFP established and support Forestry and Wood Industries Training Centre (FWITC)

PFP facilitated the establishment of FWITC in 2016. FWITC is now full registered and deliver both short and long VET training courses.



Forestry and Wood Industries Training Centre (FWITC), Mafinga-Tanzania



VET 1, 2 and 3 forestry and wood processing curricula accredited and operational



Mobile training unit and tractor with its accessories



SMEs' access to finance promoted and improved

The programme facilitated 23 youth and women led SMEs to access interest free loan from the local government authorities amounting to 295.5 million TZS (equal to 122,000 euros) for the growth of different businesses such as sawmilling, timber commerce, and saw-doctoring.





Provision of support for the establishment of log and sawn timber standards, which are essential for the regulation of structural timber.

The log and sawn timber standards approved and gazetted on 9 October 2020.

Government notice number 882: **“TZS 387:2020 Timber-strength grading of coniferous sawn timber (cypress and pine) for structural use” and “TZS 256-1:2020 Timber-dimensions for coniferous sawn timber (cypress and pine)”**



Strengthened advanced furniture manufacturing in the Iringa region





Strengthening the negotiation position of local tree growers and SMEs with traders.

The programme facilitated the establishment of a market information system in 60 villages, ensuring access to timber market information. This system provides regular updates on timber prices from major markets, enabling stakeholders to stay informed





Driving development through innovation

The programme introduced innovations to enhance SMEs capacity in furniture manufacturing, timber treatment, primary wood processing, and bioenergy and other byproducts.

Timber treatment innovations

1. Borate wood treatment preservative for CCA,
2. Wood tar production and use as a timber treatment,
3. Manufacture and use of wood vinegar for wood preservation

Primary wood processing innovations

1. Mobile training units
2. Improved locally fabricated and accessible tools for saw doctoring
3. Introduction of different primary processing sawing machines

Bioenergy and other by-products

1. Appropriate charcoal kilns including semi transportable metal kilns, Hookway kiln and modified low-cost version of hookway kiln
2. Pine charcoal production and marketing,
3. Extruder sawdust briquettes,
4. Manufacture of carbonised briquettes,
5. Introduction of pillow carbonised briquettes with binder,
6. Bio char as a nursery growing medium and agricultural soil enhancement,

Furniture innovations

1. Flat pack furniture
2. Bent plywood manufacture
3. Fasteners and tools for panel boards introduced
4. Low-cost wood moisture meters introduced
5. Modified timber drying container kiln,
6. High frequency vacuum timber drying kiln with specific application for drying eucalyptus to low moisture content for furniture manufacture.
7. Introduction of eucalyptus for manufacturing high end furniture
8. Improved furniture design process,
9. Introduction cordless drills,
10. Introduction of a wider range of screws as fasteners to allow SMEs to make better use of locally available sawn woods and panel boards
11. Introducing manufacture and use of saw jigs including for the manufacture of dowels,
12. Use of router for improved wood panel signage.
13. Conversion of handheld tools to affordable cabinet making machines for local carpenters





Wood industries extension officers being trained on sawing using Slide Tech sawmilling machine (Date: 2020, at FWITC, Mafinga - Tanzania)



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NIRAS