LTKL LINGKAR TEMU KABUPATEN LESTARI



9 Years, Districts:

Enabling Systemic Change for Sustainable Districts

2023-2026

Impact Report

9 Years, 9 Districts: Enabling Systemic Change for Sustainable Districts

LTKL Impact Report 2023-2026

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List of Terms and Abbreviations

Aggregator	A platform or entity that facilitates the integrated collection or consolidation of operations into a single, centralized location. In a business context, this is commonly used to aggregate or integrate regional enterprises into one hub, thereby helping them expand their market reach.
Agrarian Reform	A program to reorganize land tenure, ownership, and utilization structures to ensure greater equity for the community.
Agroforestry	A land management system that combines the planting of woody trees (forest species) with agricultural or plantation crops on the same area.
APL	Areas for other purposes (APL) are areas outside the designated state forest zone that are legally available for non-forestry development.
Betang House	Also known as Rumah Betang or Dayak Longhouse is a traditional house typical of the Dayak tribe of Kalimantan (Borneo) which has very long and large built, and is inhabited jointly by many families
BNPB	The National Disaster Mitigation Agency (BPNB) is a non-ministerial government agency in Indonesia responsible for disaster management.
Customary Area	Living space, land, waters, and natural resources controlled and managed from generation to generation by Customary Law Communities.
Ecosystem Restoration	Comprehensive restoration of damaged ecosystems; the return of land, water, plants, and wildlife to their natural state prior to the damage.
HTI	Industrial Forest Plantations (HTI) are production forest areas where specific tree species are intentionally planted using intensive methods to meet the raw material needs of the forestry industry, such as timber, paper, and energy.
IAD	Integrated Area Development is a development approach that simultaneously combines social, economic, and ecological aspects to optimize a region's potential. This concept is closely linked to the Social Forestry program, in which communities living near forest areas are empowered to serve as the primary managers of the territory.
Incubator	An institution or structured program that assists Micro, Small, and Medium Enterprises (MSMEs), cooperatives, or other business models to grow, become self-reliant, and advance to the next level through mentoring, training, and business facilities.
Indigenous People *(Masyarakat Adat)*	Social groups that have inhabited a specific geographic area for generations, bound by ancestral ties, and guided by traditional customs in managing their communal life.
Landscape	A socio-ecological system defined by a geographic area with shared and interacting ecological and socioeconomic characteristics.

Landscape Approach	A management approach that emphasizes multi-stakeholder collaboration to advance shared sustainability goals and build resilience at the landscape scale.
Member District	District-level governments that have officially joined LTKL and are committed to achieving sustainable development in their respective regions.
Multi-stakeholder Partnerships	A form of voluntary cooperation among the government, the private sector, and the public to achieve shared goals, such as sustainable development targets.
Off-taker	Regular buyer(s) who guarantees the absorption or purchase of produce from producers (such as farmers, fishermen, or business groups).
Partner Network	A group of non-governmental organizations—including civil society organizations, donor agencies, academic institutions, farmer associations, and the private sector—that partner with LTKL and member district governments to provide technical support, funding, research, field-level assistance, or market access.
Proof of Concept (PoC)	Proof that an idea or solution is technically feasible and can be realized.
Restorative Economy	A landscape or jurisdiction managed for economic activities (resource allocation) in an integrated and efficient manner, with the aim of conserving and restoring nature.
RPJMD	Mid-Term Regional Development Plan (RPJMD) is a regional strategic planning document covering a five-year period that details the vision, mission, and programs of the elected regional head.
RTRW	A Regional Spatial Plans (RTRW) is an official document comprising detailed maps and general regulations, formulated by the government to govern land functions and usage within a specific area (such as a province, regency, or city) over a 20-year period.
Social Forestry	A management system for state or customary forests that grants local communities legal access rights to manage forest areas, with the aim of improving well-being and maintaining environmental sustainability.
System Change	A fundamental change in how a system operates, addressing the root cause rather than merely the symptoms.
Tenurial	The social and legal relationships governing the rights, access, and procedures by which an individual or group controls, uses, and manages land and natural resources.
TORA	Lands Subject to Agrarian Reform (TORA) is land controlled by the state or the community that is to be redistributed or legalized.
UMKM	Micro, Small, and Medium Enterprises (MSMEs) are productive business ventures managed by individuals, groups, households, or small business entities.

Joint Foreword

Proving Local Resilience: Anchoring Change Across Districts

Assalamu'alaikum Warahmatullahi Wabarakatuh,
Shalom, Om Swastiastu, Namo Buddhaya, Salam Kebajikan

A district's forests, land, and water are more than just figures on a map or economic commodities. For local communities, healthy ecosystems are a living space and a vital safeguard against the intensifying climate crisis—nature provides the water we drink, the food we eat, and the air we breathe every day. Yet, as ecological threats such as floods, forest fires, and water shortages escalate, local governments also face shifting national-local regulations and increasingly constrained fiscal space. As LTKL marks its ninth year, we strive to give tangible meaning to decentralization and regional autonomy through local economic development grounded in nature-based solutions.

Since our inception, we have aimed to ensure that the changes driven by LTKL are not merely sectoral but holistic and systematic, enabling districts to withstand crises. Today, we are driving commodity value-chain innovations (such as peatland pineapples processed into derivative products, or agroforestry coffee to boost income resilience and diversification), multi-stakeholder governance, and environmental protection as essential buffers for regional resilience and self-reliance. Evidence from the ground demonstrates that despite shifting national dynamics and recurring disasters, districts remain strong and empowered.

In this report, we highlight the efforts led by local stakeholders—ranging from district governments, non-governmental organizations, development partners to civil society—and their impact on communities and districts at large. This report also serves as a reflection: nine years of building sustainable districts show that improving program quality does not simply mean expanding quantitative reach. Rather, it is about ensuring that sustainability values, mindsets, and economic mechanisms are deeply embedded and firmly rooted within policy frameworks and local culture. When these roots run deep, replication and scaling will happen naturally and sustainably.

We extend our appreciation to everyone who has been part of this movement. Amidst economic uncertainty and an escalating climate crisis, these challenges cannot be tackled in isolation. We invite all stakeholders—donor partners, central government, and the private sector—to embrace districts as green investment partners, ready to collaborate from the ground up.

Salam Lestari,



Mohamad Rizal Intjenae
Chairperson of LTKL &
Head of Sigi District



Ristika Putri Istanti
Head of LTKL Secretariat



Sarman Simanjorang
Executive Director of
District Association in Indonesia
(APKASI)

Executive Summary

Delivering Proof, Rooted in Ground Realities

The journey of the Sustainable Districts Association (LTKL) has entered a crucial phase. While the previous phase focused on securing commitments and fostering multi-stakeholder collaboration, this collective energy is now directed toward delivering tangible proof of concept for sustainable districts. Sustainable development has moved beyond a mere commitment; it is now being implemented as a mechanism to safeguard lives, ensure ecological resilience, and foster the economic well-being of local communities.

This transformation is anchored in a systems change approach. LTKL recognizes that district-level sustainability challenges are complex and interdependent, requiring solutions that transcend siloed programs. Through a systemic approach, LTKL identifies strategic leverage points—such as how upstream protection and peatland conservation reinforce local food sovereignty, drive value-added commodities, and unlock fair market access—alongside dedicated support for the organizations and changemakers driving this transformation.

To ensure these interventions are well-targeted and firmly grounded, every action is built upon rigorous research and empirical data. LTKL ensures interventions are deliberately designed based on ecosystem carrying capacities and the real priorities of member districts.



Key achievements across strategic themes during this period include:

- Landscape Resilience, Food Sovereignty, and Disaster Mitigation: Connecting spatial planning with climate resilience and local food systems. Milestones include geological risk mitigation and renewable energy-based climate adaptation in Sigi, critical ecosystem restoration in West Kalimantan, ethnographic research on local food sovereignty, and the incubation of value-added food enterprises in Sintang, Siak, and Sigi.
- Tenure Security and Sustainable Land Governance: Safeguarding community living spaces and economic self-determination through Social Forestry schemes, communal lands subject to agrarian reform (TORA) models, the protection of forested area for other purposes *(Rimba Gupung* APL) in Sintang, and independent regenerative agriculture in Bone Bolango and Gorontalo.
- Supply Chain Transparency and Data Accountability: Establishing open data platforms through District Dashboards and jurisdictional Landscape Maturity assessments. Upstream, plantation commodity traceability is reinforced through independent participatory mapping by village facilitators to meet global market standards.
- Strengthening Business Ecosystems, Policy, and Innovative Financing: Equipping green MSMEs for investment through local incubators, mobilizing public-private financing, analyzing district fiscal resilience, and conducting Regulatory Impact Assessments (RIA) to support the downstream processing of nature-based regional commodities.
- Community Movements and Strengthening Local Knowledge Systems: Grounding interventions in local culture and social capital. Initiatives including integrating social institution pillars in Sigi, organizing the youth-led *Nusi Ari Kapuas* cultural movement to protect the Kapuas River, expanding the *Explore Siak* community media platform, and documenting disaster history through local languages in the PASIGALA Toponymy Dictionary.

  These achievements demonstrate that sustainability is attainable when government policies, market mechanisms, and fiscal readiness align with the realities and local wisdom. Through this integration, LTKL strives to ensure that economic transformation across districts is equitable, measurable, and delivers long-term impact.

Impact at Glance



9 Years Impact at Glance

(2017-2026)

255.310 hectares

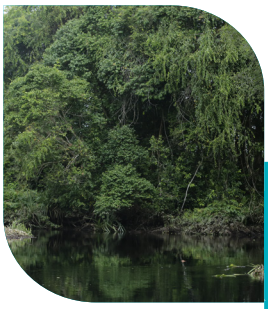
of forest and peatland cover have been protected by LTKL member districts (159,879 hectares of forest cover and 95,431 hectares of peatland)

2.25x increase

in monthly income for farmers supported by the LTKL partner network

26.869 households/ 94.638 individuals

have benefited from programs and activities implemented by the district ecosystem and LTKL partners







174 local business units

(MSMEs, Cooperatives, and Tourism Awareness Groups/ *Pokdarwis*) have been incubated over the past nine years across nine member districts

134 partners

have engaged with LTKL, with 74 of them securing direct funding access to support district targets





The data represents cumulative figures for the 2019–2026 period, calculated through an analysis of outcome-based system changes and spatial verification based on collaborative actions undertaken by LTKL member regency governments and their partner networks.

Data source: MapBiomas Indonesia – Collection 4.0 time-series maps of land-use and land-cover, accessed in August 2026.

Reshaping Economic Direction: Transforming Development Challenges into Ground-Level Resilience

Countries in the Global South are trapped in a development dilemma. On one hand, the pursuit of economic catch-up and Gross Domestic Product (GDP) growth remains heavily reliant on natural resource extraction. On the other hand, this economic model accelerates environmental degradation and serves as a primary driver of the global climate crisis. Furthermore, shifting geopolitical dynamics have led to declining public climate finance from developed nations, compelling the Global South to independently seek pathways toward sustainable development.



As part of the Global South, Indonesia's experience clearly reflects these competing priorities. Priority commodity sectors—most notably palm oil—have served as vital economic engines for decades, boosting regional revenues, contributing significantly to national GDP, and employing millions of workers. However, reliance on such extractive models brings severe environmental and social costs, including deforestation, ecosystem degradation, high greenhouse gas emissions, and economic inequality.

Moreover, challenges on the ground are becoming increasingly complex by recurrent disasters—from flash floods and earthquakes to prolonged droughts and land fires. As disaster risks mount, local governments face shrinking fiscal space due to spending rationalizations in regional transfers, alongside challenges in synchronizing policies between central and local authorities.

Amid these economic pressures, fiscal constraints, and climate threats, LTKL positions itself as a systems enabler, network builder, and ecosystem builder. LTKL mobilizes non-governmental organizations, development partners, and civil society to collaborate with district governments to advance environmental protection and economic progress through a restorative economy. This approach grounds economic development in the protection and restoration of critical ecosystems while generating new, equitable economic value for all.

The relevance of this approach is clearly demonstrated across district members. One district, prioritizing forest cover conservation while recovering from a major natural disaster, successfully shed its “underdeveloped” (3T) status by strengthening sustainable commodity governance and fostering local economic innovation. Another district, historically dominated by monoculture concessions, have chosen to optimize land-use efficiency without excessive expansion while developing economic alternatives in parallel. This proves that local resilience is not built through fragmented, short-term projects, but through collective action that reshapes economic systems from the ground up. Through this report, LTKL illustrates how this system-based approach is continuously tested, strengthened, and scaled across its member districts.



LTKL Approach

How We Work within the Ecosystem

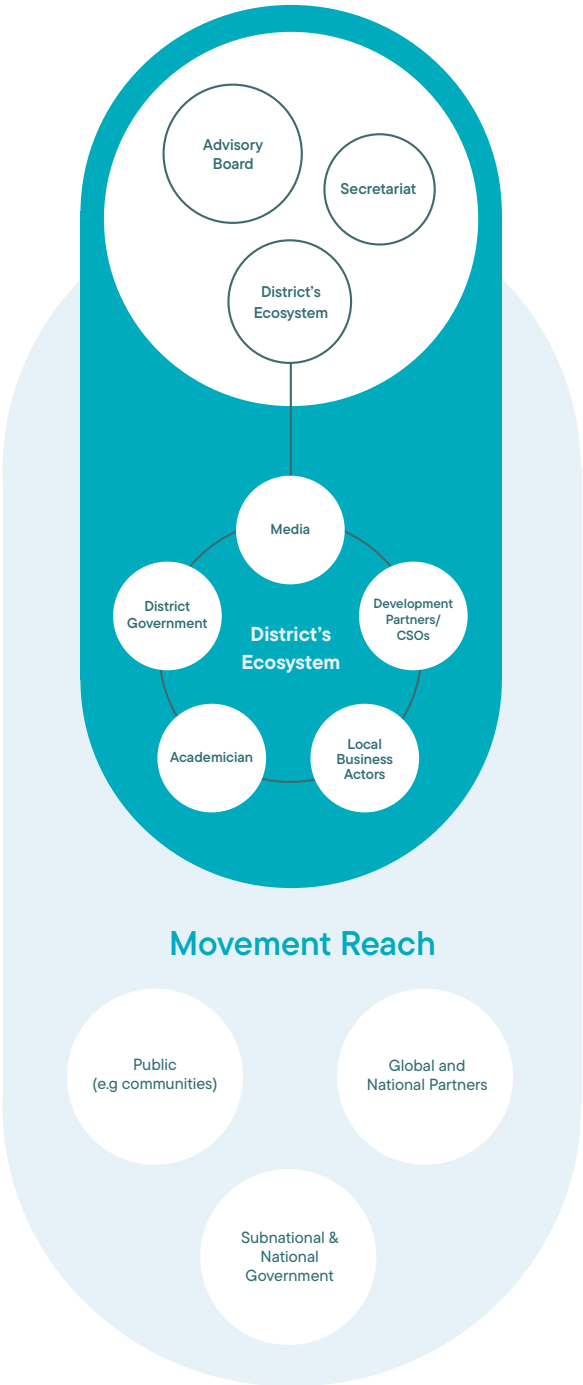


Figure 1. System Change Approach.

Lingkar Temu Kabupaten Lestari (LTKL) was established in 2017 through the initiative of nine Indonesian regencies committed to transforming regional governance toward sustainability. Since its inception, LTKL has continuously refined its strategies to achieve its 2030 Vision: creating thriving, sustainable regencies by balancing economic growth, ecosystem protection, equitable governance, and community well-being.

To realize this vision, LTKL promotes a restorative economy—an economic model that goes beyond merely pursuing added value, to actively restore ecosystem functions and enhance the welfare of local communities. This approach ensures that regional economic activities repair past environmental damage, safeguard remaining critical ecosystems, and deliver equitable social outcomes.

The transformation toward a restorative economy cannot be achieved through only a linear process or isolated, project-based interventions. The complexity of regional challenges demands a systems change approach focused on two key pillars: fostering a systemic mindset to address root causes from the grassroots to policymaking levels, and understanding human dynamics to drive behavioral change and collective action.

Through this approach, LTKL facilitates district transformation by leveraging existing momentum and best practices, strengthening the link between nature conservation and the economy, and applying measurable systems change metrics—including intangible aspects such as local readiness and mindset shifts. This framework also fosters flexibility and adaptability, enabling LTKL and its partners to navigate dynamic conditions on the ground.

LTKL Milestones:

Discovery

(2017)

- A group of districts initiated the establishment of Lingkar Temu Kabupaten Lestari (LTKL) as a multi-stakeholder collaboration platform for sustainable natural resource management.

(2020)

- The COVID-19 pandemic marked a turning point for LTKL, shifting its focus toward regional economic transformation as the core foundation of sustainable districts.



Trial

(2021-2022)

- A trial period for developing value-added, sustainable business models to drive district economic transformation—including albumin development for peatland protection.
- Promotion of nature-based economic narratives at the national level to reinforce the sustainable district concept.



Proof of Concept
(2023-2024)

- Amid leadership transitions across member districts and the secretariat, LTKL strengthened its strategic direction, expanded its collaborative network, and refined the LTKL 2030 vision.
- Designed an in-depth, holistic "Sustainable District" Proof of Concept (PoC) model anchored in a protection- and restoration-based economy.

(2025-2026)

- PoC models across several member districts begin demonstrating tangible impacts on strengthening local and nature-based economies.
- Strengthening systems-based approaches to ensure local institutional readiness through human resource capacity building, innovative financing, and enhanced governance.
- Piloting cross-boundary, landscape-scale PoC adoption beyond administrative district borders, notably in West Kalimantan and Central Sulawesi.





Working at Scale
(2027-2030)

Having proven the viability of the sustainable district Proof of Concept (PoC) model, several strategic approaches are now being scaled up:

- Driving bottom-up policy adoption, as demonstrated in West Kalimantan, where nature-based product innovation policies from three member districts were successfully elevated to the provincial level.
- Replicating value-added product innovations (downstream processing) across broader value chain ecosystems.
- Accelerating economic systems transformation through essential enabling conditions, such as deploying renewable energy for productive business sectors.
- Expanding collective impact through shared, movement-based collaboration.

Map and Targets of LTKL members

Lingkar Temu Kabupaten Lestari (LTKL) is an association of district governments established and managed by local authorities to advance sustainable development that protects nature while improving community welfare. Founded in July 2017, LTKL serves as the sustainable development caucus under the Association of Indonesian Regency Governments (APKASI). Currently, LTKL comprises 9 member districts across 6 provinces working collaboratively to achieve sustainable development targets within their respective jurisdictions.

Total targeted critical ecosystem area protected: 1.468.358 ha
Total targeted beneficiaries(communities positively impacted by the program): 468.472 people

1 Aceh Tamiang

Protection of Critical Ecosystem: 37,180 ha (Forest within APL area)
Beneficiaries (Welfare & Disaster Resilience): 39,345 people (4 subdistricts, 20 villages)

2 Siak

Protection of Critical Ecosystems: 16,012.15 ha (within APL via Integrated Area Development / IAD, Social Forestry, and Biodiversity Parks)
Beneficiaries (Ecosystem-Dependent Communities): 1,000 people



[1] *Based on the 2025 target data.*

3 Musi Banyasin

Protection of Critical Ecosystems: 14,158 ha (10,100 ha cultivated APL + 4,058 ha Social Forestry forest stands)
Welfare Beneficiaries: 22,186 people (4,591 Social Forestry community members + 17,595 priority commodity smallholders)

4 Sanggau

Protection of Critical Ecosystems: 143,114 ha / 11.41% (forests, peatlands, and associated ecosystems)
Welfare Beneficiaries: An additional 15,454 ecosystem-dependent people (from 497,000 in 2025)

5 Sintang

Protection of Critical Ecosystems: 1,089,205 ha (272 villages)
Socioeconomic Beneficiaries: 328,145 people

6 Kapuas Hulu

Protection of Critical Ecosystems: 113,592.65 ha (via Social Forestry schemes; Customary Forests and Village Forests)
Program Intervention Beneficiaries: 1,750 people

7 Sigi

Protection of Critical Ecosystems: 47,512 ha through Social Forestry, TORA, critical land rehabilitation, and agroforestry
Welfare Beneficiaries: 43,054 local community members

8 Gorontalo [1]

Protection of Critical Ecosystems: 7,208 ha
Beneficiaries (Ecosystem-Dependent Communities): 5,000–10,000 people

9 Bone Bolango

Protection of Critical Ecosystems: 376 ha (8 villages) through eco-agro-edu-tourism, Social Forestry, and priority commodities
Welfare Beneficiaries: 12,538 people



District Progress & Action





1 Disaster Risk Reduction and Management

For LTKL member districts, sustainable development is not merely an economic and environmental agenda, but a vital mechanism for safeguarding lives. Amid the rising frequency of disasters—from climate-induced hydrometeorological events to earthquakes—local resilience faces a genuine test. Disasters are no longer distant natural occurrences; they pose immediate threats to human safety, trigger severe local economic losses, and strain fiscal stability of district government.

This heightened vulnerability is clearly reflected in the disaster risk landscape across the nine LTKL member districts over the 2016–2026 period:

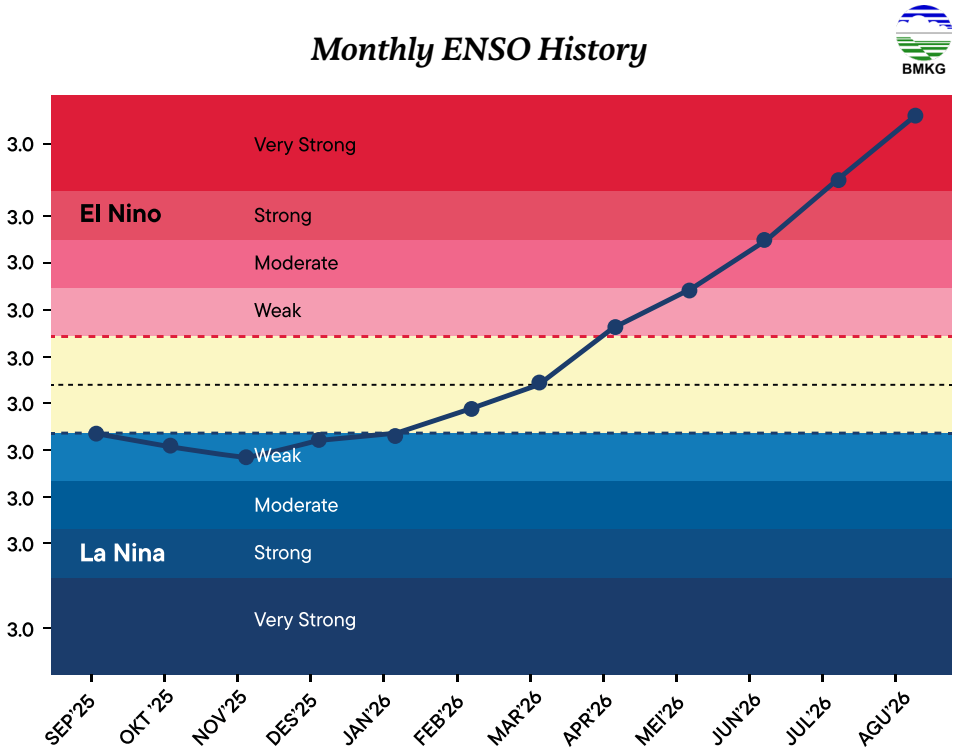


Figure 2. Trends in El Niño[2] occurrence in Indonesia from September 2025 to August 2026. Source: BMKG.

Observation Source: JMA MGDSST
Directorate of Climate Change – Meteorology, Climatology and Geophysics Agency (BMKG)

[2] *El Niño refers to the warming of sea surface temperatures in the Pacific Ocean, often causing significant rainfall deficits and potential drought conditions across much of Indonesia.*

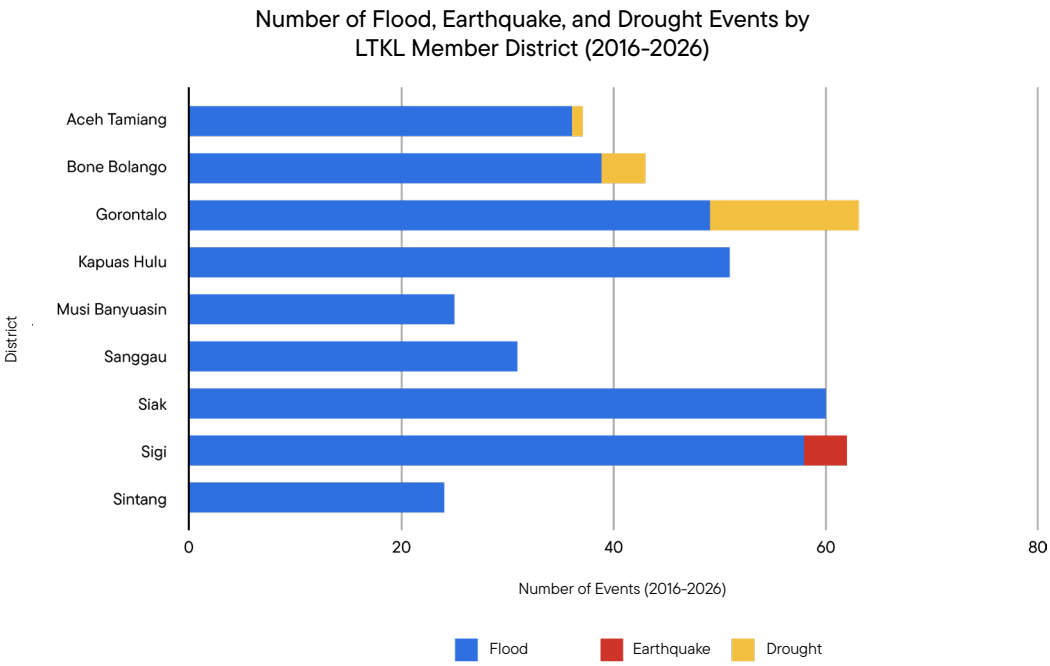


Figure 3. Number of flood, earthquake, and drought events by LTKL member district (2016–2026). Source: Processed from BNPB data.

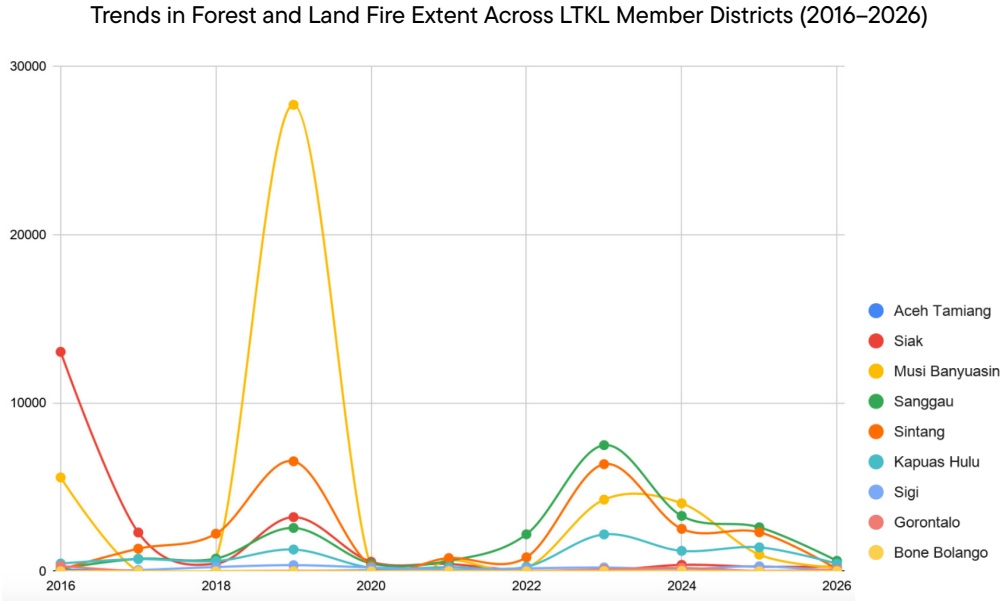


Figure 4. Trends in Forest and Land Fire Extent Across LTKL Member Districts (2016–2026). Source: Processed from Sipongi, Ministry of Forestry.

This data highlights two distinct risk typologies across member districts, requiring differentiated mitigation strategies at the site level:

A. Geological Disasters and Systemic Preparedness (Sigi District)

Following the major 2018 earthquake, Sigi District was struck by a magnitude-6.7 earthquake on June 16, 2026, affecting four subdistricts. However, the disaster's impact was more measurably mitigated due to strong local institutional readiness. Sigi has integrated its Disaster Management Plan (RPB) into land governance and reinforced multi-stakeholder coordination through the Sigi Hijau Multi-Stakeholder Partnership (KMP). Emergency response efforts were deployed tactically through rapid assessments involving 14 partners to streamline aid distribution. Beyond the emergency phase, Sigi has also fortified long-term mitigation instruments by developing a Regional Action Plan for Climate Change Adaptation (RAD-API) over the past year.



B. Hydrometeorological Disasters and Land Governance (Aceh Tamiang, Sintang, Sanggau, Kapuas Hulu, Bone Bolango)

Over the past two years, flash floods and forest-land fires have repeatedly struck these areas. These events were not triggered solely by climate change, but were intensified by pressures on landscape governance and suboptimal adaptation processes.

To address these vulnerabilities, LTKL has accelerated emergency response support while reinforcing nature-based safeguards—spanning from the protection of critical ecosystems, watersheds, to forest cover.

- Aceh Tamiang District was among the areas hardest hit by flash floods in November 2025. In response, LTKL and its partner network delivered collaborative emergency relief, energy resilience support, and the Laskar Pelangi program. Under the emergency response and energy resilience efforts, the coalition distributed essential logistics, provided 621,600 liters of clean water daily, deployed evacuation facilities, and set up emergency internet connectivity. The response also delivered portable solar panels and 50 micro Solar Home System units to over 2,000 households across Aceh Tamiang and East Aceh.

  Through the Laskar Pelangi initiative, the Aceh Tamiang District Education Office revitalized flood-affected schools by cleaning school grounds (at SDN 2 Pilot, TKN Pembina Karang Baru, and SD Pantai Tinjau), constructing borewells (in Tanah Terban Village and at the District Education Office), providing psychosocial support for children, and establishing a Joint Secretariat to coordinate educational recovery.



- Building on these insights, studies were conducted to rehabilitate degraded land across four districts: Sintang (targeting 148 ha/year), Sanggau (150 ha/year), Sigi (70 ha/year), and Kapuas Hulu (51 ha/year)—with these targets grounded in scenarios and assumptions modeled by Cendekia Iklim Indonesia in 2025.

- The adoption of Indonesia's FOLU Net Sink 2030[3] framework across provinces such as Riau, West Kalimantan, and Central Sulawesi offers critical momentum for districts to align their local planning. LTKL member districts (Siak, Sintang, Sanggau, Kapuas Hulu, and Sigi) have formulated strategic roadmaps supporting local FOLU Net Sink targets, ranging from restoration systems to restorative land-use models like agroforestry.



[3] *The Forestry and Other Land Use (FOLU) Net Sink is Indonesia's target to ensure that, by 2030, the level of greenhouse gas emission absorption from the forestry and land-use sector equals or exceeds the volume of emissions released.*

2 The Forest–Local Food Nexus Approach

To drive systemic change, an integrated cross-sectoral (nexus) approach serves as a critical lever for addressing complexities at the subnational level. This model connects comprehensive food security with socio-cultural, ecological, and economic dimensions.

Through this approach, forest and peatland conservation strategies are directly linked to strengthening local food systems and driving commodity value addition. Spanning the entire value chain from upstream production to downstream markets, these food systems are directly tailored to the realities of LTKL member districts.

A. Food Sovereignty Driven by Local Communities in West Kalimantan (Kapuas Hulu, Sintang, Sanggau)

An ethnographic study by Bakudapan (2025) across Kapuas Hulu, Sintang, and Sanggau documents food resilience rooted in biodiversity, traditional processing knowledge, economic solidarity, and community adaptability to changing landscapes.

In Kapuas Hulu (Lake Sentarum), the Dayak Iban and Tamambaloh indigenous communities preserve dozens of upland rice seed varieties in the sadau[4] (loft) of their *Rumah Betang*, utilize *sengkuba*[5] leaves as natural seasoning, and smoke fish from local peat swamps. Through Warung Makan Padmi in Lanjak Deras, Maria Itotanti pioneers indigenous culinary diplomacy while building a circular economy alongside women fishers to break their dependence on middlemen.

In Sintang, Velisitas's Jerau Café serves wholesome Dayak Seberuang natural forest foods that are free from synthetic seasoning. Meanwhile, at the Ensaid Panjang *Rumah Betang*, Mamak Katarina Andriani forages wild edible plants and natural textile dyes from the Tawang Serimbak Customary Forest, while advocating for the preservation of household energy self-reliance anchored in traditional longhouse living.





Photo Source: Bakudapan

[4] *An attic space or granary situated in the upper section of a Rumah Betang*
[5] *A wild plant native to West Kalimantan, traditionally known as a natural flavor enhancer*

In Sanggau, the Meliau Hulu Family Welfare Empowerment (PKK) group adapts amidst extensive oil palm plantations—which engulf 24.63% of their home territory—by harvesting palm hearts *(umbut)* and palm mushrooms *(kulat)*, fermenting river fish *(pekasam)*, and preparing seasonal wild greens.

Collectively, these practices highlight the leadership of women as custodians of food knowledge and drivers of site-level economies. Local culinary diplomacy and community-led food diversification have proven indispensable to safeguarding ancestral living spaces and sustaining regional ecological resilience.

Full study details can be accessed via the QR code above

B. Food–Water–Renewable Energy Nexus Approach

Sigi has secured USD 1 million in grant funding from the Adaptation Fund, which will run until 2028, to strengthen village resilience for climate change adaptation, particularly in communities vulnerable to flash floods. The initiative focuses on strengthening sustainable local food systems by securing access to clean water and irrigation alongside deploying renewable energy solutions. These interventions are being delivered through a consortium comprising Yayasan Koaksi Indonesia, AWS Indonesia, and the Earth Innovation Institute across six intervention villages in Sigi District.



C. Local Food System Innovations for Health and Value-Added Products

Healthy food innovations are driven by business incubators and local research entities across three districts. In Sigi District, Gampiri Interaksi Lestari promotes the downstream processing of moringa into diverse health and wellness products. Meanwhile, in Siak District, the Siak Innovation Lab (under Alam Siak Lestari) has formulated a moringa-based dietary supplement branded “Yomom,” specifically tailored for breastfeeding mothers.

Additionally, Sintang Semesta Lestari (SSL)—a local food-focused R&D enterprise in Sintang, West Kalimantan—develops culinary seasonings derived from wild forest spices as well as nutrient-dense biscuits made from giant snakehead fish *(ikan toman)* powder to combat stunting in toddlers.





3 Land Use

The granting of management rights over forested areas and community living territories—whether through Social Forestry schemes, lands subject to agrarian reform (TORA), or the protection of forested areas for other purposes (APL)—marks a significant milestone in improving agrarian governance in Indonesia. Yet at the site level, legal certainty and tenurial access are merely the point of entry. Without robust institutions, clear spatial planning, and inclusive business models, the issued permits risk yielding limited tangible economic impact while leaving land vulnerable to re-degradation.

To address this challenge, LTKL focuses its landscape interventions on post-permit strategies and the optimization of these management rights into community-based economic models. Through multi-stakeholder collaboration with local governments, communities, and field partners, these interventions are designed to transform formal management rights into environment-based economic models and foster adaptive land-use practices.

A. Community Rights in Land Management

Securing land tenure and participatory spatial planning serve as the foundation for protecting community living spaces from deforestation and extractive industry expansion.

a. Social Forestry

- **Integrating Village Spatial Planning and Community Enterprises in Kapuas Hulu and Sanggau**

  To address monoculture oil palm expansion in the Bentarum Landscape (Kapuas Hulu District) and overlapping mining concessions in the Mendawak Landscape (which partly includes in Sanggau District), Yayasan Sangga Bumi Lestari is facilitating the development of Village Spatial Plans (RTRD) in collaboration with relevant local government agencies across six supported villages in 2025–2026. The plan provides legal protection for community living spaces by designating village territories into protection and production zones. This zoning is substantiated by scientific evidence from biodiversity camera traps deployed in High Conservation Value (HCV) areas.





To develop economic alternatives within production zones, communities run the "Sangga Bumi Farming" initiative. In Kapuas Hulu, the initiative has verified 42 partner farmers and delivers both hydroponic and conventional vegetables from the Mataso Sangga Hub directly to consumers (business to consumers/B2C). Meanwhile in Sanggau, market trials are underway to channel vegetable produce to commercial clients (business to business/B2B) as well as end consumers (B2C). This participatory spatial planning approach, coupled with integrated horticulture, establishes a viable deforestation-free business model that maintains forest cover while enhancing community food security.

- **Integrated Area Development in the Teraju Customary Forest, Sanggau District**

  Facing intense pressure from the expansion of oil palm plantation, mining, and industrial timber plantations in Sanggau District, Teraju Indonesia (an LTKL partner) initiated an Integrated Area Development (IAD) approach. This pilot initiative is being piloted over a six-month period from June to November 2026 in the Customary Forest of Teraju Village, Toba Sub-district, Sanggau District.

  Through the Sabang Merah Berdompu multi-stakeholder forum, the initiative formulated an action plan and policy recommendations to advocate for integrating customary management areas into the revision of the district spatial plan (RTRW). At the site level, the program completed the technical documentation for participatory mapping to support a formal proposal to the Ministry of Forestry, established a local management institution, and delivered GPS-based forest monitoring training[6].

[6] *Global positioning system is a satellite-based navigation system that accurately determines location, velocity, direction, and time on Earth.*



- **Optimizing Forestry Partnerships in Dosan Village, Siak District**

  Following the resolution of a 20-year land dispute between the community of Dosan Village, Siak District, and PT Arara Abadi, the government issued a Social Forestry permit in 2023 under the Forestry Partnership scheme, covering 1,132 hectares and benefiting 525 households. Subsequently, PT Arara Abadi allocated IDR 1.7 billion in community empowerment funds, though disbursement was initially delayed due to communication challenges. Perkumpulan Elang facilitated a tripartite dialogue between the company, the residents, and strengthened the governance of the Forest Farmer Group Association *(Gapoktanhut)* to ensure the accountable utilization of these funds. Through this collaboration, residents implemented an integrated farming model combining cattle farming with horticulture, and established an agroforestry demonstration plot planted with 1,000 coffee seedlings and 500 sugar palm trees.



- **KARSA's Support for IAD in Sigi District**

  As part of the Sigi Hijau Multi-Stakeholder Partnership (KMP), KARSA Institute successfully safeguarded sustainable land governance by integrating the Sigi Hijau agenda into two strategic regional planning documents: the Regional Medium-Term Development Plan (RPJMD) and the Integrated Area Development (IAD) Document. Comprehensive technical assistance covered spatial identification, land-use data consolidation, policy drafting, and formal adoption. This integration ensures that Social Forestry schemes and landscape conservation are officially adopted as regional development priorities, establishing the foundation for developing a restorative economic model. Consequently, this milestone establishes a direct mandate for relevant local government agencies to cascade green actions into Strategic Plans (Renstra), annual work plans (Renja), and Sigi District's regional budget (APBD) allocations.



- **Restorative Economy-Based Customary Forest Management Model**

  Since May 2025, Yayasan Puter Indonesia (as the facilitating partner) and Conservana (as the off-taker) have been strengthening the institutional capacity of KUPS Ngata Toro, the community forest enterprise managing the 1,746-hectare Ngata Toro Customary Forest in Sigi District. Key interventions include establishing a one-hectare agroforestry demonstration plot as a shared learning hub and activating a pooling station. These efforts ensure that high-value, forest-friendly commodities—such as vanilla and citronella—are standardized and absorbed directly by industrial buyers. Additionally, the initiative integrates a local food-security approach, recognizing Toro as Sigi District's primary rice granary.



b. Lands Subject to Agrarian Reform (TORA)

- **TORA in Bunga Village, Sigi District**

  Sigi District is pioneering land management through a communal-based TORA scheme. This communal approach serves as a strategic measure to prevent using individual TORA certificates as loan collateral, while ensuring land is managed in an integrated and sustainable manner.

  Over a three-year period, the Sigi District Government and the Agrarian Reform Task Force (GTRA) developed an innovative TORA management model in Bunga Village, covering 72 hectares for 42 beneficiaries. To strengthen governance at the site level, Yayasan Puter Indonesia supports the Sigi District Government in establishing farmer groups and is currently providing technical assistance for value-added enterprises centered on candlenut and sugar palm.





TORA Milestones in Bunga Village

Phase 1: Initiation & Identification (Jun 2023 – Nov 2024)

Initiation of 107 hectars of former Commercial Use Rights (HGU) land previously held by PT Tulus Sintuvu Karya in Bunga Village by the Sigi District Head and the Agrarian Reform Task Force (GTRA), resulting in a 72-ha Other Utilization Area (APL) TORA proposal submitted to the Ministry of ATR/BPN for 42 prospective

Phase 2: Legal Establishment & Beneficiary Verification (Jun – Dec 2025)

Issuance of ATR/BPN Ministerial Decree designating TORA lands sourced from State General Reserve Land (TCUN), followed by a Sigi District Head Decree validating the 42 targeted beneficiaries and establishing a multi-stakeholder TORA Taskforce.

Phase 3: Ground Verification & Spatial Planning (Jan – Apr 2026)

Spatial mapping of the 72-hectares area which is divided into 42 land parcels alongside allocations for communal facilities (research demonstration plots, plant nurseries, and water spring protection zones)

Phase 4: Land Allocation & Tenure Schemes (May – Sep 2026)

Conducting a lottery draw to allocate the 42 parcels and installing 168 boundary markers under a fixed-term tenure scheme (a 30-year grant over Land Bank Authority Right to Manage /HPL), featuring an option to upgrade to Freehold Title *(Hak Milik)* following 10 years of continuous productive use.

Phase 5: Business Model Development (Way Forward)

Strengthening site-level institutions (farmer groups and cooperatives), piloting demonstration plots for high-potential commodities, and opening sustainable market access, including through Gampiri Bumi Lestari.

HGU *(Hak Guna Usaha)*: Commercial Use Rights
HPL *(Hak Pengelolaan Lahan)*:
Right to Manage/Land Management Rights
Kementerian ATR/BPN: Ministry of Agrarian Affairs and Spatial Planning/National Land Agency of the Republic of Indonesia

c. Forested Areas for Other Purposes (APL)

- **Legal Foundation of *Rimba Gupung* and Sustainable Enterprise Management in Sintang**

  The Sintang District Government has issued regulations regarding *Rimba Gupung*—customary territories situated within forested Areas for Other Purposes (APL). As of 2014, a total of 2,113.04 hectares across 19 villages received formal legal recognition under the *Rimba Gupung* framework to prevent deforestation outside the state forest estate. However, communities granted these management rights face constraints in developing viable business models capable of generating local revenue without degrading forest cover.

  To address this challenge, Yayasan Uncin Batu Senentang (YUBS) facilitated customary agreements grounded in Free, Prior, and Informed Consent (FPIC) principles across Mensiku, Ensaid Panjang, and Jentawang Hilir villages. This consensus laid the groundwork for exploring a co-management partnership over High Conservation Value (HCV) areas with PT Bukitprima Platindo. This initiative is coupled with the development of an agroforestry research plot featuring coffee and productive crops in collaboration with the Sintang District Environmental Agency (DLH) to restore tree cover. The program has formulated business plans for local processed fish and coffee products, while establishing an agroforestry demonstration plot supported by the distribution of 8,400 productive and conservation tree seedlings from the Sintang DLH.







B. Land Management Approaches: Regenerative Agriculture and Agroforestry

Beyond securing land access and management rights, interventions also focus on transforming cultivation practices at the site level to ensure that economic productivity does not compromise ecosystem carrying capacity.

- **Reducing Deforestation through Adaptive Farming in Conservation Area Buffer Zones**

  High reliance on maize monoculture and the harvesting of fuelwood for the palm sugar industry have driven forest encroachment in the buffer zones of Bogani Nani Wartabone National Park (TNBNW) and the Nantu-Boliyohuto Wildlife Reserve (SM). To address this challenge, the Bone Bolango and Gorontalo District Governments collaborated with Japesda and Yayasan Planet Indonesia to launch an adaptive farming program through the *"Lumbung Pangan Lestari"* (Sustainable Food Granary) Farmer Groups.

  Targeted interventions were implemented across four villages spanning both districts (Ilomata, Suka Makmur, Pilolaheya, and Pangahu). The program encompasses geospatial mapping of deforestation-prone hotspots, self-sufficient organic fertilizer training for 120 households to break dependency on expensive synthetic fertilizers and agrochemicals, and the establishment of family food gardens to improve the Desirable Dietary Pattern (SPPH) score. To serve as a benchmark for replication, the initiative conducted a comparative study between maize monoculture in Ilomata Village and a successful agroforestry model in South Dulamayo (Dulamayo Selatan) Village.

  Furthermore, research conducted by Cendekia Iklim Indonesia across four LTKL member districts has established an agroforestry reference model with the following profile:

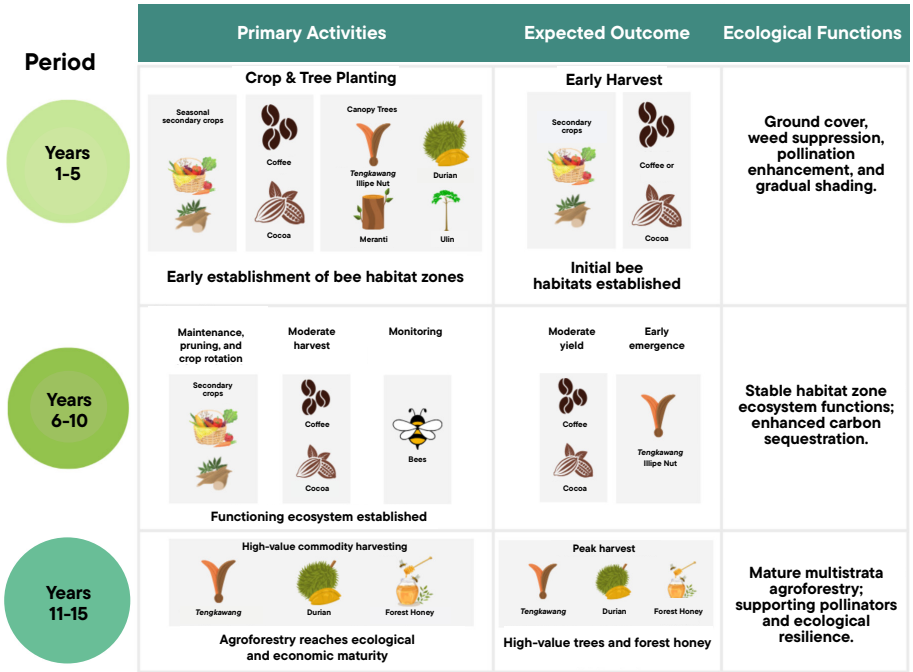


Figure 5. Management and Production Scheme of the Multifunctional Agroforestry System (Years 0–15)

4 Sustainable Commodity Supply Chain Governance

Oil palm and monoculture commodities have long served as the economic backbone for most districts across Indonesia. However, anchoring a district's future to unchecked land expansion is no longer a viable pathway. LTKL is driving a transformation in plantation commodity governance: steering the palm oil sector toward deforestation-free practices while strengthening the competitiveness of independent smallholders and unlocking new economic opportunities beyond raw materials.

Through multi-stakeholder collaboration at the district level, this approach focuses on two core pillars: safeguarding landscapes to halt large-scale encroachment into forested areas, and creating adding value—from smallholder legality, sustainability certification, to utilizing commodity waste as a source of renewable energy.

A. Sustainable Landscape Maturity Assessment in Aceh Tamiang, Siak, and Sintang

LTKL member districts serve as "living laboratories" in operationalizing jurisdictional approaches to realize sustainable commodity supply chains. Since 2018, this approach has attracted global buyers committed to deforestation-free practices, notably through the Forest Positive Coalition (FPC). In line with this trend, international certification and reporting bodies such as ISEAL and CDP have developed Landscape Maturity frameworks to evaluate a jurisdiction's readiness to achieve independent sustainability.

Based on diagnostic assessment findings across Aceh Tamiang, Siak, and Sintang, progress toward a self-sustaining landscape demands focused improvements across several priority areas:

1. Strengthening data governance integration and reporting accountability across all three districts.
2. Enhancing local institutional capacity and operational self-reliance.
3. Optimizing the strategic role of dedicated backbone teams to maintain cross-sector coordination and accelerate progress toward sustainable landscape status.



B. Multi-Stakeholder Monitoring Dashboard Across Nine Districts

To optimize regional data governance, LTKL collaborates with MapBiomas Indonesia (Auriga Nusantara) to develop District Dashboards managed through a multi-stakeholder body. This open-data platform integrates spatial, statistical, and qualitative datasets from local governments, development partners, and the private sector into a single, accountable public portal.

Sustainable District Dashboard

By visualizing shared targets, collaborative actions, and district investment portfolios, this dashboard serves as an operational instrument for transparency and evidence-based policymaking. This integrated data infrastructure streamlines cross-sector collaboration, accelerates targeted capital investment, and delivers direct progress across participating districts. At the secretariat level, the collective progress and milestones across all nine member districts can also be tracked through the LTKL monitoring dashboard.

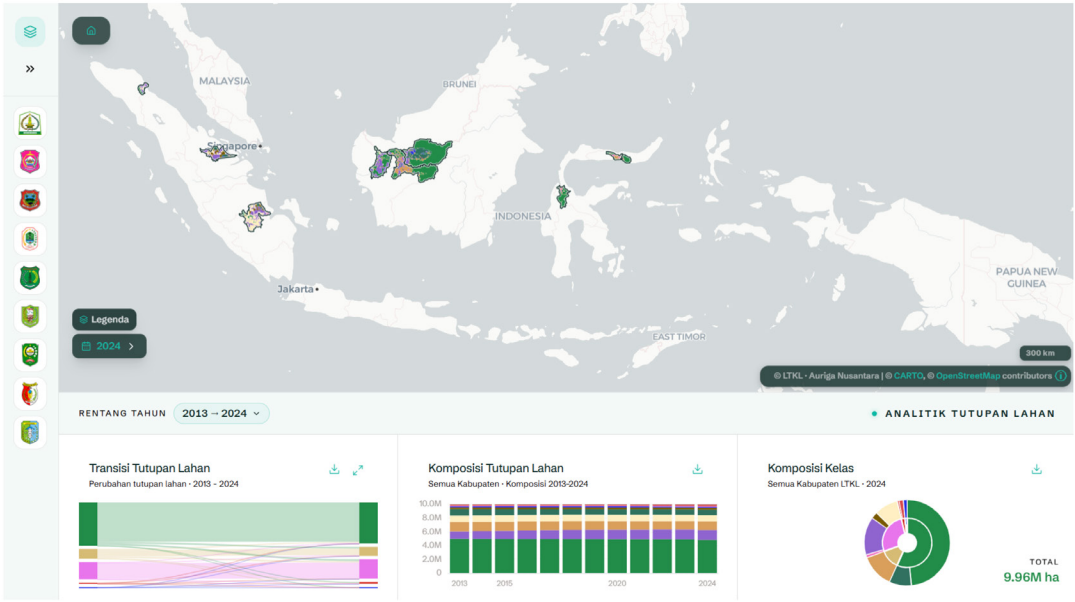


Figure 6. Screenshot of the Sustainable Districts Collaborative Monitoring Dashboard.

C. Supply Chain Mapping for Plantation and Alternative Commodities (Non-Timber Forest Products)

Initiated in 2025, LTKL partnered with Auriga Nusantara to establish supply chain maps and traceability systems across major plantation commodities (oil palm, rubber, coffee, and cocoa) through two integrated approaches:

- Upstream participatory mapping, engaging independent smallholders, farmer group associations *(Gapoktan)*, and local stakeholders to verify parcel boundaries, land tenure status, vegetative cover, and cultivation practices.
- Supply chain mapping to trace commodity flows, transaction volumes, and value addition–from smallholders and local collectors to processing mills, exporters, to destination markets.

Furthermore, supply chain mapping was also conducted for alternative commodities, specifically Non-Timber Forest Products (NTFPs), supported by Geonusa Consulting across West Kalimantan (Sintang, Sanggau, and Kapuas Hulu) and Sulawesi (Sigi, Gorontalo, and Bone Bolango). In Sulawesi, findings indicate that integrating shared regional crops—such as coconut, sugar palm, candlenut, and clove—into mixed agroforestry systems has successfully boosted smallholder household incomes. Meanwhile, in West Kalimantan, assessments concentrated on NTFPs and wild forest fruits.

Integrating end-to-end supply chain data with district administrative records and local regulatory frameworks ensures traceability of origin and meets global and domestic due diligence compliance for deforestation-free sourcing. Furthermore, this initiative reinforces smallholder land tenure and institutional legitimacy, securing fair pricing across formal supply chains.



D. Community-Based Traceability Systems in Sigi District

Commodity traceability has become a mandatory prerequisite in international trade, driven by the enforcement of deforestation-free regulatory frameworks such as the European Union Deforestation Regulation (EUDR). In response, Sigi District partnered with Yayasan Puter Indonesia to develop a traceability system for local operators across seven pilot villages, establishing self-reliant participatory mapping capabilities. Through dedicated technical training, village operator teams independently record geographic coordinates and polygon boundaries for various agroforestry plots—including cocoa, coffee, and vanilla—eliminating the need for external surveying services. This initiative equips smallholders with robust spatial datasets to underpin future traceability compliance and joint commodity planning with upstream aggregators. For village administrations, the data provides essential clarity on sub-village *(dusun)* boundaries and ensures that local land-use patterns do not encroach upon protected areas. Building on this operational success, the model is designated as a "green village" innovation targeted for broader replication at the district and provincial levels.

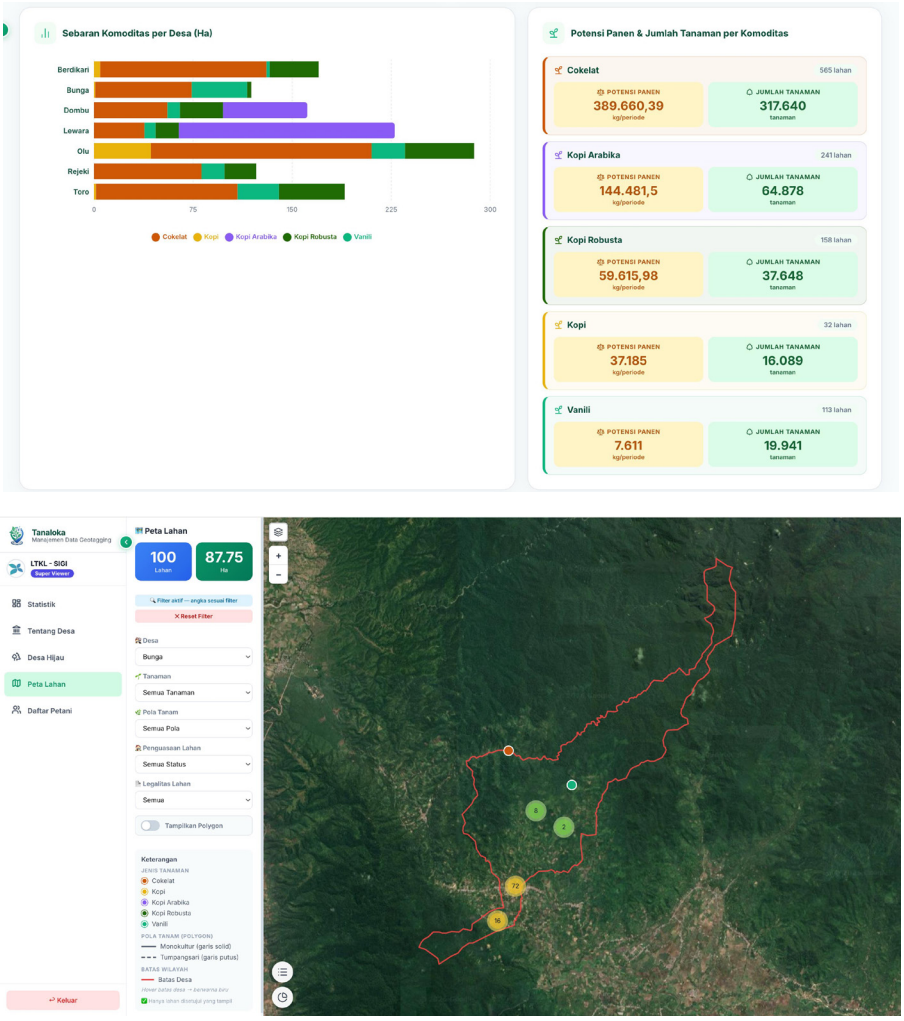


Figure 7. Screenshot of the Tanaloka Platform for Participatory Commodity Traceability Mapping

5 Innovative Local Enterprises

Regional economic growth does not need to rely on large-scale land clearing for monoculture plantations. LTKL member districts demonstrate that the biodiversity naturally surrounding local communities—ranging from Non-Timber Forest Products (NTFPs) and agroforestry crops to native commodities like pineapple and *tengkawang* (illipe nut)—holds high economic value when managed through innovative models.

LTKL supports the development of this bioeconomy supply chain across the entire value chain. By establishing local aggregators that operate both as business incubators and trading hubs, fostering research and development (R&D) for value addition, and ensuring commercial-grade product traceability, nature-based enterprises in these districts are positioned to access broader national and global markets.

A. Strengthening Local Incubators Across Four Member Districts

To bridge critical gaps in access to capital, legal compliance, and markets for grassroots green entrepreneurs, LTKL supports the institutional strengthening of business incubators and creative hubs managed by local youth leaders.

- **Gampiri Interaksi Lestari (Sigi District)**
  Gampiri solidified its institutional capacity by earning a Grade B accreditation from the Ministry of Cooperatives and SMEs, placing it among the nation's top 100 business incubators on the SIPENSI[7] platform. The organization has steered the growth of 89 active tenants[8] across diverse entities (MSMEs, cooperatives, and Tourism Awareness Groups/*Pokdarwis)*. Its approach integrates nature-based enterprise incubation with business-to-business (B2B) market activation, alongside deploying a profit-sharing, productive micro-investment scheme (the Impact Fund). Detailed mapping of incubated enterprises is accessible at https://tenant-gampiriinkubasi.netlify.

- **Samudra Bekudong'k (Sanggau District)**
  Serving as an incubation and creative services center, Samudra connects youth talent with market demand through a Creative Service Hub model. Through its TUMBUH program, the organization has engaged 25 MSMEs, curating high-potential enterprises for intensive incubation and business matching forums, while generating real job opportunities for local youth within the creative economy sector.

- **Gemilang Sintang Lestari (Sintang and Kapuas Hulu Districts)**
  Through 2026, Gemilang has supported a total of 66 sustainable enterprises through its GEMARI incubation program and strategic partnership initiatives. This intervention successfully mapped 73 priority nature-based local products. The initiative also helped refine business viability for key community groups, such as Koperasi Jasa Menenun Mandiri and the Bukit Rentap area management group, enabling them to secure broader market access and green financing. Gemilang has also expanded its operations into Kapuas Hulu District, assisting 36 MSMEs in developing nature-based Regional Flagship Products (PUD).

[7] *SIPENSI: The Incubation Registration and Evaluation Information System, managed by the Ministry of Micro, Small, and Medium Enterprises (Ministry of MSMEs)*

[8] *Supported business unit*

- **SKELAS (Siak District)**

  In support of the Siak Green District agenda, SKELAS drives the KUBISA program, which has incubated 26 peatland-friendly enterprises—with women representing the majority of beneficiaries. The program has delivered demonstrable impacts, including an average monthly income increase of up to 52% for participants, full compliance of key business legality standards (Home Industry Food/PIRT[9] and Halal certification), and facilitated access to zero-interest financing as well as modern retail shelves.





By establishing and building the capacity of local incubators, this approach aims to ensure that regional entrepreneurial ecosystems can continuously cultivate self-reliant, competitive, and sustainable enterprises.

B. Trading Hubs Connecting Sigi's Agroforestry Commodities to Premium Supply Chains

Advancing a restorative economy at the ground level requires assured market access and processing infrastructure that ensures equitable returns for farmers. Supported by LTKL, PT Gampiri Bumi Lestari (GBL) operates as a regional trading hub and supply chain aggregator, managing operations spanning harvest logistics and collection centers to post-harvest processing facilities. GBL links smallholder commodities directly to national off-takers—specifically Java Kirana for coffee and Conservana for Non-Timber Forest Products (NTFPs)—while expanding regional coffee distribution across Sigi, Palu, and Gorontalo.

In the coffee sector, the partnership with Java Kirana strengthens post-harvest governance by operationalizing three local processing units (mini-mills) across Lewara and Rejeki villages, Sigi District, alongside a primary processing facility in Palu City. Backed by a revolving fund mechanism and operational financing, the initiative has procured 11.1 metric tons of green coffee beans from 29 partner farmers as of 2026, generating a direct financial turnover of IDR 612 million. In addition, it has delivered technical assistance in sustainable cultivation practices to 50 smallholders.





[9] *Home-Industry Food/PIRT refers to the official marketing authorization granted for processed food and beverage products produced by home-scale businesses.*

For NTFPs, collaboration with Conservana consolidates agroforestry supply chains across nine sub-districts in Sigi District. Through a dedicated collection center in Toro Village, Sigi, and an essential oil distillation unit, this partnership has directly sourced 1.02 tons of vanilla along with 1.28 tons of citronella and patchouli from partner farmers.

C. Local Enterprises Drive Peat-Friendly Downstream Processing into Commercial Markets in Siak

Bioeconomy innovations based on peat-friendly commodities in Siak District demonstrate that peatland protection can advance hand-in-hand with the creation of high-value economic returns.

- **PT Swarnabhumi Lestari Food (Pinaloka)**
  Pinaloka processes pineapples that are grown through intercropping between young oil palm stands, which is an agroforestry practice that helps mitigate peat fires. From these harvests, the enterprise produces value-added goods meeting national quality and health standards (SNI[10] and BPOM[11]). Its portfolio includes canned beverages, syrups, and jams, while also repurposing 70% of production waste into fermented pineapple vinegar. Pinaloka's products now reach 17 retail outlets in Pekanbaru and supply raw materials to six bakery and café chains. This circular business model delivers direct economic incentives at the ground level, sourcing harvests from nine pineapple growers across three partner groups and employing eight local youth individuals.

- **Alam Siak Lestari (ASL)**
  Downstream processing of snakehead fish *(Channa striata)* extracted by ASL has successfully penetrated the medical market with two BPOM-licensed formulations: Albugo (albumin capsules) and Yomom (a breast milk booster). ASL's distribution network grew by 57% to cover 336 pharmacies and healthcare facilities across Riau Province and five cities in West Sumatra, underpinned by clinical partnerships with Tengku Rafi'an Regional Public Hospital (RSUD) in Siak, medical specialists, and midwives. In the first half of 2026, this commercial strategy generated cumulative sales of 3,392 bottles of Albugo (valued at IDR 538.5 million) and 322 bottles of Yomom (valued at IDR 45.7 million), proving the market viability of peat-conservation-based health products.





[10] *SNI or Indonesian National Standard certification is the official national quality and safety approval required for specific goods sold or imported in Indonesia*

[11] *BPOM or Indonesian Food and Drug Authority is the national regulatory body responsible for overseeing the safety, quality, and distribution of food, drugs, cosmetics, and other regulated products in Indonesia*

D. Research and Development: From Laboratory to Commercial Markets

Semesta Sintang Lestari (SSL) demonstrates that district-level, nature-based research and development (R&D) facilities can operate both independently and profitably. Between 2024 and 2026, SSL generated an estimated cumulative revenue of IDR 693.9 million across two primary pillars: downstream functional food processing and applied research services for local enterprises.

- **Functional Food Processing and Nutritional Interventions**
  Addressing Sintang's stunting prevalence, which reached 29.8% in 2025, SSL developed Bischo, a nutrient-dense biscuit formulated with protein concentrates from local snakehead *(ikan gabus)* and giant snakehead *(ikan toman)*. Through 2026, production reached 17,301 packs (865 kg), absorbing approximately 600 kg of locally caught fish. Bischo has been integrated into Sintang District's public procurement pipeline through a formal partnership with the Office of Family Planning, Women's Empowerment, and Child Protection *(Dinas KBP3A)*, supplying 20 community health centers *(Puskesmas)*. SSL also expanded its high-value Non-Timber Forest Product (NTFP) portfolio to include *maram* fruit syrup, wild *bidar* fruit jam, and accelerated market authorization for its Albuneo albumin extract.

- **Applied Research Services and Quality Standardization**
  To overcome limited laboratory access for local enterprises, SSL offers commercial research services, securing four new corporate partnership clients in 2026. SSL's service portfolio spans quality standardization for *kesum* leaf seasonings, feasibility testing for processed regional foods, efficacy assessments for farmer-produced organic fertilizers, and value-addition research for snakehead fish skin waste.





Photo Source: Kelas Pagi Pangan

E. Building Innovative Financing Vehicles for Local Enterprises in Sintang and Sigi

Heavy reliance on grant funding remains a major bottleneck for grassroots sustainable MSMEs, frequently triggering operational collapse once programs end due to their lack of readiness for accessing commercial capital. To bridge this gap, LTKL facilitated the design of innovative financing vehicles throughout 2026. Through joint research with Instellar in Sintang District and Zerone in Sigi District, the initiative established a strategic roadmap transitioning enterprises from grant dependence to self-sustaining financing.

In Sintang District, the collaboration with Instellar produced an operational blueprint and investment architecture grounded in local market feasibility assessments. This framework outlines investment governance standards and specialized technical assistance curricula to bring MSMEs to investment readiness. Tailored to West Kalimantan's socio-economic landscape, the financing structure is designed to complement the region's deeply rooted Credit Union (CU) ecosystem, ensuring seamless integration without duplicating existing financial infrastructure.

In Sigi District, the partnership with Zerone established due diligence procedures and capital disbursement standards for cooperatives and Social Forestry groups in the Lore Lindu National Park buffer zone. The framework focuses specifically on priority commodities, including cocoa, coffee, and NTFPs like vanilla. Accounting for the vulnerability of micro-enterprises previously impacted by natural disasters, this mechanism leverages local intermediaries, notably Gampiri Interaksi Lestari, to verify field conditions and actively safeguard governance compliance before enterprises access third-party capital.





F. Landscape Portfolios

LTKL member districts are developing and validating landscape-based investment portfolios targeting critical ecosystems and priority commodities. In collaboration with partners across market research, landscape mapping, and financial modeling, these portfolios will be integrated into and regularly updated through each district's dedicated dashboard.

Funding needs assessments have been completed across Sintang, Sanggau, Kapuas Hulu, and Sigi districts. Supported by LTKL partners such as Prakarsa and Maxi Consulting, investment readiness was evaluated across governance, ecological carrying capacity, socio-cultural dynamics, and business viability. Rather than fast-tracking pipeline projects, the primary focus is identifying actionable, near-term interventions (low-hanging fruit) to solidify local economic foundations. In Kapuas Hulu, it prioritizes the Lake Sentarum landscape, focusing on wild honey, native forest fruits, capture fisheries, and kratom; in Sanggau, it focuses on *tembawang*[12] agroforestry commodities, indigenous rice varieties, and biopharmaceuticals (medicinal plants); and in Kelutap Landscape (Sintang), the program directs support toward ecotourism, horticulture such as durian, and high-value spices such as bird's eye chili, and ginger rhizomes.





[12] *A traditional land management system in agroforestry, indigenous to the Dayak people of West Kalimantan*

6 Policy and Innovative Financing

Systemic change at the district level will be sustainable only if anchored by two foundational pillars: binding regulatory frameworks and subnational fiscal resilience. Amid narrowing local fiscal space (APBD) and shifting national policy landscapes, regional governments must pursue fiscal breakthroughs to sustain development agendas without relying entirely on external grants.

LTKL assists member districts in conducting fiscal mapping and structuring innovative financing mechanisms. Through APBD assessments, LTKL maps green expenditure allocations and identifies pathways to strengthen regional fiscal autonomy. To break direct dependence on statutory budgets alone, LTKL advances sustainable public and private procurement that prioritizes local green commodities, mobilizes non-governmental impact investment, and strengthens regulatory frameworks to unlock supplementary climate financing from the central government.

A. Public Financing

Optimizing regional budget allocations and public expenditure to support ecosystem protection programs and high-value local commodities.

- **Leveraging Public Health Procurement for Sustainable Commodities (Sintang)**

  Drawing from its applied research on snakehead fish derivatives[13], Semesta Sintang Lestari (SSL) developed Bischo—a nutrient-dense snakehead fish biscuit designed to address grassroots stunting through partnerships with integrated health posts *(posyandu)* and village midwife networks. Supported by this local public procurement mechanism, SSL more than doubled its revenue—recording a 204% increase in the first quarter of 2026—demonstrating that sustainable commodities can simultaneously fulfill high-priority public policy objectives and achieve commercial self-sufficiency.

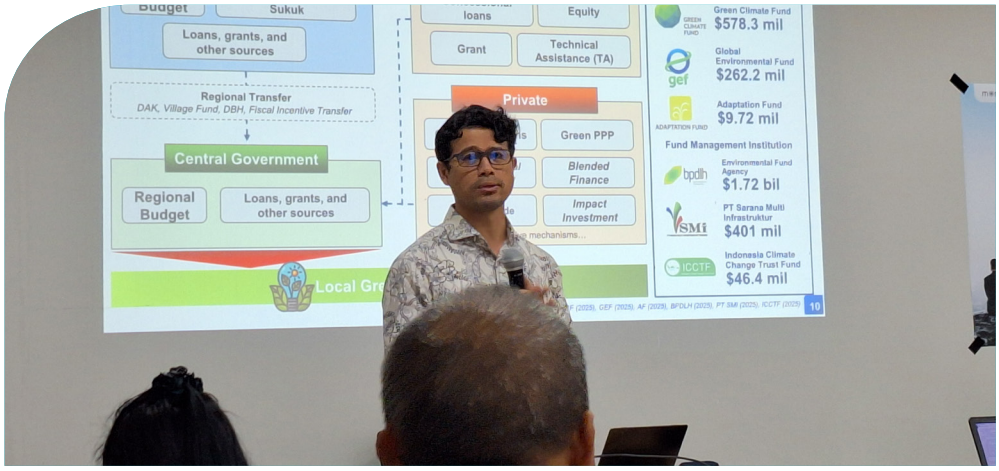


[13] *Further details on the Semesta Sintang Lestari research are provided on page 41*

- **Aligning Regional Climate Policies: Enhancing Planners Capacity through FOLU Net Sink 2030**

  To address the challenge of integrating national climate targets at the grassroots level, LTKL facilitated capacity building for subnational planners and civil society coalitions through a strategic partnership between Perkumpulan Mandala Katalika Indonesia (Manka) and the Ministry of Home Affairs (Kemendagri). This initiative convened policy analysts from Regional Development Planning Agencies *(Bappeda)* and Environmental Agencies (DLH) across five districts—Aceh Tamiang, Siak, Sintang, Sanggau, and Kapuas Hulu—alongside local civil society organizations: Lembaga Bela Banua Talino (LBBT), Perkumpulan Elang, and Gerakan Anti Korupsi (GeRAK) Aceh.

  The technical assistance aims to align district-level policy frameworks with provincial FOLU Net Sink 2030 integration strategies, opening pathways to innovative financing mechanisms. Applying these analytical capabilities, the cohort produced evidence-based policy briefs linking field-level priorities—such as palm oil moratoriums in Sintang, sugar palm downstreaming in Sanggau, and patchouli conservation in Aceh Tamiang—directly into provincial spatial and land-use plans to advance Indonesia's net carbon sink targets (FOLU Net Sink 2030).





- **Fiscal Resilience: Strengthening Sustainable Development Budget Autonomy Across Eight Districts**

  Sustainable development at the grassroots level is frequently constrained by limited subnational fiscal space. A fiscal resilience study conducted by PATTIRO and LTKL across eight member districts—Siak, Musi Banyuasin, Sanggau, Sintang, Kapuas Hulu, Sigi, Bone Bolango, and Gorontalo—reveals vulnerable subnational budget (APBD) structures, with reliance on Central Government Fiscal Transfers (TKD) exceeding 80%, and climbing to 90% in Kapuas Hulu.

  In response to these structural vulnerabilities, the assessment categorizes regional adaptations across three levels of fiscal resilience: absorptive capacity through spending efficiencies across routine operational expenditures; adaptive capacity by maintaining Ecological Fiscal Transfer (EFT/TAKE) schemes at the village level across Siak and Sigi; and transformative measures by streamlining regional government agencies (OPD) in Gorontalo and Bone Bolango to curb administrative and bureaucratic overhead.

  To ensure long-term sustainability, the initiative developed an alternative financing roadmap. Key priorities include operationalizing Green Budget Tagging to track climate-related spending across line agencies, diversifying Locally Generated Revenue (PAD) through ecosystem services like ecotourism and sustainable fisheries, and structuring a green project portfolio to absorb private and non-governmental impact investment.





B. Private Financing

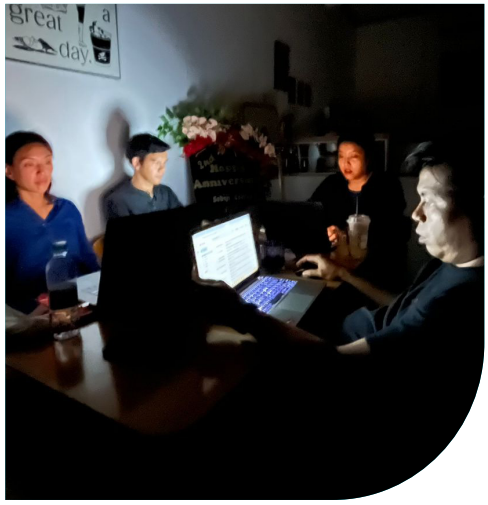
- **Mobilizing Investment to Scale Nature-Based Enterprises**

  Strengthening nature-based enterprises at the grassroots level requires financing instruments tailored to local business characteristics. In collaboration with impact fund managers Nusa Transformation Venture (NTV) and Terratai, LTKL facilitates the deployment of flexible working capital to accelerate the self-reliance of sustainable ventures.

  A notable success is Forestwise in West Kalimantan, which develops wild-harvested *tengkawang* (illipe nut) supply chains. A combined capital injection which comprises a USD 50,000 working capital loan from Terratai and a USD 70,000 Simple Agreement for Future Equity (SAFE) from NTV has driven significant operational milestones: debt repayment completed one year ahead of schedule, a 325% surge in sales in 2024, and a 2.25-fold income increase for 804 partner farmers. This innovative financing pipeline continues to expand across member districts:

  - **NTV** has deployed 100% of its capital allocation across three portfolio companies. This includes a convertible note (IDR 1.45 billion) and a working capital facility (IDR 660 million) for Arconesia in climate-adaptive agriculture, direct equity investment in PT Alam Siak Lestari (ASL) for peatland-based downstreaming, and investment in Forestwise. This financing contributes to the broader operations of these three enterprises, which leverage their own resources and community partnerships to cumulatively reach over 2,000 local residents and support the protection of up to 400,000 hectares of critical ecosystems.
  - **Terratai,** through its Jembatan catalytic financing facility, leveraged LTKL capital as an anchor to crowd in and disburse USD 585,000 in total green financing alongside co-funders, incorporating Sharia-compliant guarantee mechanisms. This blended facility continues to deploy capital into high-potential grassroots ventures, including MYCOLAB Tech in Aceh Tamiang.





C. Policy

- Regulatory Impact Assessment for Nature-Based Regional Priority Products

  Subnational policies often stall after regulatory enactment, lacking rigorous evaluation of implementation effectiveness and real-world impact. To address this gap, the West Kalimantan Provincial Government, in collaboration with LTKL and the Center for Islamic Economics and Business at Universitas Indonesia (PEBS UI), conducted a Regulatory Impact Assessment (RIA) on Nature-Based Regional Priority Products (PUD) regulations, drawing empirical insights from three LTKL member districts: Sintang, Sanggau, and Kapuas Hulu.

  The RIA established several strategic priorities to optimize regional policy implementation:

  - Prioritizing high-leverage commodities: Pilot models for nature-based PUD should prioritize commodities with high output multipliers and strong backward linkages, such as nature-based food and beverage processing.

  - Quantifiable economic projections: Subnational economic impacts can be systematically modeled across conservative and moderate scenarios to project regional fiscal revenue and employment generation.

  - Long-term investment returns: While sustainable supply chain infrastructure demands higher upfront capital expenditure, developing nature-based PUD yields substantially higher and more durable returns on investment for the regional economy.



7 Community Organizing

Strengthening policy at the district level requires a solid foundation at the grassroots. District policies are truly effective only when grounded in the real-world conditions and lived priorities of local communities. To anchor policy in practice, LTKL integrates community organizing as a core pillar of its systems-change approach. Through field facilitators, LTKL maintains ongoing dialogue and routinely maps local social dynamics.

The primary function of this ground-level intervention is to ensure that grassroots aspirations, community assets, and local challenges are systematically captured and subsequently embedded into district planning frameworks and subnational development governance.

A. Social Mapping and Institutional Capacity Building in Sigi and Sanggau

The success of Agrarian Reform and Social Forestry initiatives hinges not only on securing physical land boundaries, but also on the readiness of grassroots social structures. Recognizing this dynamic, LTKL partnered with Yayasan Puter Indonesia to deploy a participatory social mapping methodology grounded in direct field immersion (live-in) across seven villages in Sigi District: Lewara, Rejeki, Berdikari, Dombu, Bunga, Toro, and Olu. This initiative mapped formal governance structures, customary legal systems *(hukum adat)*, and local natural resource management institutions.

The findings highlight that durable field-level interventions rely on the alignment of three core village institutional pillars. First, formal village governments, which authorized to legalize Village Regulations (Perdes) on Green Spatial Planning and delineate administrative boundaries. Second, customary institutions *(lembaga adat)* which are anchored by local legal legitimacy. Through customary enforcement mechanisms, such as *Givu* sanctions, these traditional bodies serve as the frontline for resolving community disputes, including land conflicts. Third, economic institutions and communal labor collectives which range from permanent collective farming groups *(Mapalus)* in Olu Village to Village-Owned Enterprises (BUMDes).

These institutional insights provide the foundation for LTKL and its partners to align Village Medium-Term Development Plans (RPJMDes) with the *Sigi Hijau* (Green Sigi) Roadmap. Concurrently, they strengthen the managerial capacity of Social Forestry Business Groups (KUPS) to pursue deforestation-free, high-value commodity downstreaming with clear accountability.

In Sanggau District, the Institute for the Empowerment of People's Movements (ELPAGAR) conducted a comprehensive mapping of social and community dynamics across the Tae Customary Forest *(Hutan Adat Tae)*. The analysis revealed an increasing contraction of community management space, resulting in heightened tenurial vulnerability—particularly where village boundaries, customary lands, and corporate concessions intersect. The study's strategic recommendations serve as a baseline to ensure upcoming interventions reinforce community tenure rights grounded in local social capital.





B. Measuring Community Acceptance of the Restorative Economy in Sigi and Siak

From LTKL's systems-thinking perspective, successful environmental restoration requires far more than catalytic financing or local government permits. Green initiatives must align with cultural values and cultivate community trust so local residents do not revert to extractive, environmentally degrading practices. To assess this dynamic, Perkumpulan PRAKARSA conducted a study utilizing the Social License to Restore (SLR)[14] framework to evaluate the degree of community acceptance and local ownership toward restorative economic initiatives across Sigi and Siak districts. Drawing on 90 in-depth interviews, the research mapped the spectrum of community adoption, ranging from passive acceptance to full psychological identification.

In Sigi, the conservation of the Ranjuri Ancient Forest achieved the highest tier of collective ownership (psychological identification), driven by customary wisdom and the forest's critical role in securing freshwater supplies following the 2018 liquefaction disaster. In Siak, integrating peatland wetland fishers and Village-Owned Enterprises (BUMDes) into sustainable enterprise value chains (ASL and Pinaloka) secured active community approval, operating under the regulatory umbrella of the *Siak Hijau* (Green Siak) Regional Regulation (Perda).

Nevertheless, the assessment underscores an ongoing economic persistence challenge: in the absence of mature, predictable markets for sustainable commodities, the risk of smallholders reverting to monoculture crops, such as oil palm in Siak and maize in Sigi, remains a persistent threat that demands sustained, long-term technical and market assistance.



[14] *An adaptation of the Social License to Operate (SLO) framework developed by Thomson & Boutilier (2011) which refers to the level of public acceptance or legitimacy regarding mining or plantation operation, and has been tailored to the context of ecosystem restoration interventions.*

C. Culture-Based Movements: Activating Collective Memory and Local Narratives

Environmental conservation and disaster mitigation cannot rely solely on statutory regulations or technical projects; they require mobilization through collective memory and local cultural heritage. In West Kalimantan, the Nusi Ari Kapuas initiative rallied youth collectives, cultural practitioners, and art studios across Sanggau, Sintang, and Kapuas Hulu to campaign for the Kapuas River ecosystem. The movement deployed public murals, musical poetry, and the systematic archiving of natural-dye weaving techniques and recession agriculture *(perladangan surut air)*.

In Central Sulawesi, the PASIGALA Toponymic Dictionary research reconstructed local disaster history by tracing traditional place names in the indigenous Kaili[15] language. Conducted collaboratively with the Regional Disaster Management Agency (BPBD), customary institutions, and academic partners, this research revealed that original toponyms such as *Tagari Londjo* (submerged land) and *Biromaru* (decaying reed marsh) have long functioned as an oral early warning system, affirming the indispensable role of indigenous memory in disaster-resilient spatial planning.

Meanwhile in Siak, the community media platform Explore Siak integrates four core pillars: Nature, History, Innovation, and Collaboration (ASIK). The platform digitally archives local history, hosts regular community forums, and amplifies promotional campaigns for green MSMEs to foster collective youth ownership over peatland protection.







To watch the video on how the animal manure bricks used in the Communal Space were made, scan the QR code above.

[15] *The Kaili are an ethnic group native to Indonesia residing across much of Central Sulawesi Province, particularly in Donggala District, Sigi District, and Palu City.*

Institutional Growth and Secretariat Accountability



Transforming the Secretariat's Role: From Program Implementer to System Enabler

Aligning with the evolution of the Sustainable Districts movement, the LTKL Secretariat has solidified its strategic shift from a conventional program implementer to a system enabler. This transformation ensures that the momentum for systemic change is genuinely owned and driven by subnational stakeholders. Within this redefined framework, the Secretariat performs three primary functions:

First, as a process builder, the Secretariat safeguards the integrity, inclusivity, and equity of multi-stakeholder collaboration. This role focuses on distributing leadership equitably, ensuring that local voices, including youth groups and grassroots communities, actively shape decision-making processes. Rather than prescribing top-down directives, the Secretariat ensures shared commitments are locally owned and executed.

Second, as a knowledge initiator, the Secretariat accelerates capacity building by supporting subnational actors to analyze systemic patterns and operational dynamics. Field-level insights, regional assets, and emerging best practices are synthesized into actionable, durable knowledge assets.

Third, as a network builder, the Secretariat focuses on cultivating and expanding a strategic network of partners to interface directly with member districts. Through equitable partnerships, this function facilitates subnational access to capital, expertise, and collaborative platforms necessary to advance the Sustainable Districts mission.



In its role as a system enabler over the past three years, the Secretariat has focused on catalyzing shifts in mindset across the grassroots. This intervention was delivered through 22 capacity-building and leadership sessions engaging 20 institutions, spanning community intermediary partners, multi-stakeholder platforms, civil society organizations, and local business hubs, while mentoring 19 emerging local leaders across member districts.

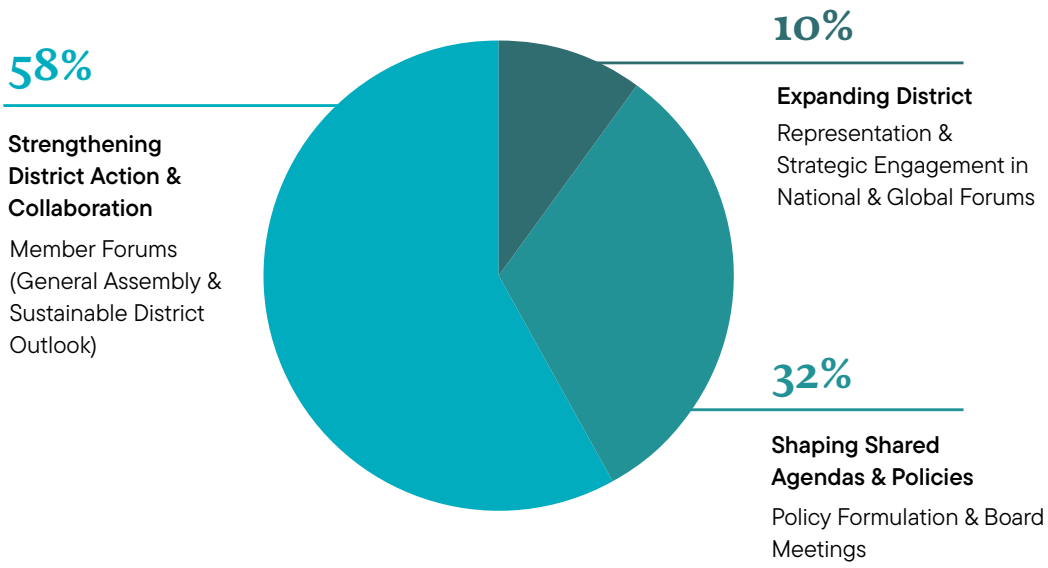


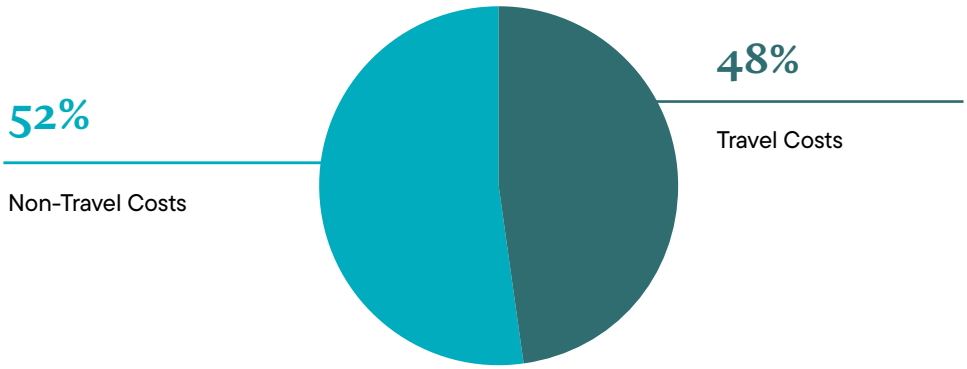


As an association of district governments, LTKL manages membership dues to support the advancement of member districts. The funds are allocated as follows:

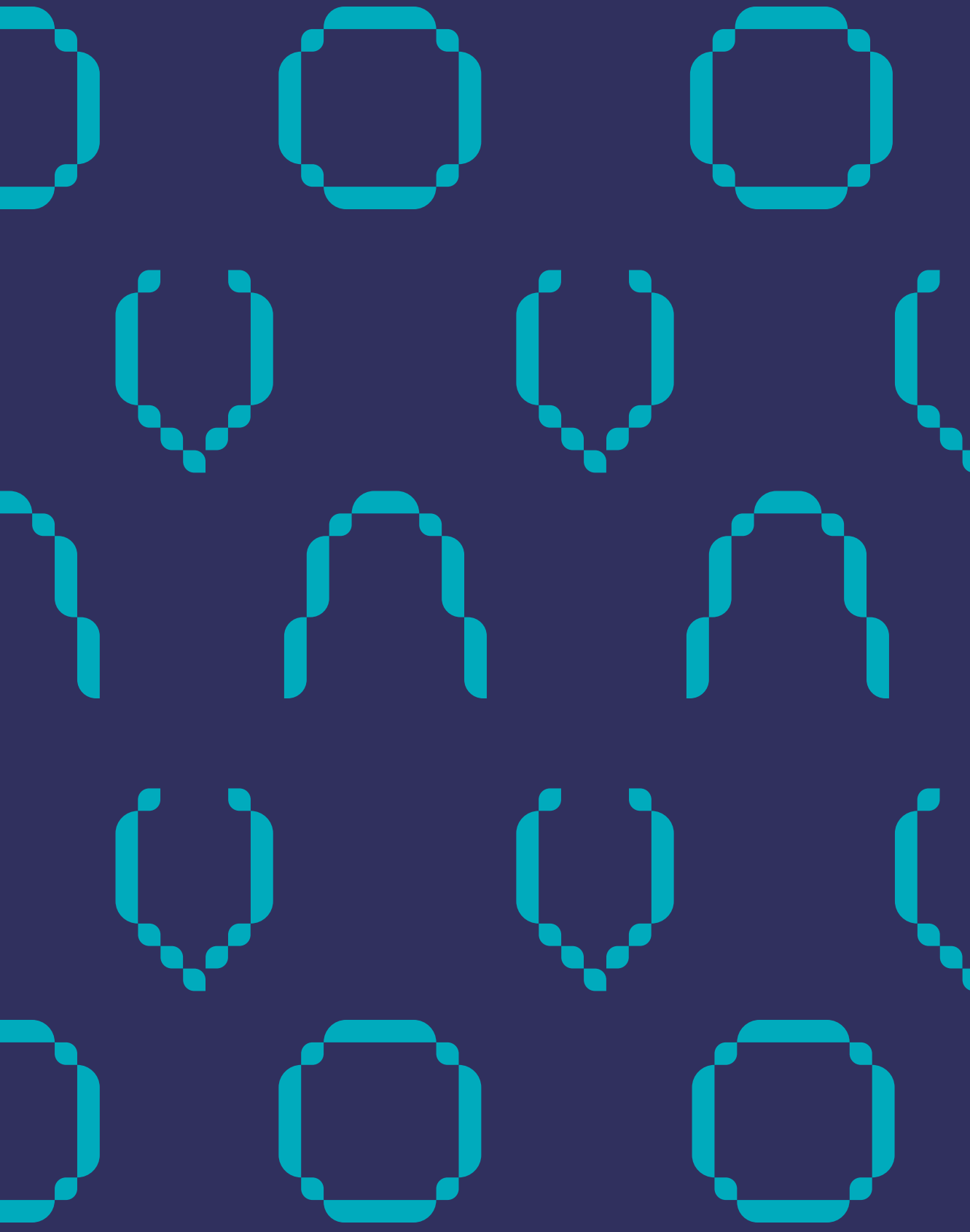
Utilization of LTKL Member District Dues

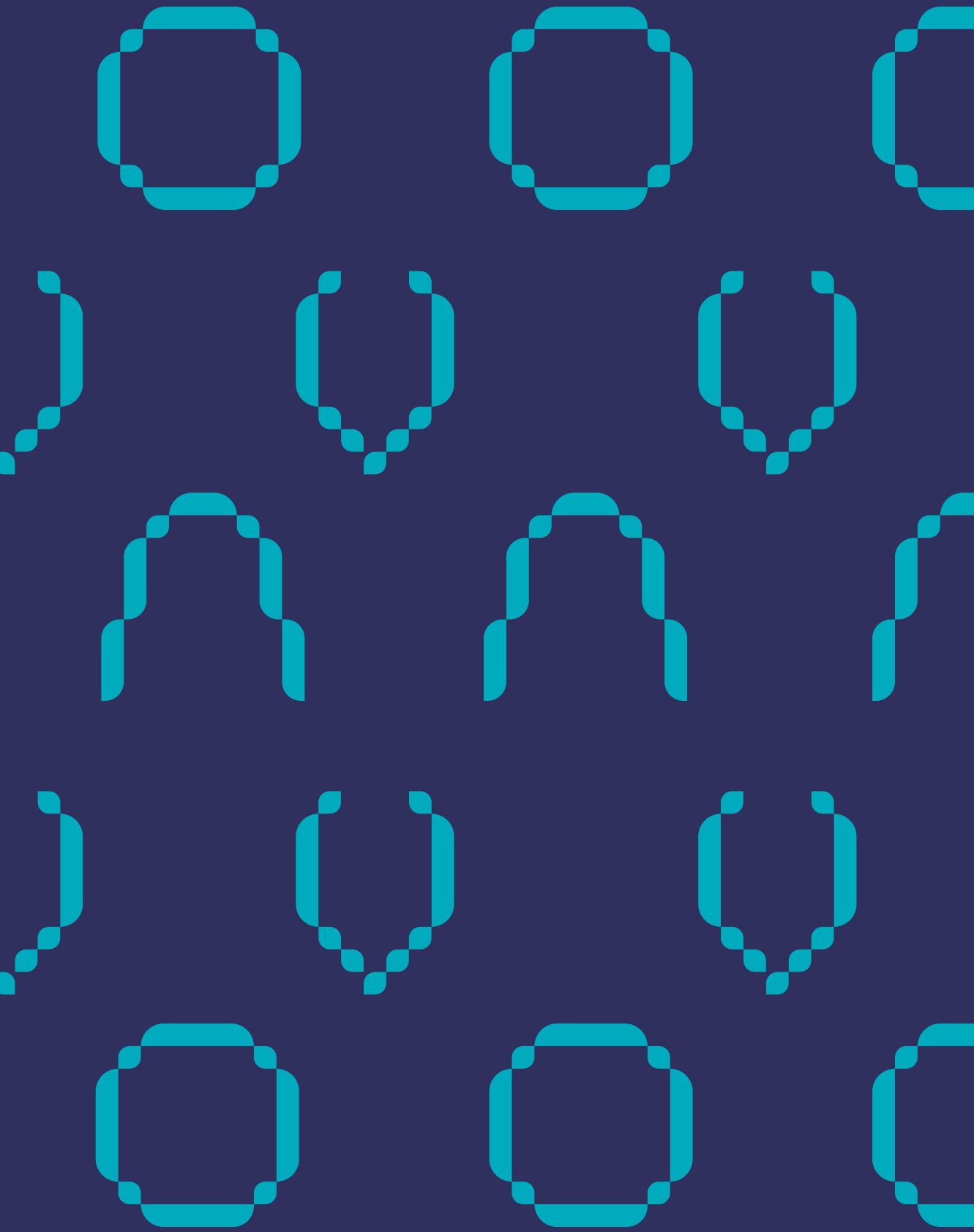
Period: August 2023 – July 2026





Throughout 2023–2026, LTKL implemented its programs and operations with the generous support of diverse donors, including the Climate and Land Use Alliance (CLUA), Ford Foundation, Skoll Foundation, Co-Impact, and Viriya ENB.





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