



Revitalization of Forestry Training Centers Project, Phase 3

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Overview



CONTEXT

With funding from the Government of Finland, UNIDO worked closely with the South African Department of Trade, Industry and Competition (DTIC) and South African Forestry Company Ltd (SAFCOL) in 2018 – 2021, to support local stakeholders in the forestry sector and to develop business ecosystems that promotes collaboration, sustainable practices, capacity and knowledge building. As forestry activities are subject to rapid technological change, which often presents a challenge for enterprises, the project has served as a conduit to strengthen linkages with participants across the forestry supply chain and exchange national and international best practices to help adapt and deliver sustainable value added to society.

The overall goal of the project has been the revitalization of forestry training to support green employment with a focus on South Africa. The project had five primary activities:

1. Brush Saw Training for Women Forestry Contractors
2. Wood Recovery and Saw Log Optimization
3. Wood Drying for Small Plantation / Forest Users
4. Entrepreneurship and Enterprise Development, and

5. Institutional Capacity Building and Accreditation

For purposes of clarity and understanding, these activities will be grouped and presented under the following four fact-sheets, as follows:

1. Entrepreneurship and Enterprise Development: Equipment Supplies for Community
2. Training of Trainers and Skills Training for Community
3. Forestry Certificate Qualification Development and Industry Benchmarking
4. Wood Drying and Kiln Building: Equipment Supply & Training

The project was implemented in 2018-2021, including a 12-month extension due to COVID-19. Especially due to the latter, close cooperation and constant communication between government entities, private sector partners, and UNIDO has been crucial throughout the project's duration. In particular, ensuring that everyone was regularly informed of the project's implementation status as well as of how to mitigate uncertainties, caused to the latter by the pandemic and related to participants' personal health and safety, proved to be of a particular importance.

ENTREPRENEURSHIP AND ENTERPRISE DEVELOPMENT: EQUIPMENT SUPPLIES FOR COMMUNITY

SAFCOL has its own Enterprise and Supplier Development Program, which assists both informal economy workers and small-scale business owners to improve their capabilities for servicing existing and new contracts. UNIDO embedded this new activity in the SAFCOL program, which aimed to **make the small-scale enterprises (contractors) more competitive**, productive in executing their work and safer for the employees / contract workers they employ.

TRAINING OF TRAINERS AND SKILLS TRAINING FOR COMMUNITY

SAFCOL has an existing pool of instructors. This **Training of Trainers** activity was conducted to allow selected SAFCOL instructors to deliver Education, Training and Development (ESD) contractor training programs to small business sector and informal economy workers in rural communities. The activity improved the pedagogical and training skills of trainers and ensured that the SAFCOL teaching staff reached the Level 5 National Certificate in Occupationally Directed Education, Training and Development Practices. In addition, local community contractors were provided with forestry learning programs to strengthen their knowledge and capacity, focusing on plant production chainsaw, brush cutter and protective personal equipment.

FORESTRY CERTIFICATE QUALIFICATION DEVELOPMENT AND INDUSTRY BENCHMARKING

Tshwane University of Technology (TUT) had identified the need for a **Forestry Diploma** to increase the intake of students to

5,000 by offering a Forestry Qualification at its Mbombela Campus. In collaboration with SAFCOL, UNIDO co-sponsored a TUT delegation to visit Finland for a study tour and benchmarking exercise with HAMK University of Finland. Running several operations in the forestry value chain, SAFCOL had also identified a need, specifically to review technological and business operation options for its business development. Therefore, an **industry benchmarking tour** was organized in Finland, which has one of the world's leading forestry industries with numerous forestry development and technology companies.

WOOD DRYING AND KILN BUILDING: EQUIPMENT SUPPLY & TRAINING

Through coordinated efforts, the DTIC and UNIDO offered technical assistance through **wood drying technologies** to a small-scale sawmill operator named Pokgotla Trading Enterprise. A joint site visit by the DTIC and UNIDO was conducted to evaluate the exact development needs of the company, where kiln dryers were identified as a primary requirement. Indeed, at the time of the visit, the company would cut wet-off-saw timber and sell it "raw" to various outlets - therefore adding no value to their production.

This project was supported by the Ministry of Foreign Affairs of Finland, and implemented by UNIDO together with the Department of Trade, Industry and Competition of South Africa (DTIC) and the South African Forestry Company Ltd (SAFCOL). 



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Entrepreneurship and Enterprise Development: Asset Supplies for Community

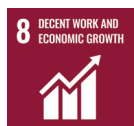
BACKGROUND

The **Entrepreneurship and Enterprise Development** activity was part of the Revitalization of Forestry Training Centers Project, Phase 3, started by UNIDO in 2018. The activity was conducted together with the state-owned South Africa Forestry Company (SAFCOL) as implementing partner. The overall goal of the project was the revitalization of forestry trainings to support green employment, with a focus on South Africa.

CONTEXT

SAFCOL has its own Enterprise and Supplier Development Program, which assists both informal economy workers and small-scale business owners to improve their capabilities for servicing existing and new contracts. UNIDO embedded this new activity in the SAFCOL program, which aimed at further **strengthening the capacity of small-scale enterprises** (contractors) to compete on the forestry value chain.

WORKING TOWARDS



STRATEGY

The rationale of the selected approach was that, through relevant asset supply, the capacity of local small-scale enterprises would be strengthened, thereby providing support to the rural forestry value chain, community employment and the local economy. This activity was furthermore designed together by UNIDO and SAFCOL to be embedded in the former's existing Program, to leverage and improve its impact and sustainability, as well as to ensure efficiency and effectiveness in its implementation.

ACTIVITIES

- Relevant community small-scale enterprises were identified to participate.
- Contractors' needs were analyzed, and relevant assets were subsequently procured, which would help them carry out forestry management activities, notably in silviculture and harvesting, at local plantations.
- Contractors were supplied with tools and equipment such as protective equipment, pruning saws, slashers, picks, spades and planting trowels.
- Procurement was carried out through local forestry vendors operating in the rural communities, in order to strengthen local supply channels.



GEOGRAPHICAL COVERAGE

SOUTH AFRICA



DURATION

2018-2021



OBJECTIVE

Revitalization of forestry training to support green employment with a focus on South Africa



PARTNERS

South Africa Forestry Company (SAFCOL) and 11 small-scale enterprises



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embedding the activity into the existing Enterprise and Supplier Development Program improved its impact and sustainability

11

small-scale enterprises strengthened to carry out forestry management activities



nearly 50% of the supported businesses are operated by women

+330

workers given access to occupational safety and employment



improved supply capacity through local asset procurement



a positive impact on local forestry management

IMPACT

- The capacity of 11 small-scale enterprises has been strengthened to carry out forestry management activities (notably in silviculture and harvesting) in local plantations;
- Nearly 50% of these businesses are operated by women;
- Each business employs approximately 30 to 50 workers per plantation, depending on the size and scope of the contract. As a result the activity has improved occupational safety and employment opportunities for approximately 330 workers;
- Procuring assets through local forestry vendors has improved local supply capacity.

LESSONS LEARNT

- To improve the impact and sustainability of project activities, the capacity and objectives of implementing partners have to be analyzed, and planned project activities should align accordingly to leverage with partners' existing activities, projects and/or programs;
- Targeting and cooperating with intermediaries, such as small-scale forestry contractors, improves the efficiency and effectiveness of activities supporting the local value chain and decent employment.



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Revitalization of Forestry Training Centers Project, Phase 3



Training of Trainers and Skills Training for Community

BACKGROUND

The **Training of Trainers and Skills Training for Community Skills Training** activity was part of the Revitalization of Forestry Training Centers Project, Phase 3, started by UNIDO in 2018. The activity was conducted together with the state-owned South Africa Forestry Company (SAFCOL) as implementing partner. The overall goal of the project was the revitalization of forestry trainings to support green employment, with a focus on South Africa.

CONTEXT

SAFCOL has an existing pool of instructors. This Training of Trainers (ToT) activity was conducted to allow selected SAFCOL instructors to deliver **Education, Training and Development (ESD)** contractor training programs to small business sector and informal economy workers in rural communities. In addition, local community contractors were provided with forestry learning programs to strengthen their knowledge and capacity, focusing on plant production chainsaw, brush cutter and protective personal equipment.

WORKING TOWARDS



STRATEGY

The activity aimed at upskilling forestry and providing instructors with improved knowledge to deliver **accredited programs** to small business contractors, workers and communities, under requirements of the South African Qualifications Authority (SAQA). Accreditation of the programs would increase beneficiaries' **employment and contracting opportunities**.

ACTIVITIES

- Suitable SAFCOL instructors were identified and provided with Education, Training and Development skills to deliver accredited programs to students and workers. The activity improved the pedagogical and training skills of trainers and ensured that the SAFCOL teaching staff reached the Level 5 National Certificate in Occupationally Directed Education, Training and Development Practices.
- Training programs were selected and designed to meet the needs of instructors as well as of the community members seeking to become forestry sector contractors.
- By supporting SAFCOL's broader enterprise development and community training programs, UNIDO helped sustain a continuous training schedule throughout the project by pooling resources. The training workshops covered forestry management (chainsaw, plant production, and brush cutting) and entrepreneurial skills at the Platorland Training Center through SAFCOL and external trainers.
- Accreditation of the training programs under requirements of SAQA was ensured.



GEOGRAPHICAL COVERAGE SOUTH AFRICA



DURATION

2018-2021



OBJECTIVE

Revitalization of forestry training to support green employment with a focus on South Africa



PARTNERS

South Africa Forestry Company (SAFCOL) and local training institutions



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SAFCOL instructors and students enrolled in SAQA-accredited training programs, often required by recruiting private companies



forestry management and entrepreneurial skills workshops conducted, improving services across value chain

IMPACT

- SAFCOL instructors were trained in general education, training and development skills to deliver accredited programs to small business owners and informal economy workers in rural areas;
- By supporting SAFCOL's broader enterprise development and community training programs, UNIDO helped sustain a continuous training schedule throughout the project by pooling resources. The training workshops covered forestry management (chainsaw, plant production, and brush cutting) and entrepreneurial skills at the Platorland Training Center through SAFCOL and external trainers;
- Community participants were provided with skills allowing them to become contractors and be hired by SAFCOL and other forestry companies to deliver products and services across the value chain;
- The improved knowledge and skills of the trainers will benefit approximately 1,000 community members per year in the SAFCOL-led programs.

+1,000

community members to be provided with improved training annually



increased employment opportunities for training beneficiaries

LESSONS LEARNT

- ToT activities in the practically oriented industry sectors are efficient ways to generate impact across value chains;
- When supporting institutional capacity-building with ToT or similar activities, it is important to ensure that training programs are accredited under requirements of the national qualification authority, so as to increase their sustainability and impact.



a positive impact on the overall forestry value chain



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Forestry Certificate Qualification Development and Industry Benchmarking

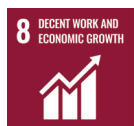
BACKGROUND

The **Forestry National Certificate Qualification Development and Industry Benchmarking tour** activities were part of the Revitalization of Forestry Training Centers Project, Phase 3, started by UNIDO in 2018. These activities were conducted together with the state-owned South Africa Forestry Company (SAFCOL) as implementing partner. The overall goal of the project was the revitalization of forestry trainings to support green employment, with a focus on South Africa.

CONTEXT

To further develop the South African forestry sector, international best practices were decided to be benchmarked for the forestry training and industry. Tshwane University of Technology (TUT) had identified the need for a **Forestry Diploma** to increase the intake of students to 5,000 by offering a Forestry Qualification at its Mbombela Campus. In collaboration with SAFCOL, UNIDO co-sponsored a TUT delegation to visit Finland for a study tour and benchmarking exercise with HAMK University of Finland. Running several operations in the forestry value chain, SAFCOL had also identified a need, specifically to review technological and business operation options for its business development. Therefore, an **industry benchmarking tour** was organized in Finland,

WORKING TOWARDS



which has one of the world's leading forestry industries with numerous forestry development and technology companies.

STRATEGY

The aim of both benchmarking tours in Finland for TUT and SAFCOL in their respective fields was to further support them in their organizational development processes. TUT's aim was to learn the methods used for designing a forestry curriculum at the university level from HAMK University, which is experienced in the natural resource management training programs. SAFCOL's aim was to benchmark best practices and exchange knowledge to improve the standards of its activities across the forestry value chain.

ACTIVITIES

- A TUT study tour was conducted in Finland to learn with HAMK University how to collect information for the curriculum, how it is taught, learner assessment strategies, what technology and equipment are useful, how work-integrated learning occurs.
- TUT met timber industry operators to learn which skill sets and occupations forestry trainings lead to.
- SAFCOL's visit in Finland covered the whole forestry industry value chain, from tree seedling and sawmilling to log house production processes.
- SAFCOL also visited several forestry equipment manufacturing companies to learn about the testing and manufacturing of technologies such as sawmill equipment, harvester equipment as well as biomass to energy generation.



GEOGRAPHICAL COVERAGE

SOUTH AFRICA



DURATION

2018-2021



OBJECTIVE

Revitalization of forestry training to support green employment with a focus on South Africa



PARTNERS

South Africa Forestry Company (SAFCOL), Tshwane University of Technology, HAMK University and Finnish Forestry Companies



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OUR FORESTS. OUR FUTURE.

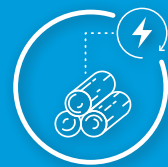
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Tshwane University of Technology gained international best practices in forestry certificate curriculum development



comprehensive insight acquired in data collection, teaching methods and learners assessment



SAFCOL gained insights in business processes for the forestry industry, along with technology & manufacturing processes



direct high-level contacts acquired with Finnish forestry company, notably facilitating the supply of heavy equipment



reinforced international cooperation around forestry training and management

IMPACT

- The benchmarking study tours to Finland improved the capacity and the knowledge of both Tshwane University of Technology and SAFCOL;
- Tshwane University of Technology gained international best practices in forestry certificate curriculum development, such as how to collect information for the curriculum, how the curriculum should be taught, different learner assessment strategies, what technology and equipment are useful and how work-integrated learning can be structured;
- Tshwane University of Technology participated in submitting the project proposal to EU's Erasmus+/KA2 project with HAMK University;
- SAFCOL gained insights in forestry industry business processes in tree seedling, sawmilling and log house production. SAFCOL also learnt about the technology and manufacturing processes of sawmill equipment, harvester equipment as well as biomass to energy generation;
- SAFCOL gained direct high level contacts with Finnish forestry companies, notably Ponsse, which has already supplied SAFCOL with heavy equipment.

LESSONS LEARNT

- In developing curriculum and teaching practices, best practices and lessons learnt can be sought from other education institutions, but the adaptation have to be done for the new training programs to match national qualification requirements;
- When organisations are developing their own business, assessing new business strategies and organizational development, benchmarking existing international business processes, technology and organizational know-how is an efficient method. It is important that the organizations which are supported to take part in such benchmarking tours have clearly identified needs and the benchmarking visits are relevant for these needs.



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Wood Drying and Kiln Building: Equipment Supply & Training

BACKGROUND

The **Wood Drying and Kiln Building** activity was part of the Revitalization of Forestry Training Centers Project, Phase 3, started by UNIDO in 2018. The activity was conducted together with the Department of Trade, Industry and Competition of South Africa (DTIC) as implementing partner. The overall goal of the project was the revitalization of forestry trainings to support green employment, with a focus on South Africa.

CONTEXT

Through coordinated efforts, the DTIC and UNIDO offered technical assistance through **wood drying technologies** to a small-scale sawmill operator named Pokgotla Trading Enterprise. A joint site visit by the DTIC and UNIDO was conducted to evaluate the exact development needs of the company, where kiln dryers were identified as a primary requirement. Indeed, at the time of the visit, the company would cut wet-off-saw timber and sell it “raw” to various outlets - therefore adding no value to their production.

WORKING TOWARDS



STRATEGY

The approach was the following: With the installation of a new kiln and related drying equipment, the Pokgotla Trading Enterprise would **add value** to its products, hence increasing its revenue, improving its productivity and, ultimately, sustaining community employment.

ACTIVITIES

- The containerized wood drying kiln system was delivered and installed, along with trolleys suitable for the track system to load wood into and out of the kiln.
- The wood drying technology was built to run on fuelwood, thus effectively promoting bio-waste management and bio-fuel production.
- A training was conducted which focused on providing participants with skills in the safe and efficient operation and integration of wood drying technology. The training covered a wide range of topics, including wood grading, drying methods and practices, lumber properties and lumber piles.



GEOGRAPHICAL COVERAGE

SOUTH AFRICA



DURATION

2018-2021



OBJECTIVE

Revitalization of forestry training to support green employment with a focus on South Africa



PARTNERS

Department of Trade, Industry and Competition of South Africa;
Pokgotla Trading Enterprise

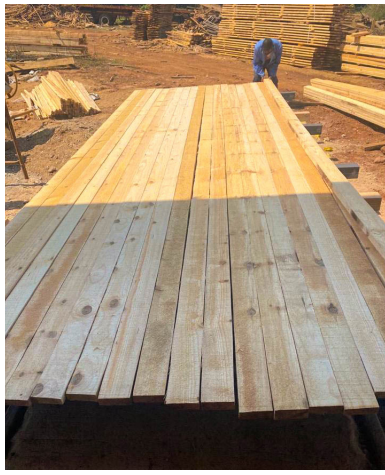


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90

jobs (estimated) in the wood value-adding processes supported by project activities



new technology and training adding value in wood processing increasing competitiveness and improving access to new markets

IMPACT

- Small-scale sawmill received kiln wood drying technology and training to increase competitiveness, sustain operations, and gain access to new markets;
- An estimated 90 jobs in the wood value-adding processes were supported by the newly implemented project activities;
- This project received full endorsement from the Department of Trade, Industry and Competition of South Africa.

LESSONS LEARNT

- Partnering with government entities, such as the DTIC, is vital to ensure that the project is aligned with national policies and country development objectives;
- Government entities are important partners when identifying beneficiaries and main areas for development;
- It is essential to carefully define sectoral needs, such as technology and skills, to maximize the potential impact areas.



sustainable practices promoted, such as bio-waste management and bio-fuel production, through wood drying running on fuelwood

+90

trainees provided with skills in safe and efficient operation and the integration of a wood drying capacity



*Phase 3 of the Revitalization of
Forestry Training Centers
Project was conducted in South
Africa between 2018 and 2021.*

For more information and inquiries
about the project and its activities
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