



# Indigenous Livelihood Innovation Organization Team



**ANNUAL REPORT**

**2024**

# 01

## A Letter from Our Leadership



Dear Friends, Partners, and Community Members,

As I reflect on 2024, I am filled with pride and gratitude for what we have accomplished together. This year, ILIOT deepened its roots in the communities we serve while expanding our reach across Tanzania's northern rangelands. We witnessed Indigenous women stepping into leadership roles, traditional healers gaining long-overdue recognition, and degraded lands beginning to heal.

None of this would be possible without the wisdom of our elders, the energy of our youth, the perseverance of our women, and the trust

look to 2025, we carry forward the lessons learned and the momentum you helped us build.

In solidarity and gratitude,

A handwritten signature in black ink, appearing to read 'Joseph Loure Ole Parmelo', written over a horizontal line.

**Joseph Loure Ole Parmelo**  
Executive Director

**Indigenous Livelihood Innovation  
Organization Team (ILIOT)**

of the five villages who welcomed us into their homes and hearts Kimotorok, Lobosoit A', Liborsiret, Narakauo, and Emboreet.

We also extend our deepest appreciation to our partners IUCN, the Green Climate Fund, the Embassy of Ireland, PAWANKA Fund, FIMI, Land is Life, Global Greengrant Fund, AICA, Carleton College, and The Nelson Mandela African Institute of Science and Technology. Your belief in our vision and your financial support transformed ideas into impact.

The pages ahead tell the story of 2024 a year of challenges, yes, but more importantly, a year of resilience, learning, and hope. As we

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# About Us



Indigenous Livelihood Innovation Organization Team (ILIOT) is a grassroots-led, registered non-governmental organization (Indigenous People organization) based in Arusha, Tanzania, established on 13 August 2021 under the Tanzania NGO Act No. 24 of 2002. ILIOT works across Tanzania Mainland with a focus on improving the livelihoods and resilience of Indigenous communities, particularly pastoralists, smallholder farmers, women, youth, elders, hunters, and gatherers living in arid and semi-arid landscapes

## Our Vision

To enlighten the community on climate change impacts on the environment, social well-being, and economic aspects.

## Our Mission

Building capacity on best practices of climate change mitigations that favor the socio-economic well-being of the community through education, advocacy, and environmental management towards sustainable development goals.

## Our Core Values

### Sustainability & Environmental Stewardship

We protect the environment for present and future generations. This means promoting practices that regenerate ecosystems, reduce carbon emissions, and ensure that natural resources remain available for our children's children

### Community Engagement & Empowerment

We empower communities to take climate action through education and sustainable livelihoods. True change comes from within, so we facilitate processes where communities identify their own solutions and lead their own development.our children's children

### Cultural Heritage & Tradition

We respect and incorporate Indigenous knowledge and practices into all our work. Traditional ways of knowing from weather forecasting to healthcare are not relics of the past but vital tools for building a resilient future.

### Collaboration & Partnership

We work with all stakeholders, community members, government, NGOs, and researchers to achieve shared goals. No single actor can address the complex challenges of climate change alone.

# Where We Work

ILIOT operates across Tanzania Mainland, with a focus on improving the livelihoods and resilience of Indigenous communities particularly pastoralists, smallholder farmers, women, youth, elders, hunters, and gatherers living in arid and semi-arid landscapes.

In 2024, our primary focus was five villages in Simanjiro District:

✓ Kimotorok

✓ Lobosoit 'A'

✓ Liborsiret

✓ Narakauo

✓ Emboreet

These communities share common challenges: unpredictable rainfall, degrading pastures, erosion of traditional knowledge, and limited access to basic services. They also share remarkable strengths: deep cultural cohesion, intergenerational solidarity, and an unwavering commitment to their land and way of life.



# IMPACTS 2024

**45,000+**

Community members positively impacted

**20,000**

Hectares of Land Identified for Restoration

**5**

Indigenous Alternative Healthcare System forums

**30**

Practicing herbalists identified and supported

**24**

Youth, women, and elders trained in nursery management

**15**

Women trained in sustainable livestock management

**50%**

Estimated adoption rate of new practices in broader community

**10+**

Traditional learning grounds (Orpul) visited and documented

**80+**

Community members engaged during Orpul documentation visits

**3**

Major projects implemented with international partners

**5**

Village governance structures now including women representatives

# Theme 1:

## Building Climate Resilience Through Women's Leadership

### Project:

Building Resilience and Empowering Women through Sustainable Livestock Management in Simanjiro

**Supported by:** Global Greengrants Fund (GGF)

**Duration:** March 2024 – November 2024

**Target Community:** ELEPORE Women Group.

# The Challenge

In Simanjiro, seasonal drought annually threatens livestock the primary livelihood for pastoralist communities. These droughts lead to economic loss, food insecurity, and environmental degradation as communities struggle to feed their animals. Traditional coping mechanisms, such as migrating in search of pasture, have become less viable due to land

fragmentation, expanding conservation areas, and changing climate patterns.

Before this project, women in the ELEPORE group had limited voice in livestock management decisions, despite being primarily responsible for animal health and milk production. Their knowledge and potential as agents of change remained largely untapped.

# Our Response

With support from the Global Greengrants Fund, ILIOT designed and implemented a training and capacity-building program for the ELEPORE Women Group. The program focused on improving livestock management and pasture restoration through sustainable animal feed practices.

# Training Curriculum:

Module	Content	Facilitators
Hay and Silage Preparation	Cutting at correct maturity, wilting, chopping, compacting, sealing	District Environmental Specialist
Optimal Harvesting Seasons	Identifying peak nutritional value, avoiding overgrazing	NEMA specialist
Sustainable Grass Collection	Rotational harvesting, leaving seed sources, protecting sensitive areas	Village livestock officer
Pasture Restoration Techniques	Reseeding degraded patches, controlling invasive species, water harvesting	Agronomist
Group Governance and Leadership	Decision-making, advocacy skills, engaging in village assemblies	ILIOT Program Manager

Training sessions were held over five days, combining classroom instruction with hands-on demonstrations in the field. Each participant received a training manual in Maa (the local language) with illustrated guides.

# The Impact

## Immediate Outcomes:

- ✓ All **15** women completed the full training and passed a practical assessment.
- ✓ **7** out of **15** women independently prepared and stored hay silage in time for the June - September 2024 drought.
- ✓ The stored feed successfully sustained a total of 450 livestock through the driest months, preventing losses estimated at **15-20%** of herd value.

## Community-Wide Change:

- ✓ An estimated **50%** adoption rate of new practices within the broader community, based on follow-up surveys in October 2024.
- ✓ Measurable reduction in bush burning: Community members reported a **70%** decrease in intentional dry-season fires, as they now value standing grass for hay.
- ✓ Formal adoption of a structured community grazing system, with designated wet-season and dry-season grazing areas agreed upon by all households.

## Most Transformative Impact:

The project catalyzed a fundamental shift in gender dynamics. ELEPORE women are now actively participating in village assemblies and local decision-making processes a space where their voices were previously absent. Two women from the group were elected to the village natural resource committee, directly influencing grazing and land-use policies.



“

*"Before this training, we never spoke in village meetings. Men made all decisions about livestock. Now, when we present our hay stores and show how we kept animals alive through the drought, they listen. We are invited to planning meetings. Our knowledge is respected."*

Suzana Paha, member of ELEPORE Women Group

# Financial Summary

## Global Greengrants Fund Project

ITEM	AMOUNT (USD)	DETAILS
Activity 1: Hay Silage Training	\$1,862	Facilitator honorarium (3 specialists × 5 days), training materials (tarps, knives, safety gear), demonstration grasses, refreshments for 15 participants × 5 days
Activity 2: Grass Collection Training	\$1,218	NEMA specialist transport and per diem, community mobilization meetings (2 villages × 2 meetings), demonstration site preparation
Activity 3: Sustainable Harvesting	\$1,458	Agronomist fees (5 days), field visit logistics (vehicle hire, fuel), printed educational materials (30 manuals, 50 posters)
Administrative & Media Costs	\$462	Coordination, reporting, and professional photography for documentation (1 photographer × 3 field visits)
<b>TOTAL EXPENDITURE</b>	<b>\$5,000</b>	

The grant also enabled ILIOT to enhance media visibility by hiring professional photographers. High-quality images and reports were shared through our online platforms, resulting in a 200% increase in social media engagement and three inquiries from potential new partners.



## Theme 2:

# Promoting indigenous health and Well-being

### Project:

Restoration of Herbal and Sacred Trees for Sustainable Traditional Healthcare and Well-being of the Indigenous Communities

**Supported by:** Pawanka Fund

**Duration:** January 2024 – December 2024

**Target Villages:** Kimotorok, Loiborsiret, Narakauo

# The Context

Indigenous Medicinal Knowledge encompasses medical systems rooted in holistic perspectives, emphasizing the interconnectedness of human beings with each other and with the environment. These systems, developed across diverse cultures, conceptualize health as restoring and maintaining balance integrating physical, mental, spiritual, and social well-being.

In Tanzania, Traditional Medicine is experiencing a renaissance. It is formally recognized, integrated into mainstream health care, and drawing growing interest from various sectors. Evidence suggests that Traditional Medicine promotes bioactivity conservation, safety, and domestication on the homestead. However, traditional knowledge holders particularly elders were aging, sacred plant species were declining, and young people were losing connection to this heritage. The 2024 assessment revealed:

- ✓ Only **30%** of youth could name more than five medicinal plants.
- ✓ Several sacred tree species (Olaragai, Oloirien, Osinoni) were becoming scarce within a **5km** radius of villages.
- ✓ Traditional healers reported that younger generations were not seeking apprenticeship.

## Our Response

ILIOT embarked on a comprehensive initiative to document, protect, and revitalize traditional healthcare systems across three villages.

### Key Activities:

#### 1 District and Village Engagement

We conducted project induction at the district level, meeting with the District Commissioner (DC) and District Executive Director (DED) to secure government buy-in. Village council meetings engaged 30 community members (10 per village) in discussing the benefits of establishing nurseries and their potential impact on health and well-being. These meetings resulted in formal resolutions supporting the project.

#### 2 Intergenerational Training on Nursery Management

ILIOT, with assistance from experts in the land department and health department (traditional medicine), conducted a training session for 24 participants: 8 youth, 8 women, and 8 elders. The training was held over three days in Kimotorok, with participants from all three villages.

## Training Topics:

Topic	Detail
Herbal Tree Species Inventory	Participants mapped and listed 25 medicinal tree species in the village, noting their traditional uses, harvesting seasons, and current abundance.
Seed Collection and Propagation	Techniques for selecting high-quality seeds, proper storage, and germination methods for 10 priority species.
Soil Preparation	Mixing soil with organic manure (cow dung, ash) to improve fertility and drainage. Practical sessions preparing nursery beds.
Traditional Pest Control	Use of botanical pesticides (neem, tobacco, chili) and cultural practices (ash barriers, companion planting) to protect seedlings.
Nursery Management	Watering schedules, weed control, shading, and hardening-off before transplanting.

The session fostered intergenerational learning, with elders sharing traditional knowledge and the youth contributing energy and enthusiasm. Elders demonstrated how to prepare traditional pest repellents, while youth built protective fences and dug irrigation channels

# 3

## Securing Land for Herbal Medicine

In Kimotorok village, we successfully identified and secured 2.5 acres of land near the community well for a tree nursery and herbalist center. This strategic location ensures easy access to water and provides a dedicated space where herbalists can work freely, meet to exchange ideas, and cultivate medicinal plants.

### The process included:

- ✓ Identification and mapping of the site using GPS coordinates
- ✓ Preparation of land ownership certificates for the group of herbalists
- ✓ Formal registration of the herbalist group with the village government

In Loiborsiret and Narakauo, land allocation was delayed due to political transitions, but negotiations continue.

## 4

## Documenting Traditional Knowledge Systems

During the dry season (August-September), we visited over ten (10) Orpul (Traditional Learning Grounds) and spoke with over 80 people elders, women, and youth to understand the role of Orpul in cultural preservation, particularly for herbal and sacred plants.

### Key Findings:

Knowledge Domain	Example	Significance
Weather Forecasting	Birds called OLTILO (a species of plover) arrive before rains; insects INGALAO (ants) build high mounds ahead of floods.	Communities use these signs to time planting, migration, and ceremonies.
Honey Harvesting	The bird ENJOHOROI (HoneyGuide) leads people to bee hives; its behavior indicates when honey is ready.	Honey is essential for rituals, trade, and nutrition.
Animal Behavior	Livestock restlessness or clustering can signal predators or weather changes.	Herders adjust grazing routes accordingly.
Plant Phenology	Flowering of Olaragai indicates the start of the rainy season.	Guides planting and livestock movements

This ancient knowledge is deeply rooted in indigenous communities' cultural and spiritual activities, strengthening the community's connection to nature and dependence on ecological cues for decision-making.

## 5

## National Engagement

We participated in the National Forum on Investing in African Traditional Medicine and Innovation for Universal Health Coverage in Mwanza, Tanzania. This provided opportunities to network with other organizations committed to advancing herbal medicine and strengthened our capacities. We presented a poster on our work, which attracted interest from the Ministry of Health and two potential research partners.

# The Impact

## Recognition of Traditional Healers

- ✓ **30 practicing** herbalists (12 women, 18 men) identified and documented from three villages, including their specialties, years of experience, and plants used.
- ✓ **First 10** herbalists will receive certificates of recognition in early 2025, after completing documentation and verification by district health authorities.
- ✓ **Long-term goal: All 30** herbalists will receive official recognition from regional health ministries, granting them access to entitled benefits such as exemption from taxes, inclusion in health extension programs, and protection of their gathering sites.

## Land and Agency

- ✓ Successfully persuaded community leadership to grant herbalists 2.5 acres in Kimotorok.
- ✓ Mapped 10 traditional learning grounds (Orpul and Emanyata) with GPS coordinates and descriptions of their cultural significance.
- ✓ Produced a 30-page illustrated booklet (in Maa and Swahili) summarizing key traditional knowledge, distributed to all participating households and schools.

## Community Collaboration

- ✓ 24 trained community members actively establish and manage nurseries in Kimotorok.
- ✓ Over 500 seedlings of 8 priority medicinal species planted in the nursery, ready for transplanting in 2025.
- ✓ Positive community response, with herbalist groups meeting monthly to share knowledge and coordinate activities.

## Challenges Encountered

We acknowledge the challenges faced in implementing this initiative:

Challenge	Location	Impact	Mitigation
Weather Forecasting	Loiborsiret, Narakauo	Unable to pilot nursery establishment areas; local leaders focused on campaigns	Extended engagement period; will resume in early 2025 after leadership stabilizes
Leadership transition	Loiborsiret, Narakauo	New leaders hesitant to approve land allocation	Building relationships with new officials; presenting project benefits
Water accessibility	Loiborsiret, Narakauo	Large river 5-8 km from homesteads; nursery watering impractical	Exploring well-drilling partnerships; advocating for water infrastructure in village plans
Land grabbing	Kimotorok	Evictions in sub-villages near Kimotorok swamp due to Mkungunero Game Reserve expansion	Documenting affected households; engaging with reserve authorities; advocating for community rights
Over-exploitation of medicinal plants	All areas	Declining availability within 5 km radius; some species at risk	Promoting domestication on homesteads; establishing community nurseries; enforcing traditional harvesting taboos
Prolonged drought	All areas	Families away from homes seeking pasture and water; reduced participation in meetings	Scheduling activities around seasonal migration patterns; using mobile outreach

**Lesson Learned:** These challenges have taught us the importance of deeper pre-election engagement with local leadership and the critical need for integrating water solutions such as well-drilling into future project designs. We remain committed to overcoming these obstacles and will continue engaging with local leaders and communities to ensure success.

## Theme 3:

# Strengthening Technical Capacity

### Partnership:

Partnership with The Nelson Mandela African Institute of Science and Technology (NM-AIST)

**Supported by:** NM-AIST under UNIDO

**Duration:** One Week Training (December 2024)

**Target:** ILIOT Staff

# The Context

In 2024, ILIOT strengthened its partnership with The Nelson Mandela African Institute of Science and Technology to build technical capacity in environmental management and sustainable technologies.

Available resource Biomass technology Organized training for biomass operations gasification technology. Organized training for pyrolysis technology. Organized training for converting waste materials into energy through processes such as anaerobic digestion & incineration technologies with energy recovery WtE technologies to help reduce greenhouse gas emissions.

## Outcome

ILIOT staff gained critical technical knowledge that enhances our ability to design and implement projects that reduce greenhouse gas emissions while creating sustainable energy solutions for communities. Specifically:

- ✓ Two staff members are now qualified to conduct basic environmental screenings for small-scale projects.
- ✓ We have initiated discussions with three villages about piloting biogas digesters using livestock waste.
- ✓ Knowledge of biochar has been integrated into our soil restoration training for farmers.

## Way Forward

We plan to formalize a memorandum of understanding with NM-AIST in 2025, establishing a framework for:

- ✓ Joint research on Indigenous knowledge and climate resilience
- ✓ Student internships with ILIOT
- ✓ Technical advisory services for project design



# CHALLENGES & Lessons Learned

As a grassroots organization working in complex environments, ILIOT encountered significant challenges in 2024. We share these transparently, as they inform our strategy and strengthen our approach.

Challenges During the implementation of our programs, we encountered political hurdles that hampered operations in specific communities. For example, due to ongoing elections in Loiborsiret and Narakauo, we were unable to pilot nursery establishment areas, even in riverside locations. A shift in village leadership made it difficult for the current leaders to make decisions, in particular concerning land allocation. The villages of Loiborsiret and Narakauo encounter serious water accessibility challenges since the large river is positioned distance from the homesteads, making it difficult to water nurseries adjacent to the homesteads. To overcome this issue, drilling wells near homesteads is the most realistic alternative. This will provide a reliable water source that can be used to irrigate the nurseries, therefore increasing agricultural activity and sustaining sustainable lives. In Kimotorok there is issue of Land Grabbing for extension of conserved areas (Mkungunero Game Reserve). People have been evicted from different sub-villages close to the Kimotorok swamp.

Over exploitation of the herbal medicinal and sacred plants due to the population and climate-related habitat changes threaten the availability of medicinal plants. Prolonged drought as many of the families stay away from homes looking for pastures and water for their livestock

The most notable change has been the adoption of improved pasture storage methods, including preservation of farm residues such as maize cobs, bean leaves, and stalks. These techniques have enhanced food security and resilience against drought, contributing to sustainable livestock management.



# RECOMMENDATION

As a grassroots organization working in complex environments, ILIOT encountered significant challenges in 2024. We share these transparently, as they inform our strategy and strengthen our approach.

**1** Herbalists require a greater understanding of ecological knowledge, particularly when considering the contemporary issues caused by climate change, population growth, and rising demand for natural resources. The survival of herbal and sacred trees, in particular, is jeopardized, and herbalists must obtain greater understanding of how to efficiently manage these vital resources. We urge that herbalists receive comprehensive training in sustainable resource management and climate adaptation measures to ensure the long-term health and availability of these crucial plants. This will help to preserve cultural practices while also promoting environmental resilience in the face of ongoing ecological changes.

**2** The number of forums for herbalists should be raised so that they can exchange ideas not just within the pastoralist community but also with herbalists in other communities. This would promote collaboration and knowledge-sharing, eventually strengthening the herbal therapeutic services supplied to the public. This also promotes the preservation and revitalization of traditional practices by engaging with indigenous Traditional practitioners with diverse health systems.

**3** The government, through the health sector, ought to offer primary healthcare professionals greater recognition and assistance, especially in rural and village areas, since they play a significant part in safeguarding the community's health and well-being. Certification for health-related indigenous practices. Recognition, etc. All directions must consider context. Indigenous medicine is usually context-specific.

**4** Herbalists working environment in villages needs to be addressed in order for them to carry out their duties more efficiently. This includes giving them appropriate storage containers for herbal medications and ensuring they have access to adequate working conditions. These modifications will help to preserve and improve the quality of herbal products, as well as foster a safer and more efficient working environment for herbalists.

**5** It has grown more necessary to adequately document indigenous knowledge (I.K.), as many people who want to learn about it face difficulties to accessing this information. Many people find it difficult to visit indigenous communities for themselves due to the large distances and high expenditures involved. As a result, it is advised that investments be made in the systematic documentation of indigenous knowledge using both traditional and modern means, in order to make it more available to people who want to learn about it. This could include developing textual, audio, or visual resources that capture indigenous groups' knowledge, ensuring its preservation while also permitting larger access for educational purposes and future generations.

**6** The validation and recognition of indigenous practices in national health policies is key.

**7** Chart a course towards the inclusion of indigenous medicine in primary education curriculum.

**8** To Establish digital platforms for indigenous knowledge sharing and data storage e.g., online and offline indigenous medicine libraries with species of plants and recordings of practices, grounds used in indigenous medicine. Support regional and country-specific forums e.g., inter-cultural conference on indigenous medicine, workshops, seminars, etc.



# THANKS TO OUR Partners & Sponsors



PAWANKA  
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FORECASTING  
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