Setting the Scene:

The AT Ecosystem in Southern Africa

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REGIONAL INCLUSIVE
ASSISTIVE TECHNOLOGY WEBINAR

"Innovate, Include, Impact –
AT for Resilient Communities"

This presentation covers:

- SAFOD and the disability movement
- The AT landscape in Southern Africa
- AT in education and for young people
- University-led innovation
- Local manufacturing & prototyping
- Climate change and AT resilience
- Policy and government engagement

SAFOD & the Disability Movement

Who is SAFOD

The Southern Africa Federation of the Disabled (SAFOD) is the regional umbrella body of Organisations of Persons with Disabilities (OPDs) across Southern Africa — giving collective voice to the disability movement.

SAFOD Mandate

SAFOD advances rights, inclusion, and development for persons with disabilities through advocacy, capacity building, policy engagement, and cross-border collaboration with member organisations and partners.

AT as a Priority

Assistive Technology sits at the heart of SAFOD's agenda. The Unlock the Everyday Campaign champions equitable AT access as a rights issue, to enable independence, dignity, and participation for all.

The AT Landscape in Southern Africa

AT enables independence, inclusion, and dignity — yet access remains severely limited across the region.

Key barriers to access

- High costs — AT unaffordable for most households.
- Weak national policies and inadequate service systems.
- Low awareness among policymakers and communities.
- Inadequate investment from governments and donors.
- Climate emergencies disrupting AT continuity of care.

Emerging opportunities

- Growing digital innovation and community-based solutions.
- Local manufacturing reducing cost and increasing relevance.
- University and research institution engagement.
- Regional collaboration through SAFOD and OPD networks.
- Increased global attention to AT equity and inclusion.

REFLECTIVE QUESTION

What does the AT access landscape look like in YOUR country or context?

Consider:

- What are the biggest gaps — cost, policy, awareness, or supply chains?
- Who is being left behind, and why?
- What informal or community solutions are already filling the gaps?

The Repair & Post-Distribution Gap: Evidence from Malawi

Research with 55 stakeholders across Malawi found that getting a device is only half the story — what happens after distribution is equally critical.

93%

of participants

identified resource limitations as a barrier across all stakeholder groups

5/6

AT users

reported inadequate training and limited repair services after receiving their device

63%

of participants

identified significant challenges in intermediary functions — including repair and follow-up support

80%

of participants

reported limited awareness of AT among end users and communities, compounding the repair gap

Key finding:

Users frequently receive devices without adequate training or guidance on effective device use, leading to premature abandonment and reduced functionality. In rural areas, the nearest repair point may be a city hundreds of kilometres away.

Repair Challenges: What the Evidence Tells Us

Repair challenges documented

- No structured repair or maintenance support after distribution across any of the three subsectors studied.
- Rural users travel hundreds of kilometres to the nearest city for basic repairs – Lilongwe, Blantyre, and Mzuzu are the only hubs
- 4 out of 6 users reported receiving devices with no instruction on maintenance or repair.
- District-level repair facilities largely absent; community health workers lack technical skills.
- Donor-funded supply chains prioritise procurement over long-term maintainability of devices.
- After Cyclone Freddy (2023), most persons with disabilities could not replace lost or damaged devices.

Promising solutions from the field

- Local craftspeople (welders, carpenters, tailors) can be mapped and trained as informal repair networks.
- Community health workers can be trained in basic AT assessment and maintenance referral.
- MAP reported community innovations on the use of bamboo and locally available materials to adapt devices for rough terrain and agricultural use.
- MACODA reported community innovations on the use maize husks and newspapers to make CP chairs and walking frames cost-effectively.
- Policy recommendation: District-level AT technical support hubs at hospitals as referral points.
- The Persons with Disabilities Act (2024) creates a Disability Trust Fund. Need for advocacy targeting for repair funding.

Source: Kayange, G.M. (2025). Investigating Assistive Technology Ecosystems in Southern Africa: Lessons from Malawi. Loughborough University.

AT in Education & Opportunities for Young People

Enabling Inclusive Education

AT breaks down barriers in classrooms — screen readers, hearing loops, communication boards, and adapted materials help learners with disabilities participate meaningfully.

Supporting Youth Participation

Young people with disabilities use AT to engage in skills development, vocational training, and higher education — expanding their life opportunities and independence.

Opening Doors to Employment

Digital accessibility tools and workplace AT enable young persons with disabilities to access and thrive in employment, entrepreneurship, and professional development.

A Deep Dive Follows

Dr. Nick Nkomwa will explore this theme in greater depth in the next presentation — with specific examples and insights from the field.

Innovation, Research & Local Manufacturing

University-Led Innovation

- Universities and innovation hubs across Southern Africa are developing locally adapted AT solutions.
- Research is producing context-sensitive designs that suit African environments and user needs.
- Academic partnerships — including with institutions such as the University of Washington — are mapping AT needs and building evidence.
- Student-led prototyping is bringing fresh, affordable ideas to communities with limited AT access.

Local Manufacturing & Prototyping

- Local production makes AT more affordable and contextually relevant — reducing reliance on expensive imports.
- Community-based fabrication using accessible materials brings AT closer to users, particularly in rural and remote areas.
- Adaptive clothing, mobility aids, and communication tools are among the innovations being developed locally.
- Delma Tshabalala will showcase local manufacturing innovations — including adaptive clothing as AT — in the next session.

REFLECTIVE QUESTION

What local resources in your country could be used to manufacture or adapt AT?

Consider:

- Are there craftspeople, artisans, or vocational training centres already working with relevant materials?
- What legal or regulatory barriers currently prevent locally made AT from being recognised or procured?
- How might "frugal innovation" principles apply to AT challenges in your context?

Local Manufacturing in Practice: Lessons from Malawi

MAP: Malawi Against Physical Disabilities

Founded 1979 | 40+ years of local manufacturing

- Operates workshops in Blantyre and Lilongwe producing customisable wheelchairs, prosthetics, crutches, callipers, tricycles, and orthotic appliances.
- Products distributed free of charge to communities or heavily subsidised — cost-recovery models are unviable when 70%+ of the population lives below USD 2.15/day.
- MAP designs and prototypes products based on local terrain — devices must withstand unpaved paths, muddy fields, and support agricultural work.
- Budget cuts in 2013 forced suspension of the national outreach programme — a critical lesson in funding sustainability.
- The Persons with Disabilities Act (2024, Section 39) now incentivises local AT manufacturers through tax relief — a policy breakthrough.

Only 27% of participants reported significant examples of local frugal innovation, which revealed how underutilised local manufacturing capacity remains.

Source: Kayange, G.M. (2025). Investigating AT Ecosystems in Southern Africa. Loughborough University.

Frugal Innovation: Principles, Examples & What Needs to Change

01

Performance optimisation

Deliver what users actually need — not what international standards specify. Locally designed products can outperform imports in real-world African contexts.

02

Considerable cost reduction

Use locally available materials (bamboo, maize husks, local textiles), so long they meet minimum quality standards. Cost-recovery pricing models fail where most users live below USD 2.15/day — subsidised supply is required.

03

Focus on core functionalities

Strip complexity and build for durability — devices must survive rough terrain, variable weather, and limited maintenance. Elegant simplicity serves users better than imported complexity.

What needs to change for local manufacturing to scale:

- **Policy reform:** Procurement rules currently favour imported certified devices, inadvertently disadvantaging locally made innovations despite their contextual fit.
- **Quality standards:** Locally relevant quality standards — developed with user organisations and standards bodies — are needed to replace blanket international certification barriers.
- **Innovation funding:** At least 20% of AT budgets should fund pilot testing of grassroots innovations, with successful pilots fast-tracked into mainstream procurement.

Source: Kayange, G.M. (2025). Loughborough University.

Climate Change, Disasters & AT Resilience

Climate-related emergencies and disasters disproportionately affect persons with disabilities — disrupting AT access and continuity of care at the moments of greatest need.

⚠️ The Risks

- Floods & cyclones destroy or damage AT equipment.
- Displacement cuts users off from maintenance & supply chains.
- Health emergencies expose limits of AT service systems.
- Economic impacts reduce household capacity to replace AT.

✅ AT as Part of the Solution

- Early warning systems adapted for persons with disabilities.
- Portable and durable AT designed for emergency contexts.
- Community AT pools to support displacement situations.
- Inclusive disaster preparedness and response planning.

🔍 Explored in Detail Next

- George Chiusiwa will present on this theme in depth.
- Focus on preparedness, safety, mobility, and communication during crises, case examples.
- Recommendations for inclusive climate response.

Policy & Government Engagement

Sustainable AT access requires enabling policy environments, government commitment, and adequate financing — not individual charity or isolated innovation.

01

National AT Policies

Governments need clear, costed national AT policies that set standards, define responsibilities, and guide investment in AT service delivery.

02

Public Procurement

Government procurement systems must include AT — with accessible tendering, fair pricing, and requirements for quality and contextual appropriateness.

03

Financing Mechanisms

Innovative financing — including social protection schemes, insurance coverage, and development partner funding — is essential to reach users who cannot afford AT.

04

OPD Participation

Organisations of Persons with Disabilities must be meaningfully involved in AT policy design, monitoring, and advocacy — to ensure nothing is decided without them.

REFLECTIVE QUESTION

How well does your country's policy environment actually support AT access in practice?

Consider:

- Does your national disability policy name AT as a distinct priority — with dedicated funding?
- Are persons with disabilities meaningfully included in policy design, or only in consultation?
- What is the gap between what is written in law and what people with disabilities actually experience?

The scene is set.

What comes next:

- 10:25 — Education & Young People (Nick Nkomwa)
- 10:40 — Local Manufacturing (Delma Tshabalala)
- 10:55 — Climate & AT Resilience (George Chiusiwa)
- 11:10 — Q&A and Open Discussion
- 11:25 — Lived Experience Panel

Thank you

Dr. George Mwika Kayange | SAFOD

#UnlockTheEveryday

Assistive Technology is not a luxury. It is a right.

Today's conversation is about turning that principle into reality — through innovation, collaboration, and the voices of people who use AT every day.

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