

Strengthening TVET in South Sudan

through greening and gender transformation

Report of the baseline study



Strengthening TVET in South Sudan

through greening and gender transformation

Report of the baseline study

UNESCO – a global leader in education

Education is UNESCO's top priority because it is a basic human right and the foundation for peace and sustainable development. UNESCO is the United Nations' specialized agency for education, providing global and regional leadership to drive progress, strengthening the resilience and capacity of national systems to serve all learners and responding to contemporary global challenges through transformative learning, with special focus on gender equality and Africa across all actions.



The Global Education 2030 Agenda

UNESCO, as the United Nations' specialized agency for education, is entrusted to lead and coordinate the Education 2030 Agenda, which is part of a global movement to eradicate poverty through 17 Sustainable Development Goals by 2030. Education, essential to achieve all of these goals, has its own dedicated Goal 4, which aims to **“ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”** The Education 2030 Framework for Action provides guidance for the implementation of this ambitious goal and commitments.



UNESCO-UNEVOC
International Centre for Technical and Vocational
Education and Training
UN Campus Platz der Vereinten Nationen 1
53113 Bonn
Germany

© UNESCO 2025

This publication is available in Open Access under the Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) license (<https://creativecommons.org/licenses/by-sa/4.0/deed.en>). By using the content of this publication, users accept to be bound by the terms of use of the UNESCO Open Access Repository (<https://www.unesco.org/en/open-access/cc-sa>).

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The ideas and opinions expressed in this publication are those of the authors; they are not necessarily those of UNESCO and do not commit the Organization. Editor and graphic designer: Emily Subden Cover photo: A trainee from the Her Turn programme preparing for her final assessment © KOTO

Graphics and lay-out: Christiane Marwecki
Copy-editing: Jacqueline Lawless
Cover photo: UNESCO-UNEVOC

Table of contents

Foreword	7
Acknowledgments	7
Abbreviations	8
Executive summary	9
Key findings	10
Key recommendations	11
SECTION 1	
Background	13
Introduction	13
Baseline study objectives	14
Scope of the study	14
Baseline study methodology	15
Quality assurance	15
Data analysis	15
Limitations	15
Key questions	15
SECTION 2	
Current state of greening and gender transformation in TVET in South Sudan	17
TVET governance in South Sudan	17
Number of TVET centres	17
TVET programmes	17
Relevant TVET policies, legislative frameworks, plans and strategies	18
Policy to support the identification of the skills needed for the green transition	18
Barriers and enabling policies to facilitate better practices	18
Identification of skills for the green transition that promote a gender perspective	22
Governance and stakeholders	22
TVET funding	23
Greening TVET	25
Development of green curricula, competency standards and assessment of skills	25
Engaging students to develop their environmental awareness, skills and institutional culture	25
Greening training and professional development of teachers and in-company trainers	27
Engaging and sensitizing private sector and other stakeholders	28
Main barriers to making greening a priority in TVET in South Sudan	29

Gender transformation in technical and vocational education and training (TVET)	31
Cultural norms and stereotypes significantly hinder female participation in TVET	31
Unreported reality of GBV in TVET	32
Tailored support systems present but not robust	34
Biased selection criteria hindering access and participation in TVET	35
Curricula and learning materials need to challenge gender stereotypes and promote inclusive teaching practices	36
Female Teachers Constitute Less Than 50% of the workforce	37
Partnerships and community engagement are catalysts for gender transformation	38
Lack of sex-disaggregated data and monitoring progress hinders Gender transformation	39
Roadmap to introducing gender transformation in day-to-day running in TVET	41
 SECTION 3	
Recommendations	43
An integrated approach to implementing green TVET and gender-responsive actions	43
Specific recommendations to unlock Greening TVET	46
Specific recommendations for Gender Transformation	47
 References	49
 Appendices	51
6.1 Appendix A. Key policies impacting on green TVET	51
6.2 Appendix B: Key technical legislations impacting on green TVET	52
6.3 Appendix C. The list of stakeholders involved in TVET activities in South Sudan	53
6.4 Appendix D: Training programmes offered by TVET institutions	56
6.5 Appendix E: List of participants in stakeholders consultation meeting	57
6.6 Appendix F. Focus group discussion questionnaire	58
6.7 Appendix H: Some photos taken during the focus group discussion	59

Foreword

The Government of South Sudan, in collaboration with UNESCO, is implementing the project, Strengthening Technical and Vocational Education and Training (TVET) in South Sudan, to support governmental efforts to improve TVET governance mechanisms, update curricula, train TVET instructors and engage the private sector, including employers and workers, and civil society organizations in order to create more effective TVET systems. In the context of Outcome 2 of the project, the Ministry of General Education and Instruction of South Sudan, in coordination with UNESCO-UNEVOC and UNESCO Juba, has commenced the implementation of the project with a focus on green and gender-transformative TVET.

The project commissioned a baseline study to engage stakeholders in an in-depth discussion to unpack what they consider to be the key entry points and pathways to enable TVET to effectively accelerate a green, gender-empowered and climate-resilient agenda for inclusive and sustainable economies and to catalyze the role of all stakeholders, particularly women and girls, in achieving inclusive and peaceful societies. The study aims to provide baseline information that could potentially guide and catalyze green and gender-transformative development of TVET.

Acknowledgements

The report was commissioned by UNESCO-UNEVOC with key contributions from Dr. Kuorwel Kuorwel Kai and Dr. Lydiah Ngira. The report was inspired by the discussion and insightful experiences shared by a group of experts representing all key TVET stakeholders in Juba, South Sudan from public ministries, non-government organizations, technical schools, colleges and universities, and representatives from the private sector. Through desk research, key informant interviews, focus group discussion organized by UNESCO Juba and UNESCO-UNEVOC and survey, primary and secondary data were collected and analysed ensuring diverse perspectives.

We thank all educators and officials engaged in TVET policies and delivery in the country for contributing their valuable insights and perspectives in the process.

The report was developed as part of the overall vision of the project implemented by UNESCO Juba under the programme supervision of Mr. Tap Raj Pant and support of Ms. Sarah Nbulobi and Mr. Jasper Okodi. The development of the report was coordinated by UNESCO-UNEVOC with technical contributions from Ms. Kenneth Barrientos and Ms. Priscilla Gatonye, under the overall supervision of Friedrich Huebler.

Abbreviations

ARCSS	Agreement on the Resolution of the Conflict in the Republic of South Sudan	PPP	Public–private partnership
CPD	Continuing professional development	R-ARCSS	Revitalized Agreement on the Resolution of the Conflict in the Republic of South Sudan
GDP	Gross domestic product	SSOA	South Sudan Opposition Alliance
EAC	East Africa Community	SPLM	Sudan People’s Liberation Movement
FAO	Food and Agriculture Organization	SPLM/IO	Sudan People’s Liberation Movement in Opposition
FGD	Focus group discussion	STEM	Science, technology, engineering and mathematics
IGAD	Intergovernmental Authority on Development	TVET	Technical and vocational education training
ILO	International Labour Organization	UNESCO	United Nations Educational, Scientific and Cultural Organization
INGO	International non-governmental organization	UN	United Nations
MoGEI	Ministry of General Education and Instruction	UNDP	United Nations Development Programme
MoHEST	Ministry of Higher Education, Science and Technology	UNEVOC	International Centre for Technical and Vocational Education and Training
MoGCSW	Ministry of Gender, Child and Social Welfare	VOSDO	Vocational Skills Development Organization
MOL	Ministry of Labour	VTC	Vocational training centre
NAP	National Action Plan		
NGO	Non-governmental organization		
NQF	National qualifications framework		

Executive summary

South Sudan's economic growth continues to face myriad challenges that revolve around political instability, subnational violence and climatic calamities that combine to deter direct foreign investment. These factors have exacerbated the serious challenges facing the country's development, for example, high unemployment, particularly among young people. The demographic shift in the coming decades will cause working age population growth to outpace population growth. At recent gross domestic product (GDP) growth rates, job creation will fail to keep pace with the number of new entrants, most of whom are young people either entering the jobs market or already actively seeking work. All these factors have raised expectations for skills development of young people that could potentially lead to higher utilization of human resources, thereby breaking the vicious cycle of high unemployment, high poverty and low domestic growth.

In order to address some of these socio-economic and environmental challenges, the Government of South Sudan, in collaboration with UNESCO Juba and UNESCO International Centre for TVET (UNESCO-UNEVOC), is implementing the project, Strengthening Technical and Vocational Education and Training (TVET) in South Sudan. The project aims to support governmental efforts to strengthen TVET governance mechanisms, update curricula, train TVET instructors and engage the private sector. To provide a clear picture of the current condition of the country's green TVET provision with a view to making improvements, UNESCO-UNEVOC and UNESCO commissioned this baseline study, with special focus on green and gender-transformative TVET. The study aims to provide an overview of a highly varied landscape of TVET providers and baseline information that would potentially guide and catalyze the green and gender-transformative development of TVET. Findings and recommendations arising from this baseline study will be used to contribute to Outcome 2 of the project in which national TVET institutions, teachers, trainers and instructors provide quality gender-transformative and greening programmes.

Key findings

- At present, South Sudan has 200 combined TVET and vocational training centres distributed across ten states and three administrative areas. Responsibility for governing TVET education in the country currently falls under the purview of the Ministry of General Education and Instruction (MoGEI), while the Ministry of Labour (MOL) has overall responsibility for vocational training and skills development. However, TVET/vocational implementation is a shared responsibility among several ministries and agencies.
- Although a draft Unified National TVET Policy 2021 exists, this has not been presented to the Council of Ministers for approval and is still therefore to be implemented.
- Regarding legislative frameworks, several laws impacting the TVET sector have been developed and are in force. These include the General Education Act 2012, the Higher Education Act 2012 and the South Sudan Labour Act 2017.
- Although they do not relate specifically to green TVET, there are existing local arrangements between some TVET institutions and private companies, reported by respondents, in which trainees are sent for internship or apprenticeship. Some of the participating companies offer trainees employment when relevant opportunities arise.
- Cultural norms and stereotypes significantly hinder female participation in TVET.
- There is a lack of gender-sensitive facilities and support systems in TVET institutions.
- Gender-based violence (GBV) remains a significant issue, with inadequate reporting mechanisms in place.
- Women are under-represented in all aspects of tertiary education, including in staff numbers, academic rankings, student population, STEM (science, technology, engineering and mathematics) specialization.
- There is an absence of a policy on green TVET and gender transformation in TVET. However, some green and gender-related activities are taking place, though they are at varying stages around the country.
- MoGEI has fragmented datasets that are managed separately and lacks a unified platform for consolidating these different datasets. There is scarce sex-disaggregated data to track gender-specific outcomes in TVET such enrolment, retention, completion rates and transition to the labour market.
- Key challenges hampering the development and implementation of effective TVET in the country include the lack of a policy and regulatory framework, weak engagement of relevant actors, inadequate funding, poor coordination mechanisms, inadequate teaching and learning materials, a lack of training for teachers and in-company trainers, insufficient infrastructure and insufficient tuning of TVET to the green transition and gender transformation due to weak processes and structures connecting TVET to the world of work.

Key recommendations

- i. Conduct a green jobs analysis to identify the demand for green skills in the labour market and develop curricula that meet industry needs.
- ii. Develop guidelines pertaining to the development and updating of green skills, such as the reuse, redesign, repurposing and recycling of different materials and Institutional gender transformation guidelines.
- iii. Improve regulatory and legal frameworks and align policies and national curricula for greening TVET and gender transformation in South Sudan. There is an urgent need to review, enact and adopt the Unified National TVET Policy, as well as to expedite the development of the national TVET qualifications framework.
- iv. Build the capacity of TVET instructors to equip them with the skills and knowledge to teach green skills and integrate sustainability into their teaching practices and gender-responsive pedagogies.
- v. Invest in the development of green infrastructure, such as solar-powered classrooms, wind turbines and rainwater-harvesting systems, to demonstrate sustainable practices and provide hands-on training for students.
- vi. Review teaching and learning methods and incorporate new and innovative methods, including those being introduced as a result of digitalization, which is vastly expanding the range of possibilities.
- vii. Integrate green skills, including climate change education and sustainable practices, into curricula and teaching materials and equipment.
- viii. Develop and strengthen industry partnerships within a green and gender-responsive TVET system. Encourage private sector involvement in funding and supporting TVET initiative.
- ix. Increase government funding towards greening and gender-transformative TVET. This should be directed towards greening and gender-responsive curricula and training, acquisition of appropriate and up-to-date equipment and tools, and increases enrolment of female trainers and general maintenance and management of TVET institutions.
- x. Engage with local communities and conduct outreach programmes to raise awareness of the importance of sustainability and green skills, challenge gender stereotypes and address gender-related barriers to skill development and encourage community involvement and establish partnerships with international organizations and institutions to share knowledge, best practices and expertise on greening and gender-transformative TVET initiatives in South Sudan.
- xi. Create gender-friendly and inclusive environments in TVET institutions, ensuring that they are safe and conducive with adequate facilities for female students, including improved sanitary facilities, day care centres and boarding facilities, and integrate GBV awareness and prevention into TVET curricula and establish confidential reporting channels.
- xii. Improve data collection and analysis to track the impact of TVET programmes on gender equality and green skills development.

SECTION 1

BACKGROUND

Background

Introduction

South Sudan became the world's newest nation in July 2011, formally ending an independence struggle with Sudan which had led to the Africa's longest civil war. A landlocked country, it is bordered by Ethiopia to the east, Kenya and Uganda to the south, the Democratic Republic of Congo to the southwest and the Central African Republic to the west and covers an area of 644,329 square kilometres. Recent estimates put the population at more than 11 million people.¹ South Sudan is a multi-ethnic nation comprising more than 64 different ethnic groups. Most of its people are Christians, one third are Muslims and some follow traditional religions. About 44 per cent of the population is below the age of 15 years, with a median age of 17 years.²

Less than three years into its infancy as an independent country, South Sudan faced a desperate struggle for survival. In December 2013, a civil war erupted, resulting in a large-scale conflict that led to thousands of deaths and the displacement of millions of people, before a ceasefire was signed between government and rebel forces on 23 January 2014. In 2015, the Agreement on the Resolution of the Conflict in the Republic of South Sudan (ARCSS) was brokered by the Intergovernmental Authority on Development (IGAD). However, it was short-lived, with fighting breaking out in the Presidential Palace in Juba in July 2016. However, the Revitalised Agreement on the Resolution of the Conflict in the Republic of South Sudan (R-ARCSS) between the government (Sudan People's Liberation Movement, SPLM), armed opposition groups (Sudan People's Liberation Movement in Opposition, SPLM/IO), and the South Sudan Opposition Alliance (SSOA), establishing a path for political transition. This resulted in the formation of the Transitional Government of National Unity (TGoNU), which was followed by the Reconstitution of the Transitional National Legislative Assembly (R-TNLA), which ensured the representation of the country's states. Despite the progress gained since independence, ongoing instability and population displacement continue to undermine the scope for development, while damaged infrastructure,

low coverage of services and limited government capacity and human resource base have resulted in a fragmented development programme. The implications for national development in South Sudan are stark.

South Sudan's economic growth continues to face myriad challenges that revolve around political instability, subnational violence and climatic calamities that combine to deter direct foreign investment. These factors have exacerbated existing serious challenges to the country's development, such as high unemployment, particularly among young people.³ The demographic shift in the coming decades will cause working age population growth to outpace population growth. At current GDP growth rates,⁴ job creation may fail to keep pace with the number of new entrants, most of whom are young people either entering the jobs market or already actively seeking employment. Additionally, women are under-represented in all aspects of tertiary education, including in staff numbers, academic rankings, student population, STEM specialization and postgraduate studies. All these factors have raised expectations for skills development of young people that could potentially lead to higher utilization of human resources, thereby breaking the vicious cycle of high unemployment, high poverty and low domestic growth.

Climate change is another major threat, as it is in many other countries, which needs to be addressed specifically in South Sudan. The adverse impacts of climate change being driven by increasing average global temperatures include a threat to the livelihoods of people in South Sudan and the East African Community (EAC) region.⁵ Severe droughts, floods and other extreme weather phenomena are occurring with greater frequency and intensity in the region.⁶ Overall, the climate of South

1 <https://www.worldometers.info/world-population/south-sudan-population/>

2 CIA (Central Intelligence Agency). 2018. The World Factbook. <https://www.cia.gov/the-world-factbook/countries/south-sudan>

3 MOL (Ministry of Labour). 2022. *Vocational Training and Skills Development Policy (VTSD)*, Juba, South Sudan.

4 ADBG (African Development Bank Group). 2024. *South Sudan Economic Outlook: Recent Macroeconomic and Financial Developments*. Retrieved from: <https://www.afdb.org/en/countries/east-africa/south-sudan/south-sudan-economic-outlook>

5 East African Science and Technology Commission. 2019. *The East African Regional Policy for Science, Technology and Innovation*. https://easteco.org/policy_strategy/eac-regional-policy-for-science-technology-and-innovation/

6 Ministry of Environment. 2015. *National Environment Policy 2015–2025*.

Sudan is tropical with wet and dry seasons. Annual rainfall varies between 200mm in Eastern Equatoria, 1,200–2,200mm in the forest zone in Western Equatoria and 700–1,300mm in the northern states. The rainy season causes seasonal flooding of flood plains. The mean temperatures are between 26°C and 32°C.⁷

A report from FEWS NET (the Famine Early Warning Systems Network)⁸ concludes that the climate in South Sudan is changing quite drastically: summer rains have declined by 10–20 per cent and temperatures have increased by more than 1°C since the 1970s. Roughly speaking, the productive rain-fed crop area is shrinking from the north and from the east, leaving the people in the Upper Nile, Jonglei and Eastern Equatoria states more food insecure. If present trends continue, the people of Northern Barh El Gazaar, Warrap, Unity and Central Equatoria states will also increasingly be affected by climate change.⁹ Climate change can, in addition to its direct impact on food production, also lead to increased conflicts over scarce resources: pastoralists are forced to move to where there is pasture and water, often leading to conflict with other groups of pastoralists or with farmers. It is not known how climate changes will affect the Nile.¹⁰

Climate mitigation requires skills and mindsets oriented to reducing or preventing greenhouse gas emissions to the environment. This includes using new technologies, making practices more energy efficient and promoting change in consumer behaviour.¹¹ Additionally, women and girls need to participate in TVET as part of an accelerated response to equip learners and communities with the skills needed to empower them in taking a proactive role in climate adaptation and mitigation measures and to provide the needed skills and qualifications to enable them to seize the potential job opportunities in a green transition.

Baseline study objectives

The objectives of this assignment are to:

- i. review the status of TVET and opportunities for enhancing the gender-transformative green and climate-adapted orientation of TVET;
- ii. facilitate the adaptation of existing guidance frameworks for greening TVET and gender transformation and their integration into TVET pedagogical and institutional practices;
- iii. make recommendations to build the capacity of TVET institutions, teachers and trainers to effectively integrate greening and gender empowerment into TVET pedagogical and institutional practices.

Scope of the study

- i. To meet the objectives of the study, this baseline review draws on several national and sectoral documents on TVET and the available knowledge on TVET of the consultants who supported the development of this report. The study focuses on national stakeholders of TVET in South Sudan, which are represented by diverse national agencies and institutions, and local TVET providers in and around Juba engaged in delivering vocational education and training. The study used purposive sampling for the different data collection methodologies and groups identified as critical for the review, to ensure that all the key stakeholder groups and their perspectives are represented in the analysis. The collection of data took place between the months of May and July 2024. Data collection focused on public-oriented institutions, with input from development partners and private companies and providers involved in the overall governance of TVET in the country. The aim was to map the key stakeholders of TVET (specifically relevant to greening TVET and gender transformation in TVET) and identify opportunities where their engagement in the implementation phase could be considered.

7 Ministry of Environment. 2021. *South Sudan's National Adaptation Programme of Actions (NAPA) on Climate Change*.

8 FEWS NET (Famine Early Warning Systems Network). 2011. *A Climate Trend Analysis of Sudan*. <https://fb.fews.net/east-africa/sudan/climate-change/june-2011>

9 World Bank Group. 2013. *Environmental and Social Management Framework: Final Report*. South Sudan Local Governance and Service Delivery Project.

10 UNEP (United Nations Environment Programme). 2018. *South Sudan First State of Environment and Outlook Report*.

11 Ministry of Environment. 2021. *South Sudan's National Adaptation Programme of Actions (NAPA) on Climate Change*.

Baseline study methodology

A qualitative approach was adopted in this study. Multiple sources of data collection were employed, including primary and secondary data. Primary data came from focus group discussions (FGDs), and a questionnaire and online survey. The research team designed a questionnaire and information collection tool to guide discussion during the stakeholder consultations. The primary data were collected from senior government officials from various government ministries (including General Education, Agriculture, Interior, Gender, Child and Social Welfare, Livestock, and Higher Education), development partners (the Food and Agriculture Organization, UNESCO, Save the Children), civil society and a university (National Coalition), universities (University of Juba), TVET providers and the private sector (Chamber of Commerce, Industry and Agriculture) during the FGDs. Additional questionnaires were sent to respondents by UNESCO Juba Office either to collect additional information that was either not adequately captured during the FGDs or to enrich the findings through further inquiry. Secondary data came from the previous studies reviewed and some reports on climate change and on gender transformation. An internet search (desk review) of relevant documents was carried out and a collection of TVET related policies, publications, legislations and reports were reviewed.

Quality assurance

Quality control and standard ethical considerations were applied throughout the assignment. With the help of the UNESCO Juba Office, various stakeholders were invited for a focus group meeting by the MoGEI. Verbal consent was sought from all respondents, thus, participation in the assessment was voluntary. No respondent was 'coerced' into participating. Responses from various stakeholders were anonymized to ensure confidentiality.

Data analysis

Data entry was performed using Microsoft Excel. The data were consolidated, analysed and systematized to provide an overview of the status, challenges and opportunities for the gender transformation and greening of TVET. Further enquiries were made through phone calls to clarify and/or qualify certain information before it was considered in the final analysis process.

Limitations

There was a low online response rate from the targeted respondents, leading to data collection through phone calls and emails. However, supplementary data were collected from key informants from the in-person consultative meetings for both greening and gender transformation in TVET.

Key questions

The analysis of the results below includes the answers to questions related to the greening and gender transformation of TVET, and considers the experiences that can be adopted in the South Sudan TVET system.

Questions answered include:

1. What is the current state of TVET in South Sudan with respect to greening and gender transformation?
2. What specific policies support greening and gender transformation in TVET?
3. What challenges exist in integrating green skills and gender transformation in TVET?
4. How can TVET practitioners ensure that both green skills and gender transformation are equally prioritized in TVET?
5. What role do stakeholders play in the integration of green skills and gender transformation in TVET?

SECTION 2

CURRENT STATE OF GREENING AND GENDER TRANSFORMATION IN TVET IN SOUTH SUDAN

TVET governance in South Sudan

Number of TVET centres

The Republic of South Sudan comprises ten states, namely Central Equatoria, Eastern Equatoria, Western Equatoria, Jonglei, Upper Nile, Unity, Warrap, Lakes, Western Bhar El Ghazal and Northern Bhar El Ghazal, and three administrative areas, namely Ruweng, Greater Pibor and Abyei. These states and administrative areas have different population and socioeconomic conditions, which determine their needs in terms of the vocational skills training programmes required to boost economic productivity. There are around 88 TVET centres across the country, of which 48 are public, seven private and 33 run by non-governmental organizations (NGOs), churches and communities (private but non-profit), and 111 vocational training centres.¹²

Delivery of TVET by the institutions listed above falls under different tracks. Institutions supervised by the MoGEI offer formal TVET at four levels for secondary school graduates: (i) elementary TVET (3–12 months) at vocational training centres (VTCs); (ii) intermediate TVET (3–4 years or 1–2 years) at vocational secondary schools (Juba Technical and commercial secondary schools); and (iii) higher TVET (3 years) at vocational colleges (Panjotda Institute of Technology; Central Vocational Institute, etc.), and (iv) VTCs also offer short-term non-formal skills training (up to 3 months) for unemployed youth and workers. The courses range from short-term with a duration of mostly three months, to long-term education ranging from one to four years of pre-secondary, secondary and college education. They also vary in skills, delivery level, mode of delivery and expected outcome.

Some TVET centres were established with funding and support from NGOs and development partners. However, the operations of some TVET centres established with donor funding could not be sustained once the project had ended. Additionally, insecurity in some parts of the country is a major factor affecting the operations of centres.

TVET programmes

In the TVET institutions, various trades, at both technical and vocational training colleges and centres, are offered only at certificate levels. Generally, the training programmes vary in duration from three months to nine months of foundational level and between one and four years of secondary or college education. These institutions offer 20 training programmes in 83 areas, ranging from vocational programmes such as sewing, farming and carpentry, to highly technical and professional programmes, such as business management, computer programming and education. Fifty-five per cent of the training programmes are short-term (less than 12 months) and many are vocational.¹³ The TVET Policy Review for South Sudan asserts that the disciplines of secretarial studies, computer skills and tailoring have traditionally attracted the highest concentrations of women and girls. Very few girls enrol in engineering, technology and other traditionally male-dominated disciplines.¹³ Low female participation in male-dominated trade areas, such as auto-mechanics, carpentry, and building and construction, may be explained by cultural attitudes and prejudices, the lack of girl-friendly training facilities in the schools, and the absence of female role models in engineering and technology-based professions.

The responsiveness of TVET programmes to pressing climate issues is a challenge, without effective governance measures in place that enable approaches for skill needs identification vis-a-vis market needs or climate solutions, and the design and development of relevant programmes in TVET. With regards to skills identification, little has been done, although a few skills, such as greenhouse technology, smart climate agriculture, use of organic manure, ecofriendly pest management and agroforestry practices, have been identified. More efforts are needed with respect to identifying skills and developing targeted training to build the skills as part of greening TVET.

12 Kuorwel. 2022. *Assessment Report of Mapping of TVET in South Sudan as part of Strengthening Technical and Vocational Education and Training in South Sudan*. UNESCO.

13 UNESCO. 2022. *Strengthening Technical and Vocational Education and Training in South Sudan*. Final Report.

14 MoGEI (Ministry of General Education and Instruction). 2017. *General Education Strategic Plan 2017–2022*.

Some of these courses are being taught in Agribusiness Training Institute in Magwi County, Eastern Equatoria. However, there are other trades embedding green skills already identified with their competencies and curricula developed. These trades include the following: solar installation and maintenance (energy sector), construction (green building techniques and sustainable materials use), welding and fabrication, masonry, catering and hospitality, plumbing and pipefitting, electrical installation sewing, sustainable farming, and carpentry.

Relevant TVET policies, legislative frameworks, plans and strategies

Regulatory frameworks, policies, practices and systems are essential to the effective functioning of an institution. An overview of the governing systems within TVET institutions reveals variations at the governance and regulatory framework levels.

First, South Sudan has a **draft Unified National TVET Policy 2021**, which is still to be presented to the Council of Ministers for approval. The policy must also be enacted by the national legislature before being rolled out for implementation. Implementation of this crucial document at all levels (national and state, public and private TVET institutions) will promote coherence in the TVET provision of all providers. Although green skills, climate change and environmental issues are not properly reflected in TVET system implementation and programme delivery, there are several national education policies, frameworks and strategies that can support the TVET system in addressing climate change-related issues. These include: South Sudan Vision 2040, Revised National Development Strategy 2021–2024, Vocational Training and Skills Development Policy (VTSD) 2022, Quality TVET Quality Assurance Manual 2022, Comprehensive Agriculture Master Plan 2015, the National Health Policy 2016–2026, the General Education Strategic Plan 2017–2022, South Sudan National Livestock Development Policy 2019, South Sudan National Disaster Risk Management (DRM) Policy 2017, National Vocational Training and Education (NVTE) Framework 2015, National Adaptation Programme of Actions (NAPA) to climate change 2021 and the National Environment Policy 2015–2025. There are other policies that are still in draft form, awaiting completion of the approval cycle. These include the National Quality Policy 2021, the Private Sector Development Strategy 2016, the Industrial Policy Framework 2018 and the Higher Education Policy 2021. More details of some of the key national policies impacting the green TVET sector and gender in TVET are provided in tables 1 and 2, respectively.

On legislative frameworks impacting green skills in TVET, several frameworks that can enable the TVET system in South Sudan to address climate change-related issues have been developed and are now enforced. These include the General Education Act 2012, the Higher Education Act 2012 and the South Sudan Labour Act 2017, to name just a few. More details of laws which have an impact on the TVET sector can be found in Appendix B. Furthermore, the National Quality TVET Quality Assurance Manual has recently been developed.

Policy to support the identification of the skills needed for the green transition

The current provision of TVET in South Sudan is not sufficient to equip young people with the necessary market skills or to support the necessary economic development and growth, due to the mismatch of skills produced by the TVET institutions and the requirements of the labour market.¹⁵ This deficiency highlights the need for analysis of human resource needs and green skills gaps in priority growth industries to enable government entities to identify the appropriate policy interventions for green skills development, realize the growth potential of priority sectors, establish a mechanism responsive to market needs, and promote partnership with the private sector for TVET improvement in South Sudan. Generally, with no regulations and policies enacted, the institutional set up and mandates will continue to remain largely informal. The government should move quickly to enact both policy and legislative frameworks in an endeavour to create pathways for development. It is important to note that notwithstanding the large body of policies and legislations now in existence, policies to green TVET remain limited.

Barriers and enabling policies to facilitate better practices

The landscape presents limitations that can be addressed by responsible agencies to enable a conducive environment for implementation and enrich opportunity of prioritization. This is echoed in the response of surveyed TVET stakeholders when asked about the main stakeholders in South Sudan that can enable policy and practice of greening TVET in the country. TVET policy-makers and regulators have a large share of responsibility, owing to their role in policy-making that is critical for national orientation, and influence in decision-making over priorities in education and training.

¹⁵ MOL. 2022. Vocational Training and Skills Development Policy (VTSD). Juba, South Sudan.

Table 1: Specific policies related to TVET and climate/greening

Title and year of policy	Status of the policy	Implementing institution
South Sudan Vision 2040	Working document	RTGNU
South Sudan National Education Policy (2017–2027)	Working document	Ministry of General Education and Instruction
Vocational Training and Skills Development Policy (VTSD) 2022	Draft	Ministry of Labour, Public Service and Human Resource
Revised National Development Strategy 2021–2024	Working document	Ministry of Finance and Economic Planning
Higher Education Policy 2021	Draft	Ministry of Higher Education, Science and Technology
TVET Policy Framework 2021	Draft	Ministry of General Education and Instruction
Science, Technology and Innovation Policy 2021	Draft	Ministry of Higher Education, Science and Technology
National Health Policy 2016–2026	Working document	Ministry of Health
National Adaptation Programme of Actions (NAPA) on climate change 2021	Working document	Ministry of Environment
South Sudan National Livestock Development Policy 2019	Expired	Ministry of Livestock and Fisheries
Industrial Policy Framework 2018	Draft	Ministry of Trade and Industry
National Quality Policy 2016	Draft	South Sudan National Bureau of Standards/ Ministry of Trade and Industry
South Sudan National Disaster Risk Management (DRM) Policy 2017	Draft	Ministry of Humanitarian Affairs and Disaster Management
Private Sector Development Strategy 2016	Draft	Ministry of Trade and Industry
National Environment Policy 2015–2025	Working document	Ministry of Environment and Forestry
Fisheries Policy for South Sudan 2012–2016	Expired	Ministry of Livestock and Fisheries
National Sanitary and Phytosanitary (SPS) Strategy and Action Plan 2021–2026	Draft	Ministry of Livestock and Fisheries
Comprehensive Agricultural Development Master Plan 2015	Working document	Ministry of Agriculture and Food Security
Agriculture Sector Policy Framework (ASPF) 2012–2017	Expired	Ministry of Agriculture and Food Security
Policy for Alternative Education Systems 2014	Expired	Ministry of General Education and Instruction

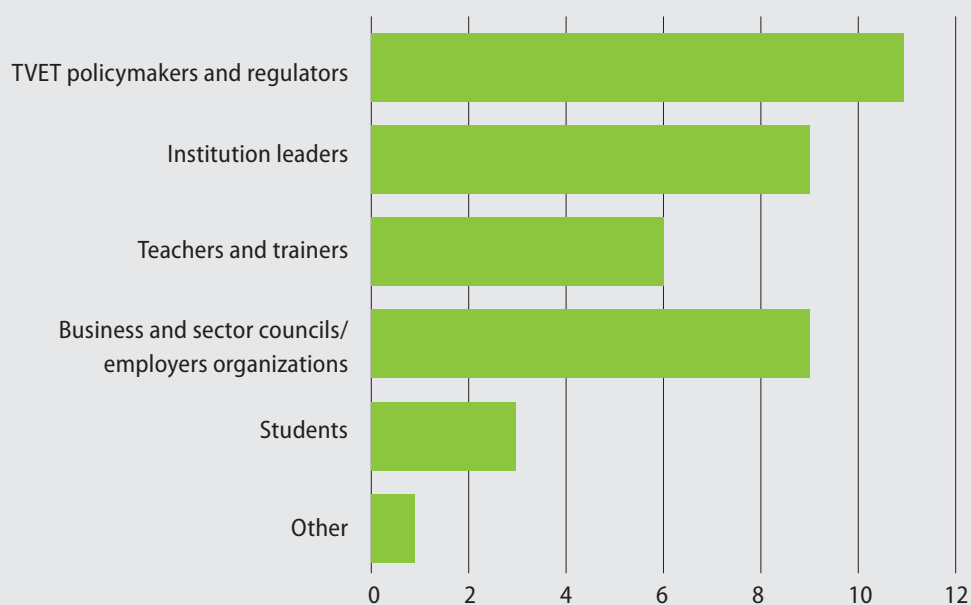
Business and sector council organizations, as well as institution leaders, have been identified as enablers, with a share of responsibility in multi-governance of TVET and institutional-level decisions of priority. The same stakeholders play an important role in gender transformation policy in TVET. TVET policy-makers and regulators are perceived as the key enablers, followed by community leaders, institutional leaders, students and alumni.

In regard to gender transformation in TVET and in addition to the Unified TVET Policy 2021 (draft), South Sudan is also signatory to several regional and international policy documents that address on gender transformation. However, there is no policy specific to gender transformation in TVET, despite the continued low participation of females in TVET.

There are a number of policies in place relevant to gender in the education sector and TVET, including the Child Act of 2008, the Education Act 2012, the National Gender Policy of 2008, the General Education Strategic Plan (GESP) 2012–2017, and the Teachers' Code of Conduct. Other strategies, plans and initiatives include:

- the South Sudan National Education Sector Strategic Plan (2014–2019), which recognized the importance of gender equality in education and sets targets for increasing girls' participation in education, including TVET;
- the South Sudan National TVET Policy (2017), which aims to promote TVET as a key driver of economic growth and development and includes provisions for gender equality and women's empowerment;
- the South Sudan National Gender Policy (2015), which aims to promote gender equality and women's empowerment across all sectors, including education and TVET,

Figure 1: Stakeholders in South Sudan that can enable policy and practice of greening TVET



- the South Sudan National Skills Development Strategy (2018), which aims to promote skills development and training in key sectors, including construction, agriculture, and manufacturing, with a focus on increasing women's participation;
- the UNESCO-UNFPA joint programme, Supporting the Integration of Gender and Human Rights into the Education Sector (2018–2022), which aimed to promote gender equality and women's empowerment in the education sector, including TVET;
- the European Union's support to the education sector in South Sudan (2019–2023), which included TVET, with a focus on promoting gender equality and women's empowerment;
- the World Bank's Support to the Education Sector in South Sudan (2019–2023), which included TVET, with a focus on promoting gender equality and women's

empowerment; and UN Women's support to the education sector in South Sudan (2019–2022), which aimed to promote gender equality and women's empowerment in the education sector, including TVET.

The respondents added that despite having these frameworks, more needed to be done to address the challenges faced by women and girls in TVET, such as lack of access to facilities, limited job opportunities, and gender-based violence.

Among these policies and frameworks, there are several declarations on promoting gender equality. For example, the Transitional Constitution of South Sudan (TCSS 2011) gives women a 25 per cent stake in all structures in South Sudan, which more recent policy documents, such as the Revitalized Agreement on Resolution of Conflict in South Sudan (R-ARCSS 2018), have increased to 35 per cent. The National Gender Policy (2013) and National Action Plan (NAP 2015–2020), as well as in the Transitional

Table 2: Specific policies related to gender and TVET

Title and year of policy	Status of the policy	Implementing institution
Transitional Constitution of South Sudan 2011	Enacted	RTGoNU
Higher Education Act 2012	Enacted	MoHEST
General Education Act 2021	Enacted	MoGEI
Labour Act 2017	Enacted	MLPSHR
Vocational Training & Skills Development Policy (VTSD) 2022	Enacted	MoLPSHRD
South Sudan TVET Five years Strategic Plan (2013–2017)	Enacted	MoEST
Unified National TVET Policy and Bill 2021	Enacted	MoHEST
The General Education Strategic Plan 2017–2022	Enacted	MoGEI
The National General Education Policy 2017–2027,	Bill	RoSS
South Sudan National Gender Policy 2017	Bill	MoGCSW
Girls' Education Strategy for South Sudan 2015–2017	Enacted	MoEST
TVET National Qualification Framework, and Quality Assurance Guidelines 2021	Draft	

Constitution of South Sudan (TCSS 2011), accord women full and equal dignity as persons with men, including a right to equal pay for equal work and other related benefits, and the right to participate equally in public life. The constitution asserts that all levels of government shall promote education without discrimination based on religion, ethnicity, gender or disability and other individual characteristics (Republic of South Sudan, 2011). This means that South Sudan is committed to promoting gender equality through gender quotas, equal rights and dignity, non-discriminatory education, and to ensuring that this is reflected in education and more especially in TVET where women need to build skills for employability in order to participate equally with men in all spheres in the country.¹⁶

Many women and girls in South Sudan are, however, disadvantaged through barriers hindering their access to education, course completion and entry to the work force. Some of these barriers relate to unfavourable customary law and the perpetuation of certain cultural traditions that prevent women from accessing more formal systems of justice and can obstruct their right to inheritances as well as to own land and property.¹⁷ Despite the implementation of policies such as the General Education Strategic Plan (GESP) 2017–2022 and the Girls' Education Strategy for South Sudan 2015–2017, there is still a lot of ground to be covered in attaining greater gender transformation in education, including at TVET level.

Enacting a gender policy specific to TVET would address various individual, institutional and societal barriers, leading to more female enrolment in TVET and in STEM-related courses, an increased completion rate and more transition to the world of work in comparison to their male counterparts. Gender-transformation policy in TVET would also facilitate a gender-friendly admission criteria, certification, recognition of prior learning, a gender-sensitive curriculum, teaching methods and environments, as well as community advocacy for action, allocation of grants and subsidies for disadvantaged female students and workplace policies advocating zero tolerance of gender-based violence.

Identification of skills for the green transition that promote a gender perspective

To effectively address the human resource needs and green skills gaps in South Sudan's priority growth industries, it is crucial to integrate gender perspectives in all stages of policy development and implementation. This can be facilitated through a comprehensive gender analysis to evaluate how green skills gaps and human resource needs may differ for men and women and by using the data generated to inform the development of tailored training programmes in TVET that are inclusive and accessible to all genders. Such targeted measures may include initiatives to encourage participation of girls in industries/sectors where they are under-represented and monitoring gender-specific indicators of green skills programmes.

Governance and stakeholders

The responsibility for governing TVET education in the country currently falls under the purview of the MoGEI while the MOL has overall responsibility for vocational training and skills development.¹⁸ However, TVET/vocational implementation is a shared responsibility among several ministries and agencies. It is worth noting that South Sudan has recently formed a Sector Skills Board, a new development in the country's TVET governance structure, to enhance the support needed for the identification of skills. Having employers represented in the governance structure enables close consultation with various stakeholders on issues such as skills needs and identification.

By and large, responsibility for ensuring provision of TVET programmes in South Sudan is distributed among different stakeholders, both government and private entities (NGOs, business and faith-based institutions), with the majority of TVET institutions being managed or run by NGOs. Principally, the MoGEI is in charge of the supervision and delivery of the TVET system. All of these actors provide a variety of vocational skills and/or courses that differ in duration and scope. In addition, a variety of education and training institutions have provided TVET, and multiple government and other organizations still administer TVET, for example: (i) various TVET policy-makers and regulators, such as line ministries (Ministry of Youth and Sports, Ministry of Gender, Child and Social Welfare, Ministry of Livestock and Fisheries, Ministry of Agriculture and Food Security, Ministry of Gender, Child and Social Welfare); (ii) education and labour ministries (Ministry of Higher

¹⁶ UNESCO. 2022. Transforming Technical and Vocational Education and Training for Successful and Just Transitions: UNESCO Strategy 2022–2029.

¹⁷ UNDP (United Nations Development Programme). 2022. Revised South Sudan National Development Strategy 2021–2024.

¹⁸ MOL. 2022. Vocational Training and Skills Development Policy (VTSD), Juba, South Sudan.

Education, Science and Technology, Ministry of Labour and Human Resources Development, and Ministry of Public Services); (iii) enterprises, cooperatives and sector councils; (iv) social and economic organizations (e.g. Women's Associations and Women's Economic Empowerment Groups); and (v) others such as institutions leaders, development partners, students, teachers and trainers. More details of stakeholders that can enable greening policy and practice at different levels of TVET are given in Appendix C.

The governance of the TVET system includes the involvement of employers and workers, among other stakeholders, in the planning, implementation, and monitoring and evaluation of the system. For the Vocational Training and Skills Development Policy (VTSD) 2022 to have the desired impact, its implementation not only requires serious attention, but the involvement of all the stakeholders in the decision-making process. At institutional level, data indicate that there is a lack of gender equality in TVET governance structure. *While there is a 35 per cent stake provision in all structures in South Sudan, as indicated on the Revitalized Agreement on Resolution of Conflict in South Sudan (R-ARCSS 2018), there is still a gap in female representation in leadership and management.* For example, in Don Bosco school, the ratio of female to male managers is 2:7. In addition, females tend to feature in low- and middle-level management, while their male counterparts are more likely to be in higher-level management. The case is similar in Juba Technical, where there are only two female leaders of department (in finance and the library), while all other administrative posts, including heads of departments, principal and school officer, are occupied by male leaders.

TVET funding

Funding and equipping TVET institutions is a vital policy action and strategy to enhance the quality of vocational education and increase access for all learners. South Sudan's spending on education is among the lowest in East Africa and falls short of both national and international targets. The combined education sector budget in the financial year 2018/19 was 9.4 per cent of the national budget and 1.4 per cent of GDP.¹⁹ However, in 2019/20 the budget was reduced to just 5.5 per cent of the national budget, 1.4 per cent of GDP.²⁰

The 2023/24 allocation to the education sector is 8.3 per cent of the overall budget, compared to 7.9 per cent in 2022/23 and 6.3 per cent in 2021/22.²¹ The bulk of sector funds are currently used for recurrent costs, such as wages, salaries and transfers. Since independence, the development budget has been almost non-existent due to competing government priorities, and liquidity issues.

By and large, a major portion of TVET institutions in South Sudan are financed through donor development funds while the government provides operational costs and salaries for instructors. This said, the government financial support is provided in the form of salary payment to those instructors who are classified as civil servants, regardless of what type of institution hires them. Because government salaries to date have never been indexed to reflect exchange rate fluctuations, many instructors are pushed to work somewhere else. The salary level does not attract qualified instructors and the competency of instructors in government TVET centres has often been questioned, as has the quality of education provided. Well-qualified instructors are often absorbed by the NGO or private sector which offer good remuneration packages commensurate with experience and the level of education and training. Overall, limited funding for TVET education and the current funding modality of the education sector promise no immediate returns for the economy, representing a formidable challenge to TVET sector development. It is important to underscore that the financing needs of the TVET sector are massive, including, in the main, infrastructure, equipment and capacity-building. Government, thus, needs to prioritize and provide funding to TVET education in the national budget.

Similarly, funding for gender equality initiatives in TVET, such as gender-sensitive training of teachers/trainers, systematic curriculum reform, the revision of learning and teaching materials and pedagogical skills, and additional research, is limited. Most official activities, though sponsored by government budgets, are relatively small in scope and lack a broad, long-term impact.

While these policies provide legal foundation for progress, there are challenges with policy implementation on funding. GESP 2012–2017 specifies that the Government of South Sudan shall aim to increase the national budget for education up to 10 per cent during the period of the plan. However, this target has not been reached in overall budget allocation.

19 MoFEP (Ministry of Finance and Economic Planning). 2018. *Approved Budget Book 2018/19*. Juba: GRSS.

20 MoFEP. 2019. *Approved Budget Book 2019/20*. Juba: GRSS.

21 ISPR (Institute of Social Policy and Research). 2024. *South Sudan Budget Analysis Report for the Year 2023–2024*. <https://ispr-ss.org/assets/files/2023-10/2023100665200922f3945.pdf>

Data gathered show that numerous stakeholders are involved in financing TVET, including the European Union, implemented through UNESCO, the Government of South Sudan through line ministries such as the Ministry of Youth, Culture and Sports, the MOL and the MoGEI, and international donors, such as GIZ supporting Don Bosco. The community is also involved through in-kind contributions, such as land donation, in-kind services, internships opportunities, local training materials and supporting community members to attend the trainings offered by the institution. Community leaders encourage both genders, including women and girls who are supported to attend training and to overcome the barriers that often hinder women participation in TVET. Scholarships are available from MoGEI, Norwegian Refugee Council, Finn Church

Aid, Organization for Peace, Relief and Development, Across, an international NGO, and other NGOs. However, stakeholders perceive that women do not always have access to information on scholarship opportunities. If information is available, the use of posters in public places, especially around the ministries area in Juba city, is a common medium to convey scholarship opportunities. Some locations receive information on scholarships through Radio Miraya, which has a nationwide coverage, although access to real-time information by women cannot be guaranteed, with information commonly made available through verbal interactions. Some TVET institutions announce scholarships and intakes through social gatherings, such as church services, and advocate for mobile TVETs in remote locations.

Greening TVET

Development of green curricula, competency standards and assessment of skills

The goal of TVET is to prepare students or trainees and apprentices for the labour market. However, there are some challenges in the assessment of skills of students reported by some of the online respondents. These challenges include, inter alia, a lack of assessment standards and methods for both transversal and technical skills. Similarly, respondents attribute the challenges to a lack of motivation in formal employment, a lack of livelihood opportunities for students who possess green competences and a lack of job opportunities for TVET graduates in green jobs.

With regard to green curricula, the FGD reported that there is no systematic approach to greening curricula and training in South Sudan. Some respondents highlighted the lack of a standardized TVET curriculum that would respond to the needs, or prepare learners for the demands of a still evolving green skills market. To be effective and responsive to market demands, there is a need for the development of a flexible and multifaceted curriculum that reflects local realities and knowledge.²² Further, by creating a green curriculum that is sensitive and responsive to local contexts and that takes local customs and approaches into consideration, local participation and community ownership can be encouraged and reinforced.²³ There is a need for an integrated curriculum that can be frequently re-evaluated and can accommodate the diverse challenges faced by multiple ethnic and tribal communities, vulnerable youth, ex-combatants, early school leavers and unemployed youth in South Sudan. This, ultimately and drastically, reduces rampant unemployment among the youth and contributes hugely to economic productivity and speedy growth. Furthermore, teaching and learning methods and curricula must be suitable not only for young people but also for adults, since

upskilling and reskilling are key to ensuring the workforce is fully up to date in respect of skills for the green transition. To meet these needs, TVET providers can put together tailored short courses.²⁴

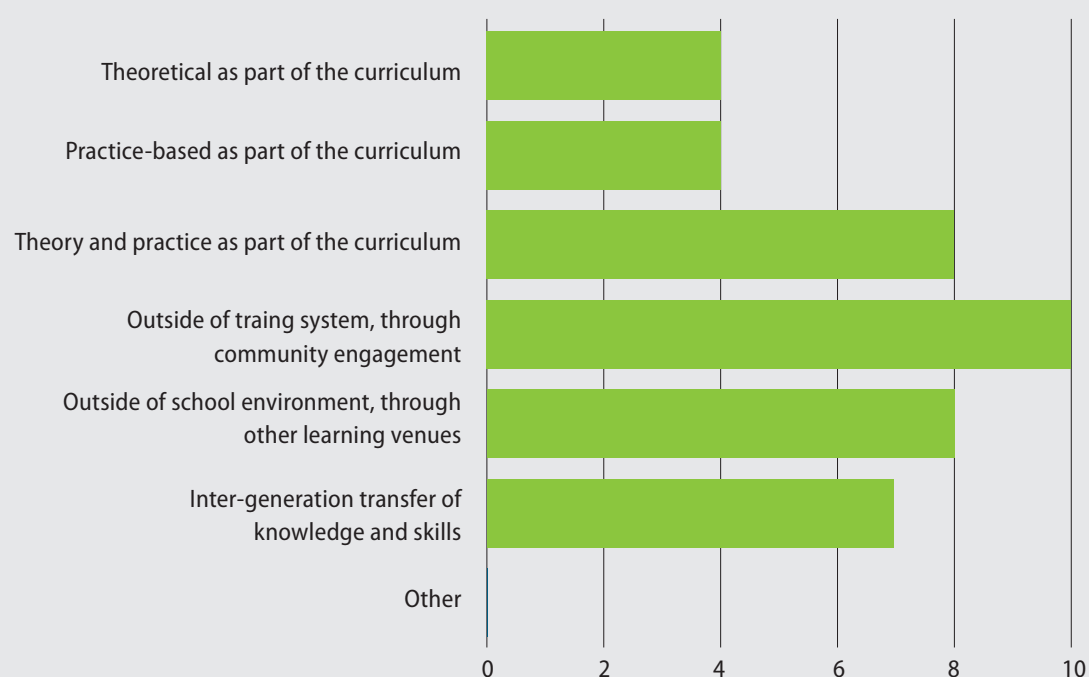
Engaging students to develop their environmental awareness, skills and institutional culture

Figure 2 shows that apart from the training system, community engagement is the main method students use to develop their technical green skills for employment. It is important to note that 73 per cent of online respondents perceived that technical green skills are acquired mostly outside school environment through other learning venues (e.g. company, small business). Students engage in developing sustainable solutions and green enterprises through the theoretical and practical aspects of the training curriculum, which are among the main methods identified for engaging with students and promoting learning. With regards to developing general environmental consciousness/mindset and knowledge/behaviour concerning climate change, 91 per cent of the respondents reported formal TVET studies or competency-based training to be the main methods for developing environmental consciousness. As shown in Figure 3, social activities together with community engagement, work-based learning and inter-generation transfer of knowledge and skills were reported to be the means for developing green technical skills, alongside environmental consciousness/mindset and knowledge/behaviour concerning climate change among the learners. These teaching and learning approaches provide learners not just with classroom-based theory but also with opportunities to learn from practical experiences of greening in the workplace or in school-based simulations. This creates an ideal environment in which to develop not just greener mindsets but also greener behaviours.

²² MOL. 2022. *Vocational Training and Skills Development Policy (VTSD)*. Juba, South Sudan.

²³ Hopkins and Majumdar. 2017. *Greening Technical and Vocational Education and Training: UNEVOC's Practical Guide for Institutions*. UNESCO-UNEVOC.

²⁴ ILO (International Labour Organization). 2019. *Skills for a Greener Future: A Global View*.

Figure 2: How students can develop technical green skills for employment**Figure 3: Developing environmental consciousness concerning climate change**

In light of the aforementioned approaches identified to help students develop technical green skills for employment and environmental consciousness, the FGD revealed the need for a general reform in TVET curricular design, syllabus design, pedagogy, practical lessons (tools/equipment) based on the labour market green skills needs and demands. These reforms will stimulate a teaching and learning environment characterized by innovation and problem-solving to prepare students professionally for their work life. They should promote the expectation that the curricula include activity-based learning, as well as fostering skills, knowledge and attitudes. It is also important to involve the private sector and employers in the process of determining the status of the curriculum.

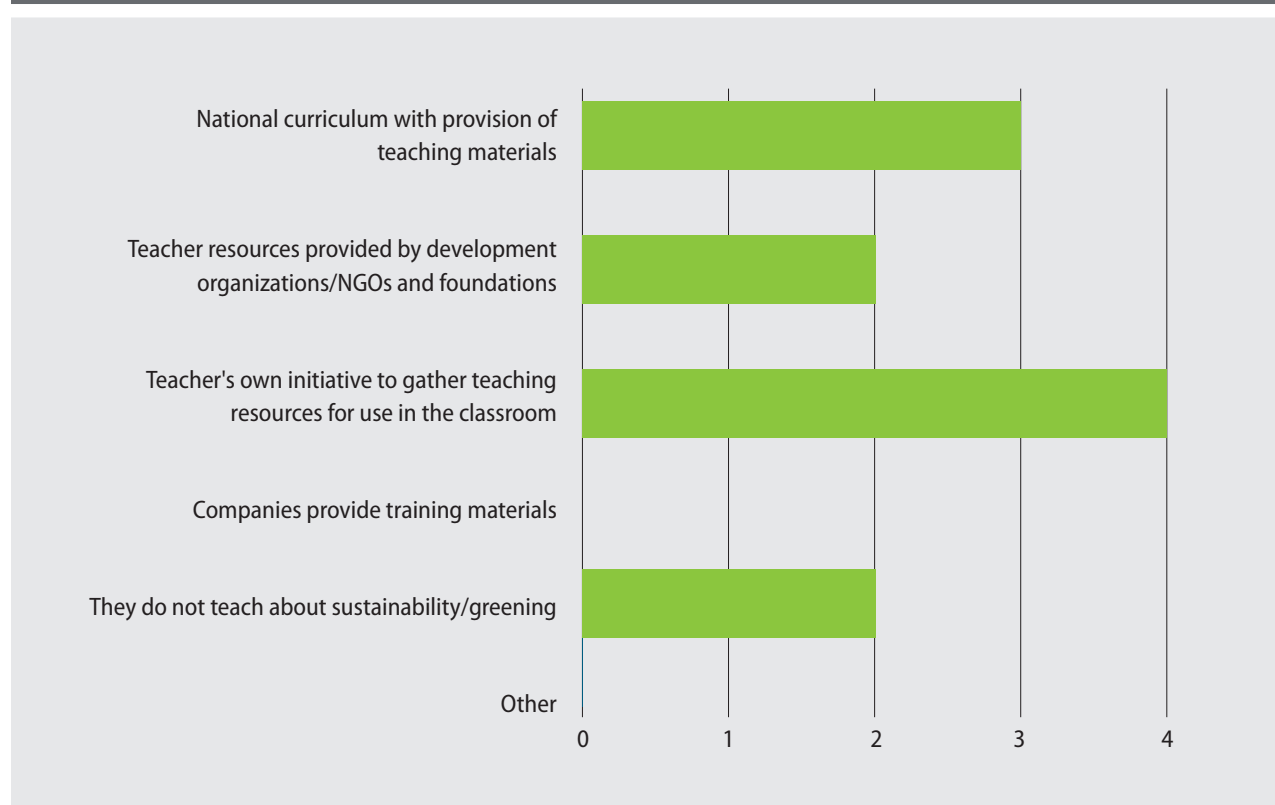
Regarding perceptions on developing relevant skills through greening campuses, it was reported during the FGD that some TVET centres and schools across the country practise the planting of trees and gardening. However, it is important to underscore that although TVET institutions implement some activities relating to greening campus, they do not stem from any policy-related measures (e.g. policy linked to sustainability) in the country. For instance, Don Bosco in Juba, as part of a widely established network of vocational secondary and upper secondary institutions in Africa and worldwide,

practises campus greening activities. However, green skills training is based on curricula used outside of the country by other Don Bosco training institutions (e.g. Kenya). The most common activities reported by respondents during data collection included gardening and growing trees and growing seedlings. With regard to the alignment of TVET with the social dimension of Sustainable Development Goals, accessibility challenges persist with old infrastructures and facilities that are not designed to accommodate the needs of learners with disabilities or other forms of physical challenge.

Greening training and professional development of teachers and in-company trainers

At the centre of quality TVET and training lies an effective interaction between teachers/trainers and learners. With regards to resources used to teach about sustainability and green skills, 36 per cent of online respondents reported that teachers' own initiative to gather teaching resources for use in the classroom is the main resources used by teachers to teach about sustainability and green skills. As shown in Figure 4 the respondents also indicated that the national curriculum is another method used to teach about sustainability and green skills.

Figure 4: Resources for teaching sustainability and green skills



The FGDs revealed that the Government of South Sudan, through the MoGEI and development partners such as UNESCO, have been training teachers to advance TVET in the country. However, the findings indicated that TVET institutions are facing a challenge in the lack of systematic professional development of instructors/teachers to meet an increasing demand in enrolment of trainees.

Greening professional development for teachers and in-company trainers is vital for the overall success of greening TVET and to ensuring they keep up with the pace of technological development. According to the discussion with TVET officials during FGD, instructors or trainers face problems linked to using new technologies and updating their current methods of delivery of vocational training in ways that could pave the way to advance greening in TVET.²⁵ According to Dr. Francis Waru, Director General for TVET at MoGEI,²⁶ upgrading teachers' and trainers' skills to design, implement and assess training for the green transition is an important issue. That said, there is a need for proper tools and equipment to facilitate instructors and trainers in developing skills that are aligned with the changing demands and technologies. They also need to be supported in developing their own environmental awareness, which might be applied in school and workplace environments more widely, thus contributing to the cultivation of greener cultures in TVET institutions and among employers. Without a dedicated centre/college for training and/or continuing professional development (CPD) of TVET teachers/instructors in South Sudan,²⁷ a systemic gap exists, preventing opportunities for teachers/instructors to benefit from CPD, which is critical for updating the knowledge and competence of teachers and trainers and improving their practice to become active change agents in green culture development in the country.

With regards to greening training, the respondents indicated that this would involve consideration not just of teaching and learning methods, materials and equipment, but also the full range of associated provision, activities and services required to ensure that TVET is fully attuned to the needs of the green transition. The respondents recommended that consideration must also be given to such activities as engagement with employers and the wider community, and the provision of careers guidance services.

Engaging and sensitizing private sector and other stakeholders

In South Sudan, different stakeholders, such as the private sector (enterprises), civil society and development partners, together with the public sector, have a key role to play if greening TVET is to be successful. The private sector plays an important role as the venue for work-based learning and in providing the spaces within which TVET learners can practise the skills for the green transition they have been learning in TVET classrooms. The draft Unified National TVET Policy has provided for the participation of all stakeholders, including the private sector, civil society and others, in the governance of TVET institutions. The policies have also provided for the establishment of sector advisory committees or councils responsible for various aspects of TVET, such as assessment, quality assurance, certification, monitoring and evaluation and curriculum review and development. However, most of these committees are not fully functional due to limited financial resources to facilitate their meetings and activities, among other factors.²⁸

Although not specific to green TVET, it was reported by respondents that there are existing local arrangements between TVET institutions and private companies in which trainees are sent for internship or apprenticeship. It is within this arrangement that the companies sometimes offer to trainees employment opportunities when there are relevant openings in these companies. While the alignment of TVET provision with market needs is important to national development, the quality of TVET provision ultimately determines whether graduates have the actual skills required by the labour market to serve national development needs. In this regard, the quality of TVET depends on admission, trainer qualification, curriculum design, training methods, quality assurance mechanisms and governance.

Furthermore, in sectors directly impacted by environmental changes, such as renewable energy, enterprises and sector bodies can play leading roles in greening TVET. For example, SLB petroleum company engaged Juba Technical secondary school in developing prototypes for alternative sources of power. It is important for TVET institutions, teachers and learners to stimulate and sensitize employers, and

²⁵ ILO. 2019. Skills for a Greener Future: A Global View.

²⁶ Mr. Francis Gibson Waru, interview on 28th May 2024

²⁷ Mr. Francis Gibson Waru, interview on 28th May 2024.

²⁸ Unified National TVET Policy Framework, 2021.

could be the key to sensitizing enterprises as to the value of engaging with the green agenda, if prioritized in national policies.²⁹ Engaging in discussions with enterprises on the application of the green TVET system for young people and other needful groups, and explaining to employers that green skills will improve their productivity and efficiency and, as a result, their overall business performance, is desirable and should be encouraged through a Unified National TVET Policy. Enterprises need to be made aware and convinced of the green approach if graduate green students are to implement their knowledge at the company level. In addition, workers' organizations can play a key role in sensitizing enterprises to the green transition, for example by seeking to ensure that workers are adequately reskilled or upskilled for new employment opportunities and that policies and practices are attuned to the need for a just transition, as well as being part of broader strategy development processes.

Main barriers to making greening a priority in TVET in South Sudan

Despite limited policies and frameworks on green TVET, some green activities are already taking place at varying stages in the country. Nonetheless, some of the key barriers hampering the development and implementation of effective TVET, including making greening a priority in TVET, include

- lack of policies and regulatory frameworks,
- weak engagement of relevant actors with the goal of greening TVET,
- low conceptual understanding of climate issues and their connection with education and training,
- resource constraints/inadequate funding,
- poor coordination and regulating mechanism,
- inadequate green TVET teaching and learning materials,
- low levels of knowledge or technical capacity to formulate a basic institutional plan of action,
- insufficient infrastructure,
- lack of vision on part of leaders,
- lack of strategic thinking,
- lack of training for teachers and in-company trainers,
- lack of demand from industry and businesses, and
- insufficient tuning/strategic thinking of TVET to the green transition due to weak processes and structures connecting TVET to the world of work.

Many of the issues that surfaced from this assessment can be attributed to the absence of sound regulatory and national qualifications frameworks.

In South Sudan, TVET activities, including in areas of policy relevant to skills for green jobs, are poorly coordinated, with responsibility distributed across different stakeholders (public, private, civil society and development partners). Although South Sudan has been experiencing climate crisis and environmental degradation in recent years, the study found that there has been a significant delay in linking public policy with action. This could be attributed to a lack of a central and coordination body among the different ministries and institutions responsible for the TVET sector. This lack of coordination among the different ministries and institutions in South Sudan is affecting green transition and the greening of TVET implementation and national commitments in line with the Paris Agreement's nationally determined contributions.

Presently, South Sudan's TVET system is dominated by supply TVET driven for both public and private providers. Coordination between the TVET administration and private sector entities, such as entrepreneurs, business associations and chambers of commerce, has often remained weak. Although developing skills for green jobs tends to take place as part of overall government policy, at this stage, there is no evidence of public or private-enterprise involvement in the greening of TVET. In this respect, skills development responses to the green agenda tend to be fragmented and focused on the needs of those sectors and businesses most directly affected by environmental regulation, for example the energy sector. This narrow focus does not address the need for all workers and businesses to be trained, upskilled or reskilled in general green issues, such as recycling, which are applicable to all workplaces. This can mean that TVET graduates, when employed, experience difficulties in applying the skills for green jobs that they acquire during their TVET programmes.³⁰ However, engaging all employers in the green agenda can be difficult given the constraints many enterprises already face in terms of the time and resources they can commit to training. Employers need to be sensitized to the benefits of engaging with the green agenda, in particular the cost savings arising from improved waste management.³¹

30 MoGEI. 2017. *The General Education Strategic Plan, 2017–2022*. Juba, South Sudan.

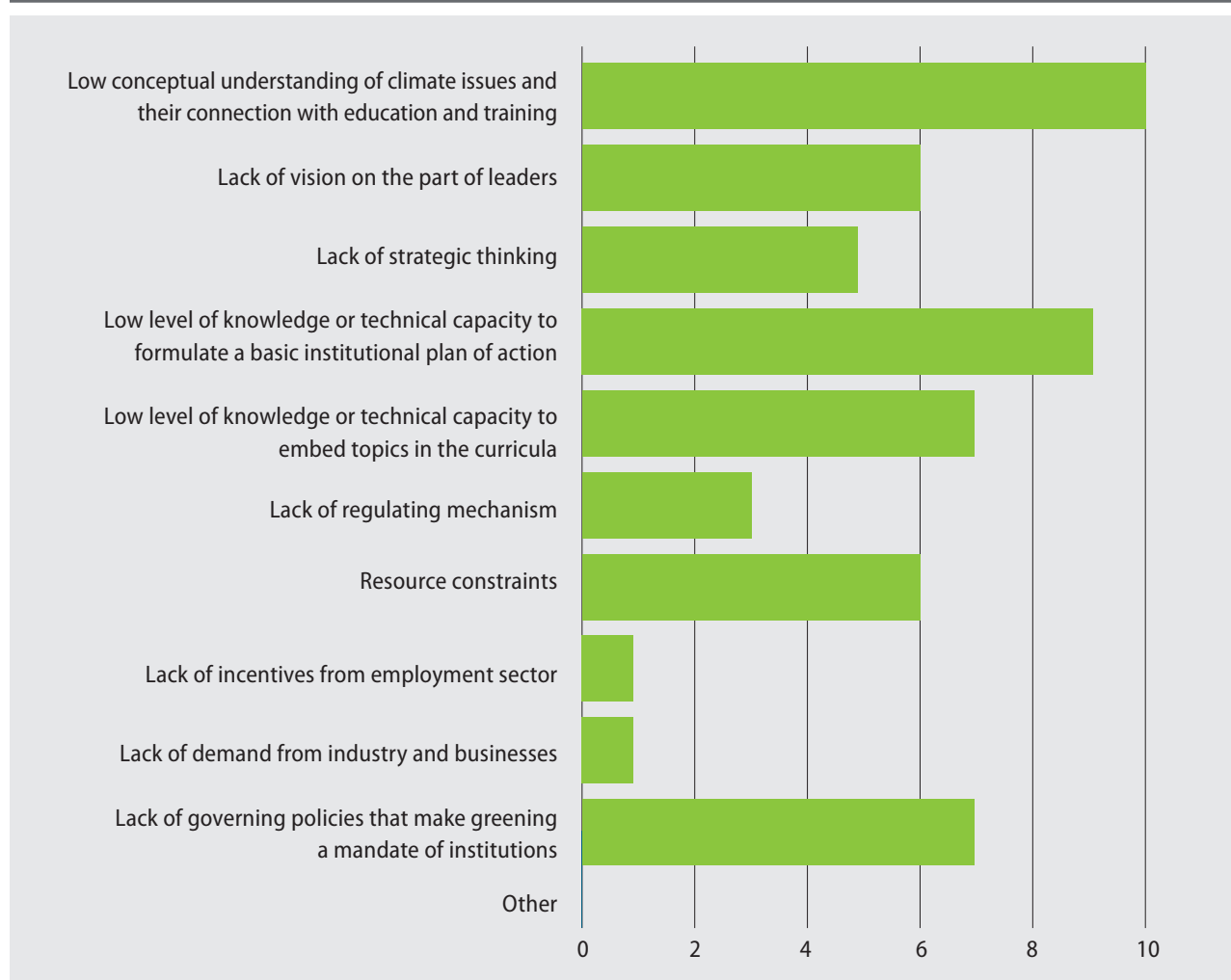
31 ILO. 2019. *Skills for a Greener Future: A Global View*.

29 ILO. 2019. *Skills for a Greener Future: A Global View*.

Another important issue relates to skills anticipation, data management, employment data tracking and labour-market information systems, which are all critical for the planning and monitoring of outcomes of training. The availability of these tools for TVET in South Sudan would not only help overall TVET system performance, but also support the development of targeted training offers in green occupation areas. Having good quality information on skills needs is a foundation for an effective skills development and TVET system.³² Further issues raised included inadequate consideration of inclusion issues. Current initiatives tend to focus on upskilling and reskilling existing workers and modifying initial TVET labour-market entry procedures. Vulnerable groups in the labour market (young people, women, persons with disabilities) require targeted support in developing their knowledge and skills for green jobs. Therefore, lack of provision for these groups will be a significant constraint, especially as they continue to be under-represented in policy and programmes.

Finally, greening of TVET in South Sudan is likely to be affected by challenges on the supply side. In South Sudan, TVET provision is underdeveloped, and capacity development of institutions will be needed to support them in effectively taking on the green agenda. Weak TVET infrastructure and their non-compliance with new environment regulations challenge the conformity of TVET with green-oriented principles. Greening TVET will require the development of teaching and learning materials appropriate for the green transition. Another challenge relates to the professional development of TVET teachers and trainers. To be fully effective, greening TVET requires not only technical adjustments to curricula but also changes in mindset, in approaches to teaching and learning and in associated assessment methodologies. Consequently, both initial teacher training and CPD need to be updated to make them fit for the green transition, which will be a challenge for many countries. In particular, CPD for TVET teachers is typically underdeveloped, as is pedagogical training for in-company trainers.

Figure 5: Barriers to making green TVET a priority



32 ILO. 2019. Skills for a Greener Future: A Global View.

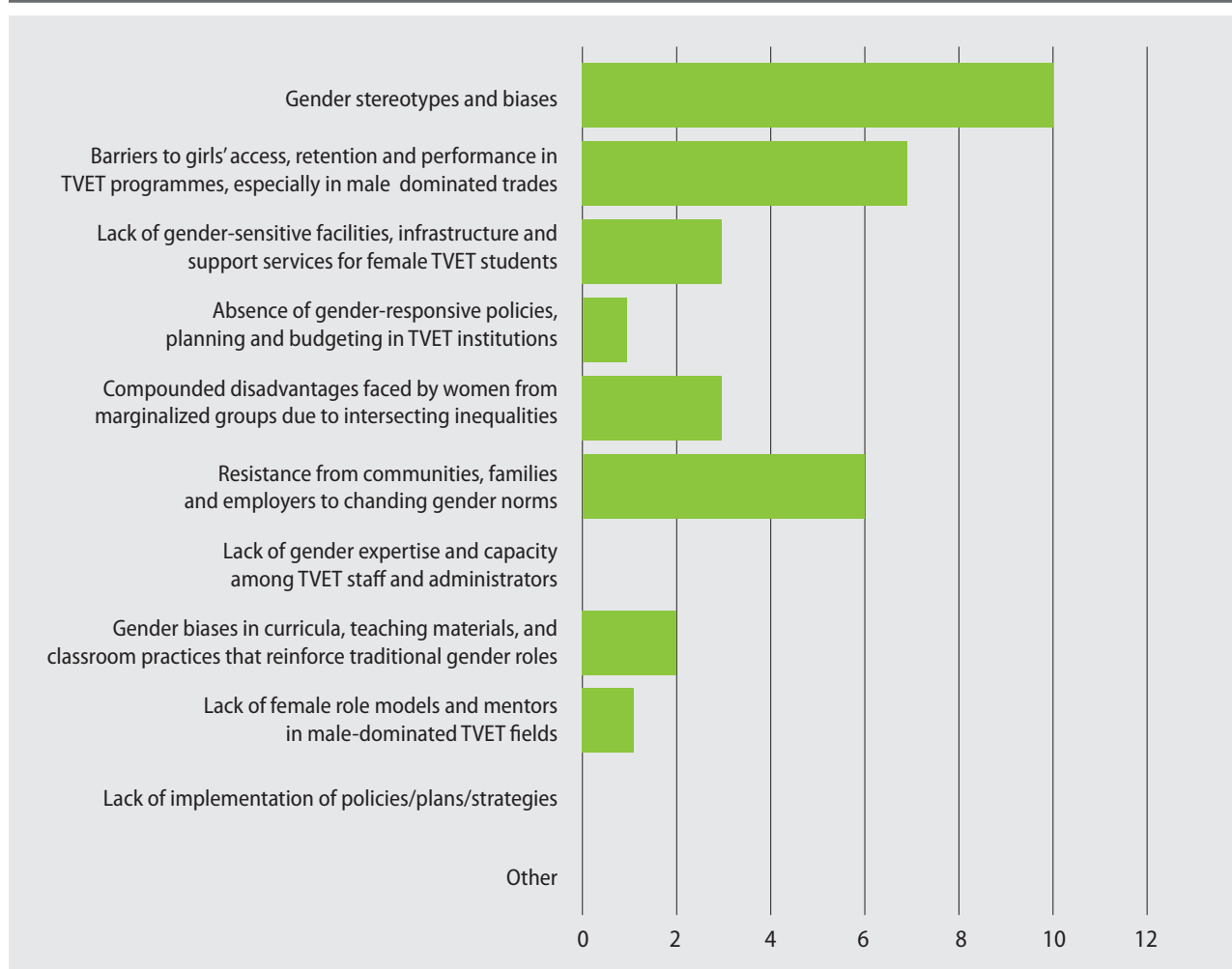
Gender transformation in technical and vocational education and training

Cultural norms and stereotypes significantly hinder female participation in TVET

Overcoming stereotypes and biases and harmful gender norms are the most significant challenges in promoting gender equality within TVET, according to survey responses. These challenges are further intensified by resistance to change by community members, families and employers.

In South Sudan, cultural and social values and norms deeply reinforce gender disparities, significantly shaping and limiting the opportunities available to women and girls. These entrenched inequalities also severely restrict their access to justice.³³ In TVET, harmful gender norms and stereotypes discourage women from enrolling in TVET programmes or STEM courses and can influence girls' confidence, attitudes and career choices. In addition to this, TVET is frequently perceived as inferior to higher education, discouraging enrolment among both genders, but particularly women who may feel stigmatized for choosing vocational paths.

Figure 6: Challenges in promoting gender equality in TVET in South Sudan



33 SSWEN (South Sudan Women Empowerment Network). 2021. *Initial Assessment and Mapping: Reducing Inequality and Gender-Based Violence in South Sudan*. https://www.eeas.europa.eu/sites/default/files/south_sudan_womens_empowerment_network_6.12.2021_1_002.pdf

A 2021 report, *Status of Higher Education and TVET Sector in South Sudan*, found that from a sample of 38,746 students enrolled in 14 tertiary institutions, a total of 36,000 (94%) are enrolled in the university sector, while only 2,498 (6%) are enrolled in TVET institutions. Furthermore, of 13,000 students enrolled in STEM, 3,000 (24%) are female.³⁴

Girls' participation in education is also hindered by the social expectation to perform domestic chores and the practice of child marriage.³⁵ Deeply entrenched cultural norms further reinforce the belief that women should prioritize family responsibilities over career aspirations, leading to parental discouragement of daughters pursuing non-traditional careers. Female learners who enrol in TVET are often directed towards courses such as sewing and cosmetics, while men are encouraged to pursue trades such as mechanics and electronics.³⁶

For example, in Wau Technical Institute, 85 per cent of 120 students admitted [at the time of study] were male. However, since it introduced courses such as catering, tailoring and hairdressing, female enrolment has increased, now accounting for 70 per cent of enrolment in these courses.

I went to train women on micro-economic empowerment in Lopa-Lafon in Eastern Equatoria State. The chief said that we cannot do the training because he does not want us to spoil his women in the community. We decided to invite him for [the] first day to listen. If it is not a good training, we shall go. The first day he attended and by evening he was asking some questions and appreciating the training. By the second day, he was very impressed and said that he will personally mobilize very many women to attend since it is very beneficial not only to the women but the entire community.

- Key informant

Despite the prevailing challenges, a number of programmes have been implemented that promote community empowerment on gender equality, for example, Religious Leaders Stand with Girls in South Sudan³⁷ and Project Empower.³⁸ However, more needs to be done.

We recommend that TVET practitioners strengthen gender-responsive TVET policies and raise awareness of harmful gender norms through community engagement and gender-responsive teacher training. Additionally, they should increase collaboration with traditional and religious leaders and engage parents to address gender-related concerns and encourage participation. They should also develop targeted measures to empower women and girls through mentorship, networking, entrepreneurship opportunities and STEM counselling and support initiatives.

Unreported reality of gender-based violence in TVET

There was a strong consensus among stakeholders on the need to ensure a safe and inclusive environment, particularly for women and girls. In 2019, the documented rate of gender-based violence in South Sudan was as high as 65 per cent.³⁹ This violence largely includes domestic violence, psychological and emotional abuse, the abduction of women and children during cattle raids, rape and sexual assault, as well as the practice of giving a female child as compensation for crimes or wrongdoings committed by her family. Gender-based violence remains a significant barrier to social progress and the well-being of women and girls. Furthermore, South Sudan lacks legislation to protect women from discrimination in accessing credit or from sexual violence in education or in the workplace.⁴⁰

34 University of Juba. 2021. *Status of Higher Education and TVET Sector in South Sudan*. <https://www.ruforum.org/sites/default/files/Reports/Prof.Akec%27s%20Report%20Final.pdf>

35 World Bank Group. 2020. *Getting it Right: Strengthening Gender Outcomes in South Sudan*. <https://documents1.worldbank.org/curated/en/723961596172568911/pdf/Getting-it-Right-Strengthening-Gender-Outcomes-in-South-Sudan.pdf>

36 IYF (International Youth Foundation). 2021. *Five Ways to Combat Stereotypes and Advance Gender Equity in TVET Systems*. <https://iyfglobal.org/blog/five-ways-combat-stereotypes-and-advance-gender-equity-tvet-systems>

37 UNICEF. 2019. *Religious leaders stand with girls in South Sudan*. <https://www.unicef.org/southsudan/stories/religious-leaders-stand-with-girls>

38 One Africa Forum. 2024. *One Africa Forum launches 'Project Empower' in South Sudan*. <https://www.oneafricaforum.org/one-africa-forum-launches-project-empower-in-south-sudan/>

39 UNICEF. 2019. *Gender-based Violence*. https://www.unicef.org/southsudan/media/2071/file/UNICEF-South-Sudan-GBV-Briefing-Note-Aug-2019.pdf?mc_cid=df23736a5b&mc_eid=edad8600b3

40 World Bank Group. 2018. *Women, Business and the Law*. http://wbl.worldbank.org/en/data/exploreconomies/south-sudan/2018#wb_l_gpd

While stakeholders confirmed that there were few occurrences of reported gender-based violence in TVET institutions across the country, reports show that gender-based violence is driven by a culture of silence and stigma. Additionally, in another form of gender-based violence, nearly half of all girls face being forced into marriage or married off early.⁴¹ The perception among respondents that few occurrences are rare could be attributed to a lack of proper reporting mechanisms in TVET institutions.

A safe learning environment, especially for women and girls, is one where they feel physically, emotionally and socially secure, allowing them to thrive in education without fear of harm, discrimination or exclusion.

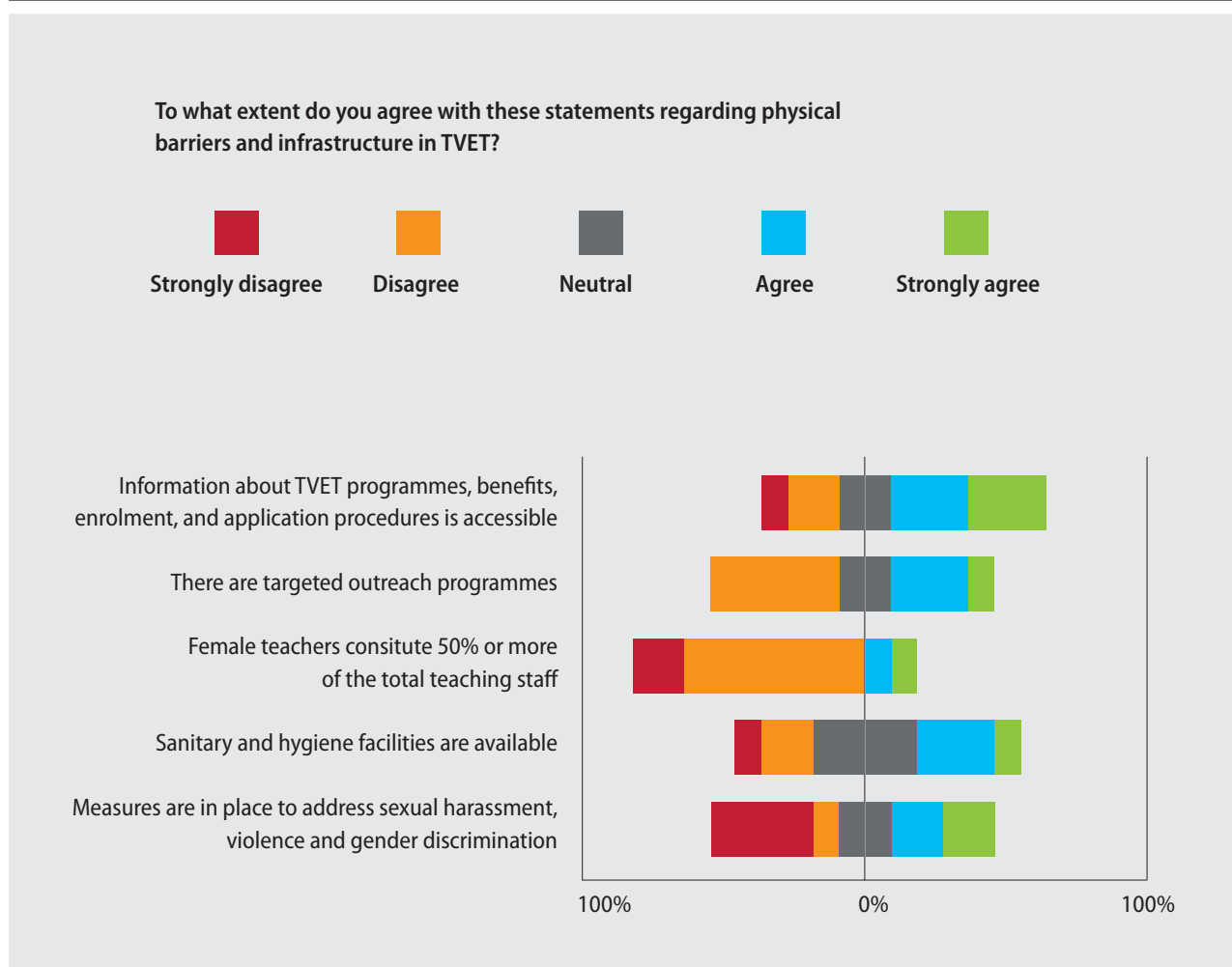
By integrating gender-based violence awareness and prevention into their curricula, TVET institutions can create safe, inclusive learning environments while

empowering women and girls through targeted support. Engaging men and boys as allies in gender equality initiatives is crucial, as is strengthening partnerships with communities and NGOs to enhance outreach and support services.

In addition to developing and enforcing a zero tolerance policy on gender-based violence, it is essential to collaborate with local leaders and the community to integrate these protection strategies into customary law practices. TVET centres can create confidential reporting channels to ensure safe and anonymous reporting and provide clear guidance for investigating and addressing cases of gender-based violence.

The study indicated a lack of measures to address sexual harassment, violence and gender discrimination, as illustrated in Figure 7.

Figure 7: Physical barriers and infrastructure in TVET



41 Concern Worldwide. 2022. Gender equality in South Sudan: What we know in 2022. <https://www.concern.net/news/gender-equality-in-south-sudan>

Addressing gender-based violence in South Sudan requires a multi-faceted approach that includes strengthening legal protections and enforcement, challenging harmful cultural norms and providing comprehensive support services for survivors.

Tailored support systems present but not robust

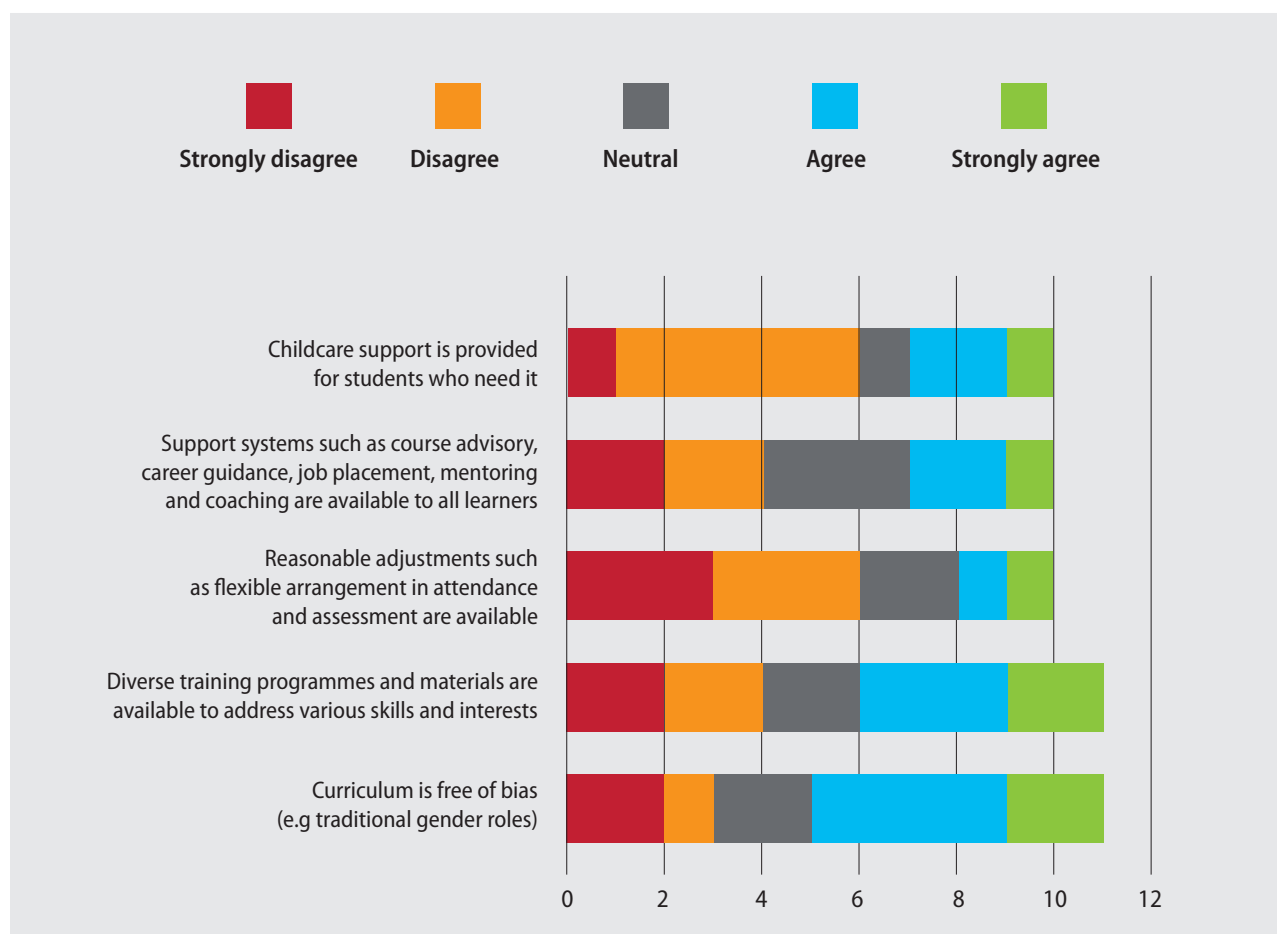
The study revealed that many TVET centres have gender-specific facilities, such as toilets and washrooms, but most other facilities are shared. Stakeholders further indicated that career guidance, course advice, job placement and mentorship are offered in some centres, although not in a robust way. There was, however, a clear consensus on the lack of childcare support for female students with children.

Support systems play a vital role in promoting gender equality, particularly by encouraging girls' participation in STEM. For example, inadequate sanitation facilities often hinder girls from attending school and, in some cases, lead to drop-out. Female TVET role models serve as mentors, offering guidance and support to girls, while childcare facilities reduce drop-out. Moreover, robust support systems create a more conducive learning environment, enhancing mental health and well-being, while fostering a sense of belonging and improved academic performance.

Targeted initiatives, such as a project in Ghana where a network of professional women in TVET shared their TVET journeys to inspire positive transformation, should be replicated to broaden the reach of female role models and encourage more young girls to pursue TVET.

Practitioners can also liaise with trainees and their workplace trainers or mentors to assess satisfaction and identify any needs for targeted support.

Figure 8: Delivery and assessment



Biased selection criteria hindering access and participation in TVET

While data show that there was significant increase in enrolment from zero in 2008 to 39 per cent in 2015,⁴² it is estimated that women account for less than 30 per cent of the total enrolment rate in TVET in South Sudan. This disparity can also be attributed to the fact that only 18 per cent of girls and 33 per cent of boys completed primary education in 2015.⁴³

Stakeholders in the study perceived that there is a biased selection process. These biases often manifest as gender stereotypes that favour male candidates for vocational programmes, thereby limiting opportunities for women and girls.

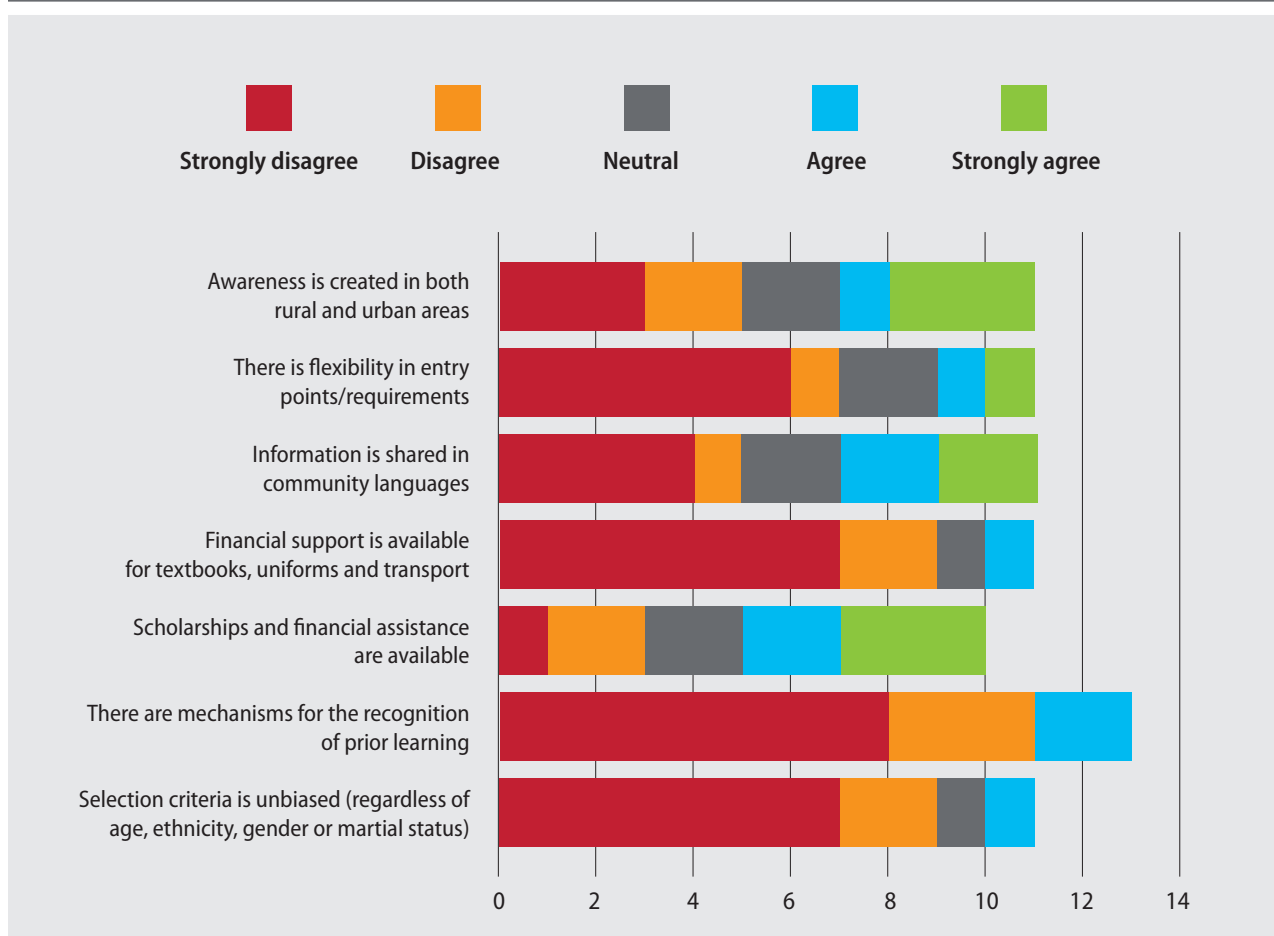
Additionally, inadequate mechanisms to recognize prior learning (RPL) and insufficient financial support further exacerbate the barriers faced by marginalized groups, including women and girls. The South Sudan

National Qualification Framework (SSNQF) has not comprehensively addressed the issue of RPL as a means of assessing the qualification for selection and enrolment into TVET.

Information about TVET programmes, benefits, enrolment and application procedures is widely perceived as inadequate, with 45 per cent of respondents indicating dissatisfaction (Figure 7).

Addressing biased selection processes and creating an inadequate RPL mechanism are essential for promoting gender transformation and can be effectively addressed through policy. VTSD (2022) outlines measures to increase the recruitment and retention of females and other under-represented groups. These measures include participatory approaches involving stakeholders and trainees, to identify reasons for drop-outs and make recommendations for change. Suggestions include improving safety and health standards, such as through first-aid provision and maintaining a clean environment,

Figure 9: Enrolment and selection



42 MOL. 2022. *Vocational Training and Skills Development Policy (VTSD)*. Juba, South Sudan.

43 UNESCO. 2018. *South Sudan: Education and Literacy*. UIS data <https://uis.unesco.org/en/country/ss?theme=education-and-literacy>

upgrading trainees' accommodation, or providing accommodation where it does not exist, creating a more stimulating training and learning environment, and introducing an awards system for trainees.⁴⁴ However, this study found that there has been a significant gap in linking public policy with action.

Another effective way to increase girls' enrolment in TVET is through comprehensive awareness campaigns that challenge gender-based stereotypes and emphasize the value of vocational education for women. Stakeholders recommended leveraging mass media, including local FM radio stations and social media platforms, and delivering messages in local languages, such as Classic Arabic (Arabic alphabet), Juba Arabic (Roman alphabet), Dinka, Nuer, Bari and Murle. These campaigns should provide detailed information about TVET courses available for girls, reasonable accommodations in entry criteria, including RPL, support systems offered and financial-assistance options for those who enrol.

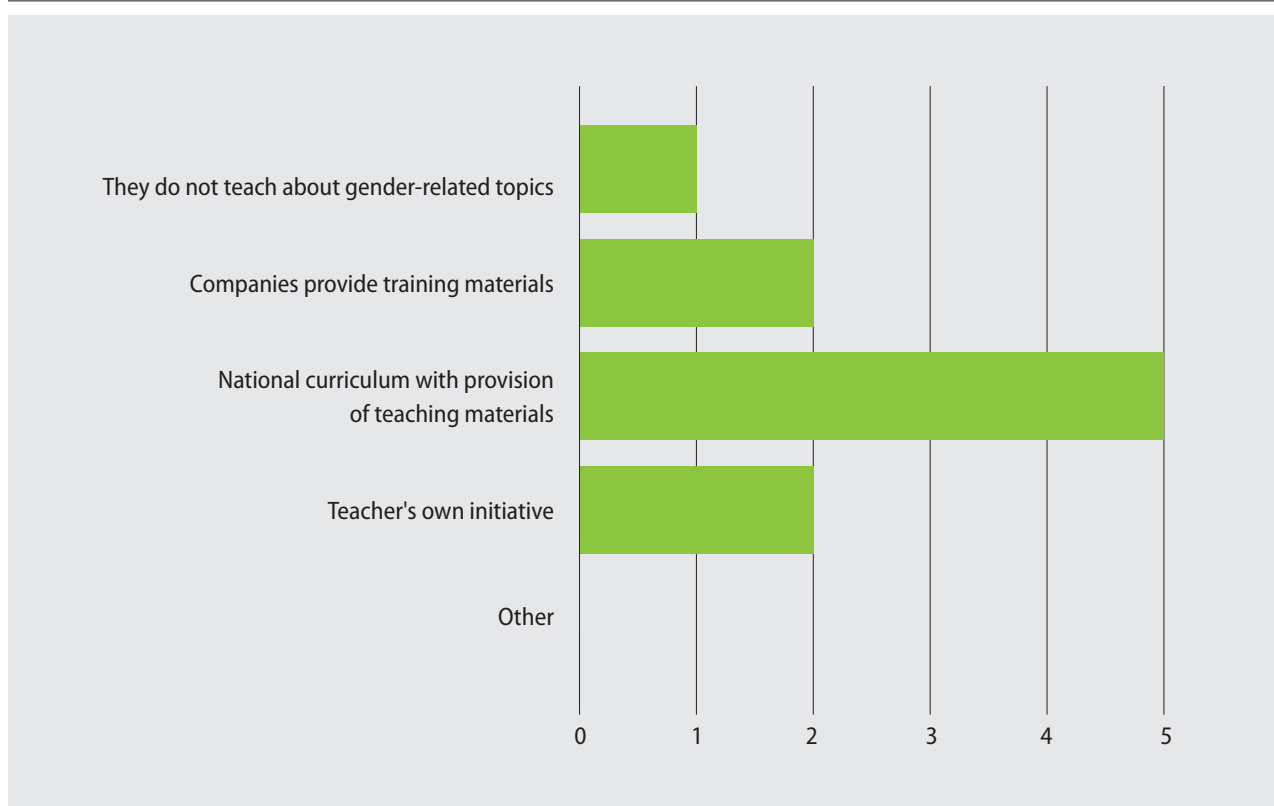
Curricula and learning materials need to challenge gender stereotypes and promote inclusive teaching practices

Stakeholders noted that while some illustrations in teaching materials do include elements of female representation, they are not well balanced, often reinforcing traditional gender roles. For example, images showing men as drivers, surgeons, pilots, heavy machinery operators, etc., while representing women as nurses, caterers, secretaries and caregivers.⁴⁵

Most curricular in TVET have a lot of male representation and use examples which are male-inclined. All illustrations are male-oriented in the course that I instruct in [Carpentry] and there is no female instructor in my department.

Key informant

Figure 10: Sources of TVET instructional materials used by teachers



44 MOL. 2022. *Vocational Training and Skills Development Policy (VTSD)*. Juba, South Sudan.

45 FAWE (Forum for African Women Educationalists). 2020. *Gender Responsive Pedagogy: A Toolkit for Teachers and Schools*. 2nd edition. FAWE House.

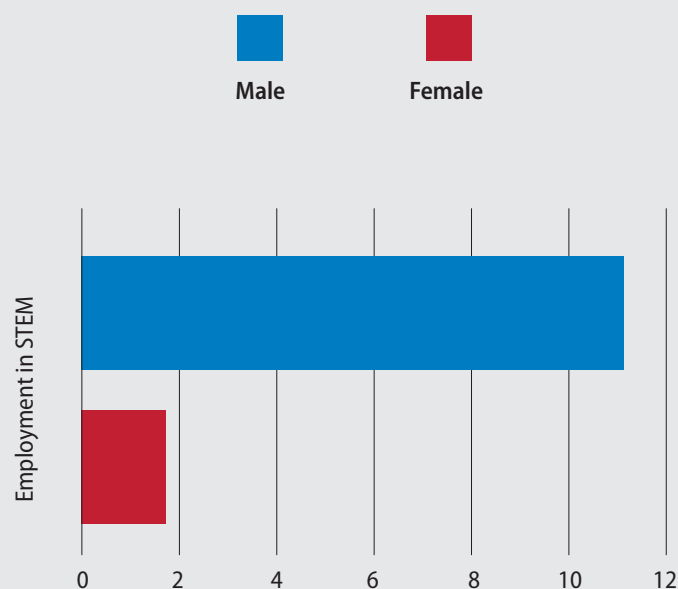
To avoid reinforcing traditional gender roles, instructional materials in TVET should include illustrations that reflect the socio-economic background of the community, for example by depicting women in roles traditionally dominated by men, such as operating machinery or taking care of livestock.

In addition to inclusive teaching materials, stakeholders highlighted several teaching methodologies that have effectively encouraged female participation in TVET. These include learner-centred teaching methods, practical hands-on training, collaborative learning and technology-based instruction to develop tangible skills. Small class sizes and flexible training schedules also help to create a personalized learning experience. Furthermore, the use of gender-sensitive curricula, incorporation of role models and mentors and provision of career guidance and counselling are vital in addressing the specific needs of female learners and building their confidence.

Female teachers constitute less than 50 per cent of the workforce

There's a huge gender disparity among teachers in the context of TVET in South Sudan. In the survey, respondents confirmed that female teaching staff constitute less than 50 per cent of the total teaching staff (Figure 7). Similar disparities exist in management, as described earlier in this report on governance. These findings are consistent to those found by Akec (2021), who points out that only 14.1 per cent of lecturers in South Sudan's tertiary education are female, and the under-representation extends across various academic ranks and fields, particularly in STEM disciplines, where the figures are even lower.⁴⁶

Figure 11: Statistics of women in employment in STEM in South Sudan



Source: Adapted from Akec, J. (2021). *Status of Higher Education and TVET Sector in South Sudan. Gender-based analysis of the ST&I Ecosystems*

⁴⁶ University of Juba. 2021. *Status of Higher Education and TVET Sector in South Sudan*. <https://www.ruforum.org/sites/default/files/Reports/Prof.Akec%27s%20Report%20Final.pdf>

There are very few female instructors and in some TVETs, there are only male instructors.

Key informant

The survey also revealed that TVET trainers have limited knowledge and skills in addressing gender-related topics, with many relying on their own initiative or NGO-provided content to learn and implement gender-responsive initiatives.

It's imperative that TVET managers, trainers and other staff supporting trainees gain access to continuing professional development (CPD) to effectively challenge stereotypes and harmful gender norms in curricula, teaching materials and classroom practices.

In line with the VTSD policy (2022) on the need for a comprehensive in-service training programme for existing trainers, TVET practitioners should be provided with in CPD, especially in their roles in gender transformation.

Key informant

Teachers' biases can negatively affect students' educational experiences and aspirations, particularly for girls.⁴⁷ Better teaching and learning practices require more qualified teachers, better content and improved learning processes.

The study further underscores the importance of promoting the recruitment of female teachers and enhancing women's leadership and decision-making roles within education systems. Female teachers in STEM subjects, in particular, act as role models and help create a more inclusive educational environment.

Gender-sensitive recruitment and staffing practices ensure a balanced representation of genders in teaching and administrative roles. Additionally, mentorship should be provided to teachers to support their enrolment and active participation.

Both male and female trainees are given equal chances to enrol but only few females report to the centre for training ... in designing the carpentry curriculum, no single female trainer was present and even now in instruction, the department is 100 per cent male in staffing.

Key informant

To achieve a green transition in TVET for South Sudan, it is imperative to prioritize gender perspectives in developing STEM skills and knowledge for green jobs among learners and vulnerable groups. With adult literacy in South Sudan among the lowest globally, at 32 per cent in 2015,⁴⁸ there is a clear link between gender inequality and limited access to TVET, poverty and unemployment.

Partnerships and community engagement are catalysts for gender transformation

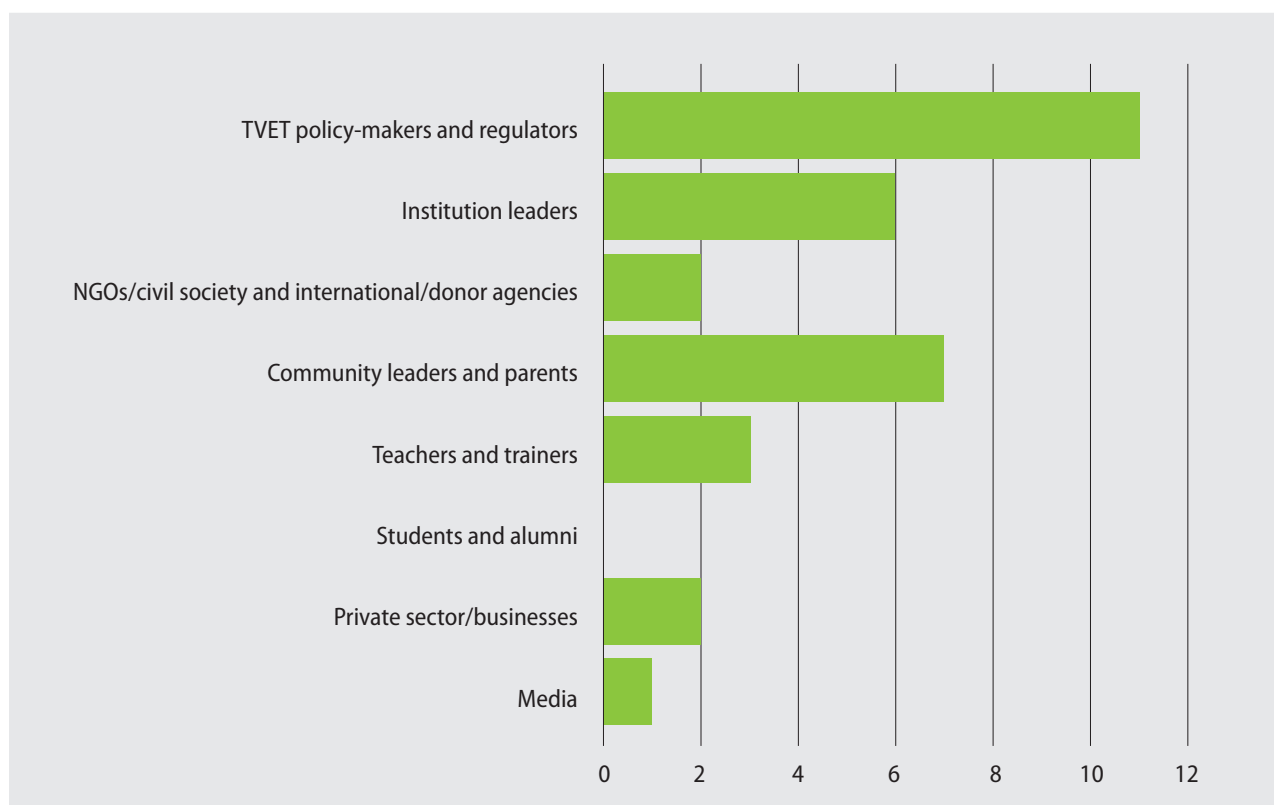
Second only to policy-makers and regulators, community and parents are identified in the survey as crucial for gender transformation in TVET (Figure 12). The survey highlights that through community outreach and awareness, women from economically disadvantaged backgrounds and those with disabilities can be informed about TVET scholarship, bursaries or subsidy opportunities, as well as measures to foster and support women's involvement in STEM courses in TVET. Community engagement is key in addressing various gender norms and barriers that prevent girls and women from accessing or completing TVET courses. Engaging parents and communities also draws attention to harmful gender norms.⁴⁹

The survey also highlights the importance of involving key partners, such as ministries in various sectors (education, labour, public service, finance and economic planning, information and communication, local government, health, physical infrastructure, gender, child and social welfare youth, sports and culture, state government, state and national MPs), institutional leaders, teachers and trainers, NGOs and media.

47 UNESCO. 2024. Gender report: Technology on her Terms. Global Education Monitoring Report 2024. <https://unesdoc.unesco.org/ark:/48223/pf0000389406>

48 Knoema. 2019. *South Sudan Adult Literacy Rate, 1970–2018*. <https://knoema.com/atlas/South-Sudan/topics/Education/Literacy/Adult-literacy-rate>

49 UNESCO. 2020. *Gender Report: Teachers' Attitudes on Gender Affect Student Education Experiences*. <https://gem-report-2020.unesco.org/gender-report/teachers-attitudes-on-gender-affect-student-education-experiences/>

Figure 12: Key stakeholders for gender transformation in TVET

However, the survey notably overlooked the relevance of students and alumni in driving gender transformation. Students and alumni are vital stakeholders in fostering gender equality, and their involvement significantly influences school culture, provides role models and advocates for policy changes within educational institutions.⁵⁰ Students' experiences and perspectives can drive initiatives that challenge stereotypes and promote gender equality, while alumni can inspire current students through mentorship, particularly in fields with pronounced gender disparities. Moreover, students can offer valuable feedback on gender-related programmes, helping institutions refine their approaches.

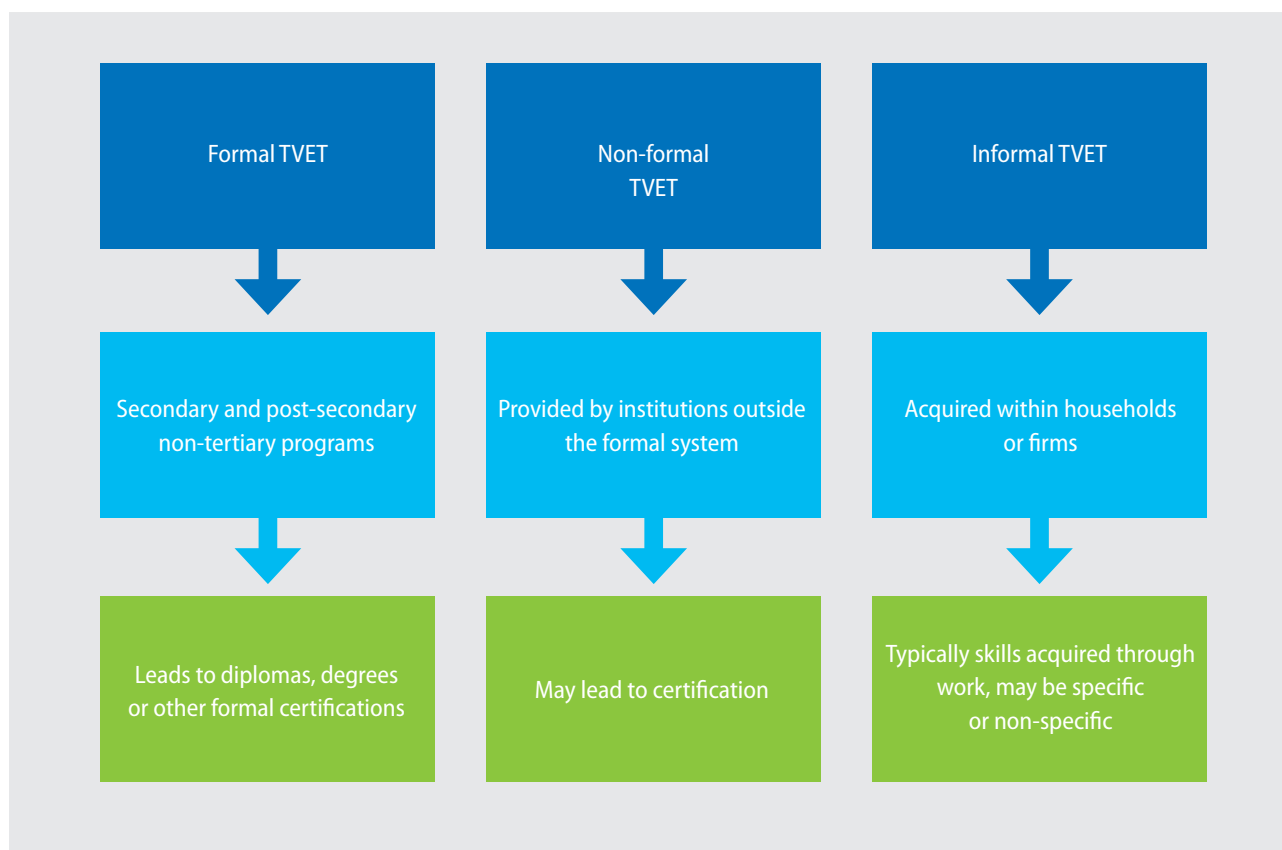
The roles of other stakeholders in TVET are diverse. They might provide formal TVET through apprenticeships or other forms of work-based learning in collaboration with TVET institutions; deliver modular training as part of a qualification framework; manage training through industry-led dual training or TVET institutions; inform skills needs by offering labour market information,

developing labour market intelligence, or leading or participating in labour market observatories; support training institutions by providing materials, equipment, financial resources, or expert staff to teach; or contribute to training funds that finance different types of formal and non-formal TVET for pre-service and in-service beneficiaries.

Lack of sex-disaggregated data and monitoring progress hinders gender transformation

Data collection and disaggregation is an ongoing challenge in TVET. Sex-disaggregated data regarding enrolment, completion rates and transition to labour market from TVET is not readily available in many countries, and this is the case in South Sudan. However, through the establishment of sector advisory committees or councils responsible for TVET's assessment, quality assurance, certification, monitoring and evaluation, curriculum review and development, the draft Unified National TVET policy intends to improve data collection processing and analysis to conform at least to basic quality.

⁵⁰ UNESCO. 2024. *Investing in Girls' and Women's Education: A Smart Investment to Accelerate Development*. <https://www.unesco.org/en/gender-equality/education/her-education-our-future> <https://unesdoc.unesco.org/ark:/48223/pf0000388934>

Figure 13: Overview of TVET provision and outcomes in South Sudan

The existing education management information system (EMIS) processes annual surveys of schools, but it only covers pre-primary, primary, secondary, and alternative education system schools.⁵¹ In the broader educational framework outlined in the General Education Strategic Plan for 2017–2022, guidelines for school inspection and supervision by county and Payam officials are outlined. However, it should be noted that they face significant challenges that hinder the operationalization of this review. In addition, there are no gender-specific indicators established in the guidelines.

Stakeholders confirmed that in the absence of a standardized data collection and monitoring tool, some TVET centres, such as Don Bosco, have created their own mechanisms to collect some data, especially on tracking graduates. However, this information is scant.

Improving sex-disaggregated data collection and analysis is a critical aspect of promoting gender equality TVET. As the Ministry of General Education and

Instruction (MOGEI) strengthens its data systems towards a more capable integrated platform, it is imperative that TVET institutions invest in tools for its collection and analysis. Central to this is support in identifying barriers to entry, participation, retention and graduation for different genders, allowing for targeted interventions to address any disparities. Without disaggregated data, it is impossible to recognize the specific challenges faced by female students, such as access to resources, safety concerns and occupational choices influenced by gender biases. Furthermore, such data informs policy and the implementation of targeted interventions.

UNESCO's Global Accountability Dashboard⁵² collects data aimed at driving transformative leadership, accountability, innovation, information and financing to advance gender equality and girls' and women's empowerment in and through education. However, the dashboard contains limited data for South Sudan.

⁵¹ <https://moge.gov.ss/emistat>

⁵² UNESCO. 2024. *Global Accountability Dashboard*. <https://www.egeresource.org/profiles/countries/SS/>

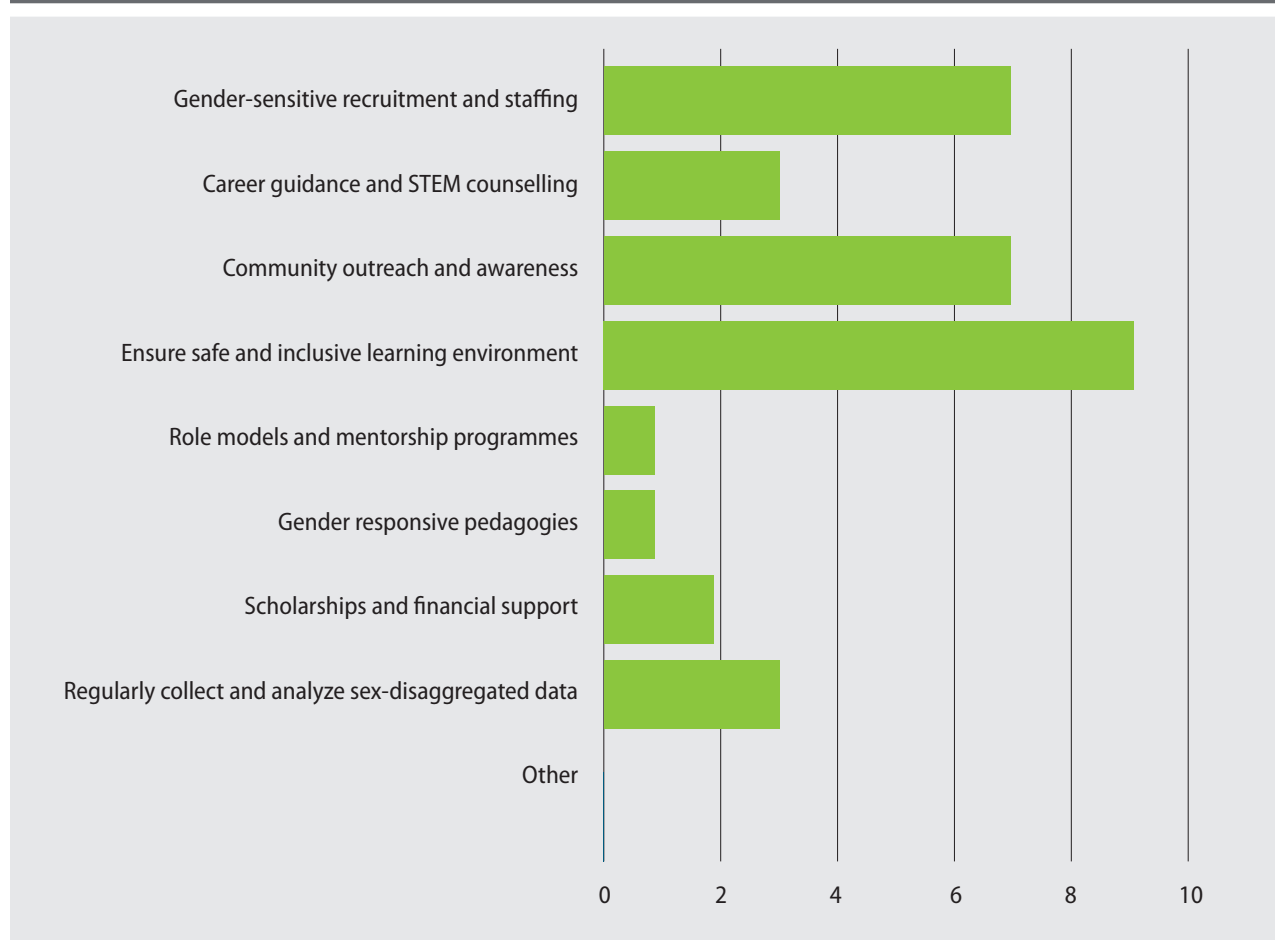
Roadmap to introducing gender transformation in the day-to-day running of TVET

Looking ahead, stakeholders have suggested a roadmap for introducing gender transformation into the day-to-day activities of TVET institutions. They propose, first, ensuring safe and inclusive environments and conducting community outreach and awareness, as well as gender sensitive recruitment and staffing (Figure 14).

In conclusion, despite having a national gender policy, South Sudan lacks a policy specifically targeting gender transformation in TVET, resulting in low female participation. The selection and enrolment process does not prioritize women, unlike in national universities where admission criteria are relaxed for females. The absence of clear guidelines for RPL under the South

Sudan National Qualifications Framework further exacerbates this issue. Cultural norms, household responsibilities, limited access to information and inadequate TVET provision in rural areas further hinder women's participation. Additionally, training courses remain gendered and TVET managers, aware of these guidelines, struggle to boost female enrolment due to societal barriers. The lack of scholarships, mentorship and data on women's transition to the jobs market highlights the need for comprehensive reforms in curriculum design, pedagogy and governance. Overall, women and girls in South Sudan face significant challenges due to socio-economic and cultural barriers, but initiatives in TVET and community empowerment can create pathways for their active participation in the green economy.

Figure14: Perceived ways in which gender transformation can be introduced in the day-to-day functions of TVET institutions



SECTION 3

RECOMMENDATIONS

Recommendations

This baseline report reveals both challenges and opportunities in strengthening TVET through greening and gender transformation in South Sudan. While the current state of affairs highlights significant challenges, it also underscores the clear link between greening, gender transformation in TVET and the country's prospects for sustainable development. With 200 TVET centres, the sector has the potential to tackle challenges such as unemployment, the effects of climate change, and economic growth, contributing to peace and stability. However, achieving this requires a transition to a just and green economy that is both gender inclusive and sustainable. The following key actions are recommended for consideration.

1 An integrated approach to implementing green TVET and gender-responsive actions

1.1 Ensure an upstream public policy agenda to unlock downstream actions

- Review and enact a TVET law or policy that reinforces the need to incorporate greening TVET and relevant skills provision and ensure that the scope of TVET in South Sudan is compatible with continental and regional/sub-regional TVET in the EAC region.
- Establish gender-specific policies and regulations in TVET that encourage the promotion of access, selection and enrolment of more girls and women in TVET. These policies should promote gender mainstreaming in curriculum development, assessment processes and teacher training, as well as in the workplace, while also enforcing a zero-tolerance approach to gender-based violence.
- Integrate gender perspectives in all stages of policy development and implementation to address the human-resource needs and green-skills gaps in South Sudan's priority growth industries effectively. This requires conducting a comprehensive gender analysis to evaluate how gaps and needs differ

for men and women and using the data to inform development of tailored training programmes in TVET that are inclusive and accessible to all genders.

- Develop RPL policies that specifically include gender considerations to ensure that women's needs are addressed.
- Adopt an integrated approach to policy and practice that combines environmental sustainability with and gender equality and empowerment, such as a policy that supports training women on environment issues and their potential role as decision-makers.
- Finalize the adoption of the Unified National TVET Policy and expedite the development of the TVET National Qualifications Framework. Aligning this framework with the regions (EAC, IGAD and African Union) will provide a clear path for certification and skills that match emerging labour market needs.
- Establish regulatory and legal frameworks or mechanisms that ensure private sector involvement in all stages of the policy-making process and at all levels of the TVET system. Interviews with various officials suggest that, even in cases where the private sector is ready to get involved, the lack of an appropriate forum or platform for their engagement restricts entry and action. The active participation of the private sector in policy development has been highlighted as one of the ways to ensure quality as well as wider access.

1.2 Capacity building for TVET instructors

The study highlights inadequate teacher training in green skills pedagogy and gender-responsive teaching methods. We recommend the following actions:

- Provide training and capacity building for TVET instructors to teach green skills and integrate sustainability into their teaching practices and encourage TVET schools to implement CPD in the green transition. This should be part of a broader institutional strategy, ensuring CPD and other human resource practices support green goals. Part of this process might include a gap analysis of teachers' skills needs, through focus groups and

surveys, which could guide the development of an action plan to equip staff with the new skills and knowledge they need.

- Promote the adoption of tools and equipment that help instructors and trainers develop skills that are aligned with evolving demands and technologies. Support teachers in building their environmental awareness, which can be applied in school and workplace environments more widely, thus contributing to the cultivation of greener cultures in TVET institutions and among employers.
- Provide in-service training to TVET instructors and managers on gender transformation in TVET and incorporate gender aspects into both curricular and learning materials. Incentivize female teacher enrolment, particularly in STEM subjects, and offer mentorship and leadership opportunities to women, encouraging more females to pursue careers as instructors and administrators in TVET.
- Train stakeholders, including policy-makers, TVET managers, partners, and authority figures, to facilitate gender transformation at all levels of the TVET system.
- Develop guidelines for transforming TVET centres into gender-responsive institutions.
- Create training modules on gender-responsive pedagogy and teaching practices with a focus on addressing the specific learning needs of both males and females. This should include the use of gender-neutral, empowering language free of biases and stereotypes.
- Invest in the development of green infrastructure, such as solar-powered classrooms and rainwater-harvesting systems, to demonstrate sustainable practices and provide hands-on training for students.
- Ensure that green training includes the use of green classroom/workplace resources. This involves considering the greenness of equipment used in workplace simulation settings, such as up-to-date and energy-efficient tools, and digital options that may provide more sustainable solutions. Consideration should also be given to how to reuse, recycle or repurpose old, outdated equipment.
- Incorporate climate change education into TVET curricula to prepare students for the impacts of climate change and equip them with the skills needed to adapt to a changing environment.
- Establish government funding schemes in partnership with the private sector to support females pursuing TVET education, particularly those from low-income households and rural areas. Funding TVETs for gender transformation requires collaboration between public and private sectors, as well as active involvement from the community.
- Ensure safe and inclusive learning environments for women, girls and disadvantaged groups by providing gender-sensitive facilities and infrastructure. Examples include the provision of separate, safe sanitation facilities with menstrual hygiene management options, accessible clean water and handwashing stations and secure premises with adequate lighting and boundary walls. Additionally, inclusive learning spaces, such as accessible playgrounds, libraries, boarding facilities and day-care centres for women with children, are essential, along with gender-sensitive support systems for all students.
- Provide gender-sensitive budgeting for targeted interventions, such as scholarships, financial support, mentorship programmes, and industry training.

1.3

Green and gender-responsive infrastructure development and funding

To address insufficient infrastructure, funding and resources for implementing green and gender-responsive TVET programmes:

- Increase government funding for TVET, with a focus on greening curricula and training, acquiring appropriate and up-to-date equipment and tools and general maintenance and management of TVET institutions. Additionally, the government should ensure that the skills of TVET instructors are upgraded through CPD. At least as much attention should be given to the TVET sector as to the general and higher education sectors.

1.4

Develop industry partnerships and strengthen private sector participation in greening and gender-transformative TVET systems

To address limited engagement with the private sector in developing green skills curricula and providing gender-focused interventions, such as internships or apprenticeship, we recommend the following actions:

- Stimulate private-sector involvement in the approach to mainstreaming green TVET development. Government should encourage industrial organizations (e.g. chambers of commerce) to participate in the curriculum development and provide on-the-job training programmes. Involve private sector businesses, such as oil companies and other international and local traders, as well as well-wishers, in financing TVET through corporate social responsibility.
- Additionally, government should create incentives for companies to participate in green TVET, such as reimbursing training costs and subsidizing apprenticeship wages, as a way of making vocational education attractive to young people and jobseekers.
- To increase uptake in TVET programmes, government should encourage private–public partnership and cooperation with industry. A department of TVET at the national level needs to play a central role to ensure alignment at state level on private sector engagement. During the curriculum consultation process, state-level stakeholders should be part of the process of identifying private-sector industry needs for the training of TVET trainees. Potential funding sources for TVET include government loans and grants from international development agencies and other donors, trainee fees, private sector (employers and public–private partnerships) support and income generation by VTCs. The recommendation from the survey is that such grants should give priority to women and disadvantaged groups to access TVET for skills development.
 - Foster community support, whether financial or in kind, in gender transformation. These resources could be used to provide gender-friendly facilities, e.g. hostels, bursaries, learning materials and transport.
 - To address the cost of TVET education for females, expand cash transfer, capitation grants, scholarships, school feeding and food ration provisions, targeting girls, in particular. This can be done through bursaries, subsidies and grants.

1.5 Resource mobilization through green TVET projects and activities to support women in TVET

- TVET providers are encouraged to develop income-generating activities to improve the welfare of TVET centres, and promote sustainable practices in

their operation. Therefore, women in TVET could be assisted to develop specific projects that align with their course of study to raise funds to finance their education and for their sustenance. For example, those doing catering could start a cafeteria that demonstrates sustainable practices in food supply, sourcing of ingredients and hygienic and healthy food services, while those on a tailoring course could open a designer clothing shop that supports circular product design or sustainable textiles.

1.6 International collaboration and knowledge sharing

- Establish partnerships with international organizations and institutions to share knowledge, best practice and expertise on greening TVET initiatives in South Sudan.

1.7. Monitoring and data management in TVET

MoGEI has fragmented datasets that are managed separately and lacks a unified platform for consolidating these different datasets. MoGEI holds the AES data and school GIS coordinates in one database. The Schools' Attendance Management System (SAMS) is in the process of being handed over to MoGEI. Therefore, as of present, there is no robust data harvesting, management and dissemination system on TVET.⁵³ Therefore, this survey recommends the following:

- *Data management:* Creation of database of all TVET institutions to track sex-disaggregated data collection and analysis in order to inform policy on gaps that need to be addressed in transforming gender in TVET. Indicators relevant to gender include: enrolment, completion and attainment rates, participation in STEM TVET by gender, employment of graduates by gender, access to resources, leadership and representation, change of attitudes and perceptions regarding harmful gender norms.
- *Research:* Research should be conducted on current female participation in TVET as an effective approach towards establishing practical policies and strategies for promoting TVET education and girls' participation in TVET.
- *Decentralization of data:* There is a strong case for refocusing on decentralization of data management closer to the locus of service delivery. This means that TVET data will be easily available on a database.

⁵³ UNESCO. 2021. *Strengthening Education Management Information Systems for Increased Resilience to Crisis*.

2

Specific recommendations to support greening TVET

2.1

Set up systemic measures for mainstreaming green practices and skills development

- Develop a structured methodology and integrated mechanisms for greening, including those wider system elements that are not typically part of TVET. Building a successful platform for greening TVET means making sure that all relevant elements are covered in the chain that extends from national competency standards development, through curriculum development, to ensuring that training and assessment are appropriately attuned to the green transition. However, elements in the wider employment system are also relevant.
- Conduct a green jobs analysis to identify the demand for green skills in the labour market and changes in job tasks and profiles due to business strategy shifts, and develop curricula that meet industry needs. Understanding local trends, needs and job requirements that are not met by the available supply of skills could be a starting point for planning the appropriate skills and identifying training to promote employment.
- Develop guidelines pertaining to skilling and upskilling, for example, for promoting the acquisition of technical skills in specific field areas in the value-chain of products, goods and services (e.g. manufacturing that reuses, redesigns, repurposes and recycles materials).

2.2

Greening curricula and pedagogy

- Review the teaching and learning methods in use in institutions to ascertain how well suited they are to developing skills for a greener future. Institutions should also examine new and innovative methods, including those being introduced as a result of digitalization, which is vastly expanding the range of possibilities.
- Develop a flexible, multifaceted curriculum that reflects and adapts to local realities and knowledge⁵⁴ By creating a green curriculum that

is sensitive and responsive to local contexts, and that takes local customs and approaches into consideration, local participation and community ownership can be encouraged and reinforced.⁵⁵ There is a need for an integrated curriculum that can be regularly re-evaluated and can accommodate the diverse challenges faced by multiple ethnic and tribal communities, vulnerable youth, ex-combatants, early school leavers and unemployed youth in South Sudan.

- Implement reform in TVET curricular design, syllabus design, pedagogy and practical lessons (tools/equipment) based on labour market green skills needs and demands. These reforms will stimulate a teaching and learning environment characterized by the emerging needs for innovation, mainstreaming of green knowledge and skills, and problem-solving to prepare students for their work life.

2.3

Greening the community and workplace

- Sensitize employers and enterprises to the value of engaging with the green agenda, and promote it as a priority of national policies.⁵⁶ Engaging in discussions with enterprises on the application of the green TVET system for young people and other needful groups, and explaining the impact of green skills on business productivity and efficiency will help employers appreciate the connection between greening and company performance.

2.4

Greening the campus and learning environment

- Beyond planting trees, institutions can initiate multi-faceted activities that can raise the level of awareness and sense of responsibility of the school community. These activities can be utilized as live examples of cultivating new green values, attitudes and behaviours among all members of the school community. Practical school greening projects could be initiated to engage students and teachers and change daily habits. Examples could include developing a waste disposal system or protocol in the school, establishing green protocols and monitoring departments' adherence to them, and engaging in energy and resource audits.

54 MOL. 2022. *Vocational Training and Skills Development Policy (VTSD)*. Juba, South Sudan.

55 Hopkins and Majumdar. 2017. *Greening Technical and Vocational Education and Training: UNEVOC's Practical Guide for Institutions*. UNESCO-UNEVOC.

56 ILO. 2019. *Skills for a Greener Future: A Global View*.

- Greening goes beyond teaching values and skills. Ensuring that the campus is barrier-free for learners who have physical disabilities, compliant with general public health safety and supportive of learners with learning difficulties or from difficult learning background is among the sustainability principles and agenda of a green campus and learning environment.

3 Specific recommendations for gender transformation

3.1 Training on gender-responsive pedagogy (GRP)

Teachers should be trained in the following:

- *Adopting gender-sensitive instructional methods:* GRP is a teaching and learning process that gives attention to the specific learning needs of males and females. Learners participate free from discrimination, whether based on gender, disabilities, special needs or social background.
- *Gender-sensitive teaching materials:* The survey recommends the review of instructional materials to ensure they are gender-sensitive and include images of women in non-traditional roles. According to UNICEF, a number of existing textbooks reviewed during the study reflected gender stereotypes.
- *Adopting gender-sensitive language:* Review materials to ensure they adopt gender-neutral language and are not biased along lines of gender.

3.2 Community awareness and advocacy

- *Awareness creation on the importance of gender transformation:* This should be done in conjunction with local government leaders to help change their mindset about cultural norms associated with women and should focus on rural settings where women have limited access to information.
- *Mass and social media use:* The focus group discussion recommended the use of local FM radios and social media platforms. Posters and social media platforms can also be used since mobile networks have more than 70 per cent coverage countrywide. The idea is to change the mindset of communities towards empowering women and abandoning detrimental cultural norms.

- *Use of female student mentors and student alumni as influencers:* Connecting TVET graduates to alumni groups, as well as to other females involved in technical professions, can help them access wider networks.
- *Engage with local communities and conduct outreach programmes:* To raise awareness of the importance gender transformation in green skills development, and to encourage community involvement in green initiatives, including among women, engaging the general public through public-oriented programmes and activities would be useful.

3.3 Increase access, participation and completion of women and girls in TVET

- *Strong policies and regulations on gender transformation:* Policy-makers should establish supportive policies and regulations that encourage gender equality in TVET. This includes promoting gender mainstreaming in curriculum development, assessment processes, and teacher training, as well as in workplace policies. Such policies and regulations would get more women enrolled in TVET and foster an inclusive workforce where women can compete on an equal footing and earn fair wages in traditionally male-dominated jobs and industries.
- *Increase enrolment among girls and youth with special educational needs* and restore access to children who have been affected by conflict, including internally displaced persons and refugee children living in South Sudan, to reach the overall primary access targets. This calls for stakeholders to apply reasonable adjustment to enrolment policy, such as by lowering the entry eligibility criteria.
- *Improve recognition of prior learning, assessment and certification.* The survey results indicate that clear guidelines should be developed on how learners without formal education can have their experiences assessed so that they can be admitted into TVET courses. However, currently, there is little information on assessment and certification, and this needs to be expanded to provide adequate policy guidelines.
- *Increase the number of TVET centres,* especially in rural areas, or consider implementing mobile TVET centres to cater for learners from areas where pastoralist lifestyles are common.

3.4

Create a gender-friendly environment

Improving accessibility to schools with sanitary facilities for girls/women will positively affect their transition rates in TVET education. We recommend the following steps:

- Consider establishing daycare support systems to cater for learning mothers.
- Invest in increasing the number of boarding facilities for women who cannot commute to the centre due to distance.
- School management should establish a participatory and gender-responsive policy framework and adopt a zero-tolerance approach to gender-based violence, harassment and abuse. Developing a policy on these issues for TVET is necessary in order to guide managers, instructors, students and other stakeholders on the expected code of conduct regarding gender-based violence in their institution.
- Establish learner-support systems, for example, mentorship and career guidance. Career guidance can be coupled with other measures to build awareness of TVET, for example, the use of social marketing channels, adapted to the local context, and social media, TV and radio, to direct interaction with target groups.

References

- ADBG (African Development Bank Group). (2021). Final Report for the Status Assessment of the Technical and Vocational Education and Training Centres Across South Sudan. Gender Equality and Economic Empowerment for Inclusive Growth (GEEM-IG) Project. Republic of South Sudan, Ministry of Gender, Child and Social Welfare. https://www.afdb.org/sites/default/files/documents/projects-and-operations/south_sudan_-_gender_equality_and_economic_empowerment_for_inclusive_growth_geem-ig.pdf
- ADBG (African Development Bank Group). 2024. South Sudan Economic Outlook: Recent Macroeconomic and Financial Developments. Retrieved from: <https://www.afdb.org/en/countries/east-africa/south-sudan/south-sudan-economic-outlook>
- African Development Fund. (2023). Support to Technical Vocational Education Training (TVET) for Value Chain Development Project. Republic of South Sudan. Project Appraisal Report. <https://www.afdb.org/en/documents/south-sudan-support-technical-and-vocational-education-and-training-tvet-value-chain-development-bank-project-appraisal-report>
- CIA (Central Intelligence Agency). 2018. The World Factbook. Last updated 26.09.2018. <https://www.cia.gov/the-world-factbook/countries/south-sudan>
- Concern Worldwide. 2022. Gender equality in South Sudan: What we know in 2022. <https://www.concern.net/news/gender-equality-in-south-sudan>
- East African Science and Technology Commission. 2019. The East African Regional Policy for Science, Technology and Innovation. https://easteco.org/policy_strategy/eac-regional-policy-for-science-technology-and-innovation/
- FAWE (Forum for African Women Educationalists). 2020. Gender Responsive Pedagogy: A Toolkit for Teachers and Schools. 2nd edition. FAWE House.
- FEWS NET (Famine Early Warning Systems Network). 2011. A Climate Trend Analysis of Sudan. <https://lb.fews.net/east-africa/sudan/climate-change/june-2011>
- Hopkins, C. and Majumdar, S. 2017. Greening Technical and Vocational Education and Training: UNEVOC's Practical Guide for Institutions. UNESCO-UNEVOC
- ILO (International Labour Organization). (2019). Skills for a Greener Future: A Global View.
- ISPR (Institute of Social Policy and Research). 2024. South Sudan National Budget Analysis Report for the year 2023–2024. <https://ispr-ss.org/assets/files/2023-10/2023100665200922f3945.pdf>
- IYF (International Youth Foundation). 2021. Five Ways to Combat Stereotypes and Advance Gender Equity in TVET Systems. <https://iyfglobal.org/blog/five-ways-combat-stereotypes-and-advance-gender-equity-tvet-systems>
- Knoema. 2019. South Sudan Adult Literacy Rate, 1970–2018. <https://knoema.com/atlas/South-Sudan/topics/Education/Literacy/Adult-literacy-rate>
- Kuorwel, K. K. 2022. Assessment Report of Mapping of TVET in South Sudan as part of Strengthening Technical and Vocational Education and Training in South Sudan. UNESCO.
- Ministry of Environment. 2015. National Environment Policy 2015–2025.
- Ministry of Environment. 2021. South Sudan's National Adaptation Programme of Actions (NAPA) to Climate Change.
- MoFEP (Ministry of Finance and Economic Planning). 2018. Approved Budget Book 2018/19. Juba: GRSS
- MoFEP. 2019. Approved Budget Book 2019/20. Juba: GRSS.
- MoGEI (Ministry of General Education and Instruction). 2017. General Education Strategic Plan, 2017–2022.

- MoGEI (Ministry of General Education and Instruction). (2022, May). Unified National TVET Policy.
- MOL (Ministry of Labour). 2022. Vocational Training & Skills Development Policy (VTSD). Juba, South Sudan.
- One Africa Forum. 2024. One Africa Forum launches 'Project Empower' in South Sudan. <https://www.oneafricaforum.org/one-africa-forum-launches-project-empower-in-south-sudan/>
- SSWEN (South Sudan Women Empowerment Network). 2021. Initial Assessment and Mapping: Reducing Inequality and Gender-Based Violence in South Sudan. https://www.eeas.europa.eu/sites/default/files/south_sudan_womens_empowerment_network_6.12.2021_1_002.pdf
- UNDP (United Nations Development Programme). 2022. Revised South Sudan National Development Strategy 2021–2024.
- UNEP (United Nations Environment Programme). 2018. South Sudan First State of Environment and Outlook Report.
- UNESCO. 2018. South Sudan: Education and Literacy. UIS data. <https://uis.unesco.org/en/country/ss?theme=education-and-literacy>
- UNESCO. 2019. STEP Manual Series - No. 2 (2019). Gender Responsive and Inclusive TEVET Training Course. <https://www.stepmalawi.com/wp-content/uploads/2019/07/Gender-Responsive-and-Inclusive-TEVET-Teachers-Training-Course-Handbook.pdf>
- UNESCO. 2020. Gender Report: Teachers' Attitudes on Gender Affect Student Education Experiences. <https://gem-report-2020.unesco.org/gender-report/teachers-attitudes-on-gender-affect-student-education-experiences/>
- UNESCO. 2021. Strengthening Education Management Information Systems for Increased Resilience to Crisis.
- UNESCO. 2022. Strengthening Technical and Vocational Education and Training in South Sudan. Final Report.
- UNESCO. 2022. Transforming Technical and Vocational Education and Training for Successful and Just Transitions: UNESCO Strategy 2022–2029.
- UNESCO. 2024. Gender Report: Technology on her Terms. Global Education Monitoring Report 2024. <https://unesdoc.unesco.org/ark:/48223/pf0000389406>
- UNESCO. 2024. Global Accountability Dashboard. <https://www.eageresource.org/profiles/countries/SS/>
- UNESCO. 2024. Investing in Girls' and Women's Education: A Smart Investment to Accelerate Development. <https://www.unesco.org/en/gender-equality/education/her-education-our-future> <https://unesdoc.unesco.org/ark:/48223/pf0000388934>
- UNICEF. 2019. Gender-based Violence. https://www.unicef.org/southsudan/media/2071/file/UNICEF-South-Sudan-GBV-Briefing-Note-Aug-2019.pdf?mc_cid=df23736a5b&mc_eid=edad8600b3
- UNICEF. 2019. Religious leaders stand with girls in South Sudan. <https://www.unicef.org/southsudan/stories/religious-leaders-stand-with-girls>
- University of Juba. 2021. Status of Higher Education and TVET Sector in South Sudan. <https://www.ruforum.org/sites/default/files/Reports/Prof.Akec%27s%20Report%20Final.pdf>
- World Bank Group. 2013. Environmental and Social Management Framework: Final Report. South Sudan Local Governance and Service Delivery Project.
- World Bank Group. 2018. Women, Business and the Law. http://wbl.worldbank.org/en/data/exploreeconomies/south-sudan/2018#wbl_gpd
- World Bank Group. 2020. Getting it Right: Strengthening Gender Outcomes in South Sudan. <https://documents1.worldbank.org/curated/en/723961596172568911/pdf/Getting-it-Right-Strengthening-Gender-Outcomes-in-South-Sudan.pdf>
- Worldometers. (n.d). South Sudan Population. <https://www.worldometers.info/world-population/south-sudan-population/>
- Unified National TVET Policy Framework, 2021

Appendices

Appendix A

6.1 Key policies impacting on green TVET

Title and year of policy	Status of the policy	Implementing institution
South Sudan Vision 2040	Working document	RTGNU
South Sudan National Education Policy (2017–2027)	Working document	Ministry of General Education and Instruction
Vocational Training and Skills Development Policy (VTSD) 2022	Draft	Ministry of Labour, Public Service and Human Resource
Revised National Development Strategy 2021–2024	Working document	Ministry of Finance and Economic Planning
Higher Education Policy 2021	Draft	Ministry of Higher Education, Science and Technology
TVET Policy Framework 2021	Draft	Ministry of General Education and Instruction
Science, Technology and Innovation Policy 2021	Draft	Ministry of Higher Education, Science and Technology
National Health Policy 2016–2026	Working document	Ministry of Health
National Adaptation Programme of Actions (NAPA) on climate change 2021	Working document	Ministry of Environment
South Sudan National Livestock Development Policy 2019	Expired	Ministry of Livestock and Fisheries
Industrial Policy Framework 2018	Draft	Ministry of Trade and Industry
National Quality Policy 2016	Draft	South Sudan National Bureau of Standards/ Ministry of Trade and Industry
South Sudan National Disaster Risk Management (DRM) Policy 2017	Draft	Ministry of Humanitarian Affairs and Disaster Management
Private Sector Development Strategy 2016	Draft	Ministry of Trade and Industry
National Environment Policy 2015–2025	Working document	Ministry of Environment and Forestry
Fisheries Policy for South Sudan 2012–2016	Expired	Ministry of Livestock and Fisheries

National Sanitary and Phytosanitary (SPS) Strategy and Action Plan 2021–2026	Draft	Ministry of Livestock and Fisheries
Comprehensive Agricultural Development Master Plan 2015	Working document	Ministry of Agriculture and Food Security
Agriculture Sector Policy Framework (ASPF) 2012–2017	Expired	Ministry of Agriculture and Food Security
Policy for Alternative Education Systems 2014	Expired	Ministry of General Education and Instruction

Appendix B

6.2 Key technical legislations impacting on green TVET

Title and year of policy	Status of the policy	Implementing institution
Transitional Constitution of South Sudan 2011	Enacted	RTGNU
Higher Education Act 2012	Enacted	Ministry of Higher Education, Science and Technology
General Education Act 2012	Enacted	Ministry of General Education and Instructions
Labour ACT 2017	Enacted	Ministry of Labour, Public Service and Human Resource
Lands Act 2009	Enacted	Ministry of Lands, Housing and Urban Development
Petroleum Act 2012, Mining Act 2012	Enacted	Ministry of Petroleum
South Sudan National Bureau of Standards Acts 2012	Enacted	South Sudan National Bureau of Standards
Weights and Measures Acts 2012	Enacted	South Sudan National Bureau of Standards
Drug and Food Control Authority Act 2012	Enacted	Drug and Food Control Authority
Imports and Exports Act 2012	Enacted	Ministry of Trade and Industry
Consumer Protection Act 2011	Enacted	Ministry of Trade and Industry
National Communication Act 2012	Enacted	National Communication Authority
The Civil Aviation Authority Act, 2012	Enacted	Civil Aviation Authority
Laws of South Sudan. Meat and Slaughterhouse Inspection Board Bill, 2013	Draft	Ministry of Livestock and Fisheries
Roads Authority Act, 2012	Enacted	South Sudan Roads Authority

Appendix C

6.3 The list of stakeholders involved in TVET activities in South Sudan

Stakeholder Name	Possible contribution of stakeholder	Strategy for engaging stakeholder
Parliamentary Committees (e.g. Committee for Education, Industry and Trade)	• Provide advisory and oversight role in policy development and implementation • Facilitate interactions with development partners, cooperation with other national Government organs and institutions • Support budget and funding proposals for TVET policy development and activities	Policy briefs
Relevant government ministries (e.g. Ministries of: General Education and Instructions, Higher Education, Science and Technology, Agriculture and Food Security, Health, Livestock and Fisheries, Environment and Forestry, Mining, Petroleum, Trade and Industry, Interior, Defense and Veteran Affairs, Roads and Bridges, Transport, Public Services and Human Resources Development, Water and Irrigation, Energy and Dams, Investment, Information and Communication Technology, Youth and Sport, Lands, Housing and Urban Planning, Gender, Child and Social Welfare), Culture, Museum and Heritage	• Develop and/or review national TVET policy in harmony with line ministries policies to incorporate green skills • Provide funding to enable implementation of the green TVET policy • Facilitate formulation, and adoption and legislation that will support TVET policy implementation • Support capacity building for STI at national level • Promote the inculcation of a science, technology and innovation culture • Support commercialization of viable innovations • Provide relevant TVET data	Policy briefs
Commissions and agencies relevant to TVET implementation (e.g. Bureaus of Statistics, Bureaus of Standards, Urban Water, Roads Authority, Drug and Food Control Authority, National Communication Authority, etc.)	• Spearhead identification of national priorities in TVET • Regulate and accredit institutions and programmes • Carry out national assessments and awards • Promote and implement TVET policy • Coordinate and support capacity building programmes • Advise governments on matters relating to TVET policy and priority setting for R&D • Support dissemination of the TVET policy • Provide relevant TVET data • Promote gender and youth participation in TVET projects and programmes • Set standards and quality assurance	Policy briefs
Professional bodies, Academia and Research Institutions (e.g. Public and Private Universities)	• Provide evidence-based research to inform TVET policy • Conduct R&D to provide solutions through research • Design and deliver appropriate training in TVET & related fields	Research – extension liaison

	• Participate in public awareness of TVET policy • Participate in identification of research priorities • Participate in curriculum development and accreditation for TVET related programmes • Participate in regulation of higher education in relation to TVET • Provide advisory services to government in relation to TVET • Facilitate knowledge production and innovation.	
Civil Society Organizations and Non-Governmental organizations (e.g. Ebony Centre, Sudd Institute, etc., ensuring participation of organizations such as group of women with hearing or vision impaired or physical disabilities)	• Hold Government accountable for the protection and improvement of the lives of the citizens of South Sudan • Drive ownership by country's citizens of the regional and national programmes and projects • Participate in identification of national priorities in TVET	Regulation and coordination
Private Sector (e.g. companies, TVET/ skills training centers, employer associations and trade unions)	• Support R&D and technology transfer by providing financing and partnerships to enable for utilization of science, technology and innovation in the Community • Be receptive to innovations and solutions provided through research • Support commercialization of innovations and solutions provided through research • Participate in the identification of capacity building needs for industry and inform development of relevant curricula • Support Human resource skills development for TVET • Participate in identification of national priorities • Support implementation of the TVET policy	Legal framework for good business environment, awareness creation
Media and Press (e.g. Public (SSBC) and private (Eye Radio, Catholic Radio Network, Association of Media Development in South Sudan, community-based radios, etc.)	• Coverage of national TVET programmes, project, initiatives and impacts • Promotion of TVET culture in the country by highlighting positive stories • Hold government accountable to the citizens of the country by facilitating debate and engagement on priorities, challenges, achievements, projects and programmes • Provide relevant information to inform TVET policy development and/or review and implementation	Coordination, Legal framework for good business environment, awareness creation

Women Groups (e.g. South Sudan Women Union, South Sudan Women Entrepreneurs Association, Women Initiative, Women Advancement Organization, Women for Change)	• Provide guidance on mainstreaming gender in TVET initiatives and policies • Provide evidence-based research to inform STI policy • Conduct R&D to provide solutions through research • Design and deliver appropriate training in TVET & related fields • Participate in public awareness of TVET policy • Participate in identification of research priorities • Participate in curriculum development for STI related programmes • Provide advisory services to national governments in relation to TVET • Facilitate knowledge production and innovation.	Coordination, Legal framework for good business environment, awareness creation
Youth Groups (e.g. South Sudan Youth Union, etc.)	• Ensure youth interests are incorporated in TVET policies and initiatives • Provide evidence-based research to inform TVET policy • Participate in public awareness of TVET policy • Participate in identification of TVET projects and programmes for the youth • Participate in curriculum development for TVET related programmes • Facilitate knowledge production and innovation.	Coordination, Legal framework for good business environment, awareness creation
Development Agencies, Partners and Donors (UNESCO, UNDP, FAO, IOM, AfDB, IMF, SIDA, etc.,)	• Provide funding to enable TVET implementation; • Share knowledge and experiences on emerging science innovations and technologies; • Facilitate partnerships with other likeminded organisations • Provide policy guidance	Project proposals
Other governments and Regional Economic Communities	• Exchange of scientific information and technologies • Sharing of best practices • Partnerships in TVET across countries and communities	Project proposals

Appendix D

6.4 Training programmes offered by TVET institutions

S/No.	Training programme	Areas covered
1	Agriculture & Agribusiness	Agriculture extension service, better agronomic practice, animal husbandry, crop production, fish farming, embroidery, animal production, fish processing, dairy farming, animal health, extension services, livestock management, vegetable production, beekeeping, fruit tree nursery establishment and management.
2	Automobile	Motorbike service, motorbike electrical system, motorbike engine and transmission system, and motorbike riding
3	Building Construction	Masonry, bricklaying, plumbing & pipe fitting, carpentry & joinery, plastering and painting
4	Business	Accounting, costing and taxation, finance, customer care, management
5	Beauty & Cosmetology	Hairdressing, hair platting, shampooing and blow drying
6	Business Management	
7	Driving skills	Automatic and manual transmission
8	Education	Numeracy and literacy, accelerated learning (ALP), adult education
9	Electrical installation	Cable wiring, solar PV installation, air-conditioning system, electrical drawing, electrical measurement, electrical supply, measuring tools and fittings, electrical principles, electrical materials
10	Electronics	Phone repairs
11	Fashion and design	Tailoring, sewing, knitting, basket & tablecloth making
12	Fishery	Fish farming and aquaculture
13	Forestry	Agroforestry technologies, beekeeping, construction of efficient energy saving stoves, fruit trees nursery establishment and management
14	Health	Nutrition and health, nursing and health auxiliary
15	Hospitality & Catering	Food preparation & cooking techniques, bakery and pastry, waiter and waitress, housekeeping
16	Information technology	Basic computer skills, hardware repair and maintenance, computerized accounting, graphics, and digital literacy
17	Mechanics	Automotive engine service and repair, automotive transmission system, automotive chassis system service, wheel and tyre, automotive electric service
18	Metal work	Welding, fabrication, and metal crafting
19	Renewable energy	Construction of energy saving stoves
20	Miscellaneous	Soap, shampoo, sanitizer and Vaseline production

Appendix E

6.5 List of participants in stakeholders consultation meeting

S/No.	Names	Organization	Roles
1.	Miriam Betty Okech	A/Director for Gender	Ministry of Gender, Child & Social Welfare
2.	Jane Tumalu	A/Director for Gender	Ministry of Gender, Child & Social Welfare
3.	DG. Gibson Francis	Ministry of General Education and Instruction (MoGEI)	DG TVET Directorate/Chairperson
4.	Taban Kozo	Ministry of General Education and Instruction (MoGEI)	Director Q&S
5.	Victor Akok Anei	MoGEI	Acting Undersecretary
6.	Sulaimano Wani	Ministry of Agriculture and Food Security	
7.	Bongomin Cricket	Ministry of Agriculture and Food Security	Tutor
8.	Samuel Sabuni	Ministry of Interior	In-charge Vocational (PRISONS)
9.	Paul Gore	Ministry of Environment and Forestry	Assistant Director for Biodiversity
10.	Dut Jacob	Ministry of Environment and Forestry	Senior Inspector for Natural Heritage
11.	Louise Kayanga	Ministry of Livestock	Director
12.	Dr. Lina Mathew	Ministry of Higher Education Science and Technology (MOHEST)	Director General
13.	Richard Ring Kuach	STEM Centre, University of Juba	STEM Centre
14.	Angelo Ladu	South Sudan Chamber of Commerce, Industry and Agriculture (SSCCIA)	South Sudan Chamber of Commerce, Industry and Agriculture (SSCCIA)
15.	Mogga Alex Simon	NRC	Education Project Manager
16.	Gabriel Kuol Manyang	ACROSS	M&E
17.	Odur Nelson	OPRD	
18.	Amuge Barbara Tauga	ILO	TVET
19.	Viola Moya	Save the Children	Food Security Social Protection & Livelihoods Advisor
20.	Badrul Talukder	FAO	Resilience / climate change
21.	Moses Mawonga	OPDO	Procurement
22.	David Omwony	Juba Technical	Instructor/Head of Department
23.	John Garry	Don Bosco	NJSO
24.	Christopher Okinda	Rak Media	Event Coordinator
25.	R. M. Rajadurai	Rak Media	COO
26.	Morjakole Alex	NEC	Project Officer
27.	Dr. Linda Ngyra	University of Juba	Consultant
28.	Dr. Kuorwel Kuai Kuorwel	University of Juba	Consultant
29.	Sarah Nabulobi	UNESCO	G&CC
30.	Castarina Lado	UNESCO	NPO
31.	Kose Bilal	UNESCO	TVET MIS COM
32.	Daro Justine	UNESCO	Project Assistant
33.	Izabell Ikuany	UNESCO	Ad Hoc Coordinator
34.	Wilson Wani	UNESCO	Project Officer
35.	Adam Ibrahim	UNESCO	IT/Assistant
36.	Saluwen Sanya	UNESCO	NPO
37.	Judy Kinyua	UNESCO-UNEVOC	Consultant
38.	Kenneth Barrientos	UNESCO-UNEVOC	Programme Officer
39.	Priscilla Gatonye	UNESCO-UNEVOC	Programme Officer

Appendix F

6.6 Focus group discussion questionnaire

Focused Group Discussion - Questionnaire Strengthening TVET Through Greening and Gender Development

Key Focused Group Discussion Guide for Greening TVET in South Sudan
(To be completed by TVET line Ministries, TVET Centres, Implementing partners, etc.)

Stakeholder Information

Organization/Institution:

Industry/Sector:

Name of Respondent:

Gender:

Designation of Respondent:

Email contact:

Telephone Contact:

1. In South Sudan, how far is the identification of all the skills needed for the green transition, in both existing jobs and new green jobs?
2. For the identified skills, how far have the TVET institutions/providers developed competency standards related to the green transition?
3. How far are TVET curricula in South Sudan meeting the need for greener skills, for example, do all elements of the curriculum take into account the green transition?
4. In South Sudan, how far do all aspects of training, including work-based learning, meet sustainability needs?
5. Are current assessment methods in TVET education appropriate for assessing all skills needed for greening, both technical and transversal?
6. How far do TVET institutions/centres/campuses provide environments that support the development of greener mindsets and behaviours?
7. How well equipped are teachers and in-company trainers to deliver the curricula, training and assessment learners need? In what ways do initial training and continuing professional development need to be developed?
8. To what extent are employers and workers engaged with the green agenda – in all occupations?
9. To what extent are governance and funding processes fit for greening TVET?

Appendix H

6.7 Some photos taken during the focus group discussion





unesco

International Centre for
Technical and Vocational
Education and Training



Sustainable
Development
Goals