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Evaluation of the project “Sawlog Production Grant Scheme Phase III”



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Abstract

This report presents the final evaluation of the Sawlog Production Grant Scheme-Phase III (SPGS III), a project funded by the European Union and implemented in Uganda by the Food and Agriculture Organization of the United Nations (FAO). The evaluation focused on relevance, effectiveness, efficiency, impact, sustainability and coherence and coordination, as well as on cross-cutting issues such as equity and gender considerations. Three out of eight project clusters (Central, Western and South-Western) were selected for primary data collection. The target respondents were representative of the different project beneficiaries including small, medium and large scale tree planters, certified nursery operators, forest contractors, institutions and community groups, as well as project implementation team.

The project provided technical and financial support to private tree growers to establish and maintain commercial plantations to acceptable national standards, helped certify private nursery operators and forest contractors to ensure high quality inputs and management of forest plantations, and studied appropriate technologies in processing and utilization of wood products.

The project objectives and scope were found highly relevant and consistent with national and global development objectives and policies, as well as the priorities of the donor (European Union) and the implementing agency. The project scope and design incorporated some of the lessons learned from previous phases of the SPGS project.

The project contributed to growth in rural economies and infrastructural development. Market opportunities will be a key determinant of sustainability for tree growers. There was limited capacity developed in the field of value addition. For future engagements, more emphasis should be placed on action research, downstream processes and marketing.

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The evaluation benefitted from the inputs of many other stakeholders, including government officers from the Forestry Sector Support Department (FSSD), National Forestry Authority (NFA), and district local governments from the districts visited, as well as other government agencies and parastatals. Additionally, tree farmers' association, particularly the Uganda Timber Growers Association (UTGA) and the staff of other donor agencies, research centres and the private sector proved additional support. Their contributions were critical to the team's work and are deeply appreciated. The full list of the people that contributed to the information through interviews is detailed in Appendix 1 of this report; all their support and contribution is acknowledged with thanks.

Abbreviations

CFR	Central Forest Reserve
COMFORT	Commercial Forestry Research and Training
DFS	district forestry services
FAO	Food and Agriculture Organization of the United Nations
FSSD	Forestry Sector Support Department, Ministry of Water and Environment
M&E	monitoring and evaluation
NaFORRI	National Forestry Resources Research Institute
NFA	National Forestry Authority
NFC	Nyabyeya Forestry College
NGO	non-governmental organization
SPGS III	Sawlog Production Grant Scheme Phase III
UTGA	Uganda Timber Growers Association

SPGSIII Grantees, Nurseries, supported Communities and Institutions

Legend

- Supported Communities
- Supported Institutions
- Nurseries
- Grantees
- Clusters

Scale: 0 50 100 200 Kilometers

Logos: FAO Food and Agriculture Organization of the United Nations, EUROPEAN UNION, Uganda

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Executive summary

Introduction

1. This report presents the final evaluation of the Sawlog Production Grant Scheme Phase III (SPGS III), a project funded by the European Union and implemented by the Food and Agriculture Organization of the United Nations (FAO) Uganda Country Office. Covering the project's duration from December 2015 to December 2021, the evaluation was commissioned to extract lessons from its achievements, challenges, and failures, and to ensure accountability to the European Union, the Government of Uganda (Ministry of Water and Environment), FAO and project stakeholders.
2. The evaluation aimed to inform the forestry sector, particularly the Ministry of Water and Environment and its Forestry Sector Support Department (FSSD) (mandated with supervising and providing policy guidance to the entire forestry sector in Uganda), as well as the National Forestry Authority (NFA), district forestry service (DFS) and other relevant department at local government level, as well as the development partner (European Union) and the entire donor community and the implementing agency (FAO), and project beneficiaries (private tree farmers, forestry service providers as well as local communities in areas where the project activities were carried out), regarding any future investment in forest plantation subsector.
3. The evaluation reviewed all project activities and achievements across four result areas. It incorporated findings from the mid-term evaluation and assessed the validity of medium- and long-term recommendations. Data collection was guided by an evaluation matrix and used qualitative methodologies triangulated with quantitative evidence from progress reports and stakeholder consultations.
4. Fieldwork was conducted in three project clusters (Central, Western and South-Western), selected based on geographic balance, activity concentration, research involvement and observed successes or failures. Stakeholders interviewed included beneficiary and non-beneficiary tree growers, opinion leaders, tree nursery owners, forest contractors, community groups, district staff, and NFA field teams.
5. The evaluation faced logistical constraints due to the COVID-19 pandemic, requiring a mix of virtual and socially distanced in-person interviews. Safety protocols, including the use of masks, sanitizers and social distancing, were strictly observed.
6. The report highlights successes, failures and lessons learned, offering recommendations to enhance future forestry programming in Uganda. It also underscores the project's role in fostering equity, supporting private sector investment, and promoting sustainable forestry practices.

Main findings

Relevance

7. The SPGS III project aligned well with national forestry policies, climate change strategies and international commitments such as the Rio Conventions. It also supported FAO's priorities of promoting sustainable forestry, reducing rural poverty and building resilience to climate change.

8. The project addressed the European Union's National Indicative Programme (2014–2020) objectives of increasing incomes, employment and food security, particularly in the forestry sector, with a focus on timber and charcoal value addition.
9. Additionally, it contributed to several United Nations Sustainable Development Goals (SDGs), including: SDG 1 (Ending poverty), SDG 13 (Combating climate change) and SDG 15 (Promoting sustainable forest management and biodiversity).
10. The project sought to tackle barriers to private sector involvement in commercial forestry, including: limited liquidity and financing for plantation establishment and downstream processing; weak institutional capacity and poor linkages; lack of standards for planting materials and silvicultural operations; gaps in knowledge, skills, and technologies for forestry and wood processing; limited market information and regulatory frameworks.
11. While the project made progress in these areas, limitations included insufficient funding for value addition, inadequate technical personnel for downstream activities, and a short funding period that left some farmers unsupported for thinning and maintenance. The grant scheme was designed to refund part of the costs incurred by farmers, encouraging serious investment while deterring speculators. A cost-sharing model for wood-processing equipment was similarly effective. The reduced threshold of 15 ha (from 25 ha) for beneficiaries improved inclusivity by attracting smaller landowners while maintaining manageable supervision costs.
12. Adjustments during implementation included gender mainstreaming (introduced in 2018 after initial oversight), action research across the value chain, and expanding geographical coverage to previously excluded regions like Karamoja and West Nile. Partnerships with institutions such as the Uganda Timber Growers Association (UTGA) and National Forestry Resources Research Institute (NaFORRI) strengthened sustainability, and new standards for nurseries and timber processing were developed.
13. The project built on lessons from earlier phases, including cost-sharing mechanisms, expanded geographical coverage and partnerships with forestry institutions. However, fewer capacity-building initiatives were organized in Phase III compared to earlier phases, reducing opportunities for farmer and processor training.

Effectiveness

14. The project provided technical and financial assistance to private tree growers, significantly increasing Uganda's commercial forest coverage. Over 28 000 ha of commercial plantations were established, exceeding the target by 21 percent. Predominantly planted species included *pinus caribaea* and *hybrid eucalyptus varieties* (GU and GC). Farmers supported by the project consistently achieved higher plantation quality compared to those operating independently.
15. Grants were disbursed retrospectively, contingent on compliance with national standards as verified by SPGS staff.
16. Additionally, 131 farmers from earlier phases received grants covering 75 percent of thinning and pruning costs to maintain plantation quality.

17. The project verified and certified 28 forest contractors (representing 93 percent of the project target) and 106 tree nursery operators (representing 212 percent of the project target). Beneficiary tree farmers under the project were required to procure their planting materials from the certified tree nurseries, to ensure quality planting materials, which are a precursor to quality plantations. The certification system established by SPGS III is being utilized by other organizations seeking supply of quality seedlings, such as the Uganda Electricity Transmission Company Limited.
18. The project supported 246 community groups (20 to 200 members each) and 249 institutions (schools, churches, health centres, prisons and others) to establish woodlots and bioenergy plantations, achieving 99 percent of the project target. Community groups established 4 980 ha of plantations, with leadership including male-led (185), female-led (30) and youth-led (31) groups. Institutions planted 2 483 ha with species such as *eucalyptus camaldulensis*, *hybrid eucalyptus*, *Gmelina arborea* and *Grevillea robusta*.
19. The project made strides in improving spatial and non-spatial data for forest management:
 - i. Mapping and geodatabase: Collaborating with the NFA, 20 000 ha of private plantations were mapped, and a geodatabase encompassing 28 200 ha was developed.
 - ii. Integrated Forest Management Information System: Supported by the project, this system compiles inventoried forestry data (5 000 ha) and integrates it with feedback from stakeholders.
20. Through partnerships with institutions like FSSD, Nyabyeya Forestry College (NFC), NaFORRI and UTGA, the project enhanced capacity in the forestry sector:
 - i. National Forestry Consultative Forum: Inaugurated with 148 stakeholders to strengthen collaboration and policy dialogue.
 - ii. Timber and chain of custody standards: Developed in partnership with FSSD and the Uganda National Bureau of Standards (UNBS) to regulate the wood industry.
21. UTGA received technical and financial support to improve plantation management and facilitate Forest Stewardship Council certification audits for group certification. Cluster meetings were organized to address growers' specific needs, and UTGA fostered the creation of legal associations for tree nursery operators and forest contractors, promoting organized business practices and advocacy.
22. While UTGA made significant progress, further support is required for the Organization to achieve financial and operational sustainability.
23. The project supported two key studies aimed at identifying appropriate technologies for wood product processing and utilization. One study focused on determining suitable sawmills and machinery for Uganda, including the specifications and layout designs for sawmills. The second study developed a waste management strategy tailored for Uganda, with particular emphasis on pine sawmilling. It identified various areas for improvement: better operational practices, technology upgrades, changes in input materials and products, and increased waste recycling and recovery.

24. Additionally, the project contributed to skills development in downstream processing by conducting a series of training sessions on timber grading, chainsaw operation, forest harvesting and sawmilling. These training sessions engaged 147 participants from key sectors, including small and large scale processors, government agencies and forestry colleges. Beneficiaries of wood processing equipment also received specialized training on machine operation, maintenance and after-sales support.
25. In its efforts to foster long-term efficiency in wood utilization, the project established a demonstration integrated wood processing unit at the UTGA site in Mityana. The unit, equipped with various processing tools such as a kiln dryer and band saw, was set up to promote technology transfer and showcase best practices. The project also supported the acquisition of 27 pieces of wood processing equipment for eight beneficiaries, with a significant portion of the budget allocated to large-scale growers. This investment aimed to enhance the use of efficient processing technologies, particularly for thinning and off-cuts, to boost market opportunities and profitability in the commercial forestry sector.
26. To further market development, the project supported a study on forest resources and timber markets, forecasting a potential oversupply of timber relative to domestic market demand. As a result, the project initiated discussions to connect beneficiaries with regional timber markets in East Africa. It also developed the TIMBERMART application, which serves as a platform for market intelligence and facilitates timber trade, with its web-based version already functional and the mobile app awaiting approval.
27. The project also focused on raising awareness of commercial forestry through various promotional materials, including banners, videos, newsletters and YouTube content aimed at promoting afforestation practices. These efforts have helped attract increased private-sector investment in commercial plantation forestry.
28. The development of timber standards was another key achievement of the project. By the end of the project, six timber standards were developed, with three completed standards for softwood and hardwood grading and chain of custody. Three additional standards are in draft form, and other critical standards, such as those for nursery stock, plantation management and wood treatment, are being developed.
29. In terms of capacity building, the project contributed to the revitalization of the Commercial Forestry Research and Training (COMFORT) working group, which developed a research agenda focused on critical areas like nursery development, pest management, fire management and timber processing technologies. The project also supported NFC in establishing a model nursery and plantation, providing essential infrastructure and equipment. The college's staff participated in a benchmarking exercise in Kenya, leading to the revision of course materials to incorporate modern forestry practices, such as cloning.
30. Through these combined efforts, the project has significantly contributed to the advancement of Uganda's commercial forestry sector, enhancing technological capabilities, market access, and institutional support.
31. The project provided financial and technical support to NaFORRI to conduct research on two critical areas: i) the identification and management of pests and diseases in commercial forest plantations in Uganda; and ii) establishing multilocal species trials at four

sites across the country. These trials included various tree species: *Melia volkensii*, *Melia dubia*, *Gmelina arborea*, and several eucalyptus clones, among others.

32. Research and training activities were fundamental to the development of commercial forestry under SPGS III. A total of nine research studies were completed, addressing four of the six identified research themes, with a majority focusing on policy and trade. These studies were published and made available on the project's website. However, the project lacked a clear plan for how the research findings would be utilized by actors along the value chain – except for the pest and disease management guide – hindering effective communication and linkage between researchers and users.
33. NaFORRI also updated the field guide on pest and disease management, which had originally been drafted in previous phases of the project. A training of trainers workshop was conducted with 14 district forestry officers and three NFA staff, although the representation of district forestry officers was insufficient given the semi-autonomous nature of Uganda's districts, which led to gaps in outreach to all relevant stakeholders. While informal training sessions were held, the intensity of such sessions was less than in previous phases, and while experience-sharing opportunities like study tours were promoted, their coverage was limited.
34. Additionally, the project supported the training of stakeholders in forestry inventory and mapping to improve the availability of spatial data on commercial plantations. However, the coverage was limited, with only 32 districts in Central and Western Uganda covered in the training, and the sampling intensity was reduced from the planned 2.5 percent to 1.3 percent due to budget constraints.
35. Positive outcomes of the project include an increase in tree planting by non-project beneficiaries, particularly in dryland regions, based on the species trials. This led to an expansion of plantation coverage and the emergence of new private investors in downstream processing, such as plywood manufacturers and sawmillers, likely driving up prices and profits for private tree farmers. Additionally, the increased demand for processing equipment has attracted suppliers like Husky Outdoor Equipment. The project has also created employment opportunities and boosted local development, including improvements in infrastructure and services like electric power and roads.
36. However, the project faced some negative outcomes. Complaints about human-wildlife conflict increased due to the rise in forest cover, and some farmers prematurely harvested slow-growing tree species, like pine, in favour of faster-growing species like eucalyptus. Despite these challenges, the project's emphasis on compliance with plantation standards and ethical conduct ensured high-quality plantations and meritorious selection of beneficiaries.
37. Moreover, the project's use of pre-existing partnerships, such as the COMFORT working group, contributed to its success and sustainability, facilitating the development of a research agenda and ensuring continuity of the project's activities. However, challenges arose from the limited communication methods used during calls for expressions of interest, which excluded some potential beneficiaries, particularly in rural areas with limited internet and newspaper access. The COVID-19 pandemic lockdown further disrupted the timely delivery of activities, particularly equipment.

38. The pandemic also impacted the establishment and maintenance of community and institutional woodlots, as some institutions, such as Sasiira Technical Institute, faced neglect due to lack of funding during school closures. While some innovative institutions, like Galihuma Primary School, found ways to maintain their trees, others, like the Tweekumekume community group, struggled due to inadequate training and monitoring during the lockdown, resulting in poorly managed woodlots.
39. The project's activities and financial support were focused more on the processing aspect of downstream industrialization of forest products than on their utilization. While the project made efforts to address wood product marketing challenges, such as training timber graders to kickstart timber grading operations and developing the Market Intelligence Information System (MIIS) to link buyers and suppliers, there were still issues with the market value of thinning and final harvest. This resulted in many planters feeling they were not receiving adequate value for their investments, which in some cases led to premature tree harvesting.
40. There was also insufficient engagement with key potential wood end users, such as the Rural Electrification Authority, National Housing and Construction Company and other local construction companies, which could have provided a ready market for high-quality timber produced by the project. Additionally, inadequate funding and staffing, as well as the delayed commencement of activities related to the downstream industrialization of forest products, hindered progress. This resulted in delays in the delivery of equipment and insufficient resources for some activities, limiting the potential for the sector's growth and the realization of significant impact.
41. The project's choice of processing equipment also posed challenges, as the high-tech, Wood-Mizer LT40 sawmills supplied to small and medium scale planters were not ideal for the early stages of downstream processing. While these machines improve production efficiency, they were better suited for semi-permanent harvesting setups rather than mobile operations typical for smaller-scale planters. This mismatch led to higher maintenance costs, potentially eroding the profits of small-scale farmers.
42. Despite these challenges, the project's technical support provided a foundation for further development of the commercial forestry sector. By setting and enforcing standards and training various stakeholders – such as government ministries, tree farmers, regulators, nursery operators and forestry contractors – the project helped to lay the groundwork for long-term improvements in the sector. Additionally, the certification of nurseries and the promotion of high-quality seedlings provided market opportunities beyond the project's initial scope, contributing to the establishment of more sustainable plantations in the future.
43. Technical documents produced under the project, including the Field Guide on Forestry Pests and Diseases, the Modular Downstream Integrated Sawmill Model for Uganda, and the Assessment of Uganda's Commercial Timber Plantation Resource, will continue to serve as valuable resources for technical personnel and tree farmers in the commercial forestry sector. However, while the project aimed to strengthen capabilities in finance, timber marketing and downstream processing, the overall expertise in these areas remains limited among many stakeholders, indicating that further work is needed to fully develop these aspects of the industry.

Efficiency

44. SPGS III conducted regular inspections and addressed the initial delays in fund disbursement, but there were still challenges that impacted the achievement of the project's goals. Although field staff typically conducted inspections on schedule, ensuring compliance with standards before recommending payments to eligible beneficiaries, there were delays in some aspects of the project. For example, some beneficiaries raised concerns about slow fund disbursements, particularly under the United Nations Office for Project Services (UNOPS), but the situation improved after 2018 when FAO transitioned to its own grants management system, which proved more cost-effective. Delays were also experienced in the procurement and delivery of processing equipment, and the development of the Market Intelligence Information System and TIMBERMART platform. By the end of the project, only 14 out of 27 pieces of processing equipment had been delivered.
45. There were further setbacks related to the contracting process with SPGS III partners, such as FSSD, UTGA, NaFORRI and NFC. Most letters of agreement (LOAs) were signed in the second half of 2018, nearly two years into the project, due to lengthy discussions between FAO and partners to finalize scopes and budgets. While partners met their output targets by the end of the project, the delays meant that the full impact of their work would not be seen until after project closure.
46. Additionally, some training events under SPGS III were criticized for their insufficient duration and participation. For instance, the one-day training on pests and disease management was deemed inadequate given the complexity of the subject. Some district forestry officers were also excluded, limiting the knowledge transfer to farmers in certain districts. Similarly, the forest engineering operations training, typically lasting three weeks, was condensed to two weeks, a change attributed to limited funds. This issue of inadequate funding allocation was exacerbated by overperformance in plantation establishment, which diverted resources from other activities.
47. The project's logframe, designed for monitoring and evaluation (M&E), had several weaknesses that affected its ability to effectively track performance. Although a revised logframe was produced, it lacked baselines, targets and gender-disaggregated indicators, and it sometimes confused quantitative and qualitative measurements. The indicators used to assess progress, such as the number of exhibitions or workshops, were not always appropriate for evaluating key outcomes like the regulation of forest product markets or the enhancement of institutional capacity for research in the forestry value chain. As a result, the M&E framework struggled to guide project implementation and monitoring.
48. Despite these challenges, the project's M&E system effectively used data for decision-making and adaptive management. Biannual verification of areas planted or pruned by grantees was rigorously conducted, with data helping to manage payments in accordance with the project's standards. The project also conducted several studies, including a mid-term evaluation (August 2019) to assess progress and provide recommendations for improvement, and annual reports that monitored the implementation of project outputs. Additionally, studies on gender in plantation forestry and sawmill types guided key project decisions, such as the selection of equipment purchased under the initiative.

Impact

49. The SPGS III project has had notable impacts on rural economies, including increased employment, improved incomes and infrastructure development. Some districts reported higher local revenue collections due to the levy imposed on the movement of forest products like logs from plantations. The infrastructure improvements, such as roads, which were initially built to serve plantation owners, later had a broader positive impact by improving communication and the movement of goods in rural areas, thus benefiting local economies.
50. In certain regions with substantial forest plantations, new wood processing facilities, such as plywood factories, have been established. These private enterprises create a market for logs produced by tree farmers and provide employment to the local population, contributing to better livelihoods in rural areas.
51. The expansion of plantation forests has had positive environmental effects, with preliminary evidence suggesting improved microclimates and a reduction in pressure on natural forests. As more wood is sourced from plantation forests, it has become more affordable and accessible, reducing reliance on wood from natural forests. Additionally, areas where broad-leaved trees have been planted reported a decrease in heat waves and prolonged dry spells, contributing to a more stable local climate.
52. Rural communities have benefited from employment opportunities, particularly through tree nursery operators and commercial tree planters. Women and youth were actively engaged in various nursery operations. In areas where the plantations are close to local communities, community members also sought employment in plantation-related activities. However, in more remote areas with fewer local inhabitants, labour was often imported to meet workforce demands.
53. The introduction of downstream processing technologies, such as sawmills and plywood factories, has created some employment opportunities, but these technologies tend to employ fewer rural workers than plantation activities. Sawmills, for example, typically employ six to eight individuals, and many processing facilities are located near urban areas, providing more opportunities for urban or semi-urban workers with technical skills.
54. Additionally, tree plantations have served as refugia for grazing animals during severe dry spells in some clusters, with some tree farmers allowing local communities to graze livestock in older plantations. However, there are concerns about potential damage to trees and fire risks from grazing, especially when herders set accidental fires.
55. The project also faced challenges related to encroachment on Central Forest Reserves (CFRs), where SPGS III beneficiaries planted trees on land previously encroached upon by local communities. This led to conflicts between tree farmers and encroachers, with some local communities attempting to return to the land, cutting trees or clashing with plantation owners. To address these issues, some tree farmers used the Taungya system (a form of agroforestry) during initial planting, which fostered healthier young trees and improved relations between tree farmers and neighbouring communities when carefully controlled.
56. Commercial tree planting under the SPGS III project did not undermine national food security. It has mostly been confined to marginal lands or CFR lands designated for plantation development, with minimal impact on prime agricultural land. Some private landowners, especially those with "idle" land, used tree planting as a way to safeguard their

property against land grabbers, further reducing the risk of land being taken for non-agricultural purposes. Consequently, tree planting has not significantly displaced food crop production or threatened the country's food security.

Sustainability

57. The sustainability of the achievements of SPGS III will depend on several key factors:

- i. Capacity development of relevant institutions: strengthening the institutions that are mandated to support the commercial forestry sector, such as FSSD, DFS, NFA, UNBS, NFC and NaFORRI, is crucial for ensuring the long-term sustainability of the gains made. However, continued support is necessary to fully build their capacities.
- ii. Market opportunities: market demand for wood products will be critical to the sustainability of tree growing activities, whether in forest reserves or on private land. Large scale growers are expected to continue their operations, with or without continued external support, as long as there is demand for their products.
- iii. Planting standards: there is a concern that in the absence of project support, tree planting standards may decline as growers attempt to reduce costs. However, if enforcement agencies maintain standards and if the market demands high-quality wood products, then these standards could be sustained over time.
- iv. Wood processing equipment: the emergence of wood processing facilities, such as sawmills and plywood industries, not directly supported by FAO/SPGS, offers a potential pathway for sustainability. Continued investment by tree growers in timber plantations will be vital to keeping these industries viable.
- v. Downstream processing capacity: while the capacity of institutions responsible for value addition, such as UTGA, was limited during the project, the equipment provided towards the end of the project offers prospects for sustainability. The support from the World Bank to manage the machinery for the first two years could further enhance sustainability, depending on the success of this support.
- vi. Training and research: commercial forestry training and research are likely to be sustained through integration into the regular activities of supported government institutions, which already have established frameworks for reviewing and updating their research and training agendas. However, the activities of forums like COMFORT might see a reduction in frequency due to limited funding from the government, unless external donors step in to provide continued support.
- vii. Sustainable financing: one of the key challenges to sustainability is the lack of sustainable financing mechanisms. Both tree planting and downstream processing require significant capital, and without access to affordable credit, the long-term viability of the sector may be threatened. The continuation of discussions with financial institutions like the East African Development Bank and the Uganda Development Bank to secure future funding will be essential for sustaining the project's achievements.

- viii. Climate change risks: climate change presents additional risks to the sustainability of the project, particularly in terms of changes in precipitation patterns that could affect planting and seedling survival rates. The increased unpredictability, severity and frequency of weather events may also elevate the risk of pests, diseases and fires, which would particularly affect monoculture plantations.
- ix. Support for implementing partners: the project provided significant support to implementing partners like UTGA, FSSD, NFA and others, but further support is necessary for these institutions to perform their roles effectively. The lack of financial resources from the government and other sources has made it difficult for the project to provide sufficient backing to these institutions, and additional resources will be needed to ensure they can continue their work.

Coherence and coordination

- 58. The SPGS III project had a well-functioning national Steering Committee that effectively addressed project management issues at the national level. However, there was weak collaboration at the field level with key stakeholders, such as district local governments and NFA field staff, who were largely excluded from project activities. While some district forestry officers participated in training community groups and distributing seedlings, their involvement appeared to be ad hoc, rather than a routine collaboration with the DFS staff. Additionally, cluster meetings ceased after the COVID-19 pandemic lockdown, and there were no efforts to hold virtual meetings for field-level stakeholders.
- 59. The project missed an opportunity to integrate value addition, particularly briquette manufacturing into existing government and partner initiatives aimed at addressing fuelwood demand. Although efforts were made to include refugee settlements in districts like Kikuube, Kamwenge, and Yumbe by establishing 100 ha of woodlots, the project did not fully coordinate with other related projects, such as those addressing sustainable energy solutions for refugee and host communities.
- 60. The project also attempted to connect tree farmers to the carbon market through the Uganda Carbon Bureau and link beneficiaries to financial institutions, but both initiatives were largely unsuccessful. These efforts may need further follow-up through UTGA or FAO if similar projects arise in the future.

Cross-cutting issues

- 61. SPGS III made significant efforts to address equity and inclusivity, particularly for small-scale landholders. The project faced the challenge of balancing equity with the need for economies of scale and efficient supervision of numerous small-scale farmers. Efforts were also made to ensure transparency, with application information widely disseminated through various media. However, there was no mechanism to provide timely feedback on applications, particularly for those not approved.
- 62. The initial design of SPGS III did not adequately address gender considerations, resulting in low female participation. However, following a gender study, efforts to mainstream gender improved, including a gender needs assessment and affirmative actions to encourage women's involvement in tree growing. Despite time constraints and COVID-19 challenges, a gender action plan was developed to address key gaps, such as the lack of a gender focal point, understanding of gender mainstreaming, gender targets, disaggregated data, and

targeted communication initiatives. Although the gender action plan remained a draft, many of its proposed actions were implemented, leading to improved female participation in the project.

Conclusions

63. The project (in addition to what was achieved under previous phases of SPGS) has made tremendous achievements in setting and enforcement of quality and standards in plantation forestry (nursery operations/planting materials production, planting, maintenance; as well as some standards in value-added products); which need to be maintained and enforced if the subsector is to remain technically vibrant and economically viable.
64. Although the project outright discouraged the use of Taungya in plantation establishment, Taungya can be very beneficial for tree establishment if well managed in the initial establishment of tree plantations as it helps in weed control, which is a big challenge in young tree plantations. However, Taungya should not be tried in areas where the neighbouring communities are hostile, such as areas that were encroached upon by local communities before planting.
65. The project focused most of its institutional support for research on upstream forestry activities (plantation establishment and maintenance), yet the beneficiaries now need more technical support in downstream activities (harvesting, value-addition and marketing) since most of them have plantations that are ready for harvesting and processing. Future effort in this area should focus on downstream activities, with a clear dissemination strategy for the research results, in both hard and soft copies targeting all key stakeholders and ensuring they are well coordinated in digesting and disseminating the research results as well as defining future research needs and priorities.
66. While gender mainstreaming is often a cross-cutting issue, there should be a deliberate effort to pronounce it in the project document(s) with clear objectives, activities and milestones for measuring performance along the implementation path. This should also be reflected in personnel recruitment and deployment, as well as in the project monitoring and all progress reporting, rather than waiting till the end of the project.
67. Comprehensive stakeholder mapping should always be undertaken to identify knowledge-access constraints, and this would have facilitated design of an appropriate communication strategy for the different categories of target audiences.

Recommendations

Recommendation 1. FAO, in collaboration with strategic donors and Ministry of Water and Environment/FSSD should in future work together from the beginning to ensure that financial support for tree growers for future projects tailored along the SPGS model should be staggered until the farmers start earning from the plantation; and the length of the support should be tagged to the rotation period/growth rates of the trees planted (to discourage the premature cutting of trees that take longer to mature like pine, in order to plant fast growing ones, like eucalyptus).

Recommendation 2. Project management teams in future should put more effort in use of local advertisement media (in addition to national ones) of support for tree farmers using local means such as community radios, in the locations where the tree growing is supposed to take place, to encourage and facilitate participation of local community members in the process.

Recommendation 3. FAO, in collaboration with strategic donors needs to invest more in further training and research in tree pests and diseases; as well as in laboratory facilities and equipment for pests and disease identification and management. This should include facilities for the preservation and creation of samples of disease-causing organisms, diseased plant parts; as well as specimens of tree pests for use in pest identification (by comparison with the preserved specimens).

Recommendation 4. In future projects in the forestry sector, where curriculum development/review is of interest (as it was in SPGS III), FAO, in collaboration with strategic donors, should ensure that the review is conducted at all levels of forestry training (technical level and graduate level). In SPGS III the project only supported curriculum review at NFC (certificate and diploma awarding Institution), excluding the degree awarding institutions/universities. The curriculum review should lead to ensure that forestry professionals at all levels have a shared understanding of the updated aspects of the revised curricula, facilitating harmonious implementation.

Recommendation 5. FAO should endeavour, in collaboration with strategic donors and FSSD, NFA and DFS to invest more in further research in spacing of different species in a plantation setting, including Indigenous tree species as well as species-site matching to avoid tree failure after planting; as well as documenting success stories that can be scaled up for benefit of more tree farmers and failures for avoidance by other farmers. The recruitment of more Indigenous tree species in plantation forestry could answer the need for increasing species diversity in plantation forestry as well as widening the species choices for enrichment planting in rehabilitation of degraded forests and woodlands. Indigenous tree species should be used in fire-lines; where natural sheltered exist (e.g. in valleys within plantations), they should be left uncleared. These areas can serve as natural shelterbelts while also acting as reservoirs and refugia for Indigenous biodiversity (plants, amphibians, reptiles, birds, mammals, etc.).

Recommendation 6. FSSD, being the overall supervisor of the forestry sector should (in collaboration with relevant donors and non-governmental organizations [NGOs]) ensure that projects such as SPGS work more closely with relevant institutions such as NFA and relevant NGOs for those planting in CFRs; to ensure coordinated implementation and maximize support to the project beneficiaries; and with district technical staff (district forestry officers, district environment officers, district agriculture officers, district community development officers), share reports with them for effective mobilization and communication at the local level. Involvement of district local governments in selection and vetting of project beneficiaries could help weed out speculators; as well as make supervision of tree growers outside CFRs more effective; and aligned with the current law governing forestry outside protected areas.

Recommendation 7. The government should support the FSSD and UNBS in setting up up-to-date, state-of-the-art laboratories and skilled technical personnel to enforce forestry standards. Donor support could significantly bolster these efforts, as government efforts are often insufficient. These laboratories should not only be based in Kampala, but decentralized at least up to cluster level, to bring services closer to the people and facilitate enforcement and compliance. Attempts should be made to work with other interested stakeholders such as the National Housing and Construction Company, which is in the process of establishing regional laboratories for testing timber properties for suitability in housing construction. Leveraging such infrastructure and facilities with clear terms of engagement, where available, could reduce costs compared to each entity having to construct its own laboratory.

Recommendation 8. FAO should support FSSD and NFA need to bring on board small-scale landowners and tree growers in rural areas if the aim of improving their livelihoods is to be realized. Attempts should be made to cater for small-scale owners by encouraging them to form community groups/clusters to benefit from project support to grow trees on a commercial scale, not just woodlots for fuel wood; even to look at innovative ways of supporting small-scale tree farmers at “Trees-on Farm” level, since they contribute significantly to environmental benefits, especially when there are many of them. This should be further explored for future projects, similar to or tailored along the SPGS model.

Recommendation 9. FAO, in collaboration with FSSD, DFS and strategic partners in the agriculture and other relevant sectors, should link tree planting project activities with other compatible economic activities like livestock such as goat rearing, beekeeping, especially when the trees are big enough to withstand animal damage; and other activities like tree-friendly income-generating activities such as ecotourism, to increase intermediary incomes as the tree farmers wait for the trees to mature.

Recommendation 10. FAO and FSSD should work together to promote and encourage social harmony especially in areas which had suffered encroachment by local communities, which had a tendency of high levels of animosity between local communities and tree farmers in their neighbourhood. Harmonious relationship with local people is important for both parties, with local people being allowed benefits like free firewood, grazing their animals in areas with old trees, growing crops in areas that are to be planted the next season and providing hired labour to the tree farmers, thereby improving their benefits to both parties. In such a scenario, local people can also be useful in case of fire outbreaks and reporting other illegal activities in the forest plantations to their owners.

Recommendation 11. FAO should endeavour in future especially for complex projects that are influenced by a number of social, economic, political and institutional processes, to include a theory of change in the design. In identification, selection and provision of support to beneficiaries, it is important to clarify the pathways of the anticipated change and impact. For instance, enhancement of rural population incomes through job creation and “outgrower” schemes or inclusion of corporate social responsibility terms within the contract terms for beneficiaries.

Recommendation 12. FAO should work with strategic partners to build technical capacity within SPGS and other implementing partners in relation to downstream processing and utilization. The implementing team should have highly skilled technical personnel in value addition and limit dependence on consultants. Even where a consultant is engaged, there should be an institutional employee attached to the consultant to understudy and guide what the consultant is doing, and to be able to carry on the work the consultant started after the consultancy.

Recommendation 13. FAO should work with FSSD, NFA, and tree farmers and wood processors to ensure that recommendations of wood processing equipment for planters are commensurate with the knowledge and skills of the processors/investors. Investment in equipment that have a high recovery percentage but less hi-tech should be prioritized for the early development phase of downstream processing with the option for an organic growth of the technologies adopted. The high maintenance costs of high-tech equipment for small-medium scale processors may be a discouragement for many.

Recommendation 14. FAO should spearhead an organization audit of UTGA to determine its business development needs and enhance its organizational, technical and financial capacity, as it

has the potential to become the cornerstone of the commercial forestry industry. Furthermore, UTGA should consider establishment of cluster based associations to enhance information exchange (backwards and forwards), coordination with field-based DFS and NFA as well as organizing cluster-based trainings and cluster-based self-audit/regulation in standards enforcement.

Recommendation 15. FAO should further train and mobilize associations including UTGA, Forest Contractors Association and Nursery Operators Association to be more proactive to be relevant to their respective members. Whereas these associations can and should play a significant role in promoting standards and enhancing profitability of its members' investments, a number of potential subscribers are not aware of the existence of the associations and/or do not see the benefit of subscribing as members.

Recommendation 16. FAO should support the commercial forestry subsector (which has grown tremendously over the past 15 years), to conduct comprehensive studies to document trends and inform development pathways. These studies include: contribution of the commercial forestry sector to rural population incomes/job creation; cluster-based informal and formal wood processing industries in relation to wood resource availability. Likewise, FAO should also support the development and dissemination of guidelines of timber standards and the enforcement of the standards. Engagements with FSSD, UNBS and other partner institutions to ensure enforcement while engaging wood users such as the Public Procurement and Disposal Authority, the Government of Uganda (and procurement entities in government ministries, departments and agencies), the Uganda Electricity Transmission Company Limited, the Rural Electrification Agency, the National Housing and Construction Company and other large construction companies to enforce compliance and promote the legal commercial timber growers and dealers to get market for wood.

Recommendation 17. FAO, in collaboration with strategic donors and partners should support preparation of strategies to enhance marketing of forest products to ensure a good return on investment for private tree growers is prioritized. The low market prices of timber and wooden poles are unlikely to encourage sustainability of the private tree growers in the sector. Attractive market prices will stimulate private planters' investment in processing equipment as already demonstrated by planters who have invested in processing equipment without project support. Value addition for thinning and offcuts to enhance profitability of tree planting investments should be prioritized. In addition, marketing and branding of quality timber and other wood products with identifiable chain of custody should be enhanced.

Recommendation 18. FAO should support FSSD, NFA, DFS, UTGA and other interested partners to enhance consumer awareness for branded wood products with identifiable chain-of-custody. Market ignorance and appreciation of timber standards distort market prices. Cheaper timber on the local market largely from trees harvested prematurely and cut to smaller sizes than recommended appear to appeal to local markets. However, enhanced enforcement of timber standards coupled with consumer awareness should provide market opportunities for tree planters who are producing wood products following recommended standards.

Recommendation 19. FAO should mobilize more financial resources to support the development of a commercial forestry information system to enhance evidence-based decision making. The information system should include cluster-based forest resource assessment data. Such data should be disaggregated to include location of the plantations (CFR vs private land), tree species, age and processing technologies in place, among others. The training and practice in forest

inventories that were piloted in 32 districts in Central and South-Western Uganda should be upscaled to cover more clusters and districts.

Recommendation 20. FAO should mobilize more financial resources to enhance capacity of training institutions to conduct technical training sessions, including primary and secondary wood processing. Makerere University and NFC should be engaged to ensure the training component can be sustained in the long-term. These training sessions should be regular and advertised widely.

Recommendation 21. FAO, in collaboration with FSSD, NFA, DFS and NGOs, should further support the promotion of bamboo, which has been progressing well with many tree farmers interested in bamboo growing, some under the Uganda Bamboo Association. This should go hand in hand with sensitization and law enforcement to contain challenges like livestock grazing on the young bamboos, which can be a great challenge for their establishment; as well as investing in bamboo-specific processing and value addition equipment for bamboo products.

Recommendation 22. Government needs to invest in/provide incentives to tree farmers to acquire value-addition equipment at subsidized/low interest rate loans. This can be done by government providing “ring-fenced” funds to development banks which can only be lent to investors in the forestry sector, at friendly interest rates. UTGA needs to pursue this effort further with support from FAO to ensure efforts put in this endeavour during SPGS III do not go to waste.

Recommendation 23. Whereas the standards have been developed, they were considered as highly technical documents that require subsequent development of guidelines to ease their comprehension and adoption by stakeholders. Similarly, dissemination of the standards and the subsequent guidelines is critical given that most stakeholders, especially field based staff (FSSD, NFA, DFS and private tree planters; and wood processors and users) are currently unaware of these timber and other wood products standards. FAO should therefore endeavour to further support this area, with support from relevant donors.

Recommendation 24. FAO, in consultation with donors, FSSD and other relevant implementing agencies, should endeavour (finances allowing) to implement some of the medium-term and long-term recommendations from the project mid-term review as highlighted in Table 7, which could not be implemented under SPGS III due to financial and time constraints.

1. Introduction

1.1 Purpose of the evaluation

1. This report presents the results of the final evaluation of the Sawlog Production Grant Scheme Phase III (SPGS III), a project funded by the European Union and implemented in Uganda. This independent evaluation was envisioned in the project document and was conducted primarily for learning purposes, and as an accountability mechanism for the European Union, the Government of Uganda, and the project team and partners.

1.2 Intended users

2. Findings from the evaluation will inform learning and accountability efforts by: i) the Ministry of Water and Environment, particularly its Forestry Sector Support Department (FSSD), the National Forestry Authority (NFA), the climate change department, and district forestry services (DFS) throughout the country; ii) resource partner (European Union) and the entire donor community; iii) implementing agency (Food and Agriculture Organization of the United Nations, FAO); and iv) communities who were the targeted beneficiaries. The evaluation evidence and findings will provide useful information for upscaling or replicating of projects, and for influencing policy among policy/decision-makers, resource partners, United Nations (UN) agencies and other regional and international bodies. The report will also be useful to private investors already active and those planning to venture into the plantation forestry sector.

1.3 Scope and objective of the evaluation

3. The evaluation covers the entire SPGS III implementation period (December 2015 to December 2021), and includes all project activities. The specific objectives of the evaluation are to:
 - i. assess the relevance and appropriateness of the project and its underlying approaches in terms of encouraging private sector investment in commercial timber plantations, increasing the incomes of the rural populations through commercial tree planting and mitigating the effects of climate change;
 - ii. assess the contributions of SPGS III, including its achievements under each result area;
 - iii. assess the SPGS III efficiency, including its implementation strategy, institutional arrangements as well as its management and operational systems and value for money;
 - iv. identify lessons learned and causes of success and failure; and
 - v. provide actionable recommendations for future programming.
4. The evaluation reviewed the short-term recommendations from the SPGS III mid-term evaluation to examine the extent to which they were implemented, and the medium and long-term ones to check their continued validity. The evaluation questions are presented in Box 1 below.

Box 1. Overarching evaluation questions

Relevance

EQ 1: How relevant are the project's objectives and scope to the country's priorities and the priorities of the European Union and FAO; as well as to other global treaties and commitments?

EQ 2: To what extent did the project scope/coverage adequately address the critical binding constraints to private sector involvement in commercial forestry, including research, training, value addition and marketing?

EQ 3: To what extent did the project design and activities (approach) support the achievement of intended project objectives?

EQ 4: How much has the context of the project changed since inception and how has the project adapted?

EQ 5: To what extent did the project scope and design incorporate lessons from the previous phases of the SPGS project?

Effectiveness/programme contributions and results

EQ 6: To what extent have the activities implemented contributed to achieving the intended outputs and outcomes of the SPGS project across the four outcome areas?

EQ 7: Did the project result in some unintended outcomes, either positive or negative? If so, which ones?

EQ 8: What factors contributed to the achievement or non-achievement of intended and unintended outcomes?

EQ 9: To what extent have project technical support, management systems and research enhanced development of the commercial forestry sector?

Efficiency

EQ 10: Have the project funds and activities been delivered in a strategic and timely manner? How efficient was the project implementation approach, including overall staffing, planning, coordination, procurement and number of implementing partners?

EQ 11: To what extent did the project monitoring and evaluation (M&E) strategy provide data analysis for accountability, management and learning through various studies conducted and can demonstrate project changes at outcome and impact level in the target groups?

Impact

EQ 12: To what extent has the project contributed to the higher-level effects of increasing the incomes of the rural population through commercial tree planting and to helping to mitigate climate change effects through intensive afforestation?

EQ 13: To what extent have rural communities been involved in the various aspects of commercial forestry (tree planting, forest contracting, nursery operations, value addition, etc.)?

EQ 14: What have been the impacts (both negative and positive) of the project plantation establishment activities on neighbouring communities during periods of weather extremes (e.g. grazing of domestic animals during dry seasons, effects of/origins of forest fires on the neighbouring communities, or the impact of rural communities on the forests during weather extremes)?

EQ 15: To what extent has forest plantation development impacted on land-use change, especially in uptake of prime private land for food production?

Sustainability

EQ 16: What are the prospects for sustaining the identified results and scaling-up activities beyond the projects' closure? Did the project design include an appropriate sustainability and exit strategy to promote national/local ownership and use of national capacity to sustain the positive changes after the end of the project? How well was this strategy implemented?

EQ 17: Did the project adequately support the implementing partners (Uganda Timber Growers Association [UTGA], Ministry of Water and Environment Forestry Sector Support Department [FSSD], Tree farmers, research and training institutions) for continued support to the commercial forestry sector after the end of the SPGS III project?

Coherence and coordination

EQ 18: To what extent was the project's operational modality and governance structure, including the government partnership and cluster mechanism at district level fit for purpose?

EQ 19: To what extent did FAO and its partners coordinate to manage the project and deliver results together?

Cross-cutting issues

EQ 20: In terms of equity, to what extent has the project benefitted small and medium-size landowners? Was beneficiary selection fair and transparent?

EQ 21: How were cross-cutting issues (gender, youth and equity considerations) mainstreamed in the project design, identification of beneficiaries and implementation?

EQ 22: To what extent did the gender action plan and the recommendations of the gender capacity assessments influence project implementation and project results?

1.4 Methodology

5. The evaluation was managed by the FAO Office of Evaluation and conducted by a team of independent evaluation consultants. It took place between August 2021 and March 2022. The evaluation used results-focused qualitative methodologies, triangulated by quantitative evidence where available, including that from inception, mid-term and periodic progress reports. Qualitative data collection methods and content analysis was used to identify, analyse and interpret evaluation findings. Contextual challenges and other limitations out of control of the programme team were considered when assessing effectiveness and efficiency, as described further under the limitations section.
6. The evaluation was guided by the overarching evaluation questions outlined in Box 1. To further guide data collection and analysis, the Evaluation Team developed a comprehensive evaluation matrix outlining the key themes to be explored, guiding questions and methods of extraction (Appendix 3). For each evaluation question, sub-questions with corresponding indicators and sources of information were specified accordingly.
7. The Evaluation Team ensured that approaches are in line with Office of Evaluation methodological guidelines, and adhered to the United Nations Evaluation Group (UNEG) Norms and Standards (UNEG, n.d.). The evaluation adopted a consultative and transparent approach with internal and external stakeholders throughout the process, in line with UNEG norms and Office of Evaluation guidelines and practices.

8. In answering the evaluation questions, the evaluation relied on multiple sources of primary and secondary data, and used a mixed-methods approach for data collection, analysis, triangulation and validation. The evaluation also relied on analyses of various sources of information, review of relevant project documentation, synthesis of evidence from relevant evaluations and studies, field visits and interviews with key stakeholders (beneficiaries, executing partners, the government, resource partners, among others). Interactions with stakeholders targeted individuals and groups of participants, guided by checklists and/or interview protocols developed prior to the evaluation mission. Table 1 highlights the various data sources used for the evaluation.

Table 1. Primary and secondary data collection sources

Primary data sources and collection	Secondary data sources
Three out of eight project clusters were selected for primary data collection: Central, Western and South-Western. The criteria for selection of clusters for field visits included: i. Geographical balance: good representation of the eight programme clusters, especially including clusters not visited during the mid-term evaluation (MTE). ii. Inclusion of clusters with a concentration of activities and combination of packages of support. iii. Inclusion of clusters involving support for downstream and processing of timber activities. iv. Inclusion of clusters involving support for research activities along the forestry value chains. v. Inclusion of districts/clusters with successes and failures (as assessed through interviews and desk review). vi. Presence of National Forestry Resources Research Institute (NaFORRI) research trials for dryland tree species.	i. SPGS III project documents, e.g. concept note, annual reports, mid-term review report, letters of agreement between FAO and different implementation partners, partners activity reports to FAO, project progress reports. ii. SPGS III studies, e.g. the SPGS Resource and Market Access, gender analysis in Forestry report, Modular Downstream – Integrated Sawmill Model for Uganda Report (2020). iii. SPGS I and II documents, e.g. SPGS II project closure report (May 2015). iv. FAO Uganda reports, e.g. the FAO Uganda Country Programming Framework 2015–2019 and the Country Programming Framework mid-term review (2018).

Source: Elaborated by the Evaluation Team.

9. Within the selected project clusters, stakeholders interviewed included: SPGS III beneficiary tree growers, non-beneficiary farmers, opinion leaders in project implementation areas, tree nursery owners, forest contractors, community groups, district local governments in the implementation areas (targeting forestry, environment and agriculture departmental staff as well as community development officers and administrative staff in the district), NFA field staff in areas where Central Forest Reserves (CFRs) were allocated for plantation development, and private farms hosting forest plantations. Institutions (both public and private) supported by the project were also targeted.
10. Within the three project clusters selected for fieldwork, visits were made to the districts and sites as outlined in Table 2 below.

Table 2. Locations of the selected clusters for fieldwork

Clusters (3)	Districts (13)	Specific sites/site characteristics	Selection criteria for site visits
Central	Mukono, Luwero, Nakasongola, and Nakaseke	Dryland trees research trial plots; certified seedlings/clones nurseries; forest contractors; community groups; old and young plantations	Inclusion of large, medium and small-scale plantations. Presence of both male and female beneficiaries. Inclusion of beneficiaries with old harvestable plantations are set to receive SPGS harvesting/value-addition equipment, while those with young plantations and will not receive SPGS harvesting/value-addition equipment.
Western	Mityana, Mubende, Kyenjojo, Kabarole, Kasese	Old and young plantations; large scale tree planters targeted for machinery from SPGS iii; trees subjected to resin-tapping; forest contractors, certified tree/clone nurseries; institutional woodlot	Presence of new and innovative practices like utilization of wood waste. Presence of community groups and institutions that benefitted from SPGS support. Presence of the National Forestry Resources Research Institute (NaFORRI) research trials for dryland tree species.
South Western	Mbarara, Isingiro, Rwampara, Kalungu	Medium scale planter; dryland trees research trial plot; certified tree/clone nurseries; community groups; forest-adjacent community; institutional woodlot	

Source: Elaborated by the Evaluation Team.

11. Within each of the sampled districts, the selection of sites to visit allowed evaluators to purposefully select respondents based on set criteria, while also incorporating other guiding aspects such as ensuring beneficiaries represented a range of interventions. The different types of stakeholders engaged in each of the districts is shown in Table 3.

Table 3. Number and categories of clients visited

Cluster	District	Category of tree planter (17)					Beneficiary adjacent communities (2)	Certified service providers (13)		
		Small scale	Medium scale	Large scale	NaFORRI dryland tree species trials	Institutional/community woodlot	Plantation border community	Certified clonal eucalyptus nursery	Certified forestry contractors	Certified tree seedling nursery
Central	Mukono		2				1	1		
	Luwero	3						1	2	
	Nakasongola			1	1	1			1	
	Nakaseke		1			1		1		
Western	Mityana	1								
	Mubende		1	1						
	Kyenjojo									
	Kabarole							1		
	Kasese									1
South Western	Isingiro		1			1				
	Rwampara						1			
	Kalungu					1				
	Mbarara				1					
Total		4	5	2	2	4	2	4	3	1

Source: Elaborated by the Evaluation Team.

12. Throughout the evaluation process, the Evaluation Team adhered to the Government of Uganda's COVID-19 standard operating procedures (SOPs), including proper social distancing, face mask use and sanitization. Whenever possible, key informant interviews (KIIs) and in-depth interviews (IDIs), especially at the national level (Kampala), were conducted remotely/online to minimize the number of face-to-face interviews. At the district and field levels, face-to-face interviews were used due to connectivity challenges. The discussions with beneficiaries were held in open spaces with no more than 15 beneficiaries per group as per COVID-19 guidelines, and discussions were kept brief.

1.5 Limitations

13. Time and resource constraints did not allow for extensive capture of primary quantitative data. Therefore, the evaluation relied on the review and assimilation of data and information available and on the collection of qualitative information from implementers, partners and beneficiaries. However, this did not affect the reliability of the findings and recommendations, as those stakeholders that could not be physically visited were interviewed virtually via Zoom and telephone, while the results were triangulated with quantitative secondary data which was available, such as mid-term review report, consultants' reports and the various project documents and progress and training reports.
14. Another limitation was the failure to meet some of the desired respondents during the field visits. This occurred in the districts of Kasese and Luwero. However, in some instances, the absence of the desired/targeted respondent was mitigated by their nomination/delegation of knowledgeable staff whom the Evaluation Team was able to interview and get the required information.
15. The COVID-19 pandemic restrictions limited access to some project beneficiaries and key informants, particularly those without capacity to participate in virtual data collection sessions. For those without virtual meeting facilities and technology, the evaluation resorted to phone interviews whenever possible.
16. At the time of the evaluation, some important project activities had only just been completed or were still ongoing. Additionally, some of the timber processing equipment had yet to be delivered. As such, the Evaluation Team was not able to sufficiently and adequately assess the effectiveness and impact of these activities.

1.6 Structure of the report

17. Following this introductory section, section 2 presents the background and context of the project; section 3 covers the findings of the evaluation based on the evaluation questions; section 4 covers the cross-cutting issues and how they were integrated in the project; while section 5 covers conclusions and recommendations.

2. Background and context of the project

2.1 Context of the project

18. Forest resources play a crucial role in the lives and livelihoods of many communities in Uganda. Households depend on a variety of forest resources such as firewood, charcoal, timber, poles; non-timber products such as honey, craft materials, fruits, medicinal products; and ecological services such as soil stabilization, air purification, amelioration of local climate and water recycling. Forest resources also provide raw materials for industries such as boat-building, carpentry and joinery and sawmilling. Uganda has a suitable climate for tree growth and land available for large-scale sawlog plantation establishment, including forest reserve land recently committed to large-scale plantation development.
19. In compliance with national goals and international commitments under the Convention on Biological Diversity, about 50 percent of Uganda's natural forest reserves had been gazetted for conservation purposes, which precluded timber harvesting opportunities. At the time of the project's conception, timber from natural forests (especially on private land) was rapidly being depleted and the land converted into agricultural fields, with limited forest plantations on private land.
20. Besides the unsustainable utilization of forests, additional constraints affecting the forestry industry included lack of a comprehensive inventory, scarcity of qualified human resources, lack of quality planting material (seeds, seedlings, cuttings of appropriate exotic and Indigenous species), weak market opportunities, low levels of investment in downstream processing, limited research in commercial forestry and an absence of adequate economic forest value chain data. Additionally, commercial forestry was not backed by favourable policies, the focus of which was mainly on reducing degradation of natural forests.
21. According to the 2016 State of Uganda's Forestry report, the forest estate shrunk from 24 percent of the total land area in 1990 to 9 percent by 2015. In terms of area, a total of 3.05 million hectares were lost in a span of 25 years. A large share of this deforestation was aimed at providing poles and timber for national and regional markets. Illegal and therefore lower-cost wood occupied a significant share of the market (over 80 percent) without any means of tracing the source of timber and ensuring the supply of legal wood. Furthermore, the quality of the legal timber produced was not meeting the demands for poles and the construction industry owing to the sub-standard planting materials and timber harvesting and converting practices employed.
22. Previous efforts by government to encourage private sector participation in the development of commercial plantation forestry in Uganda were hampered by risks and uncertainties such as: lack of quality seeds, lack of appropriate skills, low funding and incentives, and inadequate land tenure arrangements. Efforts to manage these risks and uncertainties prompted the Government of Uganda to approach the European Union for support, which culminated in the establishment of the Uganda's SPGS, whose first phase started in 2004.
23. The overall objective of SPGS was to encourage private sector investment in commercial timber plantations by providing grants and technical support to private sector investors in timber and large transmission pole crops. Phase I of SPGS (2004–2008) was funded by the European Union and the Government of Uganda while Phase II (2009–2014) also included funding from the Government of Norway, as part of their support to tackle climate change.

More than 10 000 hectares of commercial plantations and woodlots were planted by private growers in Phase I and 32 000 ha in Phase II. The implementation of SPGS I and II demonstrated that with the right levels and mix of incentives, Uganda could develop a thriving forest plantation industry that would increase the contribution of forestry to national development by raising incomes through employment and processing of products from forest plantations, all the while helping to mitigate climate change effects through intensive afforestation and reforestation.

24. The objectives of SPGS were consistent with government policy and objectives as outlined in documents such as National Development Plan (2015/16–2019/20), Uganda Vision 2040, and the relevant policies such as the National Forestry Policy (2001), National Climate Change Policy (2015), National Forestry and Tree Planting Act (2003), Uganda's National REDD+ Strategy (2017), the Forest Investment Program for Uganda (2017) and the National Environmental Management Act (1995, revised 2019). In these and other related documents, the Government of Uganda articulated its commitment to reducing further pressure on natural forests through the establishment of compensatory quality plantations with fast growing species. The Government of Uganda also recognized the need to engage the private sector in the implementation of its Forestry Policy enacted in 2001.
25. On 24 December 2015, the European Union and FAO signed a EUR16 million contract for the implementation of Phase III of SPGS (SPGS III). Project implementation was initially expected to last 55 months, but due to unpredictable and erratic weather patterns that affected and delayed some of the planned planting schedules, the European Union granted a 12 months no-cost extension of the project in May 2019. Consequently, the end date of the project was extended to 23 July 2021. It was further extended to 31 December 2021 to allow for the completion of key project activities, some of which had been delayed by the COVID-19 restrictions.
26. SPGS III was aimed at increasing the incomes of the rural population through commercial tree planting by small, medium and large-scale private sector actors and the local communities themselves, while at the same time helping to mitigate climate change effects through intensive afforestation. In turn, this would help meet the medium- and long-term industrial and market demand for sawlog products through the establishment of commercial plantations and ensuring downstream processing and utilization efficiency of the forest resources (timber, poles, biomass, etc.). Phase III was expected to build on the achievements of SPGS I and II by facilitating downstream processing and utilization efficiency of wood products from previously established plantations, as well as continuing to establish commercial plantations.

Table 4. Basic project information

Project title	Sawlog Production Grant Scheme (SPGS) Phase III
Project code	GCP/UGA/047/EC
Donor	European Union (EU)
Government implementing institution	Ministry of Water and Environment (MWE)
Project budget	EUR 16.04 million
Duration	72 months (55 months extended by 17 months)
Start date	24 December 2015
End date	31 December 2021

Source: Elaborated by the Evaluation Team.

27. SPGS III was built on a public–private partnership (PPP) model based on the principle of co-investment by both the beneficiary and the project. The project would pay the beneficiary a conditional and retroactive grant (subsidy) after the latter had made an initial investment in commercial tree planting. The conditions of the grant were primarily performance-based and verified through a process that ensured the physical establishment of quality plantations to SPGS documented standards. The financial grant was typically complemented by extensive practical field-based training and other technical inputs, including extension services. The grant payments were made according to the schedule shown in table 5 below.

Table 5. SPGS III Grant disbursement schedule

Contract size (ha)	Grant Instalment (UGX) per ha planted		Total grant per ha planted (UGX)
	3 months after planting (1st)	More than 6 months but less than 12 months after planting (2nd)	
15 ≤ 100ha	535 000	400 000	935 000
101 ≤ 500ha	535 000	400 000	935 000
501 ≤ 3 000	360 000	300 000	660 000

Source: Elaborated by the Evaluation Team.

28. The financial (grant) support provided by SPGS targeted small, medium and large-scale landholders with a minimum of 15 ha and a maximum of 3 000 ha (Table 5). Project beneficiaries who received different forms of non-financial support included i) community groups and/or other organized groups with interest in tree planting, who received planting material (seedlings and cuttings) and technical support; ii) private tree farmers received support to prune and thin their plantations in order to promote quality plantations; and iii) institutions such as schools, prisons and churches dependent on wood fuel, received support to establish woodlots for production of wood fuel for their own consumption. The number of beneficiaries supported through the different forms of support are shown in Table 6 below.

Table 6. Number of SPGS III beneficiaries supported

Beneficiary type	Number of beneficiaries
Large scale tree planter (501 ≤ 3 000 ha)	2
Medium scale tree planters (101 ≤ 500 ha)	78
Small scale tree planters (15 ≤ 100 ha)	282
Community groups and/or other interested organised groups	246
Public and private institutions	249
Thinning and pruning support*	131

Note: * The thinning and pruning grant was for growers around the country with trees ready for first thinning, which is essentially done at four to five years for pine and two to four years for eucalyptus trees.

Source: Elaborated by the Evaluation Team.

29. To achieve its intended objectives, the project was designed with the four outcomes and 11 outputs below (Box 2).

Box 2. SPGS III project outcomes

Outcome 1: Commercial plantations developed to acceptable national standards:

- increased access to high quality inputs for sawlog production;
- increased participation of communities and smallholders in establishing plantations;
- enhanced skills and knowledge among forestry value chain actors; and
- increased availability of spatial and non-spatial information on forest plantations.

Outcome 2: Forestry stakeholders better capable of performing their mandates:

- policy, legal and institutional framework updated for increased support to the commercial forestry sector;
- functional capacity of public institutions to support, regulate, coordinate and monitor the forestry sector strengthened; and
- technical capacity of private sector and other stakeholders strengthened.

Outcome 3: Downstream industrialization of processing and utilization of forests products:

- technology, skills and methods for processing and utilization of forest products enhanced; and
- regulation and coordination of forest product markets enhanced.

Outcome 4: Applied research for development integrated along the forestry value chain:

- research agenda for commercial forestry developed; and
- institutional capacity for research along the commercial forest value chain increased.

30. SPGS III was implemented across the whole country and was organized into eight regional clusters, namely: i) Albertine; ii) Western; iii) Central; iv) Northern; v) South-western; vi) Karamoja; vii) West Nile; and viii) Eastern Uganda (see Figure 1 for the location and extent of the eight clusters).¹
31. The project was implemented mainly through letters of agreement (LOAs) with key stakeholders involved in commercial forestry. Key partners involved in SPGS III included: the FSSD of the Ministry of Water and Environment, Uganda Timber Growers Association (UTGA), NFA, National Forestry Resources Research Institute (NaFORRI), Nyabyeya Forestry College (NFC), and DFS. FSSD is mandated to coordinate all activities in the Uganda forestry sector while NFA is a semi-autonomous agency mandated to manage all CFRs (where many project

¹ The operational area of SPGS III covered the six clusters of SPGS I and II, plus two additional clusters of West Nile and Karamoja (making a total of eight clusters for Phase III).

beneficiaries were granted licenses to grow trees). DFS under local government are mandated to manage Local Forest Reserves (LFR) and provide forest extension services to local communities and private forest owners. Though not directly supervising forestry activities, other district officials such as environment, agriculture and community development officers, are mandated with different responsibilities relevant to SPGS III including climate change mitigation, rehabilitation of degraded lands, community development and documenting livelihood improvements resulting (at least partly) from the project activities. Grant management support was initially provided by the United Nations Office for Project Services (UNOPS), a specialized organization of the United Nations with experience in small and large grant management, but later provided by FAO Country Office, after the former proved very bureaucratic and slow.

32. The SPGS III project had a dedicated Project Management Unit with numerous staff involved in different aspects of project implementation. The Unit was headed by a National Project Coordinator (NPC), who was assisted by an Assistant NPC. The team included one Programme Officer/Head Outcome 4 and three Programme Associates, each overseeing one the remaining Outcome (1, 2, and 3). Additionally, the project had eight Programme Assistants, one Communication Assistant, two Administrative Assistants, one Geographic Information System (GIS) expert and one resident international consultant on business and forest plantation development. Several short-term consultants were also engaged on: assessment of wood resources and markets; biomass and residue strategy; modular sawmill approach; and Integrated Forest Management Information System. The FAO country representative and his personnel also provided management oversight and administrative support to the project.
33. The Governing Body of SPGS III was the Project Steering Committee, with representation from: the Ministry of Water and Environment; FSSD; Ministry of Finance, Planning and Economic Development; NFA; UTGA; the private sector; FAO; and the European Union as an observer.

2.2 Theory of change

34. SPGS III was designed with a logical framework (logframe) and a monitoring and evaluation (M&E) framework but not an actual theory of change (TOC). The logframe was reviewed to better reflect the results framework.
35. The logic of the project's logframe was that by increasing the participation of rural communities and smallholders in the development of commercial plantations according to acceptable national standards, and by creating an enabling environment for commercial forestry including through support for generating sustainable demand for the produced timber/poles, there would be improved value addition and increased revenues and incomes from forests. The effects of climate change were expected to be mitigated through intensive afforestation.
36. The SPGS III design assumed that stimulating the downstream demand for forest products by national industries, including through dedicated research and creating an enabling environment, would attract and increase the involvement of the private sector in commercial forestry. This increased private sector involvement would in turn increase employment opportunities for the rural population in both plantations and in support services such as in nurseries, milling, processing, timber trade and supply of forest consumables, etc. This would

ultimately result in increased incomes for the rural population, better quality timber and less deforestation.

2.3 Highlights of the SPGS III mid-term review

37. SPGS III underwent a mid-term review (MTR) in 2019, at the end of which several recommendations were made. The recommendations were separated into three categories: i) short term, those that could be effected within the remaining duration of SPGS III; ii) medium-term (three/four years from the time of the mid-term review, or after SPGS III ends), to provide the most relevant actions for a potential future European Union-supported, FAO-implemented programme for the commercial forestry sector and green economy; and iii) long-term (seven/eight years from the time of evaluation), for recommendations that were perhaps on less immediate needs than the medium-term ones, but which were important for the health of the commercial forestry sector, a green rural economy and forest conservation in Uganda.
38. The following Table 7 summarizes the key recommendations from the mid-term review and the status of their implementation by the time of the final evaluation.

Table 7. Mid-term review recommendations and their status of implementation

Mid-term review recommendation	Status of implementation
Short-term recommendations	
Engage in dialogue and advocacy with the Public Procurement and Disposal of Public Assets Authority, the procurement units of key ministries, departments and agencies, and the Uganda National Association of Building and Civil Engineering Contractors to develop policies and standards for the purchase of legal and quality wood, and thus create market for SPGS legally produced timber.	Partly implemented, but needs further follow up. One of the key aspects for trade in legal timber is having timber grading standards in place. The project supported the Uganda National Bureau of Standards (UNBS) to develop softwood timber standards; trained 33 timber graders of whom 26 were presented to the Ministry of Water and Environment for gazetting as national recognized timber graders.
Develop the capacity of UTGA and other partners and SPGS III staff to improve standards and their enforcement; downstream processing and markets.	Partly implemented in collaboration with UNBS, FSSD; more work needed. Activities for capacity building for UTGA were majorly implemented under the framework of the LOA. These included: i. UTGA was supported to facilitate a Forest Stewardship Council certification audit as part of the process to secure group certification for UTGA members (certification is a tool to facilitate access to markets). ii. UTGA organized three forest fairs as a strategy for marketing sustainably produced forest products. iii. Development of TIMBERMART application to enhance market opportunities as part of the market intelligence system. The application awaits approval from Android and IOS platforms. The application, to be regulated by UTGA, is used by commercial tree planters and/or wood processors to advertise their wood products after verification by the application host (UTGA). iv. Supported UTGA to construct a timber yard shed and procured various wood processing machinery for

Mid-term review recommendation	Status of implementation
	exhibition of good practices in timber grading and value addition. Activities directly implemented by the project The project organized trainings including: chain of custody (COC) certification, ISO certification and forest management certification and training on saw milling and timber drying that targeted private sector actors engaged in wood processing and SPGS staff to increase their knowledge and skills on efficient wood processing practices.
Conduct a study to explore the different options to support efficient timber-harvesting.	Rather, a study on <i>“modular downstream-integrated sawmill model for Uganda”</i> to inform choice and selection of sawmilling equipment was found to be more informative than just a restricted study on only harvesting. This is what was conducted and provided relevant information in choice and selection of sawmilling and other wood processing technologies.
Convene non-governmental organizations (NGOs) and other organizations providing support for commercial tree-planting and agroforestry to develop ways to cost-effectively integrate communities in larger-scale commercial forestry.	
Conduct an expert study on the different options for planter/processor institutions and their financing arrangements; training needs assessment; then provide training to interested planters, processors and investors on institutional development, including membership governance and financial management.	Partly implemented: Although the study was not implemented, the project organized a training on development of bankable business plans to support investors engaged in tree planting and wood processing to acquire skills to develop bankable business proposals for possible external financing. There is need for follow up action in the future, if there is an opportunity.
Introduce some specific changes to the participation of planters in SPGS III and to the plantation grant process for the remaining period to improve governance, private-sector development and women’s participation.	Partly implemented through introduction of affirmative action for: - women; and - Karamoja and West Nile (clusters brought on board during SPGS III), to encourage more farmers into commercial forestry
Ensure the safe use glyphosate as a herbicide, including by contractors. Suspend its use or substitute it with alternatives, if necessary, until verifying whether or not glyphosate is a cancer-causing agent.	This is an ongoing discussion at the global level. As a result, different countries have set up country specific guidelines on use of glyphosate. In Uganda, glyphosate is still an acceptable herbicide. Following this recommendation, the project subsequently sought guidance from the Ministry of Agriculture, and subsequently clearance was provided.
Mid-term recommendations – three/four years: the European Union and FAO should:	
Design and implement a competitive financing mechanism to enable planter/processor institutions to purchase timber harvesting equipment, sawmills and other value-adding technologies.	
Develop the private sector for sustainable wood value-addition to produce quality finished goods for national, regional and global markets, in line with the national	Some project activities such as developing timber standards, supporting UTGA to set up a modern timber yard, supporting private sector acquire modern wood processing machinery for

Mid-term review recommendation	Status of implementation
development and national forestry plans, both of which call for the production of higher-value, finished wood-based goods.	production of higher value added finished wood all feed into this recommendation.
Develop the skilled labour and capacity of national and local vocational institutions, and the private sector, to produce high-value finished goods and increase decent rural employment, aligned with FAO's mandate for poverty reduction.	
Provide technical and institutional guidance to the network of NGOs involved in community agro-/forestry on how to cost-effectively support commercial tree-growing at community level for the purposes of expanding tree cover and improving rural incomes.	
Offer a limited financing scheme for planters to grow native tree species on 10 percent of their land, in line with the growing government interest in introducing Indigenous species into commercial forestry; to break the monotony of monocultures of the exotic pine and eucalyptus. This would increase ecosystem services and carbon sequestration by plantation forests.	
Support the establishment of a Forest Management Information System (FMIS) for the commercial forestry sector, to gather, monitor and analyse data on plantation resources and economic activities and make decisions for long-term sector planning.	
Create a Climate Information, Early Warning and Disaster Preparedness System for the commercial forestry sector, to enable all tree growers to adapt their activities to changes in the climate and prevent damage.	
Long-term recommendations – a seven/eight years: the European Union and FAO should:	
Reduce the minimum eligible area for the plantation establishment financial grant to 2-3 ha, to reach a larger number of private planters and small-scale landholders who are mainly in Uganda; thereby enabling more rural communities to share the benefits of commercial forestry, improve their livelihoods (in line with one of the objectives of SPGS III) and expand tree cover beyond CFRs and associated environmental benefits.	
Develop the policy framework for downstream processing and timber markets to both support the commercial forestry sector but also properly regulate it.	Project alongside UTGA has had several engagements with the Ministry of Water and Environment, specifically as part of discussions to address the complaint about obstacles for exporting wood products.

Mid-term review recommendation	Status of implementation
Pursue carbon market finance for commercial tree plantations, including of communities and smallholders, and improve the quality of data on carbon sequestration in plantations. Given the aim of restoring tree cover in Uganda and the global effort to reduce CO ₂ emissions, efforts should be made to show by how much commercial forestry has been contributing to mitigating climate change and drawing on the opportunity to reward and incentivize tree-planting.	
Promote legal timber in Uganda and reduce deforestation, develop a fund supported by private sector forestry actors to improve enforcement against illegal timber imports and extraction from natural forests within Uganda.	
Promote affordable solar or other non-wood energy technologies as alternatives to wood biomass in order to better reduce deforestation in the long-term and move towards a rural green economy; in addition to promotion of technologies that convert wood waste into energy, such as biomass briquettes.	In line with this recommendation, the project was deliberate to include support to technology for converting wood to waste to produce briquettes.

Source: Elaborated by the Evaluation Team.

39. The medium and long-term recommendations were not expected to be implemented within the lifespan of SPGS III. However, the project commenced work on some of the medium-term and even long-term recommendations as shown in Table 7 above. Although they did not complete the work required, a good start was made and any future phase of SPGS III or any other future investment in plantation forestry could continue from there. More work needs to be done to bring the two sets of recommendations (medium and long-term) to a meaningful conclusion.

3. Evaluation findings

3.1 Relevance

EQ 1: How relevant are the project's objectives and scope to the country's priorities and the priorities of the European Union and FAO; as well as to other global treaties and commitments?

Finding 1. The project objectives and scope were highly relevant and consistent with national and global development objectives and policies, as well as the priorities of the donor (European Union) and the implementing agency (FAO).

40. The project was well aligned with the Uganda National Forestry Policy (2001), National Forestry and Tree Planting Act (2003), Forest Investment Program for Uganda (2017), National Development Plan (2015/16–2019/20), Uganda Vision 2040, National Climate Change Policy (2015) and Uganda's National REDD+ Strategy (2017). It was also well aligned with international commitments and treaties associated with these national policies, laws, strategies and development plans, including the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC) and the Bonn Challenge/AFR100, among others. The premise of the SPGS project was consistent with the Government of Uganda commitment to reduce further pressure on natural forests through the establishment of compensatory quality plantations with fast growing species.
41. SPGS III was aligned with FAO's global priorities of making agriculture, forestry and fisheries more productive and sustainable, reducing rural poverty and increasing the resilience of livelihoods to threats and crises. The project fitted into the national priorities defined in the FAO Country Programming Framework (CPF) 2015–2019 for Uganda including: i) improving production and productivity of agriculture, forestry and fisheries commodities; and ii) enhancing resilience to livelihood threats with emphasis on climate change. The project objectives were also consistent with the United Nations Development Assistance Framework (UNDAF) 2016–2020, particularly the focus on sustainable and inclusive economic development.
42. The project objectives and scope were also relevant to the priorities of the European Union. In European Union's National Indicative Programme for the cycle 2014–2020, the European Union's overall objectives were to increase incomes, employment and food and nutrition security of the Ugandan population. Under sector 2 (Food Security and Agriculture), the European Union's specific objective was to continue the successful activities of the European Union in Uganda in terms of sustainable commercial forestry, with a higher focus on timber and charcoal value addition.
43. Furthermore, the project was of relevance to the UN Sustainable Development Goals (SDGs); particularly: SDG 1 (End poverty in all its forms everywhere); SDG 13 (Take urgent action to combat climate change and its impacts) and SDG 15 (Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss).

EQ 2: To what extent did the project scope/coverage adequately address the critical binding constraints to private sector involvement in commercial forestry, including research, training, value addition and marketing?

Finding 2. SPGS III scope/coverage responded to clear needs and sought to address the key constraints to private sector involvement in commercial forestry.

44. SPGS III addressed the lack of liquidity following plantation establishment and lack of access to financing for the development of downstream processing as a critical challenge hindering private sector involvement in commercial forestry. The 30 percent grant reimbursement for plantation establishment was a useful incentive for tree farmers. Similarly, cofinancing processing equipment, whereby the beneficiary contributed 40 percent of the cost and the project contributed 60 percent of the cost, was a substantive contribution to acquisition of efficient processing equipment, as well as training of investors in development of bankable business plans to increase their capability of accessing investment finance from financial institutions.
45. The project sought to address the challenge of weak institutional capacity and poor linkages in the commercial forestry sector by establishing the National Commercial Forestry Forum (NCFF) and the Commercial Forestry Research and Training (COMFORT) working groups which would create platforms for relevant stakeholders to meet regularly to review and identify gaps in forestry research, discuss challenges facing the commercial forestry subsector and find viable solutions to the identified problems.
46. A lack of standards for planting materials, planting and other silvicultural operations, wood products and chain of custody monitoring was to be addressed by working with relevant Government of Uganda institutions to facilitate the development of relevant standards.
47. The challenge of inadequate research in commercial forestry and the limited integration of research into commercial forestry operations would be addressed through provision of technical, logistical and financial resources to institutions that have a legal mandate to conduct forestry research in Uganda. This would enable them to build their capacity to conduct research relevant to emerging challenges and opportunities in forestry.
48. The issue of weak knowledge, skills and capacity on various aspects of commercial forestry would be addressed by providing support to training institutions such as NFC as well as conducting field-based training in various aspects of commercial forestry.
49. The challenge of inadequate knowledge of appropriate technologies and technical skills for downstream processing and utilization of forest products was to be addressed through conducting of training in downstream processing and utilization, as well as by conducting studies on relevant aspects of downstream processing.
50. Limited market information and regulation for the wood products industry was to be addressed by commissioning studies that would conduct surveys in this area of forestry and provide useful information that would help the subsector players in planning and managing their harvesting and marketing of the products from their plantations. This is in addition to development of Market Intelligence Information System (MIIS) to provide quick access by consumers to relevant information of various wood-based products.
51. The constraint of limited spatial coverage of tree planting initiatives was to be addressed through the establishment of trial plots by NaFORRI to monitor the growth and performance of dryland species in dry areas.

Finding 3. While the project addressed key constraints to private sector involvement in commercial forestry, its scope in addressing these constraint was limited in certain aspects.

52. The period over which the plantation establishment funds were availed (three instalments over a two-year period) was deemed too short by many farmers, as it left them still without financial support for weeding and first thinning, especially for those farmers that had planted slow growing species like pine and some Indigenous hardwoods which take longer to yield any financial returns. The Evaluation Team was informed that some farmers were cutting down these slow growing species before they can be used for anything commercial, to plant clonal eucalyptus, because they saw their neighbours making money from sale of poles while their (slow growing) trees were still very small.
53. Considering the challenges that the sector is facing today, the project's relevance could have been even greater if more efforts had been made in the areas of: i) improving the quality of timber through support to acquire timber kiln dryers by the processors; ii) increasing access to timber market information by linking suppliers with potential buyers through Market Intelligence Information System. There is limited market awareness and organization among the value chain actors in terms of the availability and potential demand for the quality timber SPGS III is producing. If processors and timber dealers were sufficiently aware of the existence of a demand for quality, legal and possibly higher-priced wood exists further down the market chain, they would be inclined to pay more for it and carry out value-added and efficient processing. More efforts to market development needed to be made by the project.
54. Whereas good progress was made in addressing training and knowledge gaps by supporting NFC (training graduates at certificate and diploma levels) in curriculum review and improvement in areas of relevance to commercial forestry, similar efforts should have been in other tertiary training institutions, specifically universities offering forestry such as Makerere University, (which offers forestry at undergraduate and post-graduate levels) and Ndejje University, (which offers forestry at undergraduate level), so that the gains made at curriculum development are reflected at all levels of professional training and the professional coming out of such institutions.
55. The allocation of funds across the four components was largely skewed towards plantation establishment. Downstream processing, which was supposed to be a major component of SPGS III, was allocated less than 10 percent of the project budget. This grossly affected the development of the downstream processing and utilization activities as inadequate attention and financial resources were allocated to the utilization component focusing on market opportunities. Constraints in market access presents a major disincentive to investment and adoption of wood processing technologies for increased forest productivity. More interventions to spur tree growing have focused on plantation development without resolving the market concerns, and private actors are less likely to sustain investment on forestry. Addressing this anomaly should be focused on in any future investments in the sector, in the short and medium term.
56. There was inadequate allocation of full time technical personnel for Outcome 3. Efficient and effective downstream processing and utilization technologies are to a large extent at the early development phase in Uganda. The lack of technical personnel on the project as well as the implementing partners equally affected the contribution of the project to this outcome area. The Project Management Unit therefore relied more on the expertise of consultants for a number of studies and/or training sessions related to downstream processing.

57. A review of the project document reveals that the project was designed without a strong TOC and thus there was a missed opportunity to establish a clear linkage across the different project outcomes and outputs. For example, the research and training outputs do not link directly to other outcomes and outputs, and it is unclear what broad outcome they are to collectively produce. Additionally, there is no clear linkage with the segment of the overall objective relating to increasing rural employment and income, and mitigating climate change.

EQ 3: To what extent did the project design and activities (approach) support the achievement of intended project objectives? Including:

- i. design of the grant scheme;*
- ii. creation of strategic partnerships for community tree planting;*
- iii. selection of beneficiaries (threshold land requirements as well as selection of communities, equipment beneficiaries);*
- iv. allocation of financial resources across the four components;*
- v. allocation of human resources across the four components; and*
- vi. alternative funding mechanisms such as credit facilities.*

Finding 4. The design and approach of the grant scheme were suitable and appropriate to achieve the project objectives aimed at establishing high quality commercial tree plantations.

58. The design of the grant scheme for plantation establishment and thinning whereby the beneficiary was refunded after inspection to confirm compliance with set standards was deemed appropriate as it eliminated speculators. Furthermore, tree planters argued that because their investments provide global environmental services through climate change mitigation, water cycle maintenance, and soil and water conservation, they (investors in the sector) should be provided with a blend of grants and low interest credit facilities.
59. Similarly, the design of the grant scheme for processing equipment whereby the beneficiary contributed 40 percent and the project contributed 60 percent was deemed appropriate as it eliminated speculators. Moreover, the beneficiaries of processing equipment indicated their preference for the grant system over the credit scheme due to the heavy investment required and the long time before realizing some returns on the investment. Furthermore, tree planters again argued that because their investments provide global environmental services through climate change mitigation, water cycle maintenance, and soil and water conservation, they (investors in the sector) should be provided with grants rather than credit facilities.

Finding 5. The selection of beneficiaries for plantation establishment/maintenance and processing equipment was appropriate although the distribution of the processing equipment was based more on beneficiaries who could afford the cofunding arrangement rather than availability of raw material.

60. The minimum threshold requirement of 15 ha (reduced from 25 ha under SPGS I and II) had the advantage of selecting tree planters capable of meeting the plantation establishment standards. Furthermore, this threshold helped minimize supervision costs for compliance across a large numbers of beneficiaries. In contrast, engaging many small-scale planters would significantly increase supervision costs and might not ensure sustainability (small-scale tree planters are more likely to shift land use priorities towards short rotation crops).

This was to an extent an appropriate design to consider a minimum acreage requirement and further lower the acreage once the sector is well established.

61. The selection of beneficiaries for processing equipment was appropriate and targeted beneficiaries (mainly large scale operators) capable of demonstrating good practices and inspiring adoption.
62. However, the distribution of equipment between clusters did not consider the availability of raw material. For instance, in reference to a report on modular downstream integrated sawmill model for Uganda, it was reported that *"... By the time of writing this report, FAO/SPGS III had no data on the dynamics of market and raw material availability. Therefore, during sawmill designing, an option was to consider mainly the assumption that there will be adequate raw material and market for products to be produced..."*

Finding 6. The project design did not include activities that supported alternative funding mechanisms as well as enhancing partnerships for community tree planting.

63. Although the project logframe proposed an update of the policy, legal and institutional framework for an increased support to the commercial forestry sector, there were limited efforts/activities designed to promote alternative funding mechanisms including i) working with UTGA to engage financial institutions; and ii) training of developing bankable business project.
64. Additionally, project logframe proposed to support communities to establish plantations for sawlogs and/or wood energy, but there were no synergistic activities to link such communities to other organizations engaged in community tree planting initiatives.

EQ 4: How much has the context of the project changed since inception and how has the project adapted?

Finding 7. Change of project management from United Nations Office for Project Services to FAO led to more efficient service delivery to project beneficiaries and partners.

65. Following observations and complaints from project beneficiaries regarding high level bureaucracy and long delays in processing of payments, the management of SPGS III funds changed from United Nations Office for Project Services to FAO in 2018. This improved the efficiency and effectiveness of project implementation.

Finding 8. SPGS III made some adjustments to address areas that were inadequately known or catered for at project inception, mainly in the field of gender mainstreaming and downstream processing and value addition.

66. The lack of technical expertise in the downstream processing implied that most of the activities under this outcome area were developed as the project progressed. As the exact detail of what was supposed to be done was not known at the inception, adjustments were made along the way, after studies commissioned by the project were completed, and gave recommendations on what was supposed to be done. This could have accounted, in part, for the delay in implementing the activities under Outcome areas 3 and 4.
67. The final evaluation of SPGS II called for specific gender policies to be developed under SPGS III, including specific targets for the involvement of women entrepreneurs and women-led communities in the timber value-addition process. However, gender considerations were

not included in the initial design of SPGS III. Notably, the definition of SPGS III target beneficiaries did not articulate any gender inclusivity tenets and the design of beneficiary selection criteria did not address a key gender-based constraint of access to sizeable land, i.e. a land holding of 15 ha is out of reach for many women (both in the rural and urban settings). This oversight was rectified in 2018, when the SPGS III developed a gender assessment report with an associated gender action plan specifying actions to address the identified gender gaps. The project focus on gender mainstreaming improved overtime, with growing interest in gender programming, support and reporting.

EQ 5: To what extent did the project scope and design incorporate lessons from the previous phases of the SPGS project?

Finding 9. The project scope and design incorporated some of the lessons learned from previous phases of the SPGS project.

68. SPGS III incorporated lessons learned from previous phases of the project, including by strengthening collaboration with key partners in the forestry sector. Previous SPGS phases focused primarily on delivery of project outputs with little emphasis on strengthening partnerships with other stakeholders. Collaboration with key partners in the forestry sector was strengthened by, among others: signing letters of agreement with institutions (UTGA, NaFORRI, NFC, the Ministry of Water and Environment, etc.) that have a comparative advantage for long-term impact of the project (sustainability and ownership).
69. Taking lessons from SPGS I and II on development of standards and certification of nurseries and contractors, Phase III initiated development of standards for wood processing (standards for softwood and hardwood timber grading, etc.). The principle of cost-sharing was also replicated to support the acquisition of wood processing machinery. The next step would be to engage and promote certification of graded timber, useful for market development and quality of wood products.
70. To increase participation of small-scale farmers in SPGS, Phase III reduced the minimum acreage requirement for small-scale growers from 25 ha to 15 ha. This enabled participation of smaller landowners as recommended by previous SPGS projects.
71. SPGS III also extended the scope of geographical coverage beyond previous phases. SPGS III became more inclusive by supporting tree growing in Karamoja and West Nile which had not been covered under SPGS I and II. Beneficiaries for these newly added clusters were selected by adopting affirmative action policies such as considering all eligible applicants from the two clusters and a special call for expression of interest for Karamoja, additional tree species eligible for commercial tree planting, and more training and monitoring. Karamoja has special challenges of insecurity as well as aridity. This has resulted in getting on board additional certified nurseries in Karamoja and increase in interest in tree planting by a large audience, increase in quality of plantations and knowledge in plantation establishment and maintenance. In addition, the project hired two full-time staff dedicated to supporting activities in Karamoja and West Nile – as part initiatives to support tree planting in the newly added Karamoja and West Nile clusters.
72. The Phase III project document indicated that there was limited knowledge and understanding of downstream activities as one of the lessons learned from Phase II. This was addressed in Phase III through the inclusion of action research across all the value chain activities as well as various studies to inform the downstream processes.

Finding 10. SPGS III organized fewer study tours intended to promote exposure of tree planters and wood processors to an effective and efficient commercial plantation forestry industry.

73. The study tours during SPGS I and II were deemed a major contributor to adoption of good standards in plantation establishment and maintenance. However, during Phase III, study tours were greatly reduced; for example there were hardly any study tours to processing facilities in countries with a robust wood processing industry. Whereas it could be presumed that most of the tree growers in the old clusters had already got some exposure, the growers in the new clusters of West Nile and Karamoja that were brought on board during the Phase III of the project would have greatly benefitted from such tours. This would have potentially motivated more investment in downstream processing by private tree planters. Moreover, there are in-country modern processing facilities such as green resources, Nile fibre and Nile ply that have relatively good standards to showcase.

3.2 Effectiveness

EQ 6: To what extent have the activities implemented contributed to achieving the intended outputs and outcomes of the SPGS project across the four outcome areas?

Finding 11. The project provided technical and financial support to private tree growers (on private land and CFRs) to establish and maintain commercial plantations to acceptable national standards, thus increasing the commercial forest coverage in the country.

74. Over 28 000 ha (representing 121 percent of the project target) of commercial tree plantation was established. The tree species planted were *predominantly pinus caribaea, eucalyptus grandis and hybrid eucalyptus grandis X urophylla and eucalyptus grandis X camaldulensis*.
75. It was acknowledged by most stakeholders interviewed including those from outside the SPGS project and among the government agencies, that SPGS beneficiary farmers had better plantations compared to non-beneficiaries. As a result, some of the landowners living close to SPGS beneficiaries have adopted tree farming, emulating the SPGS standards.
76. Plantation establishment grants paid during SPGS III represented a 10 percent increase compared to the previous phase. Small and medium scale planters received UGX 935 000 /ha whereas large scale planters received UGX 660 000/ha of land contracted.
77. The project also provided financial support to 131 tree farmers with pruning and thinning grants to ensure standard plantations. The grant amounted to UGX 150 000/ha contracted, representing a 50 percent increase from the rate paid under the previous SPGS phase. This financial support (covering about 75 percent of the total costs incurred in pruning and thinning) mainly benefitted tree planters who established their plantations during the previous phases of SPGS since these were of pruning and thinning age.
78. The grants based on the principle of co-investment were retrospective and were paid after satisfactory inspection by SPGS field teams to ensure compliance with the set standards.
79. The inspections aimed at verifying the tree plantation status were conducted by project staff to ensure compliance with the set standards. They were also used as an opportunity to provide technical support in plantation establishment and maintenance to the respective tree growers visited.

Figure 1. A well-maintained pine plantation owned by Nakaseke Evergreen Farm, Nakaseke District



Finding 12. The project conducted activities leading to the certification of private nursery operators and forest contractors with the aim of ensuring high quality inputs and management of forest plantations.

80. The project verified and certified 28 forest contractors (representing 93 percent of the project target) and 106 tree nursery operators (representing 212 percent of the project target). The service providers were certified after meeting the minimum requirements and were issued with certificates depicting the ranking system (five stars for the highest ranked and one star for the least ranked).
81. Tree planters were obliged to procure planting materials from the certified tree nurseries of their choice, whereas tree planters were not obliged to utilize the services of certified forest contractors while establishing and/or maintaining their plantations.
82. Other organizations seeking supply of quality seedlings have utilized the certification system of tree nurseries under FAO/SPGS for the supplier selection criteria, such as the Uganda Electricity Transmission Company Limited call for bids for the supply of seedlings, land preparation and associated management services for central and local forest reserves restoration: Ref: UETCL/SUPLS/2020-2021/00567/1/2/3 required that the bidder must own a tree nursery certified by FAO/SPGS.

Finding 13. The project supported a number of communities and institutions to establish woodlots for sawlogs and/or wood energy.

83. The response from communities and institutions following a call for expression of interest in community tree planting was overwhelming, with 296 groups applying for a total area of 15 645 ha (against a project target of 4 000 ha) under the SPGS III activity targeting communities; the community group members ranged from 20 to 200 members depending on group status. Therefore, the selection process had to scale down on community groups to support an allocated area, which led some of the community groups to feel left out.
84. Due to overwhelming demand from communities, an additional area of 980 ha was reallocated from the institutional woodlot support to community support which resulted in the establishment of 4 980 hectares by 246 community groups (male-led: 185; female-led: 30; and youth-led: 31) within the eight SPGS clusters.

85. In addition, 249 institutions were supported to establish bioenergy plantations; the species supplied include *eucalyptus camaldulensis*, hybrid eucalyptus, *gmelina arborea*, *grevillea robusta*, *eucalyptus grandis*, *senna siamea*, and bamboo. Overall, the area planted by institution was equivalent to 2 483 ha (99 percent of the project target). The categories of institutions supported included schools, churches, prisons, army, community-based organizations, health centres, research institutes and refugee settlements. Over 50 percent of the institutions supported were schools.

Finding 14. The project made preliminary but important steps in ensuring that there is increased availability of spatial and non-spatial information on forest plantations.

86. As part of the activities in the LOA with NFA, 20 000 ha of private plantations over 5 ha were mapped by NFA in consultation with the Ministry of Water and Environment. This area (including volume and location) is stipulated to be incorporated into the national database for commercial tree plantations.
87. The project has supported a geo-database of over 28 200 ha of commercial plantation. This database includes GPS waypoints, tracks, shape files, plantations components details, beneficiaries' details, and gender-related data of the beneficiaries. Additional files including Excel files, images and metadata for all 362 beneficiary plantations have been compiled and archived.
88. The project has supported a consultant to develop the Integrated Forest Management Information System in partnership with other stakeholders, notably FSSD and NFA. Initial inventoried forestry data of about 5 000 ha from different stakeholders has been verified and is being loaded in the system to show the functional overview. Two meetings were held with stakeholders to update them on progress in developing the system and obtaining feedback.

Finding 15. Through letters of agreement with FSSD, NFC, NaFORRI and UTGA, the project has supported activities to enhance the capacity of these institutions to deliver on their mandates.

89. In partnership with FSSD, the National Forestry Consultative Forum was launched. The inaugural meeting was attended by 148 participants representing different stakeholders in the forestry sector and led to the creation of five sub-fora, namely: i) commercial forestry; ii) natural forests; iii) research and training; iv) agroforestry and urban forestry; and v) forestry governance. Subsequent meetings of the sub-fora were organized.
90. Furthermore, in partnership with FSSD and Uganda National Bureau of Standards (UNBS), capacity was built to review and/or develop timber and chain of custody standards to support regulation of the wood industry. Several stakeholder meetings were facilitated.
91. As part of UTGA's mandate to enhance plantation management standards, UTGA organized a Forest Stewardship Council certification audit as part of the process to secure group certification for UTGA members. UTGA also conducted a series of cluster meetings aimed at recognizing and addressing specific needs/gaps identified by growers in their respective clusters.
92. UTGA organized meetings that resulted into tree nursery operators and forest contractors forming legal company associations to enable them to conduct business in an organized manner and create synergies among its members. It is anticipated that through the two associations, members can increase their networking, negotiating and advocacy opportunities, while exchanging information about the existing products.

93. The project also made significant efforts in strengthening UTGA through technical and financial support. However, UTGA still needs further support. Observations at their proposed wood processing and value-addition site revealed a lack of capacity for self-sufficiency. UTGA reported that they were relying for external support to establish and operationalize the facility, with limited plans planned to take independent action. This situation may improve once the begin processing wood, selling products or charging the members to process their wood.
94. However, some of the wood processing equipment has since been delivered to the UTGA site in Kiwawu, Mityana District (there were just some treated eucalyptus poles on the site when the Evaluation Team visited) and the timber yard constructed (Figure 2 below).

Figure 2. The UTGA timber yard and some wood processing equipment (vertical band-saw)



Finding 16. The project supported studies to identify appropriate technologies in processing and utilization of wood products.

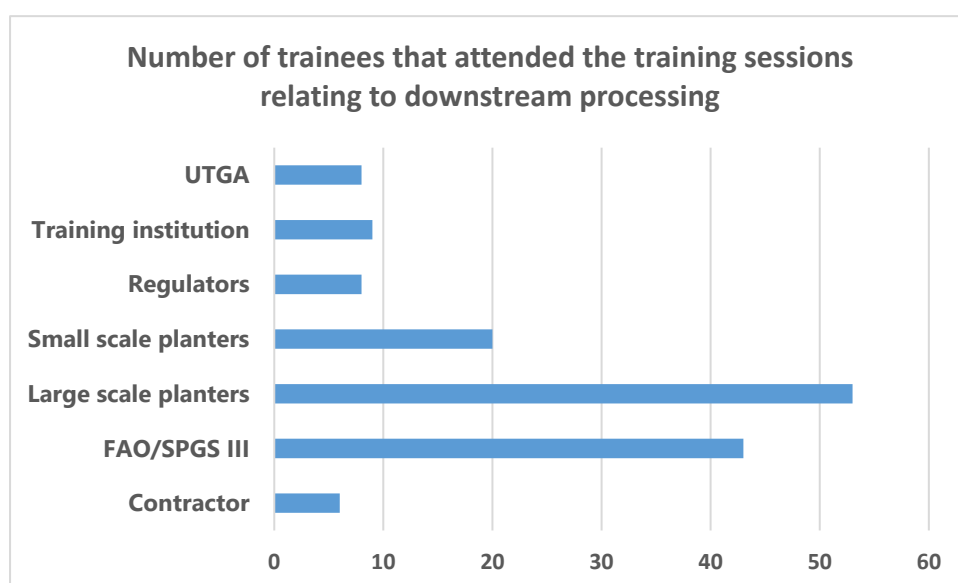
95. A study was conducted to identify and justify appropriate types of sawmills and machinery for Uganda, as well as providing sawmill machinery specifications and designing a sawmill layout. The study recommended a modular vertically-integrated permanent sawmill design as the most appropriate for Uganda. The study further recommended the use of mobile sawmills in areas with short supply of wood raw materials or among people with inadequate resources to invest in a large-scale sawmill.
96. A second study focused on the development of a waste management strategy appropriate for Uganda, with a specific focus on pine sawmilling. The study identified five categories of improvement opportunities for waste. These included good operating practices, technology change, change in input material, change in product, and waste recycling and waste reuse/recovery.

Finding 17. The project supported skills development in downstream processing by conducting varied training modules.

97. In relation to Outcome 3, six training sessions covering timber grading (three sessions), chainsaw operation (two sessions) and forest harvesting and roads (one session), as well as sawmilling and wood seasoning (two sessions) were conducted, attracting a total of 147 participants.

98. The trainees were representative of the key stakeholders in the commercial forestry sector including FAO (six), contractors (two), UTGA (one), NFA (one), small-scale processors (five), Ministry of Water and Environment (two), large-scale processors (four) and NFC (two). Seventy percent of trainees represented large-scale planters and FAO/SPGS III (Figure 3). The dominance of large-scale processors at the inception of the downstream processing stage provides an opportunity for “model processors” to support skills enhancement, dissemination and adoption.

Figure 3. Distribution of training beneficiaries



Source: Elaborated by the Evaluation Team.

99. The training sessions on chainsaw operations were demand-driven (conducted on request from the beneficiary private tree growers). This is a positive indicator of the sector valuing skills development through training.
100. Furthermore, the beneficiaries of wood processing equipment received training upon delivery and commissioning of their respective processing equipment. The training entailed machine operations, maintenance and after sales support services.

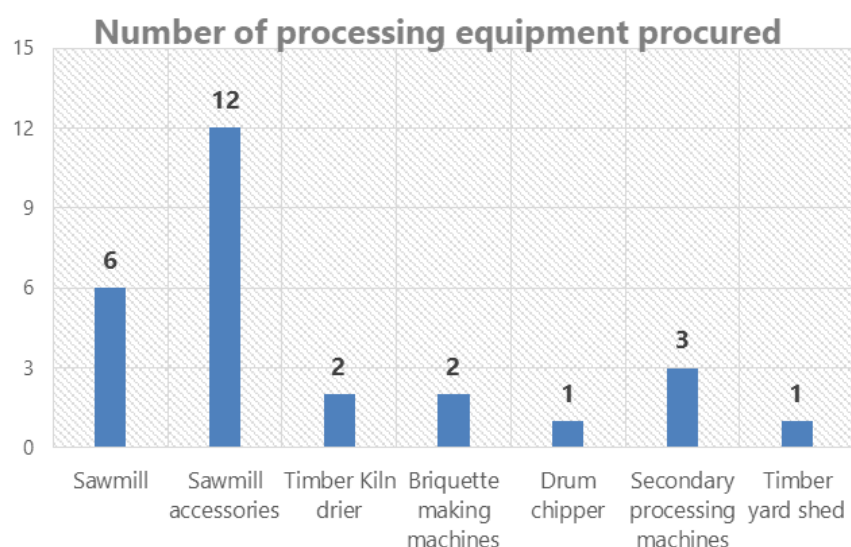
Finding 18. The project made significant initial steps in a long-term strategy to develop an efficient wood utilization industry by supporting the establishment of a demonstration integrated wood processing unit at UTGA at Kiwawu, Mityana.

101. The project provided UTGA with assorted equipment to establish a demonstration unit of an integrated wood processing technology to stimulate technology transfer. The equipment included a timber yard, kiln dryer, vertical band saw, cross-cutting saw, board thickness planer, saw doctoring equipment and a shade for the equipment (all of the equipment has since been delivered, although some has not yet been installed as of October 2022).
102. The project further supported a large scale wood processor with a semi-automatic finger jointer to enhance and demonstrate technologies for forest product utilization.

Finding 19. The acquisition of wood processing units for varied processors was done to stimulate use of efficient technologies in commercial forestry.

103. Selection of processing equipment beneficiaries was conducted in a fair manner. The applicants presented a business plan as a basis for evaluation. The applicants were also provided with information regarding the recommended processing technologies based on the study undertaken.
104. The project procured 27 assorted wood processing pieces of equipment for eight beneficiaries. Eighty six percent of the budgetary support for the processing equipment targeted primary processing equipment (Figure 4). All the 27 items had been delivered by the time of this reporting.

Figure 4. Types and numbers of processing equipment procured



Source: Elaborated by the Evaluation Team.

105. Eighty three percent of the budgetary support for equipment acquisition was allocated to large-scale growers/UTGA. Nonetheless, the skewed allocation to large scale operators was appropriate because of their capacity to expand, demonstrate good practices and inspire adoption as recommended by the modular downstream study "... while plantation development has many and varied players, downstream processes require a few but large investors...". Small-scale processors could be provided other non-financial support such as creation of cooperatives to ensure they receive value for money for the wood sold to large processors. UTGA is best positioned to play this role.
106. The inclusion of processing equipment that utilize thinning and off-cuts (otherwise deemed waste) was appropriate and this is projected to enhance recovery and increase market opportunities, thus increasing profitability of tree planting. This is in line with the recommendation of the modular integrated sawmill mill design study.

Finding 20. To enhance market opportunities for forest products, the project supported a study on forest resources and markets, and established a marketing outlet platform.

107. A study to assess the commercial timber plantation resource in Uganda and the corresponding markets for wood products was supported by the project. The study estimated the extent of the commercial plantations and the volumes and characteristics of the timber that the commercial plantations will yield in the next ten years. Furthermore, the

study assessed the markets and the demand for the forest products from these plantations. The study observed that, given the current and projected domestic demand for forest products, it is plausible that the supply of timber will exceed the capacity of the Ugandan domestic market.

108. The project supported the development of TIMBERMART application to enhance market opportunities as part of the market intelligence system. The application awaits approval from Android and IOS platforms. The application to be regulated by UTGA is used by commercial tree growers and/or wood processors to advertise their wood products after verification by the application host (UTGA).
109. Some commendable effort to link beneficiaries with available markets was made by the project, such as discussions with Ndarugu Metropolis, a Kenyan company which aims to promote wooden houses. SPGS III, together with UTGA, organized discussions to explore how best Ugandan timber can be used for the housing project in Kenya. In addition, advocacy efforts targeted development partners and government agencies to encourage the procurement of products from certified plantations and wood products. Connections were established with the United Nations High Commissioner for Refugees, the Public Procurement and Disposal Authority, Government of Uganda and the Uganda National Association of Building and Civil Engineering Contractors. This approach was also applied to seedlings, with some government projects (e.g. Farm Income Enhancement and Forestry Conservation) being encouraged to procure seedlings from certified nurseries.

Finding 21. The project used a multitude of platforms to enhance awareness about commercial forest establishment and investment in Uganda.

110. The project supported the production of promotion material aimed at increasing awareness about the commercial forest investment. This included banners, caps, stickers, video on how to promote afforestation in drylands (FAO, 2021) and signposts at sites of beneficiaries of grants. Periodic newsletters produced by FAO/SPGS and disseminated through a multitude of channels including SPGS and FAO websites, have increased awareness about opportunities in the sector. In addition, social media, specifically Twitter (a micro-blogging site and the only social media platform used by FAO Uganda) was very useful in creating awareness and engaging online users and non SPGS planters keen on tree growing (getting feedback, responding to questions, concerns, commendations, etc.) in Uganda.
111. The project used commemorations of international events to actively engage the public on the contribution of the forestry sector to livelihoods and climate change. Such international events include the International Day of Forests and World Food Day celebrations.
112. The nationwide uptake of commercial tree planting as a viable investment portfolio promoted by the project has ensured uptake of funds (exceeding the set targets) and willingness of the private sector to invest significantly in the sector.

Finding 22. The project supported the prioritization and development of timber standards aimed at regulating the trade and use of timber products.

113. Six timber standards were developed, three of them to completion, that is: i) sawn softwood timber grading (Uganda Standards 833-1/2/3/4); ii) chain of custody for timber and other wood based products (Forestry Development Uganda Standards 2162:2021); and iii) sawn hardwood timber grading (Forestry Development Uganda Standards 2248:2021). Three other

standards are currently in draft form. While standards development by Uganda National Bureau of Standards is driven by respective sector demands, the support from the project immensely contributed to the swift completion of the standards.

114. The prioritization of the standards so far developed was appropriate given that the focus on sawn softwood standards and chain of custody aligns with the plantation development trends in the country. Other standards deemed critical for the commercial forestry industry are in the pipeline; and these include: i) tree nursery stock specifications; ii) plantation establishment and management; iii) timber harvesting standards and; iv) wood treatment standards.

Finding 23. SPGS III supported activities to enhance the capacity of research and training institutions to enhance development of the commercial forestry sector.

115. There was revitalization of the COMFORT working group, whose renewed terms of reference included advising on development of a commercial forestry research agenda and capacity development strategy and action plan in line with national research and industry needs and priorities. The working group was able to develop and prioritize a research agenda with six research themes: i) tree nursery development; ii) developing seed stands and orchards; iii) pests and diseases management; iv) fire management; v) timber processing skills and technologies; and vi) policy and trade. These were perceived to be the most crucial in addressing the gaps in commercial forestry. The themes covered gaps in the upstream, midstream and downstream components of the forestry value chain.
116. The capacity of NaFORRI was built in the area of raising planting material for *Melia volkensii* (Kenya Provenance) and its establishment in the field. This was conducted by a research scientist from the Kenya Forestry Research Institute (KEFRI). KEFRI has had several years of raising and establishing *Melia volkensii*, and therefore was considered the most suitable for NaFORRI to learn best practices. More so, Kenya is one of the few countries in Africa where this tree grows naturally and thus provides adequate germplasm. NaFORRI got the initial planting stock for establishing trials of *Melia volkensii* from KEFRI.
117. A 1 ha model nursery with a mother garden of eucalyptus clones was established at NFC with all the supporting infrastructure, including water reservoir/tank, cloning shed and offices. The college was also supported in establishing a 10 ha model plantation of *pinus caribaea*, *Maesopsis eminii*, *Tectona grandis*, *eucalyptus grandis* and hybrid eucalyptus. The project also provided equipment used in forestry operations, including: 15 knapsack spray pumps, two chain saws and safety gadgets, 15 fire beaters, 15 pruning saws, three GPS, three fire pumps, two suunto clinometers, 15 diameter tapes, and equipment used for cloning. Most of the capacity building support extended to NFC was relevant to upstream activities of the forestry value chain.
118. The staff at NFC were supported for an exposure visit to Kenya Forestry College, Londiani, as a benchmarking exercise for practical teaching, nursery and forest operations, and sawmilling. The main purpose was to enrich the course materials, and also include a focus on modern technologies like cloning in the courses at NFC. The knowledge acquired enabled them to effectively review selected course modules which included tree nursery and seed; plantation establishment and management; and wood harvesting processes. The course modules selected were relevant to upstream and midstream components of the forestry value chain.

119. NaFORRI received both financial and technical support to conduct research under the project, focusing on: i) identification and management of pests and diseases in commercial forest plantations in Uganda, and ii) Establishing multilocal dryland species trials in four sites (Nabuin Zonal Agricultural Research and Development Institute [ZARDI] in Karamoja sub-region, Kasagala CFR in Nakasongola District, Kazo in Kazo District, Kyahi CFR in Mbarara District). The trials involved seven “tree species” including: *Melia volkensii* (referred to in the trial as *Melia volkensii* Kenya Provenance), *Melia dubia* (referred to by the project as *Melia* – Uganda; a species introduced into Uganda during colonial times from South East Asia), *Gmelina arborea*, eucalyptus clone - GC796, eucalyptus clone - GC550, *Grevillea robusta* and *Terminalia brownii*. While the trial site at Kyahi CFR was well maintained with evidence of routine spot weeding and hoeing, the site at Kasagala was evidently experiencing maintenance challenges. It was only weeded by slashing, which leaves the weeds around the young trees intact. This led to significant competition for resources, which may explain the poorer growth of the trial species at Kasagala compared to those at Kyahi (see Figure 5 below).

Figure 5. Dryland species trial sites



Note: above – Kasagala site; below: Kyahi site.

Finding 24. SPGS III supported research and training activities that underpin commercial forestry development.

120. A total of nine research studies were undertaken that could be mapped across four out of the six identified research themes (Table 8). Majority of the research studies (four out of nine) were under the thematic area of policy and trade. Six of the studies undertaken were relevant to downstream activities of the forestry value chain; two in the upstream; and one cross-cutting study. It is observable that two of the key priority areas (tree nursery development and fire management) identified by COMFORT did not have any research studies undertaken. NaFORRI only conducted two out of the nine research studies, while the other seven were implemented by private consultants.

Table 8. Research studies conducted under SPGS III

Thematic area	Research conducted
I. Timber processing skills and technologies	1. Identification and justification of appropriate type of sawmills and machines for Uganda
	2. Occupational health and safety strategy for sawmilling industries in Uganda
II. Develop seed stands and Orchards	3. Multilocal dryland tree species trial in Uganda
	4. Biomass waste management strategy for Uganda
III. Pests and diseases management	5. Identification and management of pests and diseases in commercial forest plantations in Uganda
IV. Policy and trade	6. Assessment of the Ugandan commercial timber plantation resource and the markets for its products
	7. Position paper on the taxation of commercial forestry businesses in Uganda
	8. Improvement of resin tapping from pine trees in Uganda
V. Tree nursery development	<i>No research study</i>
VI. Fire management	<i>No research study</i>
VII. Cross-cutting	9. Gender assessment in plantation forestry in Uganda

Source: Elaborated by the Evaluation Team.

121. All the nine research studies conducted were duly published and made available on the project website. Printed copies of the field guide titled "Identification and Management of Pests and Diseases in Commercial Forest Plantations in Uganda" are expected to be delivered to district forestry officers, as reference documents when extending services to the commercial tree planters. While the project desired to have functional linkages and communication channels between researchers and users of the research products, there was no clearly articulated plan on how the research results (except the field guide) were to be utilized by the actors along the value chain, therefore the linkages were not effectively developed.
122. NaFORRI reviewed and updated the field guide on Identification and Management of Pests and Diseases in Commercial Forest Plantations (the first edition had been developed in earlier phases) and this guide is readily available on the FAO website.
123. A one-day training of trainers workshop was organized and facilitated by NaFORRI, with 14 (out of 111) district forestry officers participating. The project was therefore able to deliver knowledge and ensure research information transfer through the extension services of the DFS, which is mandated to deliver forestry extension in Uganda, especially for forestry services and activities outside CFRs, where some of the SPGS project beneficiaries operate and all private initiatives in plantation forestry on private land are located.
124. The 14 district forestry officers (about 13 percent of the total) that participated in the training were not fully representing the SPGS clusters or the district local governments in Uganda, which to some extent disenfranchises the SPGS clients and other commercial tree farmers in the clusters and districts that were not represented. Given that each district operates in a semi-autonomous manner, independently of other districts, even those in the immediate neighbourhood. The knowledge acquired will most likely remain with the individual district forestry officers that were trained, and perhaps their colleagues within their districts. In addition, there were only three NFA staff involved in the training, yet most of the SPGS beneficiaries are planting in CFRs and therefore encounter NFA staff more often than DFS.

Thus, NFA would be more suitable in transferring the knowledge to them following the subsidiarity principle.

125. Informal training was also carried out on various aspects of commercial forestry, targeting tree farmers, nursery operators, forestry contractors and some DFS staff, as well as FSSD and NFA staff. This helped bridge the gaps in knowledge on various aspects of commercial forestry. Sharing of experiences were also promoted through study tours and exchange visits to different clusters and some even out of the country.

Finding 25. The project funded and supported the training of some selected stakeholders in forestry inventory and mapping to enhance availability of plantation forestry spatial data in Uganda, though the coverage was low.

126. The project also supported increased availability of spatial information on commercial plantations through carrying out mapping and inventories of some of the plantations in the country. Some DFS and NFA staff were trained to carry on the inventorying and mapping of forest plantations which could not be covered in this phase of training, due to budgetary constraints.
127. The training in and practice of forest inventory of private forest plantations was done in 2020, covering a total of 32 districts selected from Central (Western and Central clusters) and western Uganda (South-Western cluster), with some of the technical staff from Forestry and Environment departments at the districts being trained.
128. The coverage of the exercise, both in terms of districts covered and the sampling intensity was quite low, yet this is a very crucial aspect of forest plantation management, which generates vital information for planning purposes. The sampling intensity was reduced from the 2.5 percent targeted in the letter of agreement to 1.3 percent due to resource constraints. The study therefore recommended further work in this area, with increased sampling intensity and increased coverage of more districts, with more time allocated for the exercise, and provisions made for regular re-training to cater for emerging information and to cater for new staff that may have joined the districts. Moreover, by its nature, decentralization of the district administration required each district to be semi-autonomous, implying that training in a few districts cannot trickle downwards or sideways to other districts.

EQ 7: Did the project result in some unintended outcomes, either positive or negative? If so, which ones?

Finding 26. There is an increased adoption of tree planting by non-project beneficiaries following the observed benefits for site species matching and adherence to plantation development standards.

129. The project has led to increased learning and adoption of tree planting by non-project beneficiary tree farmers. This is leading to higher areas of plantation forestry than the project had planned to achieve, as private landowners are learning from SPGS beneficiaries and planting trees on their land, thereby increasing tree cover and associated benefits.
130. There is evidence of uptake of the dryland species trials in Karamoja cluster by early adopters in the areas that are close to where the trials were established. Some members of the community have started growing these trial species because they have observed them perform well at the research station in Nabuin ZARDI.

Finding 27. With the growing plantation forest resource, there is an emergency of private investors in the wood processing sector.

131. With the increasing plantation forest coverage, a number of private investors in downstream processing, including plywood manufacturers and saw millers have emerged. This is a positive impact that will stimulate growth and competitiveness of the commercial forestry sector.
132. The emergence of processing equipment suppliers such as Husky Outdoor Equipment (authorized dealers of Wood-Mizer saw milling equipment) in response to growing demand for such equipment, will enhance availability equipment and accessories/spare parts as well as after-sales operation and maintenance support.

Finding 28. The employment opportunities created by plantation forest development have enhanced immigrations into areas that were previously sparsely populated.

133. A number of tree growers indicated that the casual labourers employed in their plantations are largely personnel from outside the district. A significant proportion of these workers do eventually settle within the region where they find employment; these immigrants may have both positive and negative effects. For instance, sociocultural norms of inhabitants might change in the medium and/or long term, while they increase the economic benefits to local businesses who reported increased sales from their shops and food items due to the regular disposable income of the immigrant labour force.
134. Newly organized settlements and townships with electric power have emerged (e.g. the Muleete and Bulyaana communities in Kitenga sub-county in Mubende District). These developments have been attracted by the employment opportunities and access roads established by the plantation owners.

Finding 29. There were some limited negative impacts relating to human-wildlife conflicts as well as an increase in premature harvesting of some tree plantation.

135. Some areas where tree cover has increased complained of an increase in vermin and snakes (reported in Mukono). This is a direct result of increased tree cover, perhaps coupled with increase in deforestation affecting natural forests and woodlands, outside protected areas which would have naturally served as habitats for these animals.
136. Premature cutting of pine (before it can be used for anything) and other long-rotation species in favour of eucalyptus (which is known to have a shorter rotation) has been observed in the Mubende and Mityana areas. This decision was driven by a negative response to seeing neighbouring tree farmers already earning income from faster growing eucalyptus species.

Finding 30. The financial and technical support to implementing partners has led to these institutions receiving complementary support for various activities from other organizations.

137. Following the provision of an integrated wood processing unit to UTGA, the World Bank offered to support UTGA with a Technical Assistant for an initial period of two years to supporting the technical capacity in running the wood processing unit.
138. Similarly, following the support to NFC to establish a model 10 ha commercial tree plantation, Wildlife Conservation Society offered NFC support to establish an additional 100 ha of commercial tree plantation.

EQ 8: What factors contributed to the achievement or non-achievement of intended and unintended outcomes?

Finding 31. Compliance with plantation establishment and maintenance standards coupled with ethical project staff ensured high standard plantations.

139. Standards set by the project and adherence/compliance to standards ensured that the commercial forestry sector is productive and efficient. Whereas the minimum acreage of 15 ha eliminated the majority of rural people, such threshold contributed to selection of beneficiaries capable of sustaining high standards of commercial forestry development. These are necessary to sustain the sector at the early stages of the industry.
140. Integrity of the lead implementing agency (FAO) ensured that beneficiaries were selected on merit. Similarly, certification of tree nursery operators and forest contractors was in accordance with compliance against the mandatory checklist. There were no reported acts of inappropriate selection of beneficiaries that are influential politically or otherwise.

Finding 32. The pre-existing partnerships between stakeholders in the forestry sector implied that the project activities under SPGS III complemented the ongoing activities.

141. COMFORT working group was already in existence, and therefore what was needed was to revitalize and revise the terms of reference to enable members to formulate the research agenda. Further, there is a supportive policy environment for consultative forums in forestry and prioritization of research in most frameworks relevant to forestry in Uganda. Also, forestry research is of national relevance because of emerging opportunities and thus prioritized among government institutions albeit with relatively low allocation compared to other subsectors.
142. The membership of NaFORRI, Makerere University and NFC to the COMFORT working group enabled fast tracking of developing the research agenda considering that formulating research agenda is part of the regular mandate for teaching and research institutions. COMFORT was able to harness from their strengths and expertise in formulating the research agenda.
143. NaFORRI has a thematic research focus including pests and diseases, various expert personnel and infrastructure to undertake the different research that the project prioritized. Further, the legislative frameworks of Uganda and Kenya allow exchange and transfer of planting materials, and thus it was possible for the Kenya Forestry Research Institute to transfer *Melia volkensii* planting materials to NaFORRI.

Finding 33. The mode of communication during calls for expression of interest disenfranchised some beneficiaries, whereas the COVID-19 pandemic-induced lockdown affected timely delivery of some activities.

144. The mode of communication used for the advertisement call (Internet and newspapers) was restrictive, disenfranchising many potential beneficiaries, particularly those in rural and urban areas with limited access to newspapers and the Internet.
145. The bureaucratic nature of the processes contributed to late delivery of some activities, especially activities that involved procurement of inputs/equipment. Similarly, the COVID-19 pandemic-induced lockdown negatively affected the timely delivery of equipment due to the limited availability of shipping containers.

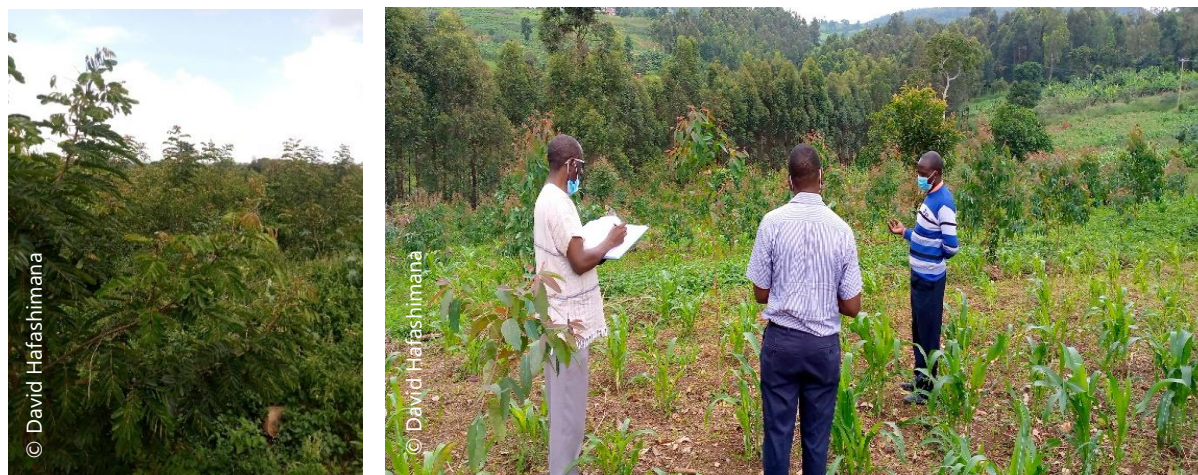
Finding 34. The lack of training prior to seedling delivery and the COVID-19 pandemic-induced lockdown affected the establishment and maintenance of some community and institutional woodlots.

146. Some woodlots, such as the one of Sasiira technical Institute in Nakasongola District, were in a neglected state (not due to the project, which did a good job establishing them). The neglect was partly attributed to the COVID-19 pandemic, during which educational institutions were closed and thus receiving no funds for maintenance. In contrast, some innovative institutional heads, like the one of Galihuma Primary School in Kyenjojo District, found a way to maintain the trees by allocating the land to staff members to grow food crops among the young trees while also weeding the young trees.
147. The lack of training to some communities prior to seedling delivery and the COVID-19 pandemic-induced lockdown affected the establishment and maintenance of some community and institutional woodlots. In a few cases, some community groups received seedlings without prior training in planting, spacing and management of the trees (e.g. the case of the Tweekumekume community group in Nakaseke District). As a result, these communities had poorly spaced and poorly managed woodlots. This was corroborated by the poor quality woodlots that were visited during the field work (Figure 7). However, among all community and institutional woodlot visited during the fieldwork, this was the only one with such a problem. The others reported that at least one of their members had been trained on how to plant and manage the woodlots, while some even mentioned that the service providers participated in the planting and establishment of the woodlots during the initial season. The issue in Nakaseke may have been due to negligence by the service provider and lack of supervision from the project, possibly resulting from the COVID-19 pandemic lockdown.

Figure 6. A community woodlot with poorly spaced eucalyptus and *pinus caribaea* trees established by Tweekumekume community group, Nakaseke District



Figure 7. A neglected *Senna siamea* woodlot at Sasiira Technical Institute, Nakasongola (left) and A eucalyptus woodlot maintained under Taungya at Galihuuma Primary School, Kyenjojo District (right)



Finding 35. The activities focusing on downstream industrialization of processing and utilization of forest products focused more on processing and less on utilization.

148. Outcome 3 activities focused most on wood processing and less on wood utilization. For instance, the project logframe proposed to promote efficient utilization of forest products through matching grants to investors. This was largely to support processing and not utilization; similarly, the logframe proposed support for consumer awareness, education, advocacy and lobbying for favourable trade in forest products. Limited effort was put in this direction. Moreover the performance indicators of utilization were not clearly defined.
149. The project made some deliberate effort to tackle wood products marketing issues. For example, the project trained timber graders to kick start the timber grading operations in the country. This would therefore result in improved quality of timber that can easily attract regional and international markets. Also, the project supported the development of the Market Intelligence Information System for linking buyers and suppliers. However, the market value of thinning and final harvest is highly distorted and a number of planters believe they are not getting value for their investments, partly prompting premature harvesting of trees. Similarly, there was insufficient engagement with the potential wood end users such as Rural Electrification Authority and National Housing and Construction Company as well as other leading private local construction companies that require large supplies of timber and wooden poles; given the timber standards in place and the desire by the wood end users to have sustainable supply of high quality timber and wooden poles, UTGA should have seized the opportunity to mobilize its growers and engage the end users.
150. The study on timber plantations and markets projected a supply of 1.7 to 1.8 million m³/year within the next ten years (the bulk of which being pine). However, this prediction may have grossly overestimated the supply given that a number of planters were reported to be harvesting their pine plantations at a young age and replacing with the short rotation eucalyptus plantations. Consequently, the limited reliable statistics available on the commercial forestry sector in Uganda limits the accuracy of such projections and the recommendations drawn therein.

Finding 36. The inadequate funds allocated to, and the delayed start of activities related to the downstream industrialization of processing and utilization of forest products hampered achievement of this outcome.

151. Most activities relating to downstream processing came at the end of the project providing limited opportunity for determining change and impact. Given that the focus of SPGS III was supposed to be downstream processing and given the fact that there was limited technical expertise in this area, such activities should have been prioritized as the project got underway.
152. The number of procured equipment was insufficient in view of the envisioned focus of SPGS III. In addition to the insufficient equipment, only 14 items had been delivered so far. The late placement of orders for some specialized equipment hampered their timely delivery. For instance, the modular manufacturing approach of some sawmills implies a longer time frame for assembling and delivering a complete unit.

Finding 37. The homogeneity of processing equipment for small/medium scale planters was not suitable and effective for a wood processing industry at the inception stage.

153. The small and medium scale processors are highly heterogeneous with regard to knowledge and skills of the downstream processing technologies. The attempt to provide homogeneous processing equipment (sawmills) was not effective since some processors with limited skills and knowledge would have benefitted more from low-tech equipment with a strategy to gradually upgrade.
154. The high-tech Wood-Mizer LT40 sawmills supplied to small/medium scale planters were not the most suitable for the inception stage of downstream processing. While the hydraulic system therein enhances production efficiency, such equipment is most suitable for a semi-permanent harvesting module as compared to a highly mobile harvesting module suitable for small/medium scale planters. There is a likely increase in maintenance costs and frequent operational failures as a result of limited knowledge of the high-tech system. Cheaper, robust but equally high recovery sawmills (such as Wood-Mizer LT15 Wide, LT20 and LX50) could have been more appropriate for the log sizes currently being harvested. These models would also allow for organic growth, enabling processors to gradually transition to more modern sawmills as they acquire the necessary skills and knowledge of downstream processing technologies.

EQ 9: To what extent have project technical support, management systems and research enhanced development of the commercial forestry sector?

Finding 38. The project technical support to the sector provided a basis for benchmarking further development of the commercial forestry subsector by setting and enforcing standards, but there is still more work to be done.

155. The project provided technical support to different actors in plantation forestry, such as training of technical staff of relevant Ministries, Departments and Agencies, tree farmers, trainers, regulators, nursery operators as well as forestry contractors in various aspects of commercial forestry. which has and will continue to influence the subsector for several decades to come. The standards that have been developed are also likely to serve the sector for long, by facilitating regulators as well as wood users to have benchmarks against which to base their work.

156. The project was intended to strengthen management capabilities with additional expertise in finance, timber marketing and downstream processing. Despite the contribution made by the project, the capabilities in downstream processing and timber marketing are still limited among most stakeholders and/or implementing partners.
157. Technical support to nursery operators and advertisement of certified nurseries provides market opportunities for nursery operators beyond the SPGS supported growers. This will contribute to establishment of high quality tree plantations in the medium-long term.
158. Technical documents produced with support from the project, such as the Field Guide to the Forestry Pests and Diseases in Uganda, modular downstream integrated sawmill model for Uganda, and Assessment of the Ugandan commercial timber plantation resource and the markets for its products will provide guidance to technical personnel as well as tree farmers in the commercial forestry sector.

3.3 Efficiency

EQ 10: Have the project funds and activities been delivered in a strategic and timely manner? How efficient was the project implementation approach, including overall staffing, planning, coordination, procurement and number of implementing partners?

Finding 39. SPGS III conducted timely inspections and addressed the initially slow disbursement of funds despite delays in the start of some other aspects of the project; as well as inadequate time allocation to some project activities, which negatively affected the achievement of the desired goals.

159. Field staff conducting inspections for compliance with standards (monitoring compliance with set standards before recommending payments to eligible beneficiaries) were often on schedule, and payments made within a reasonable period considering the various processes and official procedures required before payment.
160. However, some beneficiaries complained about the slower pace of funds disbursement earlier in the project and during the tenure of United Nations Office for Project Services as Grant Manager. After 2018, when FAO made the decision to shift to its own less costly grants management system, the pace of funds disbursement reportedly improved.
161. Notable delays were experienced in the procurement and delivery of processing equipment, and in the development of the market intelligence system and the TIMBERMART platform. At project closure, only 14 of the 27 processing equipment had been delivered. The late start of activities under Outcome 3 can be partially explained by the fact that downstream processing was a new area in which the majority of the staff had little experience, and a major learning process was required. A significant amount of project time was also spent on research to identify the appropriate processing technology and equipment to purchase, which delayed the eventual purchase of equipment. The delayed implementation of activities under Outcome 3 meant that monitoring these activities and the resulting impact withing the project lifespan was difficult. For example, this included the evaluation of the appropriateness and/or performance of different equipment, the evaluation of the development and trial use of TIMBERMART software, and the evaluation of skills acquisition and application following training sessions conducted between 2019 and 2020.

162. Delays were experienced in the recruitment of the international project coordinator (hired in November 2016), assistant project coordinator, also doubling as the programme officer for plantation development (hired in August 2016), chief technical adviser and staff for Outcome 3 (recruited April 2017), and the GIS/mapping officer and M&E assistants (hired in February 2017), among others. These delays in recruitment were in part caused by FAO's administrative procedures, especially where international staff were involved.
163. The process of contracting with the SPGS III partners, i.e. FSSD, UTGA, NAFORRI and NFC was delayed as most LOAs were signed in the second half of 2018, almost two years into project implementation. The delay was due to the lengthy discussions between FAO and partners to agree on the scope and budget of each agreement. Although most partners delivered their assigned outputs by project-end, the late start meant that the broader results of the work conducted will emerge only after SPGS III has ended. This will be true of the Forest Management Information System that FSSD is to establish and the research findings from NaFORRI's dryland species trials. The delays also meant that the beneficiaries of procured wood processing and value-addition equipment did not have enough time to learn and gain experience regarding the operation and servicing of the said equipment within the lifespan of the project.

Finding 40. There were instances of inadequate duration of and participation in some SPGSIII training events.

164. For example, the training on pests and disease management was conducted in one day, which was insufficient given the level of knowledge and skills required in this area. The training on managing forest engineering operations, which usually lasts for three weeks, was condensed to two weeks. The limited availability of funds was the rationale offered by the project team, for the shortened durations of training. However, this could have been mitigated by better budget allocation and planning. Additionally, the training sessions excluded majority of the district forestry officers implying that the farmers from districts with untrained district forestry officers would not benefit from the knowledge shared during training or have to make separate arrangements.

EQ 11: To what extent did the project M&E strategy provide data analysis for accountability, management and learning through various studies conducted and can demonstrate project changes at outcome and impact level in the target groups?

Finding 41. Some weaknesses in the project logframe inhibited the adequate monitoring of project performance.

165. SPGS III was designed with a logframe and an M&E framework, but not an actual theory of change. SPGS III M&E activities were conducted by an FAO M&E Officer who allocated 20 percent of his time to SPGS III, and was assisted by two M&E Assistants. Although the logframe was revised at the inception phase, to produce a results framework, it lacked baselines, targets and gender-disaggregated indicators and targets, and sometimes confused quantitative and qualitative indicators.
166. Additionally, the indicators used to measure progress against some outputs were inadequate. For instance, the number of exhibitions and forestry fairs supported may not be the best indicator to measure progress on enhancing regulation and coordination of forest products markets; the number of meetings/workshops convened by the COMFORT group is

not the best indicator to measure an increase in the institutional capacity for research along the commercial forestry value chain. As a result, it is unable to adequately guide project M&E.

Finding 42. The project data collected through the SPGS III verification process was used effectively for decision-making and adaptive management.

167. Much of the M&E data gathered was drawn from the information SPGS III cluster staff collected through their verification of areas planted or pruned by project grantees. These exercises were conducted biannually in accordance with the two planting seasons in the year to assess the seasonal and cumulative area planted by each grantee. They were rigorously done according to the SPGS III verification standards. As such, the data recorded by the field staff were reliable and was used for the payment of grants to planters. For example, the shortfall in plantation establishment due to drought conditions in 2018 was registered by the grant verification system. This project data, a lot more than the formal M&E data recorded by FAO personnel, was used for decision-making purposes in meetings with FAO Country Office Senior Management, the donor and the Steering Committee.

Finding 43. The project undertook several studies to report on project progress, inform project activities and enhance learning.

168. During its implementation, SPGS III conducted several studies aimed at assessing the progress of key project activities and informing the implementation of others. For example, in August 2019, a comprehensive mid-term evaluation was conducted to assess progress on the project and make recommendations for improvement. Annual reports were also produced to report on the implementation progress of project outputs. Lastly, the project developed some studies to influence and inform the implementation of project activities. For example, the gender assessment in plantation forestry study guided the gender mainstreaming activities that were undertaken under SPGS III, and the study on identification and justification of appropriate types of sawmills guided the choice of equipment purchased under the project.

3.4 Impact

EQ 12: To what extent has the project contributed to the higher-level effects of increasing the incomes of the rural population through commercial tree planting and to helping to mitigate climate change effects through intensive afforestation?

Finding 44. SPGS III has contributed to a growth in employment and incomes of the rural population, revenues of rural communities and districts, and rural infrastructure development in project clusters.

169. Some districts visited by the Evaluation Team reported an increase in local revenue collections due to increased movement of forest produce like logs from the plantations, on which the districts impose a local levy (see Figure 8).
170. The sites where beneficiaries of SPGS III are located have had Infrastructural developments such as roads (aimed at improving access to forest sites and transportation of forest inputs, such as seedlings, and products by government and commercial forest owners), and this has had a trickle-down effect on improving communication and movement of goods in these sites thus improving rural economies.

171. In some areas with substantial forest plantations, there has been an increase in wood processing facilities such as plywood factories (privately owned by business entities that do not own any forests). These wood processing facilities provide not only a market for the tree farmers' logs, but also employment for the rural populations, thereby improving rural livelihoods. Although some farmers complained about the low prices offered by these private processors, it can be predicted that as more processing factories emerge, the competition among them will increase and they will in-turn offer better prices to attract more wood suppliers.

Figure 8. Forest revenue collection point along Mityana-Mubende Road



Finding 45. There are preliminary indications that with increased plantation forest cover, micro-climates are improving as well as wood users substituting wood from plantations for natural forest sourced wood.

172. There is a reported shift away from a reliance on wood from natural forests to wood from plantations (which is also more affordable) in some districts. This is a positive development and was one of the primary reasons for the development of the SPGS projects, i.e. to reduce pressure on the remaining natural forests by producing affordable wood sustainably produced from faster growing plantations. Additionally, it will presumably ease the challenges of law enforcement among the government agencies (NFA and DFS).
173. There has been a reported improvement in the micro-climate, especially in areas where broad-leaved trees have been planted. Some interview respondents reported reduced incidences of heat waves and prolonged dry spells.

EQ 13: To what extent have rural communities been involved in the various aspects of commercial forestry (tree planting, forest contracting, nursery operations, value addition, etc.)?

Finding 46. Rural communities benefitted from employment opportunities largely created by tree nursery operators and commercial tree planters.

174. For almost all the tree nurseries certified by the project, rural communities, and especially women and youth were evidently engaged in the various nursery operations. Furthermore, for plantations with proximate communities, local community members voluntarily seek contractual employment opportunities. Under circumstances of remotely located forest establishments, with low human populations and human labour around, imported labour forces were predominantly used. These were also from rural communities, though from far away from the plantation.

175. The downstream processing technologies so far introduced are deemed to require less involvement of rural populations compared to plantation establishment and maintenance activities. For instance, each of the saw mills (supplied by or expected from the project and those currently deployed by most processors) on average employ six to eight individuals. In addition, the other processing equipment such as plywood factories are situated away from the plantations and closer to urban areas. Consequently, employment opportunities in these wood processing facilities to a bigger extent support people with technical skills who are mainly urban/semi-urban dwellers.

EQ 14: What have been the impacts (both negative and positive) of the project plantation establishment activities on neighbouring communities during periods of weather extremes (e.g. grazing of domestic animals during dry seasons, effects of/origins of forest fires on the neighbouring communities, or the impact of rural communities on the forests during weather extremes)?

Finding 47. Tree plantations have become refugia for grazing animals in some clusters, especially during severe/extended dry spells.

176. Some planters reported allowing local people to utilize plantation blocks whose trees are older and unlikely to be affected by grazing animals, while others indicated that they could not allow grazing of livestock in their plantations due to fear of other damage to the trees by animals and sometimes herdsmen. Additionally, animal grazing is associated with fire hazards, as the herdsmen sometimes set fires which accidentally spread to the plantations.

Finding 48. There have been some instances of conflicts between SPGS III beneficiaries and encroachers on CFRs.

177. Some SPGS III beneficiaries planted trees in CFRs on which some local communities had previously encroached. The local communities would use these areas for grazing their livestock and/or growing agricultural crops for sale and food especially during periods of long drought. In these areas with a history of encroachments, there was animosity between the tree farmers and local communities. Some encroachers tried to forcefully return to the land, sometimes cutting the trees planted by licensed private farmers (Figure 10 below), which led to conflicts and use of force, to evict encroachers. In such cases, it would not be reasonable to allow these local people back to collect firewood or graze their animals even after the trees had grown big, as the local people could use such opportunities to resume their encroachment and other illegal activities.
178. In some places, where there was harmonious relationship between the tree growers and neighbouring communities, some tree farmers used Taungya system for the initial planting until the trees closed up. Care was taken in such cases to ensure that no more area was allowed for the local farmers to clear than could be planted in the next planting season. In areas where Taungya was used and well controlled, the young trees under Taungya were healthier than where no crops were planted in the same area.

Figure 9. Ms Alice Ninsiima's plantation in Musamya CFR, Mityana District



Note: With evidence of former encroachers cutting down the young plantation (multiple stems) in an attempt to go back into the CFR illegally until they were forcefully evicted.

EQ 15: To what extent has forest plantation development impacted on land-use change, especially in uptake of prime private land for food production?

Finding 49. Activities to enhance plantation forest development did not undermine national food security by competing with food crops for land.

179. Commercial tree planting has been largely confined to CFR land designated for plantation forest development and marginal land on privately owned land. Some privately owned prime land suitable for agricultural food production has been used for tree planting (especially where the landowner does not live on and regularly use the land for crop or livestock farming) with the primary objective of safeguarding land against land grabbers who target “idle” land. Consequently, commercial tree planting has not significantly affected agricultural food production, or undermined food security in the country.

3.5 Sustainability

EQ 16: What are the prospects for sustaining the identified results and scaling-up activities beyond the projects' closure? Did the project design include an appropriate sustainability and exit strategy to promote national/local ownership and use of national capacity to sustain the positive changes after the end of the project? How well was this strategy implemented?

Finding 50. The capacity development of key relevant institutions in the commercial forestry sector will ensure sustainability of gains although more is required to ensure full-scale sustainability.

180. The project supported capacity development in different institutions legally mandated to provide support services to the commercial forestry. The training and capacity building provided to institutions such as FSSD, DFS, NFA, UNBS, NFC and NaFORRI will go a long way in ensuring the sustainability of the gains made and standards generated by the project. However, the capacity developed with the institutions is still insufficient to ensure full-scale sustainability, and further support will be needed to fully meet expectations. For example, while the project supported UTGA by providing training and processing equipment, the installation and operationalization of the equipment will require some financial and technical support until UTGA can start to generate its own funds from processing and marketing its products.

Finding 51. Market opportunities will be a key determinant of sustainability for tree growers whether in forest reserves or on private land.

181. Large-scale tree growers are likely to sustain commercial tree planting, even without external support if the market prices for forest products are favourable. This is due to their large financial capacity and the high returns they expect to realize from their investment, if favourable prices prevail throughout the life span of their trees.

182. Even for tree farmers who were allocated land, and planted in CFRs, the decision whether to reinvest the proceeds from their harvest into forestry will largely depend on whether it makes economic sense to do so and less on whether they still have a valid license to grow trees in the CFR. Therefore, the current low market value of wood products is a major concern that could undermine sustainability of the Project's achievements.

183. There are concerns with regard to tree planters on private land. There is some evidence of waves of land use changes driven by what communities presume to be most profitable. There is no guarantee that tree planters on private land will continue with the same investment if other land use options (e.g. coffee production) appear more profitable.

184. In addition, tree farmers in CFRs, regardless of the scale/size of their plantation, are more likely to continue growing trees because only forestry activities can be legally undertaken on the land they were allocated. The National Forestry and Tree Planting Act allows only forestry-related activities to be carried out in CFRs. Thus, the law is likely to favour and ensure sustainability of forestry activities on forestry land relative to planters on private land.

185. Planting standards are likely to decline in the absence of project support, as investors look to reduce plantation establishment and maintenance costs. However, better market returns from the current crop coupled with an appreciation of the benefits of good standards at later stages of plantation harvesting may motivate compliance to standards.

Finding 52. The emergence of non-FAO/SPGS supported wood processing equipment (established by tree planters and other investors not involved in tree planting) such as plywood industries and sawmills offers prospects for sustainability.

186. The emergence of large, medium and small scale processors with a good understanding of technical, financial and production aspects of wood processing is likely to be self-sustaining. However, this is premised on the continued investment in tree planting which will to a large extent be determined by market opportunities with a good return on investment.

Finding 53. With regards to downstream processes, there was limited capacity developed among the institutions that are envisaged to take charge of value addition, notably UTGA.

187. UTGA was expected to take over and continue various project activities related to downstream processing. However, there is a mismatch between the expectations and the actual capacity of UTGA. A quote from a UTGA member following a discussion on lack of market opportunities for utility poles "... so let UTGA set up a unit responsible for soliciting for tenders to supply utility poles This is what some of us hoped for when we joined. We expected to benefit from collective bargaining...". However, the current staffing at UTGA (four staff with only one Programme Officer) does not match the needs of the wood industry, including processing and marketing. This was further collaborated by the fact that, whereas the project supported UTGA with an integrated wood processing unit (100 percent financial support from the project), UTGA was anticipating support from the World Bank to bring on board a technical assistant to run the unit for two years. While the exit strategy required conducting organizational audits of the institutions that were to take charge of specific implementation areas, such an audit was not done and the capacity of the implementation partners such as UTGA remains low.

Finding 54. The commercial forestry training and research is likely to be sustained by integrating into regular activities of supported institutions although there is no mechanism to ensure the sustained integration of research into commercial forestry activities.

188. NaFORRI, Makerere University and NFC serve as public institutions with a mandate to conduct forestry research and training. Accordingly, they should be able to sustain the research and training agenda by integrating these themes into their own regular research and training activities. This is because these institutions regularly review their research and training agenda based on current and emerging scenarios.
189. However, in the absence of project support, the focus of forestry research will depend entirely on the research interests of the Government of Uganda and other development partners, which may not be in the area of commercial forestry. For example, the Evaluation Team did not see any evidence of formal agreements between Nabuin ZARDI and NFA, spelling out each party's rights and responsibilities for the continued management and monitoring of the dryland species trial sites for national benefit. The absence of such agreements could threaten the gains achieved under the project.
190. Additionally, the project did not put in place a mechanism to ensure that institutions charged with forestry training are capable of handling demand-driven in-service technical training. For instance, training institutions did not participate in the demand-driven training on chainsaw operations and yet this could be an area of interest for training in the future.
191. COMFORT is a loose network of organizations that will likely minimize engagements after project closure due to the absence of a protocol to sustain their engagement. This can

potentially be mitigated by the fact that some members of COMFORT (Makerere, NaFORRI and NFC) are also members of the research and training sub-forum of the Uganda National Consultative Forestry Forum. Engaging in this forum could provide an opportunity to sustain the aspirations of SPGS III.

Finding 55. A lack of sustainable financing mechanisms could hamper the sustainability of project gains.

192. The mid-term review highlighted the importance of laying the foundations of a solid and sustainable credit scheme because both tree planting and downstream processing require significant capital expenditure (where the former has a long payback period and the latter a short one), support value addition and downstream processing through greater access to financial resources. SPGS III engaged with the East African Development Bank, Uganda Development Bank and other financial institutions in negotiations for future support. However, the discussions did not come to a conclusive end because commercial forestry is a relatively new area for the financial institutions and they are still sceptical about its feasibility. There is need for further follow-up of these discussions, especially with the development banks that are more likely to offer long-term concessional loans, if convinced.

Finding 56. Climate change poses an additional set of risks to the sustainability and relevance of the project's achievements.

193. The variations experienced in precipitation patterns affect planting and seedling survival, and may increase in unpredictability, severity and frequency. Moreover, climate change and variability may bring increased risk of fires, pests and diseases. Monoculture plantations of exotic species may also be more vulnerable to these risks than Indigenous species, and this could become a disincentive for plantation establishment if negative impacts increase and alternative, more resilient species are not identified. Climate information and early warning and disaster preparedness systems should therefore become an integral part of commercial forestry.

EQ 17: Did the project adequately support the implementing partners (UTGA, Ministry of Water and Environment FSSD, tree farmers, research and training institutions) for continued support to the commercial forestry sector after the end of the SPGS III project?

Finding 57. The project offered substantive support to the different implementing partners, but more is still needed for them to perform their oversight and advisory roles to the subsector.

194. Though UTGA has improved with SPGS III support, more support is still required. The support offered to UTGA to establish an integrated wood processing unit is envisaged to provide medium to long-term facilities for commercial tree growers to benchmark and adopt efficient wood processing technologies. However, UTGA still lacks the technical, human resource, financial and organizational capacity to run the unit, without support from outside its means.
195. The project helped build capacity of FSSD/Ministry of Water and Environment, NFA, DFS and research and training institutions. However, due to the limited financial support to these institutions from government and other sources, and the long-term nature of most commercial forestry interventions, more support is still needed for them to effectively support and oversee the subsector.

3.6 Coherence and coordination

EQ 18: To what extent was the project's operational modality and governance structure, including the government partnership and cluster mechanism at district level fit for purpose?

Finding 58. The project had an effective National Steering Committee, which addressed project management issues at a national level, but there was generally weak collaboration with the government partners at the field level.

196. The project had an effective and functional National Project Steering Committee comprising key stakeholders who met regularly to address project management issues at national level. This management and oversight role was cascaded to the cluster level where key stakeholders like DFS staff and tree farmers would regularly participate.
197. There was generally weak collaboration with some important actors in the Uganda forestry sector at the field level. For example the technical staff from district local governments in the different clusters were largely excluded from project activities. Additionally, there was no deliberate effort to share the lists of SPGS III beneficiaries and periodic project reports with the NFA or DFS offices, even when several tree planters were leaseholders on NFA managed land. Although many project beneficiaries have forests on private land whose supervision and management is mandated to the DFS, the Evaluation Team was informed that SPGS III project staff hardly worked with the respective DFS offices during the M&E field visits.
198. The project team indicated that in some cases, some district forestry officers were involved in training community groups that expected to receive tree seedlings, as well as in the distribution of seedlings. However, the engagement seems to have been motivated more by the ad hoc needs of the project than a deliberate routine practice of working with the DFS staff.
199. The Evaluation Team was also informed that the cluster meetings ceased after the COVID-19 pandemic lockdown and no efforts were reportedly made to hold virtual meetings with those cluster-level stakeholders that could manage to meet virtually.

EQ 19: To what extent did FAO and its partners coordinate to manage the project and deliver results together?

Finding 59. Limited coordination at the local government/cluster actors as well as other entities.

200. The coordination at lower and cluster levels with DFS and NFA field teams was inadequate, in aspects of field monitoring activities, despite the wide distribution of tree planters on forest reserve land and private land where these entities are mandated to monitor and extend support services.
201. Project coordination missed an opportunity to integrate the value addition, especially briquette manufacturing to complement other projects implemented by government departments and other partner institutions to address the fuel wood demand; For instance, the FAO project on sustainable and affordable energy solutions for refugee and host communities in Uganda was a good opportunity to link the FAO/SPGS III project beneficiaries engaged in briquette making with such a project for market opportunities and technology development.

202. In an attempt to address concerns of environmental degradation resulting from high influx of refugees and associated wood demands for both shelter construction and fuel wood, the project made attempts to include some of the refugee settlement camps, particularly Kyangwali in Kikuube District, Rwamwanja in Kamwenge District and Bidibidi in Yumbe District, with a total of 100 ha of woodlots being established. However, there was no evidence of coordination of SPGS III work in these camps with earlier work on fuel briquettes that were agricultural residues-based and therefore had issues regarding sustainability as agricultural residues availability tend to be seasonal.

Finding 60. The project supported efforts to link tree farmers to the carbon market without much success.

203. Attempts were made by the project to link its beneficiaries to the carbon markets through the Uganda Carbon Bureau (then supported by the Danish forestry extension). The Uganda Carbon Bureau invited tree farmers for a workshop (attended by over 200 tree farmers). After the discussions, the tree farmers were requested to submit documents regarding their tree planting activities and associated evidence (land ownership or copies of licenses from NFA, payment receipts from NFA, species and areas planted). Although the farmers submitted all the required documentation, there was no further engagements between the two parties.
204. According to Mr Bill Farmer, the chairman of the Uganda Carbon Bureau, the process hit a snag when the UN Clean Development Mechanism that was expected to provide market for the SPGS trees suddenly closed. The Uganda Carbon Bureau then attempted to sell the credits to the Gold Standard but encountered challenges as they kept changing their instructions and setting unrealistic deadlines, making it unrealistic and uneconomical to deal with them. There were further challenges with selling carbon credits retrospectively as the potential buyers indicated that they could only accommodate the credits if the activity was one year old, not the 15 and more years that applied to the SPGS III tree farmers. This made the prospect of the tree farmers benefiting from carbon credits a lost opportunity.

Finding 61. Attempts were also made to link tree farmers to financial institutions for alternative funding.

205. In 2019, UTGA supported by the project mobilized banking institutions and credit facilities to interact with commercial forestry investors, most of whom were members of UTGA. The purpose of the meeting was to link tree growers with financial institutions to forge ways of developing appropriate financing schemes to sustainably support commercial forestry investment. The event attracted 24 participants who majorly included representatives of banks and other financial institutions (FINCA, Barclays Bank, Post Bank, DFCU Bank, BRAC Uganda Bank, Stanbic Bank, Bank of Baroda and East African Development Bank), tree growers and key stakeholders in the commercial forestry sector.
206. Participants from the finance institutions applauded UTGA for the initiative and agreed on the need for a Steering Committee that would lead further engagements. The financial institutions indicated that they would prefer short-term credit engagements, and downstream activities of the value chain would well qualify. However, there is still limited understanding of the value chain by the financial institutions to enable them to align their facilities towards developing services for the commercial forestry sector.

4. Cross-cutting issues

EQ 20: In terms of equity, to what extent has the project benefitted small and medium-size landowners? Was beneficiary selection fair and transparent?

Finding 62. To a great extent, the project addressed issues of equity to include small-scale landholders, but amid the challenge of balancing equity with the need for economies of scale and efficiency in supervision of very many small-scale farmers.

207. SPGS III took steps to address the issue of inclusivity in the selection of beneficiaries compared to the earlier phases. To accommodate more of the medium and small-scale producers, there was a deliberate reduction in the minimum size of land (from 25 ha to 15 ha) for eligibility to be considered for the grant subsidy in the scheme. Of the three categories of individual tree planters, large scale constituted 1 percent, medium scale 22 percent and small scale 78 percent. The consideration for applicants aimed at having more beneficiaries. This was achieved by often approving land area for support lower than what had been applied for. However, this also came with its challenges. Some of the large scale planters who were given support for much lower than had been applied for (15 ha) turned it down because it did not make economic sense to them.
208. Considering that the majority of the beneficiaries were small-scale landowners, the project was responsive to the reality of limited access to land for tree planting among most households thus addressing the issue of contextual equity.
209. In an attempt to address transparency, information about the application process was widely distributed through: i) an advertisement/call for expression of interest in the newspapers running for one month; ii) an advert on the SPGS website; iii) radio announcements aired out (most radio stations) during overall sensitization, in which some district forestry officers were engaged; and iv) hard copy distribution of project brief with information about the scheme, including eligibility criteria, etc. However, there was no mechanism of providing timely feedback on the decision about area approved versus applied for, and those whose applications were not successful.

EQ 21: How were cross-cutting issues (gender, youth and equity considerations) mainstreamed in the project design, identification of beneficiaries and implementation?

Finding 63. The initial design of SPGS III did not sufficiently address gender considerations, resulting in a small number of female beneficiaries.

210. A review of the project document reveals that SPGS III was designed without a gender focus and lacked gender segregated targets and indicators. Consequently, initial project implementation lacked any gender consideration. Although both men and women were initially involved in tree planting as grantees and employees, it is more accidental than by design, and less than 10 percent of the planters were women. Women's participation in plantation establishment is mainly attributed to a lack of land which resulted in most women not qualifying for SPGS grants because applications to join some project activities require proof of land ownership.
211. During the beneficiary identification process, an open call encouraging women to apply was issued. However, no specific actions were taken to encourage and support the enrolment of women. Additionally, mainly using newspapers and the project website to advertise the SPGS

III opportunities may have limited access for many potential female applicants who lack access to these platforms.

212. Private forest planters have yet to mainstream gender considerations into their operations as fewer females (less than 20 percent) are employed in plantation establishment compared to men. The nursery operators, forest plantation managers and contractors confirmed the lower employment of women in commercial forestry plantations due to the nature of forest work, which requires physical strength, but also mentioned that women tend to be more preoccupied with household/domestic activities and not seek for jobs at plantations. The project has not done much to support the empowerment of women and youth at the community level. However women workers tend to dominate nursery work, which does not require much physical work.

Finding 64. The integration of gender into SPGS III improved considerably following the commissioning of a gender study.

213. An SPGS III-commissioned study on gender in the forestry sector was successfully conducted and it recommended the mainstreaming of gender issues and promoting women's empowerment in all commercial forestry activities in Uganda. The SPGS III project then conducted a gender needs assessment and gender analysis to help assess aspects related to gender equality and women's empowerment in SPGS III to redress gender equality shortcomings or inconsistencies in the project design. In order to operationalize the recommendations of the gender capacity assessment, SPGS III developed a gender action plan.
214. In order to enhance the participation of women tree planters, and in recognition of the gender-based constraint of access to finance, the project offered a waiver to the female tree planters who had not satisfactorily fulfilled the periodic performance targets to qualify and granted each of them more time to improve their performance and fulfil the periodic requirements (a contract addendum). Eight women who would otherwise have been eliminated from among the beneficiaries, benefitted from this action.
215. The mid-term review recommended that the project provide additional technical assistance to the new women beneficiaries to improve the prospects of their plantations being successful. This was not done because no additional women were recruited. There was also no additional technical assistance provided to the women tree planters that had been recruited prior to the mid-term review.
216. In order to have more women benefit from employment in nursery operations and forestry contracting investments, the project team created an incentive for them. The audit checklist score was reviewed to assess gender inclusiveness for every applicant. A nursery operator with over 30 percent women employees was awarded a bonus mark that was applied in the certification. Similarly, a forestry contracting company with over 30 percent women as shareholders was awarded a bonus mark to be certified by the project. Certification enhanced their prospects to get business opportunities. Table 9 shows the trend of female beneficiaries.

Table 9. Increment in female project beneficiaries with time

Category	Total number of grantees	Number female/youth grantees		
		Before 2019 MTR	After 2019 MTR	2021 status
Large scale tree planters	6	0	0	
Medium scale tree planters	29	2	2	
Small Scale Tree Planters	327	47	55	8 (received waiver)
Certified nursery operators	106	16	21	5 (newly certified)
Certified contractors	28	4	7	3 (newly certified)
Community groups				
Women-led community groups		30		
Youth-led community groups		31		

Source: Elaborated by the Evaluation Team.

EQ 22: To what extent did the gender action plan and the recommendations of the gender capacity assessments influence project implementation and project results?

Finding 65. The mainstreaming of gender into SPGS III improved considerably following the gender capacity assessments and gender action plan although efforts were constrained by time and COVID-19 restrictions.

217. In 2018, SPGS III commissioned a gender stakeholder capacity assessment and gender analysis in the forestry sector aimed at assessing aspects related to gender equality and women's empowerment in SPGS III, and providing recommendations to redress gender equality shortcomings or inconsistencies in the project design.
218. A gender action plan (2018–2021) was developed in order to operationalize the recommendations of the gender stakeholder capacity assessment and Gender Analysis report. Although the action plan was never formally designated as a project document (it remained a draft document), many of its proposed actions were implemented. The gender action plan highlighted the identified gender gaps and specific activities to be implemented to address the identified gaps. Noteworthy is that the gender action study did not clearly articulate the gender-based constraints and opportunities for the different categories of beneficiaries where women/youth could be a focus (small-scale, community groups, nursery operators). This therefore limited its relevance in addressing existing gender inequities.
219. The gender action plan identified seven key gaps for action, including: i) lack of a project gender focal point; ii) limited understanding of gender and gender mainstreaming for project staff, beneficiaries, implementing partners and other stakeholders; iii) lack of gender targets and indicators in the project logframe; iv) lack of gender disaggregated data; v) lack of targeted communication and awareness creation initiatives to address gender issues in commercial forestry; vi) limited direct participation of women in commercial forestry; and vi) limited participation of women among project certified service providers.
220. One of the existing SPGS III project staff was assigned an additional role as the gender focal point and was supported to improve their knowledge and understanding of gender mainstreaming through mentorship by FAO, Uganda Gender Officer, training (in 2019, the gender officer was facilitated to attend a training in Israel on "Agribusiness: A Tool for the Empowerment of Rural Women"). The gender focal point was then able to effectively spearhead the task of mainstreaming gender in project activities for the remaining project period.

221. Revision of the project logframe to have specific, measurable, achievable, relevant and time-bound gender targets, indicators and monitoring mechanisms was not attained. It was therefore not possible to ascertain the extent to which gender constraints were addressed during project implementation.
222. While capacity building in gender mainstreaming for project staff, beneficiaries, implementing partners and other stakeholders had been planned, only one in-house training for project staff was conducted in 2018. The training of trainers courses in Gender Action Learning Systems that had been planned for implementing partners, beneficiaries and other key stakeholders did not take place.
223. In order to improve data collection and reporting with more gender-disaggregated information, the field inspection checklist and beneficiary database were modified to include other gender-related attributes such as age and education level of the beneficiary. Further, there was progressive gender reporting with more details on the level of women participation in the project reports.
224. In an effort to have targeted communication and awareness creation initiatives to address gender issues in commercial forestry, the project adopted multiple communication channels and writing styles using different platforms, including project newsletter, project website, info briefs and publications in peer reviewed journals. However, the platforms used could only be accessed by a limited category of decision-makers (mainly elites), and therefore change of attitude, behaviour and practices to address gender issues in commercial forestry could not be effectively achieved since other critical actors with no access to the channels used did not get the information.
225. The project undertook deliberate efforts to profile women and youth in the biannual project newsletter and project website, and inclusion of gender-focused photos in the newsletters in order to raise more awareness about the role of women in commercial forestry. Again, the medium used to showcase the success stories does not reach a wide audience.
226. To increase women's direct participation in commercial forestry, the project offered a waiver to women tree planters who had not met the performance periodic targets, allowing them to qualify. Each of these women was granted a contract addendum. Eight women who would otherwise have lost the opportunity were issued with an addendum. The addendum was to give them more time to improve their performance and fulfil the periodic requirements. This was an affirmative action to have more women benefit from the grant. If this was not done, many of the women would have been eliminated from beneficiaries of the grant.
227. In order to increase women's participation in commercial forestry through community groups, the project planned to support women's empowerment through community group capacity building sessions in partnership with competent non-governmental organizations (NGOs) (through short-term consultancies). There was however no clarity about the specific activities to be implemented by the NGOs that could translate into enhanced direct women's participation. Further, the project had envisaged organizing exposure visit(s) for selected communities to increase peer learning, which was constrained by the COVID-19 travel restrictions. Finally, the project had envisaged addressing challenges of limited access to forestry extension services through partnerships and collaboration with DFS. These partnerships were however not initiated. There was no formal arrangement between the project and DFS.

228. Enhancing participation of women among project certified service providers (tree nursery operators and forest contractors), the project intended to support at least one community group with some key inputs such as improved seed and technical support in order to start up a tree nursery. While this was not achieved, there was a specific focus to increase female certified nursery owners. Of the 106 certified nurseries, 26 were women and youth owned nurseries, while four were nurseries owned by smallholder community groups of farmers. In addition, the audit checklist for certifying nurseries and contractors was revised to include a score on gender (with over 30 percent female employees). This motivated owners to increase women's participation.

5. Conclusions and recommendations

5.1 Conclusions

Conclusion 1. Forestry standards and quality control.

229. The project (in addition to what was achieved under previous phases of SPGS) has made tremendous achievements in setting and enforcement of quality and standards in plantation forestry (nursery operations/planting materials production, planting, maintenance; as well as some standards in value-added products); which need to be maintained and enforced if the subsector is to remain technically vibrant and economically viable.
230. Government institutions that are responsible for standards setting and enforcement (Ministry of Water and Environment/FSSD, DFS, NFA, UNBS) need to work hard and in a coordinated manner with other law enforcement agents such as environmental police, to enforce and sustain such standards.

Conclusion 2. Use of Taungya in forest plantation establishment.

231. Although the project outright discouraged the use of Taungya in plantation establishment, Taungya can be very beneficial for tree establishment if well managed in the initial establishment of tree plantations as it helps in weed control, which is a big challenge in young tree plantations. However, Taungya should not be tried in areas where the neighbouring communities are hostile such as areas that were encroached upon by local communities before planting, as the communities can use the Taungya practice as a re-entry point for further encroachments. The focus for the tree farmers to qualify for project assistance in future should not be whether a tree farmer used Taungya or not to establish his/her plantation, but rather focus on the presence and condition of the young crop, since areas where Taungya was used and managed properly and strictly had healthier and more vigorous tree crops than those where Taungya was not used.

Conclusion 3. Forestry research.

232. Institutional support for research was mainly for upstream forestry activities, yet the beneficiaries now need more technical support in downstream activities since most of them have plantations that are ready for harvesting and processing. Future interventions for institutional capacity building of research institutions ought to prioritize downstream activities.
233. It is important to have a comprehensive research dissemination strategy with clearly defined mechanisms and channels for all actors in the forestry value chain to benefit. In order to ensure effective dissemination of research outputs, there is a need to start early, work with relevant stakeholders within and outside government that are linked to users and ensuring that the research products are generated in a timely manner, are relevant and readily accessible.
234. The outcomes of the research studies need to be made more readily available through hard copies delivered to the target value chain actors. Further, target group discussion sessions could be organized to enable synthesis, adoption and utilization of the research findings. Engagement of policymakers to have a buy in for the research agenda and research products would enable access to resources to fund the research agenda and enhance dissemination.

235. The institutions involved in forestry research were able to work together during the project implementation under COMFORT. However, there is need to strengthen and institutionalize this collaboration through memoranda of understanding (MOUs) and sharing their research agenda, conducting joint research based on the strengths and capabilities of the different entities.

Conclusion 4. Gender mainstreaming.

236. While gender mainstreaming is often a cross-cutting issue, there should be a deliberate effort to pronounce it in the project document(s) with clear objectives, activities and milestones for measuring performance along the implementation path. Further, gender is a broader term beyond sex, which is mainly differentiated as male or female. Gender recognizes the variations between the different categories of males and females in terms of needs, resource endowments and access. Further, a designated project gender focal person should be identified, whose terms of reference or job description is clearly stated to realize the gender mainstreaming objectives.
237. There should be a mechanism to regularly assess the performance of the project in terms of addressing gender issues to enable timely review and implementation of remedies. This can be achieved by having a gender-sensitive results-based monitoring system, which would enable examining all results and activities for their gender relevance.
238. There is still limited understanding of gender mainstreaming, and therefore the existing training modules for all target audiences need to be revised to incorporate a thematic area (sub-module) of gender inclusivity.
239. There were limited innovative approaches to ensure equitable and meaningful/gainful participation of different social categories, especially women and youth, given the gender-based constraints that had not been clearly mapped at project inception/design. However, efforts were made to mainstream gender during project implementation.
240. The types and distribution/flow of benefits to women did not match the desire to promote women's involvement in commercial forestry.

Conclusion 5. Stakeholder mapping.

241. Comprehensive stakeholder mapping should always be undertaken to identify knowledge-access constraints, and this would have facilitated design of an appropriate communication strategy for the different categories of target audiences. The project team would have worked with a multipronged approach that addresses the national and local context. At the local level, the project would have considered symposiums and dialogues for political leaders (national and local), community meetings with community and cultural leaders. The project team should have focused on:
- i. information briefs targeting key stakeholders in the sector, with a link to the gender-based constraints, e.g. NFA, opinion leaders, commercial and development banks;
 - ii. information briefs for women highlighting good practices, managing gender-related constraints, available opportunities, successful community tree planting; and

- iii. mass media channels such as radios, TVs, open community meetings, open-days, video clips/YouTube.

5.2 Recommendations

Recommendation 1. FAO, in collaboration with strategic donors and Ministry of Water and Environment/FSSD should in future work together from the beginning to ensure that financial support for tree growers for future projects tailored along the SPGS model should be staggered until the farmers start earning from the plantation; and the length of the support should be tagged to the rotation period/growth rates of the trees planted (to discourage the premature cutting of trees that take longer to mature like pine, in order to plant fast growing ones, like eucalyptus).

Recommendation 2. Project management teams in future should put more effort in use of local advertisement media (in addition to national ones) of support for tree farmers using local means such as community radios, in the locations where the tree growing is supposed to take place, to encourage and facilitate participation of local community members in the process.

Recommendation 3. FAO, in collaboration with strategic donors needs to invest more in further training and research in tree pests and diseases; as well as in laboratory facilities and equipment for pests and disease identification and management. This should include facilities for the preservation and creation of samples of disease-causing organisms, diseased plant parts; as well as specimens of tree pests for use in pest identification (by comparison with the preserved specimens).

Recommendation 4. In future projects in the forestry sector, where curriculum development/review is of interest (as it was in SPGS III), FAO, in collaboration with strategic donors, should ensure that the review is conducted at all levels of forestry training (technical level and graduate level). In SPGS III the project only supported curriculum review at NFC (certificate and diploma awarding Institution), excluding the degree awarding institutions/universities. The curriculum review should lead to ensure that forestry professionals at all levels have a shared understanding of the updated aspects of the revised curricula, facilitating harmonious implementation.

Recommendation 5. FAO should endeavour, in collaboration with strategic donors and FSSD, NFA and DFS to invest more in further research in spacing of different species in a plantation setting, including Indigenous tree species as well as species-site matching to avoid tree failure after planting; as well as documenting success stories that can be scaled up for benefit of more tree farmers and failures for avoidance by other farmers. The recruitment of more Indigenous tree species in plantation forestry could answer the need for increasing species diversity in plantation forestry as well as widening the species choices for enrichment planting in rehabilitation of degraded forests and woodlands. Indigenous tree species should be used in fire-lines; where natural sheltered exist (e.g. in valleys within plantations), they should be left uncleared. These areas can serve as natural shelterbelts while also acting as reservoirs and refugia for Indigenous biodiversity (plants, amphibians, reptiles, birds, mammals, etc.).

Recommendation 6. FSSD, being the overall supervisor of the forestry sector should (in collaboration with relevant donors and NGOs) ensure that projects such as SPGS work more closely with relevant institutions such as NFA and relevant NGOs for those planting in CFRs; to ensure coordinated implementation and maximize support to the project beneficiaries; and with district technical staff (district forestry officers, district environment officers, district agriculture officers,

district community development officers), share reports with them for effective mobilization and communication at the local level. Involvement of district local governments in selection and vetting of project beneficiaries could help weed out speculators; as well as make supervision of tree growers outside CFRs more effective; and aligned with the current law governing forestry outside protected areas.

Recommendation 7. The government should support the FSSD and UNBS in setting up up-to-date, state-of-the-art laboratories and skilled technical personnel to enforce forestry standards. Donor support could significantly bolster these efforts, as government efforts are often insufficient. These laboratories should not only be based in Kampala, but decentralized at least up to cluster level, to bring services closer to the people and facilitate enforcement and compliance. Attempts should be made to work with other interested stakeholders such as the National Housing and Construction Company, which is in the process of establishing regional laboratories for testing timber properties for suitability in housing construction. Leveraging such infrastructure and facilities with clear terms of engagement, where available, could reduce costs compared to each entity having to construct its own laboratory.

Recommendation 8. FAO should support FSSD and NFA need to bring on board small-scale landowners and tree growers in rural areas if the aim of improving their livelihoods is to be realized. Attempts should be made to cater for small-scale owners by encouraging them to form community groups/clusters to benefit from project support to grow trees on a commercial scale, not just woodlots for fuel wood; even to look at innovative ways of supporting small-scale tree farmers at "Trees-on Farm" level, since they contribute significantly to environmental benefits, especially when there are many of them. This should be further explored for future projects, similar to or tailored along the SPGS model.

Recommendation 9. FAO, in collaboration with FSSD, DFS and strategic partners in the agriculture and other relevant sectors, should link tree planting project activities with other compatible economic activities like livestock such as goat rearing, beekeeping, especially when the trees are big enough to withstand animal damage; and other activities like tree-friendly income-generating activities such as ecotourism, to increase intermediary incomes as the tree farmers wait for the trees to mature.

Recommendation 10. FAO and FSSD should work together to promote and encourage social harmony especially in areas which had suffered encroachment by local communities, which had a tendency of high levels of animosity between local communities and tree farmers in their neighbourhood. Harmonious relationship with local people is important for both parties, with local people being allowed benefits like free firewood, grazing their animals in areas with old trees, growing crops in areas that are to be planted the next season and providing hired labour to the tree farmers, thereby improving their benefits to both parties. In such a scenario, local people can also be useful in case of fire outbreaks and reporting other illegal activities in the forest plantations to their owners.

Recommendation 11. FAO should endeavour in future especially for complex projects that are influenced by a number of social, economic, political and institutional processes, to include a theory of change in the design. In identification, selection and provision of support to beneficiaries, it is important to clarify the pathways of the anticipated change and impact. For instance, enhancement of rural population incomes through job creation and "outgrower" schemes or inclusion of corporate social responsibility terms within the contract terms for beneficiaries.

Recommendation 12. FAO should work with strategic partners to build technical capacity within SPGS and other implementing partners in relation to downstream processing and utilization. The implementing team should have highly skilled technical personnel in value addition and limit dependence on consultants. Even where a consultant is engaged, there should be an institutional employee attached to the consultant to understudy and guide what the consultant is doing, and to be able to carry on the work the consultant started after the consultancy.

Recommendation 13. FAO should work with FSSD, NFA, and tree farmers and wood processors to ensure that recommendations of wood processing equipment for planters are commensurate with the knowledge and skills of the processors/investors. Investment in equipment that have a high recovery percentage but less hi-tech should be prioritized for the early development phase of downstream processing with the option for an organic growth of the technologies adopted. The high maintenance costs of high-tech equipment for small-medium scale processors may be a discouragement for many.

Recommendation 14. FAO should spearhead an organization audit of UTGA to determine its business development needs and enhance its organizational, technical and financial capacity, as it has the potential to become the cornerstone of the commercial forestry industry. Furthermore, UTGA should consider establishment of cluster based associations to enhance information exchange (backwards and forwards), coordination with field-based DFS and NFA as well as organizing cluster-based trainings and cluster-based self-audit/regulation in standards enforcement.

Recommendation 15. FAO should further train and mobilize associations including UTGA, Forest Contractors Association and Nursery Operators Association to be more proactive to be relevant to their respective members. Whereas these associations can and should play a significant role in promoting standards and enhancing profitability of its members' investments, a number of potential subscribers are not aware of the existence of the associations and/or do not see the benefit of subscribing as members.

Recommendation 16. FAO should support the commercial forestry subsector (which has grown tremendously over the past 15 years), to conduct comprehensive studies to document trends and inform development pathways. These studies include: contribution of the commercial forestry sector to rural population incomes/job creation; cluster-based informal and formal wood processing industries in relation to wood resource availability. Likewise, FAO should also support the development and dissemination of guidelines of timber standards and the enforcement of the standards. Engagements with FSSD, UNBS and other partner institutions to ensure enforcement while engaging wood users such as the Public Procurement and Disposal Authority, the Government of Uganda (and procurement entities in government ministries, departments and agencies, the Uganda Electricity Transmission Company Limited, the Rural Electrification Agency, the National Housing and Construction Company and other large construction companies to enforce compliance and promote the legal commercial timber growers and dealers to get market for wood.

Recommendation 17. FAO, in collaboration with strategic donors and partners should support preparation of strategies to enhance marketing of forest products to ensure a good return on investment for private tree growers is prioritized. The low market prices of timber and wooden poles are unlikely to encourage sustainability of the private tree growers in the sector. Attractive market prices will stimulate private planters' investment in processing equipment as already demonstrated by planters who have invested in processing equipment without project support.

Value addition for thinning and offcuts to enhance profitability of tree planting investments should be prioritized. In addition, marketing and branding of quality timber and other wood products with identifiable chain of custody should be enhanced.

Recommendation 18. FAO should support FSSD, NFA, DFS, UTGA and other interested partners to enhance consumer awareness for branded wood products with identifiable chain-of-custody. Market ignorance and appreciation of timber standards distort market prices. Cheaper timber on the local market largely from trees harvested prematurely and cut to smaller sizes than recommended appear to appeal to local markets. However, enhanced enforcement of timber standards coupled with consumer awareness should provide market opportunities for tree planters who are producing wood products following recommended standards.

Recommendation 19. FAO should mobilize more financial resources to support the development of a commercial forestry information system to enhance evidence-based decision making. The information system should include cluster-based forest resource assessment data. Such data should be disaggregated to include location of the plantations (CFR vs private land), tree species, age and processing technologies in place, among others. The training and practice in forest inventories that were piloted in 32 districts in Central and South-Western Uganda should be upscaled to cover more clusters and districts.

Recommendation 20. FAO should mobilize more financial resources to enhance capacity of training institutions to conduct technical training sessions, including primary and secondary wood processing. Makerere University and NFC should be engaged to ensure the training component can be sustained in the long-term. These training sessions should be regular and advertised widely.

Recommendation 21. FAO, in collaboration with FSSD, NFA, DFS and NGOs, should further support the promotion of bamboo, which has been progressing well with many tree farmers interested in bamboo growing, some under the Uganda Bamboo Association. This should go hand in hand with sensitization and law enforcement to contain challenges like livestock grazing on the young bamboos, which can be a great challenge for their establishment; as well as investing in bamboo-specific processing and value addition equipment for bamboo products.

Recommendation 22. Government needs to invest in/provide incentives to tree farmers to acquire value-addition equipment at subsidized/low interest rate loans. This can be done by government providing "ring-fenced" funds to development banks which can only be lent to investors in the forestry sector, at friendly interest rates. UTGA needs to pursue this effort further with support from FAO to ensure efforts put in this endeavour during SPGS III do not go to waste.

242. Given that wood utilization and marketing is a process that requires continuous effort over a long time, FAO, in collaboration with donors, should put in more investment and effort to ensure that the modest achievement made by the project can serve as a stimulus to guide further investment in the subsector and also inform future investment in wood utilization, processing and value addition. This should therefore be the main focus of any future investment in the commercial forestry subsector: to take advantage of the plantations established during SPGS III and the two earlier phases of the project. Failure to attract further investment in the processing and value addition may end up undermining the achievements made so far in plantation establishment, as the private investors will not plough back more funds into the industry unless they realize commensurate profits from their investments.

Recommendation 23. Whereas the standards have been developed, they were considered as highly technical documents that require subsequent development of guidelines to ease their

comprehension and adoption by stakeholders. Similarly, dissemination of the standards and the subsequent guidelines is critical given that most stakeholders, especially field based staff (FSSD, NFA, DFS and private tree planters; and wood processors and users) are currently unaware of these timber and other wood products standards. FAO should therefore endeavour to further support this area, with support from relevant donors.

Recommendation 24. FAO, in consultation with donors, FSSD and other relevant implementing agencies, should endeavour (finances allowing) to implement some of the medium-term and long-term recommendations from the project mid-term review as highlighted in Table 7, which could not be implemented under SPGS III due to financial and time constraints.

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Appendix 1. People interviewed

Last name	First name	Gender	Organization/responsibility
FAO Country Office team and SPGS III project team			
Bahizi	Peter	M	Programme Associate, Outcome 1 SPGS III
Bedidjo	Nelly Grace	F	Programme Associate, Outcome 3
Gujadhur	Priya	F	Deputy FAO Country Representative
Hitimana	Leonidas	M	National Project Coordinator
Kakungulu	Zainab	F	Programme Officer, SPGS III
Kawooya	Josephat	M	Programme Associate, SPGS III/ Head of Outcome 3
Mapanda	Walter	M	Chief Technical Adviser, SPGS III
Mbabazi	John Bosco	M	Monitoring Officer, SPGS III
Mutaryeebwa	Dennis	M	Assistant National Project Coordinator
Tibasaaga	Anita	F	Communication Assistant, SPGS III
Ministry of Water and Environment/FSSD			
Byaruhanga	Charles	M	Assistant Commissioner, FSSD
Mawenu	William	M	Forest Officer, FSSD
Odeke	Charles	M	Senior Forest Officer, FSSD
European Union			
Kobusinge	Jalia	F	Adviser, Environment, Climate Change and Biodiversity
British High Commission			
Sengalama	Tom	M	Climate Change and Natural Resource Management Adviser
Uganda Carbon Bureau			
Farmer	Bill	M	Chairman, Uganda Carbon Bureau
Uganda Timber Growers Association			
Kavuma	Dennis	M	Director, UTGA
Shoma	Nobilis	M	Forestry Intern from Nyabyeya Forestry College
National Forestry Resources Research Institute (NaFORRI)			
Agaba	Hillary	M	Director of Research
Kisekka	Ronald	M	Research Officer/Forest Pathologist
Kiyingi	Isaac	M	Senior Research Officer
Nyabyeya Forestry College			
Kisakye	Richard	M	Principal Nyabyeya Forestry College
Sebahutu	Geoffrey	M	Ag. Deputy Principal, Nyabyeya Forestry College
National Forestry Authority (NFA)			
Bakitanse	Samuel	M	Forest Supervisor, Kiwoko Beat, Nakaseke
Busobozi	Adolf	M	Forest Supervisor, Mityana Beat
Gasana	George	M	Coordinator of Plantations, NFA Head Office, Kampala
Kunihira	Caroline	F	Forest Supervisor, Katuugo CFR, Nakasongola
Kyaligonza	Herbert	M	Plantation Manager Mbarara Plantations (Rwemitongore, Kyahi, Ruti, Kamukuzi, Rugongi, Bugamba, Bugamba and Rwoho CFRs)
Lusweti	Florence	F	Forest Supervisor
Mafabi	William	M	Forest Supervisor
Maniraguha	Stuart	M	Director Plantations – NFA Head Office, Kampala
Mubokhisa	Robert	M	Sector Manager- Kasana-Kasambya Sector (Mityana-Mubende)
Mugume	Herbert	M	Forest Supervisor, Rwoho CFR
Tainage	Samuel	M	Forest Supervisor, Nakasongola Beat, Nakasongola
Tumanye	Nuriat	F	Plantation Manager, Katuugo CFR, Nakasongola

Last name	First name	Gender	Organization/responsibility
Tree farmers and their representatives			
	Sharan (for Nileply/Fibreboard)	M	Plantation Manager, Nileply/Fibreboard, Katuugo CFR, Nakasongola
Alibu	Martin	M	Small scale tree farmer, private land (Mr Martin and Mrs Deborah Alibu), Luwero District
Barekye	Boaz (for Nileply)	M	Senior Supervisor, Plantations, Nileply/Fibreboard
Bariho	Robert	M	Managing Director, Isabella Investments Ltd, medium scale tree farmer, in CFR Mubende District
Besesa	Ponsiano	M	Large scale tree farmer, BESEPO Uganda Ltd, Mubende District
Bikongoro	Edward (for Nakaseke Evergreen Farm)	M	Manager, Nakaseke Evergreen Farm, Nakaseke
Birungi Besesa	Martin	M	Project Director, BESEPO Uganda Ltd
Kabakyenga	Clare	F	Medium scale tree farmer in CFR, Isingiro District
Kawaddwa	Byron (for Anthony Luutu)	M	Small scale tree farmer, private land, Luwero District
Kyeswa	Raymond (for Godfrey Kyeswa)	M	Medium scale tree farmer, Mukono District
Langoya	Council Dickson	M	Small scale tree farmer, CFR JC Holdings, Gulu District
Mugisha	Seth	M	Medium scale tree farmer, CFR Mukono District
Mwekwasi	Herbert (for Ms Alice Ninsiima)	F	Small scale tree farmer, CFR, Mityana District
Tumugumye	Yakason (for Dr Flora Banage)	F	Small scale tree farmer, private land Luwero District
Tumwebaze	Alfred	M	Small scale tree farmer, private land Kabale District
District local government staff			
Mukono District			
Bakaluba Mukasa	Peter	M	LC V Chairperson
Mujuni	William	M	District Natural Resources Officer
Mukulu	Fred	M	District Production Officer
Mutyaba	Joseph	M	Senior Environment Officer
Nkata	James	M	Chief Administrative Officer
Nsubuga	David	M	Community Development Officer, Namataba Town Council
Luwero District			
Gateese	Theopista	F	District Natural Resources Officer
Kayonga	Scovia	F	District Environment Officer
Kyomya	Sunday		Deputy Chief Administrative Officer
Mijumbi	Deo	M	District Forestry Officer
Namanda	Elizabeth	F	Chief Administrative Officer
Ssemigga	Wilberforce	M	Senior Agricultural Officer
Nakasongola District			
Andama Ajuni	Charles	M	District Environment Officer/Ag. District Natural Resources Officer
Mugenyi	Godfrey	M	Forest Ranger Nakitooma Sub-county/Ag. District Forestry Officer
Nakamya	Sarah	F	District Agricultural Officer/Ag. District Production Officer
Uma	Charles	M	Chief Administrative Officer

Last name	First name	Gender	Organization/responsibility
Nakaseke District			
Bataringaya	Dennis	M	Community Development Officer
Bukenya	Stephen	M	Agricultural Officer, Wakyato Sub-county
Nkuggwa	George Abby	M	District Natural Resources Officer
Ssemujju	Solomon	M	District Forestry Officer
Ssentongo	Badru	M	Ag. Deputy Chief Administrative Officer
Mityana District			
Bbira	Yasin	M	District Natural Resources Officer
Golooba	Isaac	M	Ag Deputy Chief Administrative Officer
Kabigumire	Arthur	M	Assistant Forest Officer/Ag. District Forestry Officer
Lutwama Sserwanga	Herbert	M	District Commercial Officer (for District Agriculture Officer)
Mubende District			
Ahabwe	Samuel	M	Deputy Chief Administrative Officer
Kisaakye	Frederick William	M	District Production Officer
Lotet	Ronald	M	District Natural Resources Officer
Nantume	Justine	F	Assistant Forest Officer
Ndagire	Mariya	F	District Community Development Officer
Tumwesigye	Alex	M	District Forestry Officer
Mbarara District			
Ainembabazi	Joses	F	District Forestry Officer
Atwikiriize	Tezirah	F	Forest Ranger
Byaruhanga	Arthur	M	Ag. District Community Development Officer
Mugizi	Godfrey	M	Senior Community Development Officer
Niwagaba	David	M	Ag. District Natural Resources Officer
Tumwesigye	Robert	M	Ag. District Production Officer
National Housing and Construction Company			
Kaijuka	Kenneth	M	CEO, National Housing and Construction Company
Mubiru	Geoffrey	M	Architect/Chief Operations Officer
Musinguzi	Ambrose	M	Ag. Chief Engineer
Ndozireho	Ronnie	M	Structural and Design Engineer
Community woodlots			
Twekumekume Community Group, Nakaseke District			
Muhire	Gerald (for Mr Beyo)	M	Member
Muwulya	Jude	M	Secretary for Information
Zzimbe Lubega	Dirisa	M	Chairperson of the Group
Manyakabi Area (Women only) Cooperative Society			
Kabakyenga	Clare	F	Manager, Manyakabi Copoperative Society
Kiconco	Edith	F	Board Secretary, Manyakabi Cooperative Society
Tumwebaze	Joseph	M	Extension Worker, Manyakabi Cooperative Society
Kyangwali Refugee Settlement Camp, Kikuube District			
Kebirungi	Jolly	F	Regional Settlement Officer (formerly Settlement Commandant, Kyangwali Refugee Camp)
Institutional woodlots			
Baseke	David	M	Warden, Sasiira Technical Institute, Nakasongola
Kabanda	Paul	M	Teacher, St Balikuddembe S S, Lwabenge, Kalungu District
Kajubi	George	M	Rev. Fr. in-charge of Schools, Kalungu District
Kyagambiddwa	James	M	Principal, Sasiira Technical Institute, Nakasongola
Rutemerwa	Joseph	M	Head Teacher, Galihuuma Primary School, Kyenjojo District

Last name	First name	Gender	Organization/responsibility
Ssemaganda	John Baptist	M	Bursar, St Balikuddembe S S, Lwaenge, Kalungu District
Certified forest contractors			
Edward	Muhumuza	M	Technical Manager, Planet Green World (U) Ltd, Luwero District
Kyasiimire	James	M	Proprietor, Marshall rangers forest contractor (Nakaseke and Nakasongola)/tree farmer
Lubowa	Dalton	M	Director, Planet Green World (U) Ltd
Nakibuuka	Mariam	F	Office Administrator, Planet Green World (U) Ltd
Sekidde	Gideon	M	Director, Greenbelt Contractors, Luwero District
Clonal and tree nursery operators			
Aboneka	Michael	M	Clonal Nursery operator, Enviro-Green Trust Ltd, Mukono District
Ahimbisibwe	Nicolas	M	Director, Mbaguta Lyptus Products Ltd, Mbarara
Atuhairwe	Brian (for Epaineto Kamy)	M	Schnelle Aufforstung Technologies Und Projects Ltd, Clonal Eucalyptus Nursery, Nakaseke District
Epilili	Samson	M	Technical Manager, Rwenzori Tree Clonal Nursery
Kajumba	Victor	M	Proprietor, Amazon Clonal Eucalyptus Nursery
Kanyana	Dorcas	F	Business Manager
Standards setting body			
Mugabi	Paul	M	Member, Technical Committee on Standards under UNBS
Wood processing equipment suppliers (Wood-Mizer)			
Lane	Wesley	M	Husky Outdoor Equipment Ltd, Uganda
Forest adjacent community members			
Luute Village LC1, Ntenjeru Subcounty, Mukono District			
Kawuma		F	Resident, Luute Village LC1
Naiga	Teddy	F	Chairperson, Luute Village LC1,
Kakiri Village LC1, Bushwere Parish, Mwizi Subcounty, Rwampara District			
Ahimbisibwe	Rogers	M	Treasurer LC1
Beinomugisha	Elias	M	Resident
Besigye	Aloysius	M	Resident
Friday	Robert	M	Chairperson LC1
Godfrey Busingye	Charles	M	Chairman Elders
Gumisiriza	Herbert	M	Vice-Chairperson LC1
Kabarinda	Edward	M	Resident
Kamuhangire	Magdalene	F	Resident
Kashenyi	Edward	M	Resident
Naatamba	Duncan	M	Resident
Najuna	Fiona	F	Resident
Ndabweine	Richard	M	Resident
Nsiimirwe	Johnson	M	Secretary LC1
Rubaju	Byamukama	M	Resident
Tindimwebwa	Jackson	M	Resident
Tiwangye	George	M	Resident
Tumwebaze	Godian	M	Resident (youth)
Tumwehereze	Nelson	M	Secretary (youth)
Twinomujuni	Innocent	M	Resident

Appendix 2. Stakeholder matrix

Respondent type	Stakeholder	Role in project/sample characteristic	Location
Project leads & high-level stakeholders	European Union	Project donor with portfolio in sustainable development, forestry, environment, and natural resources and climate change	Kampala
	FAO	Lead implementing agency providing project management and implementation support	Kampala
	Ministry of Water and Environment/FSSD	Representing the central government on Project Steering Committee, policy guidance and oversight for the entire forestry sector	Kampala and Regional Offices
	NaFORRI	Responsible for forestry research in Uganda; established dryland trees trial plots under the project	Mukono, with trials in different parts of the country
	National Forestry Authority	Responsible for managing all CFRs in the country, some of which have been leased to private tree growers/project beneficiaries	Kampala and all districts with CFRs
	Nyabyeya Forestry College	Tertiary training institution in forestry (certificate and diploma levels); engaged by SPGS III to review the forestry training curriculum and expand coverage of commercial forestry; established demonstration sites (plantation and arboretum) for enhancement of practical forestry training; involved in benchmarking tours; also benefitted from equipment for use in forestry practical training	Masindi
	District forestry services	Heads, supervises and advises on forestry activities outside CFRs in the districts; some tree growers on private land (as mandated by the National Forestry and Tree planting Act, 2003)	Various, to be sampled from districts to be visited
	District Administrative Officers, Agricultural and Community Development Officers	Heads and supervises district and community development activities in the districts; will provide information on project impacts related to improving incomes and livelihoods of rural communities in their districts; and any negative impacts of the project noticed in their districts	Various, to be sampled from the districts to be visited
	Community leaders around project implementation sites	Opinion leaders in the local setting; to provide information on project impacts (both positive and negative) onto the local communities	Various, to be sampled from the project sites and districts to be visited
Lead implementing partners	Uganda Timber Growers Association (UTGA)	Umbrella organization for most of the private tree farmers, most of them project beneficiaries	Various, some to be sampled for field work
	EcoTrust	Carbon credit broker working with tree farmers for carbon trade	Kampala, with action areas widespread
	Civil society organization, e.g. Wildlife Conservation Society (WCS)	Supporting some forest plantation establishment for buffering natural forests	Kampala
	Foreign, Commonwealth and Development Office (the United Kingdom)	Donor in the forestry, environment, climate change and natural resources sector	Kampala

Respondent type	Stakeholder	Role in project/sample characteristic	Location
	Kingdom of Great Britain and Northern Ireland)		
	Forest Stewardship Council International	Piloting group certification of small-scale plantations, some of them SPGS beneficiaries	Kampala
	Uganda Carbon Bureau	Carbon trade and exploring opportunities for carbon trade for small and medium plantations	Kampala
Project beneficiaries (processing equipment expected)	Large scale tree growers representatives	With mature plantations; expecting to receive processing machinery and equipment from the project	Mityana, Mubende (visited)
	Medium scale tree growers representatives		
	Small scale tree growers representatives		Kabale and Gulu (virtual interviews)
Project beneficiaries (no processing equipment expected)	Large scale tree growers	With mature or immature plantations; no processing equipment expected	Nakasongola,
	Medium scale tree growers representatives		Mukono, Nakaseke, Mityana
	Small scale tree growers representatives		Luwero, Mityana
Certified forest contractors representatives	Entities offering forestry services to interested tree growers	Provided forestry services to project beneficiaries; benefitted from project training	Luwero, Nakasongola, Nakaseke
Certified tree nursery operators representatives	Various (to be sampled from the shortlisted clusters and districts)	Certified to supply planting materials to project beneficiaries; benefitted from project training	Mukono, Luwero, Nakaseke, Kabarole, Kasese, Mbarara
Community groups supported by SPGS III	Various (to be sampled from the shortlisted clusters and districts)	Benefitted from the project in form of planting materials and technical training	Nakaseke, Isingiro
Institutions supported by SPGS III	Various, including training institutions, prisons, churches (to be sampled from the shortlisted clusters and districts)	Institutional clients planting trees for fuelwood for institutional use	Nakasongola, Kyenjojo, Kalungu
NaFORRI dry-land species trials host institutions/host farmers	NaFORRI/Kyahi CFR	Undertake experimental field trials on dryland tree species	Mbarara District
	NaFORRI/Kasagala CFR		Nakasongola District

Appendix 3. Evaluation matrix

Evaluation questions	Methodology	Information source
Relevance of project objectives, scope and design		
EQ 1: How relevant are the project's objectives and scope to the country's priorities and the priorities of the European Union and FAO; as well as to other global treaties and commitments?	Comparing the project design and approach with government development plans (NDP, Vision 2040), government policy statements and laws relevant to the commercial forestry sector, government obligations and targets set under the different international commitments and conventions of relevance to forestry; interviews with national focal points of the relevant conventions/treaties; FAO country programme plans and projects relating to forestry and natural resources management; interviews with and review of reports/documents from government officials from Ministry of Water and Environment, Ministry of Trade, Industry and Cooperatives, Uganda Bureau of Statistics, Ministry of Finance, Planning and Economic Development, Uganda Revenue Authority; and Community Development Officers and local government staff in project areas; review of research programmes and agendas of forestry research institutions. Through key informant interviews, document review and in-depth interviews, the evaluation will seek to comprehend the trends, contexts, approaches, priorities, strengths and challenges of the forestry sector focusing on the commercial forestry subsector. The evaluation will assess how the project scope and design were aligned to national priorities in the commercial forestry sector, FAO's mandate as well as meeting the overall aim of the SPGS III. Interviews will be held with the European Union, FAO Uganda Country Office personnel, FSSD, NFC, UTGA, project beneficiaries and NFA and district personnel in project areas/areas to be visited.	Interviews with project staff, FAO Uganda Country Office, implementing partners and project beneficiaries; Interviews with key informant institutions such as the Uganda National Bureau of Standards (UNBS) and training institutions; national focal points of the different conventions/treaties; convention websites, national reports to the different relevant conventions and treaties; statistics from Uganda Bureau of Statistics (UBOS), revenue forecasts and reports from Uganda Revenue Authority; reports from research institutes and government Ministries, Departments and Agencies, project progress reports; document review of periodic reports including annual and quarterly reports, policy documents and development/operation plans of relevant institutions. Project progress reports; and project mid-term review report.
EQ 2: To what extent did the project scope/coverage adequately address the critical binding constraints to private sector involvement in commercial forestry, Including research, training, value addition and marketing?		
EQ 3: To what extent did the project design and activities (approach) support the achievement of intended project objectives? Including: i. design of the grant scheme ii. creation of strategic partnerships for community tree planting iii. selection of beneficiaries (threshold land requirements as well as selection of communities, equipment beneficiaries) iv. allocation of financial resources across the four components v. allocation of human resources across the four components vi. alternative funding mechanisms such as credit facilities		
EQ 4: How much has the context of the project changed since inception and how has the project adapted?		
EQ 5: To what extent did the project scope and design incorporate lessons from the previous phases of the SPGS project?		
Effectiveness/programme contributions and results		
EQ 6: To what extent have the activities implemented contributed to achieving the intended outputs and outcomes of the SPGS project across the four outcome areas?	Through key informant interviews, document review, in-depth interviews and field observations, the evaluation will determine the extent to which the activities undertaken resulted in the	Interviews with project staff, FAO Uganda Country Office, implementing partners

Evaluation questions	Methodology	Information source
EQ 7: Did the project result in some unintended outcomes, either positive or negative? If so, which ones?	project outcomes as well as any unintended outcomes while observing the factors that may have led to the success/failure to achieve the outcomes. The evaluation will also determine the sufficiency of technical support among other support structures, enhanced growth of the commercial forestry sector especially the downstream processes. Interviews will target project staff, FAO Uganda Country Office, Ministry of Water and Environment-FSSD, NAFFORI, NFC, UTGA, project beneficiaries, nursery operators and forest contractors. Others will include dealers in wood value addition equipment/machinery.	(NAFFORI, Ministry of Water and Environment-FSSD, UTGA), project, beneficiaries, nursery operators and forest contractors. Document review of periodic reports, including annual and quarterly reports, policy documents and development/operation plans of relevant institutions. Project progress reports and project mid-term review report. Field observations will also be employed.
EQ 8: What factors contributed to the achievement or non-achievement of intended and unintended outcomes?		
EQ 9: To what extent have project technical support, management systems and research enhanced development of the commercial forestry sector?		
Efficiency		
EQ 10: Have the project funds and activities been delivered in a strategic and timely manner? How efficient was the project implementation approach, including overall staffing, planning, coordination, procurement and number of implementing partners?	Through key informant interviews, document review and in-depth interviews, the evaluation will analyse: the extent to which project activities were implemented on time with intended results; the extent to which procurement, synchrony of training sessions and training needs were implemented on time with intended results. The evaluation will further assess the extent to which project activities matched the expectations of implementing partners and beneficiaries as well as alignment of the project funds to the satisfaction of stakeholders. Interviews will target project staff, FAO Uganda Country Office, Ministry of Water and Environment FSSD, NAFFORI, NFC, UTGA and project beneficiaries.	Interviews with project staff, FAO Uganda Country Office, implementing partners (NAFFORI, MWE-FSSD, UTGA), project, beneficiaries, nursery operators and forest contractors. Document review of periodic reports, including annual and quarterly reports, policy documents and development/operation plans of relevant institutions. Project progress reports and project mid-term review report.
EQ 11: To what extent did the project M&E strategy provide data analysis for accountability, management and learning through various studies conducted and can demonstrate project changes at outcome and impact level in the target groups?		
Impact		
EQ 12: To what extent has the project contributed to the higher-level effects of increasing the incomes of the rural population through commercial tree planting and to helping to mitigate climate change effects through intensive afforestation?	Through key informant interviews, document review, in-depth interviews and field observations, the evaluation will determine the appropriateness of the logframe in achieving the project goals. Key attention will be paid to the project's contribution to climate change mitigation and increase in rural population incomes. The scalable outcomes will be identified alongside the factors contributing to higher impacts. The evaluation will further	Interviews with project staff, FAO Uganda Country Office, Ministry of Water and Environment-FSSD, UTGA, project beneficiary and communities around beneficiary plantations. Others will include district local government staff.
EQ 13: To what extent have rural communities been involved in the various aspects of commercial forestry (tree planting, forest contracting, nursery operations, value addition, etc.)?		

Evaluation questions	Methodology	Information source
EQ 14: What have been the impacts (both negative and positive) of the project plantation establishment activities on neighbouring communities during periods of weather extremes (e.g. grazing of domestic animals during dry seasons, effects of/origins of forest fires on the neighbouring communities, or the impact of rural communities on the forests during weather extremes?)	assess how commercial forest establishment has impacted other sectors, especially land use change. Interviews will target project staff, FAO Uganda Country Office, Ministry of Water and Environment-FSSD, UTGA and project beneficiaries (tree farmers and value addition equipment beneficiaries). The interviews will also focus on communities around beneficiary plantations.	Document review of periodic reports including annual and quarterly reports, policy documents and development/operation plans of relevant institutions. Project progress reports and project mid-term review report. Field observations will also be employed.
EQ 15: To what extent has forest plantation development impacted on land-use change, especially in uptake of prime private land for food production?		
Sustainability		
EQ 16: What are the prospects for sustaining the identified results and scaling-up activities beyond the projects' closure? Did the project design include an appropriate sustainability and exit strategy to promote national/local ownership and use of national capacity to sustain the positive changes after the end of the project? How well was this strategy implemented?	Through key informant interviews, document review and in-depth interviews, the evaluation will analyse capacity developed by UTGA, Ministry of Water and Environment-FSSD to scale up the achievements of the project. Risks that may impede continued investment in commercial forestry will be identified, especially for planters utilizing private land (non-central reserve land). Assessment of acreage planted, investment in processing equipment without SPGS III funding alongside commercial tree planting adoption will be assessed. The evaluation will determine the output/result areas that are more likely to be sustained and assess the stakeholder views, for an effective exit strategy. Interviews will target project staff, FAO Uganda Country Office, Ministry of Water and Environment-FSSD, NAFFORI, NFC, UTGA, project beneficiaries, nursery operators and forest contractors. Document review will focus on SPGS I and II end of project reports, SPGS III mid-term review, SPGS III progress reports.	Interviews with project staff, FAO Uganda Country Office, implementing partners (NAFFORI, Ministry of Water and Environment-FSSD, UTGA), project, beneficiaries, nursery operators and forest contractors. Document review of periodic reports, including annual and quarterly reports, policy documents and development/operation plans of relevant institutions. Others include project progress reports and project mid-term review report. SPGS I and II end of project reports.
EQ 17: Did the project adequately support the implementing partners (UTGA, Ministry of Water and Environment FSSD, Tree farmers, research and training institutions) for continued support to the commercial forestry sector after the end of the SPGS III project?		
Coherence and coordination		
EQ 18: To what extent was the project's operational modality and governance structure, including the government partnership and cluster mechanism at district level fit for purpose?	Through key informant interviews, document review and in-depth interviews, the evaluation will analyse the extent to which governance and coordination by different stakeholders/implementing partners was enhanced to ensure effective delivery of project outcomes. Interviews will target project staff, FAO Uganda Country Office, Ministry of Water and Environment-FSSD, UTGA, NFC and project beneficiaries.	Interviews with project staff, FAO Uganda Country Office, implementing partners (NAFFORI, Ministry of Water and Environment-FSSD, UTGA and NFC) and project beneficiaries. Document review of periodic reports including annual and
EQ 19: To what extent did FAO and its partners coordinate to manage the project and deliver results together?		

Evaluation questions	Methodology	Information source
		quarterly reports of relevant institutions. Project progress reports and project mid-term review report.
Cross-cutting Issues		
EQ 20: In terms of equity, to what extent has the project benefitted small and medium-size landowners? Was beneficiary selection fair and transparent?	Through key informant interviews, document review and in-depth interviews, the evaluation will analyse the extent to which different social groups were incorporated during project design and implementations. Interviews will target project staff, FAO Uganda Country Office, Ministry of Water and Environment-FSSD, UTGA, NAFFORI, NFC, project beneficiaries, nursery operators, forest contractors and communities around beneficiary plantations.	Interviews with project staff, FAO Uganda Country Office, implementing partners (NAFFORI, Ministry of Water and Environment-FSSD, UTGA and NFC), project, beneficiaries, nursery operators and forest contractors. Document review of periodic reports including annual and quarterly reports of relevant institutions. Project progress reports and project mid-term review report.
EQ 21: How were cross-cutting issues (gender, youth and equity considerations) mainstreamed in the project design, identification of beneficiaries and implementation?		
EQ 22: To what extent did the gender action plan and the recommendations of the gender capacity assessments influence project implementation and project results?		

Office of Evaluation
evaluation@fao.org
www.fao.org/evaluation

Food and Agriculture Organization of the United Nations
Rome, Italy