

E-Waste For Youth Employment in Limpopo Province project - Japan Study Tour



Introduction & Background

The Japan Study Tour formed part of the ILO's Electronic Waste for Youth Employment Project implemented in Limpopo Province, South Africa. The visit provided an opportunity for the South African delegation which comprised of 7 TVET lecturers, 3 government officials, and 3 ILO Pretoria officials to learn from Japan's world-class systems in e-waste management, recycling, and skills development for a circular economy.

The tour ran from 27 October to 31st October 2025, covering site visits to leading TVET Institutions, recycling & refinery companies and government ministries in Japan. The tour included visits in Saitama, Aichi, Ibaraki and Kagawa, in addition to Tokyo and Chiba.

Objectives of the Study Tour

The study tour aimed to strengthen the capacity of South African institutions through knowledge exchange and exposure to Japan's industry-led vocational education and e-waste management ecosystem. Specific objectives included:

- Strengthening TVET delivery through practical learning models.
- Enhancing institutional collaboration between government, education, and industry.
- Promoting green skills and inclusive employment within the e-waste value chain.
- Drawing lessons from Japan's policies, technologies, and partnerships to inform South Africa's implementation of circular economy practices.



The E-Waste for Youth Employment in Limpopo Province project seeks to address the twin challenges of youth unemployment and environmental degradation through a structured e-waste recycling and entrepreneurship programme. The project is designed to empower youth, women, and persons with disabilities by providing them with technical skills, business training, and market access in the growing circular economy.

REVER: Downstream Recycling Operation



The study tour included a visit to REVER, a formal e-waste recycling facility specialising in downstream processing of electronic waste. Participants observed how dismantled materials are received, sorted, and prepared for further recycling and recovery processes.

The visit provided municipal officials with a practical understanding of the stages of the e-waste value chain, including material handling procedures, safety protocols, storage requirements, and compliance with environmental standards. Facility staff explained how materials collected from small enterprises and other sources are aggregated and channelled into formal recycling streams.



This exposure helped participants appreciate the importance of reliable collection systems and the role municipalities can play in ensuring that dismantled e-waste reaches licensed recyclers rather than informal disposal routes. The visit also highlighted the scale, infrastructure, and regulatory requirements associated with formal recycling operations.

ReNet Inclusive Recycling: Driving Sustainable Solutions while empowering the Disabled



ReNet presented an inspiring model for inclusive recycling. The company employs people with disabilities and collaborates closely with municipalities to ensure efficient e-waste collection. Participants observed disciplined workflows, teamwork, and mutual respect, with 90% material recovery achieved. The model demonstrated how social inclusion and industrial performance can coexist successfully.

“ ReNet is proof that everyone is important in their own way — people with disabilities contribute meaningfully at every level in the labour force.”

Raesetje Aretha Selepe,
Lephalale TVET College

The initiative also emphasizes partnerships with local businesses and organizations, creating a network that supports inclusive recycling efforts. Community members are encouraged to bring their electronic waste to designated collection points, where they receive guidance on sorting and recycling processes.

Through community engagement, ReNet strengthens local capacities and promotes sustainable practices, ensuring a collective effort towards effective e-waste management and environmental stewardship.

This participatory approach not only improves recycling rates but also empowers individuals to contribute to a sustainable future through informed choices and actions.

ReNet presented an inspiring model of inclusive and circular recycling, employing people with disabilities while collaborating with local municipalities to collect e-waste from households. The company has achieved remarkable recycling rates—recovering valuable metals that were used to produce the medals for the 2020 Tokyo Olympic and Paralympic Games. This initiative symbolized Japan’s national commitment to sustainability and showcased how e-waste can be transformed into something of global significance.



Canon Eco Technology Park: Manufacturer-lead Circular Economy Practices



The study tour also included a visit hosted by Canon Japan, providing insight into how an original equipment manufacturer approaches product lifecycle management and responsible handling of electronic equipment.

Participants were introduced to Canon's internal systems for equipment assessment, refurbishment, parts recovery, and environmentally responsible disposal of components that cannot be reused. The session illustrated how manufacturers integrate circular economy principles into product design, maintenance, and end-of-life management to reduce environmental impact.

Discussions emphasised the role of producers within extended producer responsibility frameworks and demonstrated how corporate stewardship initiatives complement municipal collection systems and formal recycling pathways.

This visit offered a perspective from the manufacturing and product stewardship segment of the e-waste value chain, broadening participants' understanding of how different actors contribute to responsible e-waste management from production through to end-of-life.

“The visit to Canon Eco Technology Park highlighted the importance of collaborative efforts in evolving e-waste recycling practices, paving the way for sustainable innovation and improved resource management.”

**Tshepho Maselela
LEDET**

Mitsubishi Metals Corporation: Innovations in E-Waste Processing Technologies



Mitsubishi Materials utilizes cutting-edge technologies to extract valuable metals from e-waste. The facility employs advanced processes, ensuring maximum efficiency and minimal environmental impact. Their commitment to sustainability drives innovation in the recycling sector.



The refinery integrates state-of-the-art machinery and techniques to enhance the recovery rates of precious metals like gold, silver, and copper. By focusing on **circular economy principles**,

Mitsubishi Materials not only contributes to resource conservation but also supports local economies through job creation. Their commitment to research and development ensures that they remain at the forefront of e-waste processing technologies, setting a high standard for the industry.

In summary, Mitsubishi Materials exemplifies how advanced technologies can drive sustainable practices in e-waste management, fostering a greener future through innovation and efficiency.

“We realized how precious every fraction of e-waste can be when technology and policy work hand in hand. Seeing and handling the refined metals made the value chain tangible.”

Benny Sekgobela
DFFE

Poly Technic College CHIBA: Advancing Skills in E-Waste Management



The visit to Chiba Polytechnic College highlighted the importance of technical education in e-waste management. Students are trained in the latest technologies, preparing them for careers in a rapidly evolving field. The hands-on approach fosters innovation and problem-solving skills.

During the tour, participants learned about the integrated curriculum that combines theory with practical applications, specifically in e-waste recycling and electronics repair. The college collaborates with industry leaders to ensure students gain relevant experience. By engaging with local communities, Chiba Polytechnic promotes sustainable practices, making students advocates for responsible e-waste management in their future careers.

The Chiba Polytechnic College visit underscored the critical role of education in shaping a sustainable future through technical skills development and community engagement.



“The tour demonstrated that design, programming, and wiring can be taught as one workflow — the learner builds a complete system, not isolated skills.

The practical-first approach equips students far better than theory-heavy training. Every lesson ends with something built



Kabelo Zacharia Poopedi,
Waterberg TVET College



PARTNERSHIPS THAT POWER CHANGE

The session with the Ministry of Foreign Affairs (MOFA) highlighted Japan's development cooperation philosophy impact-driven, people-centred, and anchored in long-term partnership. Delegates appreciated MOFA's direct engagement with the South African team, noting that being able to share learnings in real time strengthened ownership and accountability. The conversation underscored that donor relations are not only about funding, but about shared values and progressive exchange, especially around youth empowerment and green jobs.

MOFA emphasised a values-based approach to development, reinforcing "impact over gain" and a belief in patient, youth-led progress. Delegates concluded that replicating this mindset back home would strengthen public-sector leadership, donor credibility, and project sustainability.

\$1.5 M

MOFA HAS MADE A
CONTRIBUTION OF \$1.5M
TOWARDS THE EWASTE PROJECT
IN LIMPOPO



POLICY IN ACTION: FROM LAW TO THE RECYCLING LINE

The Ministry of Environment (MOE) engagement showcased how Japan translates policy into real-world systems, with sub-regulations that distinguish small vs large appliances, strict stream definitions, and clear obligations for government, industry, and households.

Participants noted the precision of Japan's law-making and how every actor knows exactly what is expected of them. This clarity paired with enforcement creates an environment in which compliance becomes the norm, not a battle.



Delegates also toured practical demonstrations that revealed the full chain from household storage to compliant processing. The experience reinforced that legislation must be visible, teachable, and paired with collection systems, school engagement, and service-provider readiness. For South Africa, the takeaway was clear: enforcement must be strengthened, voluntary industry compliance encouraged, and stream-specific guidelines urgently developed to remove ambiguity.



Japan Study Tour - Conclusion

KEY TAKEAWAYS FOR THE DELEGATES

Across the week, one theme remained consistent: South Africa has the policy foundations—and now, a clearer blueprint for implementation.

The lessons are not abstract; they are practical, teachable, and ready for adaptation at home through TVET institutions, municipalities, private sector partnerships and community-led awareness.

The tour affirmed that sustainable change does not require perfection—only intentional action, collaboration and a commitment to continuous learning.

Policy works when it is visible, specific and enforced – stream clarity reduces confusion and strengthens compliance
Sustainable systems start with people – households, schools, youth and industry all play defined roles
Partnership is a tool for implementation, not just funding – MOFA & MOE model long-term collaboration and trust
Compliance culture must be built, not forced – companies self-regulate when guidelines are clear and consequences real
TVET colleges are engines for change – equipped students can drive dismantling, repair, innovation & entrepreneurship
E-waste is a development and jobs opportunity – especially for youth, women and persons with disabilities



WHAT DELEGATES TOOK HOME

This was not a trip to witness Japan's success — it was a mission to translate excellence into context, to build confidence that South Africa can engineer its own solutions. Delegates leave with:

- ✓ Practical models for regulation, collection and compliance
- ✓ A strengthened network of national and international partners
- ✓ First-hand evidence that youth and local institutions can drive change
- ✓ A renewed commitment to build a circular economy anchored in skills, dignity and environmental responsibility