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## Skills For Energy in Sothern Africa

### QUICK FACTS

**Countries:** *Zambia and Southern Africa, SADC*

**Evaluation date:** 30 January 2025

**Evaluation type:** Project

**Evaluation timing:** Final

**Administrative Office:** ILO Country Office in Lusaka, Zambia

**Technical Office:** DWT Pretoria and SKILLS Branch

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*Key Words: Skills Development, Renewable Energy, Energy Efficiency, Public-Private Development Partnership (PPDP), Energy Integration, Environmental Sustainability*



## BACKGROUND & CONTEXT

<p><b>Summary of the project purpose, logic and structure</b></p>	<p>The SESA Project aimed to address the skills gap in Renewable Energy, Energy Efficiency, and Regional Energy Integration in Southern Africa. With over 600 million people in Sub-Saharan Africa lacking access to electricity, the project aimed to increase the uptake of Renewable Energy, Energy Efficiency, and Regional Energy Integration, through skills development and establishment of Public-Private Development Partnerships. The project sought to address the serious skills gap in the energy sector, supporting regional and national energy transition goals while contributing to SDGs 4 (Quality Education), 7 (Affordable and Clean Energy), and 8 (Decent Work and Economic Growth). The project, implemented through the Kafue Gorge Regional Training Centre in Zambia, focused on capacity-building by transferring technical skills from international and local energy companies to power technicians, engineers, and managers.</p>
<p><b>Present situation of the project</b></p>	<p>The SESA Project has successfully contributed to addressing skills gaps in Renewable Energy (RE), Energy Efficiency (EE), and Regional Energy Integration (REI) across Zambia and the SADC region. Over its 48-month duration (2021–2024), the project exceeded its training targets, developing 28 industry-aligned courses and training 1,151 professionals, with 27% female participation. The project expanded KGRTC’s institutional capacity, enhancing its reputation as a Centre of Excellence through digital learning (e-Campus platform), policy development (Gender Equality Strategy), and public-private partnerships. Despite COVID-19 disruptions and resource constraints, the project successfully established regional partnerships and improved technical capacity.</p>
<p><b>Purpose, scope and clients of the evaluation</b></p>	<p>The final evaluation aims to promote accountability, assess progress, identify bottlenecks, and strengthen organizational learning among the ILO, project stakeholders, and implementing partners. The evaluation covers the 48-month project period, focusing on Zambia and the SADC region, with field visits in Namibia, Botswana, Zimbabwe, and Zambia. The primary clients include KGRTC, ILO tripartite constituents, ILO CO-Lusaka, ILO DWT Pretoria, ILO Regional Office for Africa, technical units at ILO Headquarters, and the Swedish government.</p>
<p><b>Methodology of evaluation</b></p>	<p>The independent evaluation used a participatory and mixed-methods approach, adhering to ILO and UN standards. The evaluation assessed the project’s Theory of Change, examined its efficiency, effectiveness, and resource utilization, and measured its impact on skills development, employment, and policy engagement in the RE, EE, and REI sectors. Data collection methods included desk reviews, key informant interviews, focus group discussions, and field observations. The evaluation applied source and technique triangulation to ensure data credibility, and a stakeholder validation workshop was held to review preliminary findings. This comprehensive approach provided evidence-based insights into the project’s effectiveness, efficiency, and sustainability, informing recommendations for future energy skills development initiatives.</p>
<p><b>MAIN FINDINGS &amp; CONCLUSIONS</b></p>	<p><b>Relevance:</b> The project aimed to address skills gaps in Renewable Energy (RE), Energy Efficiency (EE), and Regional Energy Integration (REI) by aligning its training programs with regional priorities. The curriculum focused on practical industry needs, such as battery sizing, grid integration, and renewable system maintenance. Stakeholder engagement was crucial for making the courses industry-responsive and aligned with market demands.</p> <p><b>Validity of Design:</b> The project’s Theory of Change (ToC) was well-structured, addressing policy gaps, limited technical capacity, and financing barriers in the RE sector. It integrated cross-cutting themes such as gender equality and environmental sustainability. However, the short 3.5-year implementation period limited the scalability of project activities.</p> <p><b>Coherence:</b> The project aligned well with national and regional energy policies, including Zambia’s energy diversification goals and SADC’s clean energy transition targets. Collaboration with SACREEE, RERA, and government agencies ensured policy and programmatic synergy with existing regional initiatives. The Public-Private Development Partnership (PPDP) model further strengthened coherence by aligning training programs with private sector needs.</p>

**Effectiveness:** The project exceeded expectations by designing 28 training courses, training 1,151 participants, and achieving 113% of the enrollment target. Female participation reached 27%, marking a moderate improvement in gender inclusivity.

**Efficiency:** Efficiency was achieved through cost-sharing partnerships and digital learning platforms, reducing dependence on international experts for instruction. However, delays in curriculum development and COVID-19 disruptions hindered early progress.

**Impact Orientation:** The project made valuable contributions to improving policies, technical capacity, and governance frameworks within the energy sector. Participants are applying their competencies to renewable energy and energy efficiency projects, including off-grid solar installations. Institutional partners have also reported increased training capacity and curriculum delivery.

**Sustainability:** The project has high sustainability potential due to institutional capacity-building efforts, integration of RE/EE courses into KGRTC's core curriculum, and digital transformation through the e-Campus platform. However, financial sustainability remains uncertain, as continued external funding may be necessary to scale up and maintain certain project components.

**Cross-cutting Themes:** A Gender Audit was conducted, leading to a policy of Gender Equality and Diversity Inclusion, resulting in 27% female participation in training. However, disability inclusion was neglected. The project promoted renewable energy technologies and energy efficiency practices, addressing environmental concerns on carbon emissions. Consultation with governments, employers, and worker organizations ensured inclusion and ownership.

## RECOMMENDATIONS, LESSONS LEARNED AND GOOD PRACTICES

### Main Recommendations from Findings & Conclusions

1. **Ensure Training Programs Remain Industry-Relevant:** Regular skills demand surveys should be conducted to keep training programs updated with evolving industry needs in renewable energy and energy efficiency.
2. **Strengthen Government Engagement for Policy Alignment:** KGRTC should deepen engagement with government ministries to align project activities more closely with national energy policies and frameworks.
3. **Enhance Real-Time Project Monitoring and Implementation Efficiency:** A dedicated project tracking dashboard should be established to monitor progress in real time.
4. **Introduce Modular Training for Flexible and Blended Learning:** Traditional in-person-only training models often limit accessibility for working professionals and those from remote areas.
5. **Expand Practical Training Through Industry Partnerships:** KGRTC should restructure courses into modular formats with extended durations to provide theoretical coursework online before engaging in face-to-face practical sessions.
6. **Expand the e-Campus Platform for Cost-Effective Hybrid and Distance Learning:** KGRTC should expand its e-Campus platform to deliver more hybrid and distance-learning programs.
7. **Strengthen Post-Training Tracer Studies for Long-Term Impact Assessment:** KGRTC should introduce structured, regular post-training impact assessments to measure how trainees are applying their skills in RE and EE projects.
8. **Develop a Resource Mobilization Strategy for Long-Term Financial Stability:** KGRTC should develop a resource mobilization plan to secure funding from regional governments, private sector actors, and international donors.
9. **Enhance Regional Outreach Through Institutional Partnerships:** KGRTC should expand partnerships with technical universities, energy utilities, and industry associations across the Southern African Development Community (SADC) region to mainstream project-developed courses into local training systems.
10. **Establish Mentorship Programs to Promote Gender Equality in RE/EE Fields:** A structured mentorship program led by successful female trainees and professionals would encourage more women to enter and advance in RE/EE fields.

**Main lessons learned and good practices**

11. **Integrate Solar Waste Management and Environmental Guidelines into Training Programs:** The transition to renewable energy should be facilitated by integrating solar waste management and environmental guidelines into training programs.

**Lessons Learnt**

1. **Time Allocation for Inception Phase:** Time allocation for skills demand and supply surveys is crucial for aligning project objectives with market demands.
2. **Dynamic Energy Sector Demands:** Rapid energy transition necessitates agility in marketing strategies and regular curriculum reviews.
3. **Value of Strategic Partnerships:** Strategic partnerships with public, private, and academic institutions expand networks, resources, and expertise.
4. **Sustained Commitment from Partners:** Regular review and reconfirmation of Memoranda of Understanding and Letters of Commitment are essential for sustained commitment.
5. **Strong feasibility studies for PPDPs:** Strong feasibility studies at the inception phase minimize future deviations from projected project outcomes.
6. **Public Awareness and Outreach:** Public awareness and outreach through communication campaigns increase project outcomes and stakeholder

**Good Practices:**

1. **Blended Learning through eCampus Platform:** The SESA Project launched an eCampus platform, combining online and onsite training. This approach increased accessibility and flexibility, reducing costs and improving learning outcomes.
2. **Public-Private Development Partnerships:** The project collaborated with various institutions, resulting in cost-sharing opportunities, technical expertise, and resource mobilization.
3. **Digitization of Trainee Follow-up and Monitoring Systems:** A digitized system was introduced to track graduate performance, skill application, and program effectiveness.
4. **Gender Mainstreaming Policy and Audit:** A Gender Audit led to the development and implementation of a Gender Equality and Diversity Inclusion Policy at KGRTC. This policy emphasized gender equality principles in training design, curriculum development, and institutional policies.
5. **Industry Responsive Training Programs:** Curriculum development was informed by market studies, industry surveys, and stakeholder consultations, addressing regional energy priorities and improving employability among trainees.