

Resilient Nature: Together We Shape a Future Worth Living

Annual Report 2024 | GIZ Indonesia and ASEAN





Together We Shape a Future Worth Living

As one of the world’s most biodiverse countries, Indonesia plays a pivotal role in preserving the ecological balance which supports human well-being beyond its borders.

Striking a balance between economic development and the sustainable management of its natural resources is crucial – not only for Indonesia’s future, but also for the global fight against climate change.

Indonesia is also among the world’s largest carbon emitters, as its economic growth remains heavily reliant on fossil fuels,

exacerbating global greenhouse gas emissions. As a result, the country is already experiencing the negative impacts of climate change and unsustainable development, which include forest and biodiversity loss, habitat degradation, and increased vulnerability to natural disasters.

Through the Resilient Nature cooperation area, GIZ acts as a strategic development partner to Indonesia and ASEAN, bringing in practicable and integrated solutions and building local capacity to enhance resilience to climate change, reduce environmental degradation and improve the livelihoods of rural communities.



Together, we shape a future worth living in Indonesia and around the world.

- The areas we focus on:
- **Biodiversity:** Mainstreaming biodiversity conservation into government strategies and plans and promoting sustainable practices, in collaboration with the private sector and local communities, and protecting ecosystems
 - **Climate Change:** Supporting the planning and implementation of actions toward reducing emissions and adapting human activities to the effects of climate change
 - **Agriculture:** Promoting sustainable agricultural practices which increase resilience and improve farmers’ livelihoods
 - **Forestry:** Protecting forests through conservation measures and improved management, while strengthening forest and resource governance
 - **Marine Ecosystems and Wetlands:** Strengthening the protection and sustainable management of marine ecosystems and coastal areas, while improving the resilience of communities.

Key Data

- Geographical cover of implementation in 15 districts throughout the country
- 16 local government regulations in Papua recognising customary land rights
- 7.78 million ha conservation areas integrated into national plans
- 99,211 ha of forest areas under sustainable management
- Over 21,000 farms supported in agribusiness development and sustainable supply chains
- Development of additional 22 policies on biodiversity and climate change



Biodiversity



Healthy ecosystems are essential for human well-being. Reducing threats of biodiversity loss and increasing sustainable use of biodiversity to sustain life on earth are at the heart of actions included in Indonesian national development plans and strategies.

To address the gaps in effective biodiversity management, GIZ contributes to promoting sustainable practices, fostering collaboration with the private sector and local communities, and protecting ecosystems while benefiting society beyond national borders.

2024 Highlights

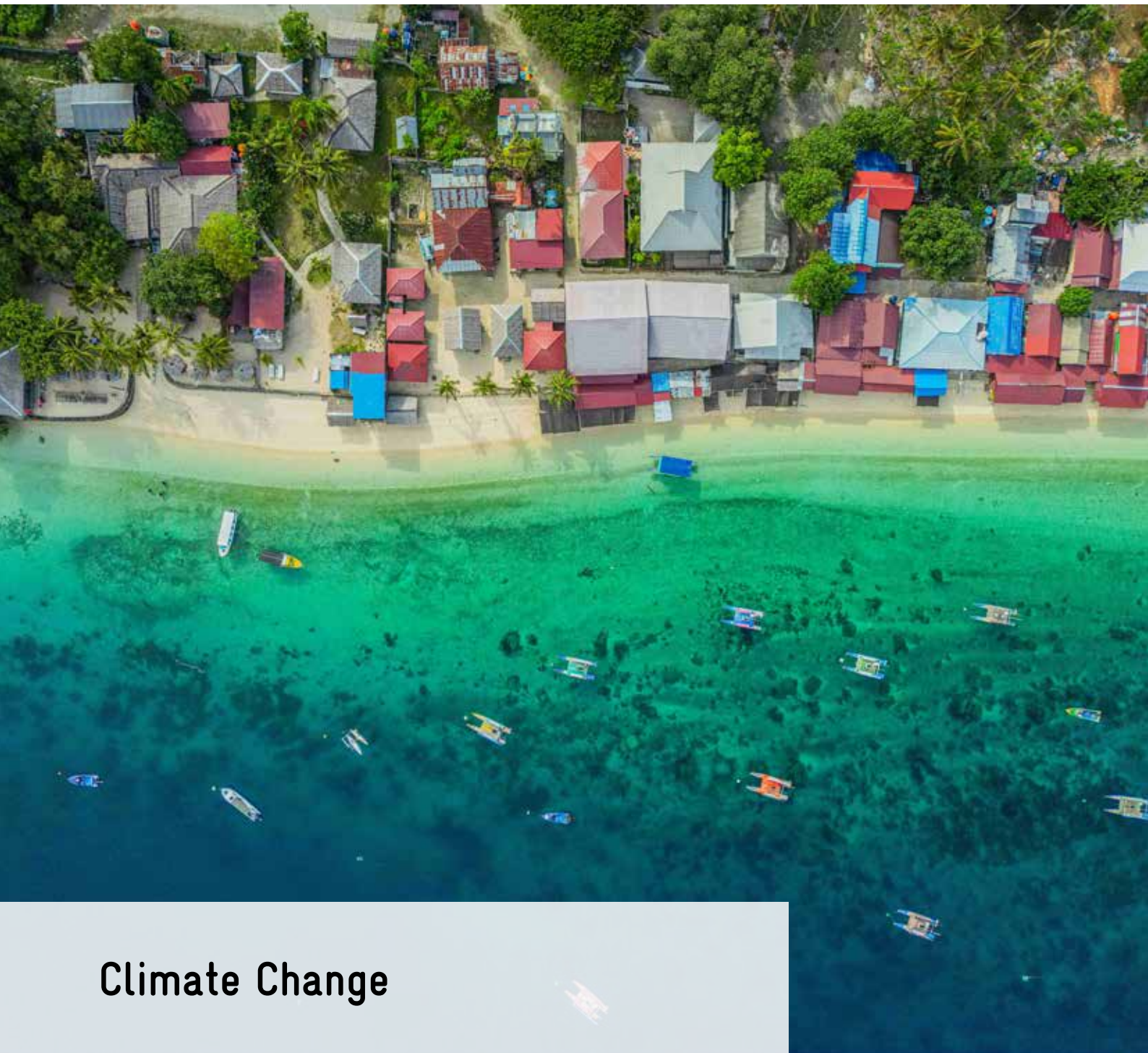
- **Launch of Indonesia Biodiversity Strategy and Action Plan:** GIZ supported the technical group, involving the Ministries of Planning, Environment and Forestry, Marine and Fisheries, Agriculture, and Research to develop the Indonesian Biodiversity Strategy and Action Plan (IBSAP) 2025–2045, submitted to the United Nations Convention on Biodiversity in September. It is the roadmap to conserving habitats, restoring damaged ecosystems, and generating conditions for sustainable use of natural resources while supporting the livelihoods of their people.
- **Eco-region and high conservation value area assessments:** GIZ worked with the National Research and Innovation Agency (BRIN), universities and local NGOs and the Ministry of National Development Planning (Bappenas) and Ministry of Environment and Forestry (MOEF) on assessments of the status of biodiversity, ecoregions and identifying areas with high conservation value, as reference for decision making, the generation of maps and to improve spatial planning, and the preparation of biodiversity data for the Indonesian Clearing House Mechanism (CHM), to help the exchange of information, expertise, and best practices on biodiversity conservation at national, regional, and international levels. GIZ also collaborated with research institutes on wildlife inventory manuals and video-based standard operating procedures for the Spatial Monitoring and Reporting Tool (SMART), a digital tool that improves the patrolling work of rangers in national parks.
- **Biodiversity Monitoring Index:** Its introduction as part of the Development Indicators in the Long-term National Development Plan 2025–2045 was supported by GIZ, to secure regular monitoring of the effectiveness of biodiversity actions.
- **Strengthening knowledge through integration of biodiversity data and information:** GIZ supported the Biodiversity Investment Framework. The Indonesian Environment Fund created the biodiversity window to channel funding toward local communities' biodiversity conservation and sustainable use of natural resources. GIZ worked with MOEF and the Ministry of Finance in the creation of this funding window and the preparation of the investment framework for biodiversity conservation.

What They Say

Vivi Yulaswati, Deputy for Maritime Affairs and Natural Resources of the Ministry of National Development Planning (Bappenas), after Vice President Ma'ruf Amin attended the plan's launch

"This [Indonesia's Biodiversity Strategy and Action Plan 2025–2045] is all homework or tasks that we have to do one by one in the future."





Climate Change



As the impacts of climate change become ever more real, it is increasingly urgent to reduce greenhouse gas emissions across all sectors and adapt human activities to the changing environment around us.

Finding sources of finance for these actions is a major national and global challenge.

2024 Highlights

- **Preparation of national contributions to the Paris Agreement:** GIZ worked with the Ministry of Environment and sectoral ministries in the preparation of the 2nd National Determined Contributions (NDC) 2031–2035, which represents Indonesian commitments to the 1.5°C scenario from the Paris Agreement and the Long-Term Low Emission Development Strategies toward the reduction of emissions.
- **Digital solutions to monitor emissions:** A Bappenas digital platform shows the projection of greenhouse gas emissions, which is used for mid- and long-term planning decisions. In 2024, GIZ helped improve the platform's operation.
- **Mid- and long-term development plans:** GIZ contributed to the preparation of the Medium-term Development Plan (RPJMN 2025–2029) and the Long-term Development Plan (RPJPN 2025–2045) through recommendations on the waste management sector, coastal resilience and people displacement, modelling for low carbon development and the green economy.
- **Internal regulation for green public procurement:** This has been changed from voluntary to mandatory for all ministries, which will increase the consumption of products and services which comply with environmental standards and regulations. GIZ is piloting green public procurement in 34 provinces with environmental agencies under the Ministry of Environment and five provinces (all governmental agencies).
- **Reducing waste pollution:** GIZ supported the Ministry of Environment in the preparation of the Zero Waste Zero Emission 2050 plan on strategies for reducing waste sector emissions to reach net-zero by 2050.
- **Mobilising climate finance to the local level:** GIZ provided technical assistance to 21 villages in North and East Kalimantan to prepare funding proposals totalling EUR 760,000, which were approved for disbursement by the Indonesian Environment Fund (IEF).

What They Say

Siti Nurbaya Bakar, Minister of Environment and Fisheries, on Public Communication of Indonesia's Nationally Determined Contribution 2031–2035 plan on 20 August 2024

"[The] second NDC document contains an update on Indonesia's commitment to global climate change while still upholding the principle of no back sliding and in line with the Long-Term Strategy for Low Carbon and Climate Resilience 2050 to achieve the Paris Agreement goals."





Forestry



Forests and other natural landscapes such as wetlands, peatlands and savannahs, and their ability to benefit people, nature and climate, are under threat. The expansion of agriculture, mining, timber extraction and other unsustainable practices is degrading and destroying forests and other ecosystems in Indonesia.

GIZ supports the Indonesian government in sustainable forest management by assisting conservation and restoration, as well as sustainable use of natural resources, decreasing deforestation, and promoting equitable and transparent practices which strengthen forestry governance.

2024 Highlights

- **16 social forestry schemes in Papua Province:** GIZ has been supporting forestry schemes in Jayapura Regency since 2023. In October 2024, Social Forestry Management Plans were officially approved for 10 Village Forest and six Customary Forest schemes to guide forest farmer groups and the local government in improving the conservation and sustainable use of the forest and forest resources, developing business plans establishing guidelines for area protection and security.
- **Periodic Review Document of Lore Lindu Biosphere Reserve (LLBR), Central Sulawesi:** GIZ contributed to the LLBR's periodic review for 2013–2023, which was submitted to the UNESCO Man and the Biosphere (MAB) programme, to maintain LLBR's status as a UNESCO Biosphere Reserve and prepare its management plan.
- **Online training courses for environmental and forestry education and training:** In advancing the Massive Open Online Course (MOOC) for the Centre for Environmental and Forestry Education and Training (CEFET) at the Ministry of Environment and Forestry (MOEF), GIZ facilitated the further strengthening of the CEFET and the seven MOEF training centres, and the development of an action plan to integrate both learning systems.
- **More formal recognition of indigenous land rights in Papua:** GIZ helped a more formal recognition of customary rights in Papua, so indigenous peoples have the right to restitution and just compensation for their traditionally owned land, territories and natural resources
- **Improved public participation in Papua land:** GIZ supported large-scale corruption prevention efforts in Papua by the Corruption Eradication Commission (KPK), including anti-corruption campaigns, technical assistance to local governments, and certifying more than 70 anti-corruption trainers.

Impact Story

Indigenous Women Combat Corruption in Papua



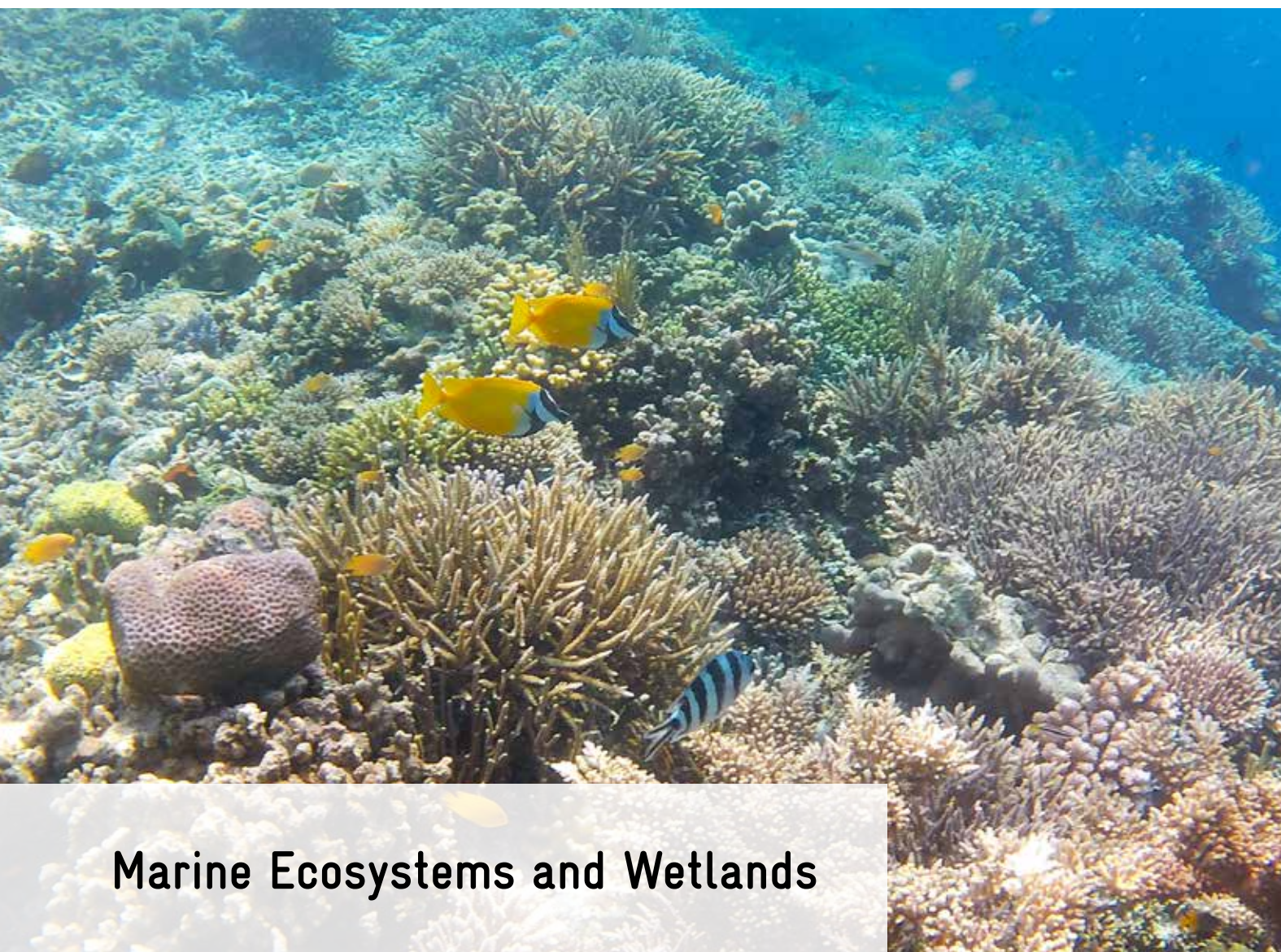
"Forests are our lifeline. We must shield them from harm, or we risk losing not just trees, but our future," said Maria Sobor, an Indigenous Woman Representative from Jayapura. Her words embody the resolve of Papua's indigenous women to protect their forests from corruption, illegal logging, and land misuse – threats to biodiversity and livelihoods.

A Jayapura workshop, organised by GIZ in collaboration with the Corruption Eradication

Commission (KPK) and the I Am an Anti-Corruption Woman Movement (SPAK), empowered indigenous women like Maria and Mama Petronella. They learned to detect corruption risks and strengthen forest monitoring skills.

Mama Petronella, a Kalpataru Award recipient, exemplifies this fight. Her women-only mangrove forest in Engros highlights the critical role women play in sustainable forest management.

Maria and her peers are now leading a movement to preserve Papua's forests and combat corruption – a vital step in safeguarding cultural identity, livelihoods, and future generations.



Marine Ecosystems and Wetlands



Between 2001 and 2020, Indonesia lost nearly 25% of its mangrove cover, primarily due to shrimp aquaculture and coastal development, threatening biodiversity and reducing coastal protection. Over 40% of Indonesia's peatlands have also been drained or damaged for agriculture, mainly palm oil plantations, making them vulnerable to fires and causing the release of up to 1 gigatons of CO₂ annually, contributing significantly to global greenhouse gas emissions.

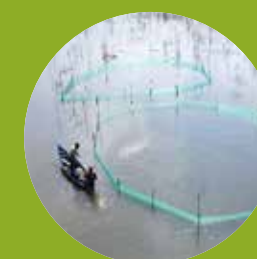
GIZ collaborates with Indonesian partners to enhance the protection, management, and restoration of peatlands and mangroves. GIZ also aims to strengthen ecosystem resilience, mitigate climate impacts, and improve the livelihoods of local communities.

2024 Highlights

- **Improved maps and inventories for peat protection planning:** Function maps (1:50,000 scale) for 27 Peat Hydrological Units (KHG) in North and East Kalimantan issued by the Ministry of Environment and Forestry for planning peat ecosystem protection and sustainable management. GIZ assisted the Ministry in a peatland ecosystem inventory across six KHGs in Central and South Kalimantan Provinces.
- **Follow-up on protection and management plans for peatland ecosystems:** Efforts to legalise nine peat ecosystem protection and management plans in East and North Kalimantan, along with seven related districts, are progressing, with six decrees already issued.
- **Technical assistance for community peatland restoration proposals:** GIZ provided technical assistance for the development of proposals for peatland ecosystem restoration in 14 villages in East Kalimantan to secure funding from the Green Climate Fund (GCF).
- **Sustainable aquaculture:** Shrimp aquaculture is a key driver of North Kalimantan's economy, but traditional farming practices have led to significant environmental degradation, including a 59% decline in mangrove forests. GIZ enhanced the capacities of shrimp farmers, introduced innovative farming practices, and promoted commodity diversification, such as mud crab farming.

Impact Story

Reviving Shrimp Aquaculture: Harianto's Journey to Sustainability



Harianto, a tiger prawn farmer from North Kalimantan, began his aquaculture journey in the 1990s using traditional methods, yielding up to 100 kg per hectare on his 7-hectare farm. However, the boom in shrimp farming led to widespread mangrove clearing, which degraded the environment and slashed his productivity to just 20–30 kg per hectare.

Determined to adapt, Harianto joined GIZ initiatives on sustainable aquaculture. With guidance, he adopted an innovative shrimp aquaculture system integrating mangroves as natural biofilters to improve water quality. By combining this with organic treatments like probiotics and fermentation, Harianto restored his farm's productivity and created a balanced ecosystem supporting mangrove regrowth.

Impact Story

Preserving Peatlands: Reviving Minta's Sweet Heritage



In Minta village, East Kalimantan, lush peatlands host Aren trees producing palm sugar, a legacy tied to the land's fragile ecosystem. Concerned about its decline, village officer Saipullah took action to conserve the peatlands and revive the craft.

With support from a capacity-building project, he improved production processes, diversified into granulated palm sugar (gula semut), and helped secure permits.

"Our village is blessed with natural resources. I want to preserve and use them for the community and environment," he said.

Now producing up to 500 kg monthly, Saipullah's efforts blend conservation and innovation, proving livelihoods and nature can thrive together.



Agriculture



Low productivity and low quality estate crop commodities produced by independent smallholder farmers lead to small, often insufficient, household income. To reverse this, smallholder farmers may open up new areas for cultivation, at the expense of forest lands.

This is mostly caused by lack of access to improved seeds, fertiliser and other agrochemicals, and appropriate technical advice. Farmers are also not properly organised and their access to markets and supply chains is limited.

We support smallholder farmers to build resilience, improve productivity and product quality, strengthen access to markets and supply chains, and enhance technical skills and knowledge for sustainable production.

2024 Highlights

- Eight private companies have signed cooperation agreements with smallholder farmers in West Kalimantan, Central Sulawesi and East Kalimantan for the production of natural rubber, cocoa and palm oil, leveraging a contribution of almost EUR 5.6 million from the private sector. Around 16,000 farmers are better prepared to deal with the impacts of climate change in five regions, a number 77% higher compared to 2023.
- On 24,000 ha of farmland, farmers follow internationally recognised sustainability standards or national recommendation frameworks to produce cocoa, coffee, palm oil and natural rubber, which represents an increase of 82% compared to previous years.
- Digital tools are expanding the outreach of training and bringing e-learning directly to the farm in West Kalimantan, with five e-learning modules on good agricultural practices in oil palm, coffee, rubber, and cocoa cultivation, and on sustainable agriculture business. To address challenges like low digital literacy, limited internet, and unreliable power supply in remote rural areas, GIZ partnered with the private company Beekee to deploy offline learning devices, which enable groups of farmers to access training without internet or electricity.
- Successful examples to increase the capacities of farmers in resilient agroecological practices are ready to be scaled up. A selection of "champion farmers" were trained to provide agricultural extension services to their fellow farmers. A farmer-paid extension service, co-funded by the local government and by village funds, offers a more sustainable approach to reach out to large numbers of smallholder farmers in distant locations.
- GIZ partnered with the district government of Kapuas Hulu on the jurisdictional approach to sustainable supply chains in the district, a designated UNESCO Biosphere Reserve.
- Opportunities for branding products from the district, using the biosphere label, are supported, including the launch of single-origin cocoa, which will give premium value to local products.

Impact Story

Diversification Brings Balance



"Previously, I cultivated only natural rubber, but the GIZ training inspired me to diversify. Now I have 30 crop species on my plot and my garden is more resilient," said Berasap of Mensiau Village.

This transformation shows the power of diversification as a strategy against climate change. By intercropping rubber with other crops, he has created an ecosystem better equipped to withstand shifting weather patterns and market changes. It enhances soil fertility and conserves water, and provides multiple income streams, reducing economic risks tied to single-crop dependence.

For Berasap, his diversified garden is not just a source of livelihood but also a space that brings personal fulfilment and ecological balance.

Resilient Nature in 2024 | At a Glance

Work Areas



Our Commissioning Parties and Clients in 2024

Our work on a bilateral, regional and global level in the area of Resilient Nature was implemented on behalf of the following commissioning parties jointly with our Indonesian government partners:



Achieving the SDGs: Resilient Nature

We are committed to support our partners in achieving the Sustainable Development Goals. Our work contributes to the following SDGs:



Government Partners



Consortium and Implementing Partners



Collaborating Partners



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GIZ Indonesia and ASEAN Annual Reports 2024

Read more about our work in 2024 in the following reports:

Introduction to GIZ Indonesia and ASEAN Annual Report

ASEAN

Energy Transition

Resilient Nature

Urban Development

Digital Transformation

Green Jobs and Vocational Education and Training

As a federally owned enterprise, GIZ supports the German Government in achieving its objectives in the field of international cooperation for sustainable development.

Published by:
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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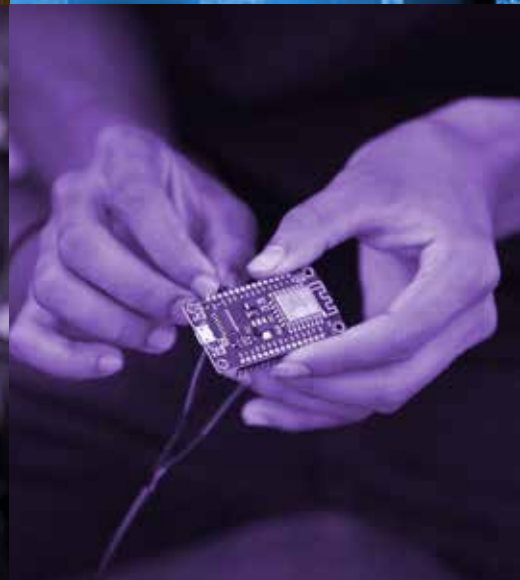
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Design & Layout:
Fajar Nugraha, Jakarta

Photo credits/sources:
GIZ/Karin Allgoewer (p 1, 3, 5, 6, 7), GIZ/SOLUSI (p 2,4)

Jakarta, 2025



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