



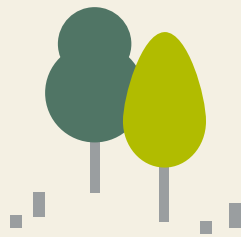
»»» Communities, Conservation & Carbon: Supporting Indonesia's green-blue economy

»»» Situation Analysis

The Republic of Indonesia is a unique nation-archipelago with some 276 million people from 300+ ethnic groups, spread over more than 17,000 islands. Its environmental resources have global as well as national significance, with vast amounts of both 'green' and 'blue' carbon sequestered in its forests and oceans, and exceptionally high levels of biodiversity and endemism. The majority of Indonesians depend on forests and marine resources, which also provide critical habitats for numerous land, air and sea species, as well as economic and food security for the nation. Protecting Indonesia's natural resources is thus a way of protecting the livelihood of its peoples, supporting the economic resilience of the country, conserving biodiversity, and mitigating the effects of climate change not only in Indonesia but across the world.

Under the leadership of President Joko Widodo, Indonesia has committed to protect these vital resources, address key challenges and sustainably manage national forests and oceans. Important achievements in recent years including the restoration of forest ecosystems, the expansion of marine protected areas, and a policy that bans clearing primary forests and peatlands. The Government has further established robust green goals (see below) to guide national sustainable development plans and fulfil its international environmental commitments.

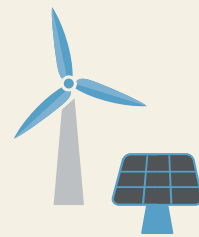
Indonesia's Environmental Commitments



Reduce
deforestation rate to
320,000 hectares
per year
(2021 to 2030)



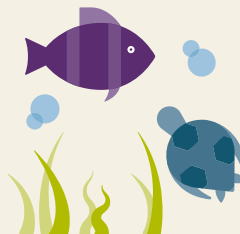
Increase
reforestation to
800,000 hectares
per year
(2021 to 2030)



Achieve
23 %
renewable
energy mix
(until 2025)



Reduce
CO₂ emissions
by at least 29 %
until 2030



Increase marine
protected areas to
32.5 million hectares
until 2030



Reduce
plastic debris
by 75 %
until 2025

As part of the ForClima project, training in the methodology of tree planting and agroforestry is conducted in Long Ayan village sub-district Segah, Berau District, East Kalimantan.



»»» KfW in Indonesia



Indonesia and Germany and began cooperating on development issues 70 years ago in 1952. Today, their strategic partnership focuses on progressing shared priorities, including environmental protection, climate action and sustainable development.

KfW Development Bank, the German government’s Financial Cooperation arm, currently implements environmental projects across Indonesia, with over EUR 181 million in grant funding committed to the nation’s ‘green’ and ‘blue’ sectors. Our environmental team includes management and technical staff as well as experts, who work with Federal ministries and other key partners to expedite progress towards the Sustainable Development Goals (SDGs), and fulfil the ambitions outlined in Indonesia’s National Medium-Term Development Plan (2020–2024).

»»»

Our shared Environmental Priorities

- Environmental Protection
- Climate Action
- Biodiversity Conservation
- Natural Resource Management
- Sustainable Forestry
- Community Empowerment & Development
- Livelihoods Support & Poverty Alleviation



Our Commitment



KfW Development Bank is committed to the concept of sustainability, an economic system that safeguards our livelihoods and quality of life, as well as those of future generations. This is why KfW considers the promotion of ecologically-sound, socially-just and economically robust developments in partner countries to be its core task, and works to drive change forward through ‘green growth’.

No.	Project Name	Location	Funding Amount (€)	Implementation Period	General Focus / Objective	Project Partners
1	Forest Program I (Kalimantan)	Kapuas Hulu, West Kalimantan; Berau, East Kalimantan; and Malinau, North Kalimantan	20.000.000	2010–2022	Community-based forest management and conservation to support REDD+ programs	– MoEF
2	Forest Program II (Sumatra) – (REDD +)	Jambi Province	23.000.000	2016–2023	Integrated watershed management and biodiversity conservation	– MoEF
3	Forest Program III (Sulawesi)	Lore Lindu, Palu, Central Sulawesi	13.500.000	2017–2023	Reforestation, protected area management, social forestry	– MoEF
4	Forest Program IV (Sulawesi) – Mamasa Watershed Program	West and South Sulawesi	23.500.000	2019–2026	Mamasa Watershed rehabilitation and biodiversity conservation	– MoEF
5	Forest Program V: Social Forestry Support Program	Sika, East Nusa Tenggara; Sanggau, West Kalimantan; Garut, West Java; Madiun, Ost Java	11.500.000 (10.000.000 Phase II)	2019–2026	Social and sustainable forestry schemes to improve local livelihoods	– MoEF
6	Forest Program VI: Mangrove Forests Protection	Karang Gading, Berau, Delta Mahakam, Sorong, Sorong City	20.000.000	2020–2028	Conservation, restoration & sustainable management of mangrove forests and establishment of WMC	– MoEF
7	ASEAN Center for Biodiversity (ACB) – Regional Project	Way Kambas, Gunung Leuser National Park	2.300.000	2018–2022	Biological diversity protection and livelihood improvement	– ACB – MoEF
8	Integrated Tiger Habitat Protection Program in Asia – Regional Project	Rimbang Baling, Kerinci Seblat, Berbak Sembilang, Leuser-Ulu Masen, Bukit Barisan Selatan	4.000.000	2014–2021	Safeguarding Indonesia's priority tiger conservation landscapes	– International Union for Conservation of Nature and Natural Resources (IUCN) – WWF
9	Priority Habitats Conservation at Bukit Barisan Selatan National Park	Lampung, South Sumatra	7.500.000	2017–2022	Protected area management, key species conservation, livelihood development	– MoEF – Wildlife Conservation Society (WCS) Indonesia
10	Biodiversity Conservation and Climate Protection in Leuser Ecosystem	Aceh, North Sumatra	8.460.000	2014–2022	Reforestation, protected area management, social forestry	– MoEF
11	Ecosystem Restoration Concession (ERC) for Tropical Forests Conservation	Bukit Tiga Puluh, Sumatra, Jambi; Gorontalo, Sulawesi	10.100.000	2013–2024	Biodiversity and landscapes conservation	– Bukit Tiga Puluh: ZGF – Gorontalo: Burung Indonesia and NABU
12	Marine Biodiversity and Coastal Livelihoods in Sulawesi/ Coral Triangle	Western Nusa Tenggara, North Sulawesi, North Sumatra (Aceh)	7.000.000	2018–2025	Marine protected area and sustainable fisheries management, livelihood development, sustainable financing and transnational cooperation	– MMAF – WCS
13	Marine biodiversity and support of Coastal Fisheries in the Coral Triangle	North Sulawesi, North Maluku	10.000.000	2019–2026	Marine protected area and sustainable fisheries management, livelihood development, sustainable financing and transnational cooperation	– MMAF – WCS
14	Hutan Harapan – Supporting the sustainability of the first Ecosystem Restoration Concession (ERC) in Indonesia	Jambi Province, South Sumatra	7.000.000	2019–2026	Sustainable forest management for biodiversity conservation, community livelihoods, and ecosystem services	– Burung Indonesia and NABU
15	Blue Action Fund: Protecting globally significant marine biodiversity of Indonesia's Bird's Head Seascape	West Papua	3.500.000	2020–2025	Marine protected area governance, species conservation, sustainable livelihoods, habitat conservation and restoration	– The Nature Conservancy (TNC) – Yayasan Konservasi Alam Nusantara (YKAN)
Volume			181.360.000			

“I am proud that we can demonstrate across our Indonesian green and blue portfolio that climate protection, community development and the conservation of precious biodiversity do not need to be in competition with each other but can go hand-in-hand and even enhance each other. This is the sort of win-win that we need for a sustainable future.”

Angela Tormin, Director of the KfW Office in Jakarta

»»» Innovative Partnerships

In recent years, the Government of Indonesia has prioritised a more collaborative approach that engages local communities and the private sector, as well as more traditional development partnerships. KfW similarly favours multi-stakeholder engagement, working with diverse actors to pilot innovative programmes that support national partners, community livelihoods and results-based conservation. Where necessary we liaise across international boundaries to protect key regional habitats, and are open to new models of cooperation such as the Legacy Landscape Fund in Gunung Leuser (which combines public funding with private philanthropy), and the Blue Action Fund (where a consortium of partners work to integrate traditional and conventional knowledge).



Sumatran rhinos are the smallest of the living rhinoceroses. They are cryptic and difficult to detect, and their population is very small, thus, efforts to secure priority habitats inside Bukit Barisan Selatan National Park are accompanied by an Intensive Management Zone that seeks to maximize rhino reproduction.

Government partners

Ministry of Marine Affairs and Fisheries



Ministry of Environment and Forestry



Ministry of National Development Planning



NGOs & others



Staff of Frankfurt Zoological Society collecting data on flora

“A dollar invested in mangroves yields better carbon impacts than most comparable environmental investment. That’s why KfW is focused on this most critical sector.”

Saskia Berling, Head of Division, Natural Resources & Climate East/Southeast Asia



There are 41 Cendrawasih or "Bird of Paradise" species in Indonesia, 37 species live in Papua

Case Studies

Case study 1: Forests for the Future: Supporting communities through social forestry

Indonesia's forests provide critical economic, social and cultural resources for millions of its people, and in 2016, the Government designated 12.7 million hectares – around 10 % of national state forest – for indigenous or community management. Rural communities awarded tenure of 35 years are now able to legally access local forests, develop sustainable livelihoods from the land, and help protect the vital ecosystems on which they depend.

Since 2016, KfW has been supporting the Government to actualise this policy commitment. For example, through our social forestry approach, over 263,000 hectares of state forests are now officially facilitated and being sustainably managed by local communities.¹

KfW has supported these achievements in numerous ways, not least by facilitating local communities to identify and prepare village forest licenses (Hutan desa), and establish village forests, 83 of which have now been established across Forest Programmes, 1, 2 and 3.

The experiences, knowledge and lessons from these and other projects have informed KfW's new Forest Programme V (2021 – 8), which will expand into three new provinces, to reach over 22,000 people and protect a further 30,000 hectares of land. Best practices will be presented to the Government to help inform the ongoing scale-up of social forestry across the archipelago.



Community group members planting seedlings as part of the project supported agroforestry activities



Social forestry activities across programmes

- Community awareness & education
- Conservation-oriented participatory village planning
- Land use & border mapping
- Licensing & gazetted forested areas
- Livelihoods support
- Conflict management
- Monitoring & SMART patrols



Wood storage for the reconstruction of houses

“By developing community forests, we can support the growth of small businesses and expand the critical roles that women play in forest management.”

**Yani Septiani, Senior Sector Coordinator,
KfW Office Jakarta**

¹ This includes village, customary and community forests, as well as community plantation forests and conservation partnerships schemes.

Indonesia at a glance: forests, emissions and climate change

Indonesia's vast forests – which cover
120 million hectares

– provide critical carbon storage both
for the nation and the world

The average annual
GHG emissions rate between
2000–2018 was
439.8 MtCO_{2e}

**37.2 million
Indonesians**

live in or around forest areas, depending
on them for vital resources

Indonesia has
7,178 villages
(8.5 % of its total) vulnerable
to climate change

The average annual
deforestation rate between
2013–2018 was
580,000 hectares

In 2021, Indonesia's
unconditional Nationally Determined
Contribution (NDC) target was
1.511 MtCO_{2e}

Data: The State of Indonesia's Forests, 2020 (MoEF).

Spread over 18,000 islands, Indonesia is home to the world's third largest rainforest area after the Amazon and Africa's Congo Basin. Although Indonesia's land area is only 1 per cent of the earth's land area, Indonesian rainforests are home to 10 per cent of the world's known plant species and 12 per cent of mammal species. The Indonesian rainforests are thus among the most species-rich in the world.



Case Studies

Case study 2: Community-based sustainable forestry management & biodiversity conservation

KfW supports multiple forestry projects across Indonesia as part of the Reducing Emissions from Deforestation and forest Degradation (REDD+) initiative and is testing models across the country to determine how best to incentivise communities to sustainably manage local forests.

In KfW's project in Gunung Leuser, for example, villages that sign community conservation agreements, and pass annual performance evaluations, are granted EUR 3,000 a year to fund environmentally friendly investments. These grants or Payments for Environment Services (PFES) are intended to support activities such as reforestation, agroforestry and waste management, and are carried out in conjunction with community patrolling, law enforcement and other measures. The pilot scheme, which began in 2018, is already yielding concrete results, including significant reductions in encroachment, illegal logging, poaching and deforestation. For example, between 2016 and 2018 annual forest loss in the Singkil Peat Swamp Nature Reserve was reduced from 800 to 50 hectares across 12 pilot conservation areas. In addition, no forest losses were reported in the other 27 project villages funded through the PFES mechanism.

Results such as these help demonstrate that PFES schemes – in combination with community patrolling and law enforcement – can provide an impactful sustainable financing mechanism, one that can reduce the pressure on national forestry budgets, whilst achieving significant ecological and economic impacts.



Challenges to sustainable forest management

- Land & tenurial conflicts
- Encroachment
- Illegal logging and mining
- Poaching
- Forest and land fires
- Illegal trade in plants and wildlife
- Climate change
- Poverty
- Forest degradation
- Industrial agriculture



Landak river in Leuser National Park



Harvesting of peanuts in the social forestry area of Mensiau village, Kapuas Hulu

Case study 3: Managing mangroves & protecting blue-carbon wealth

Indonesia has the most extensive mangroves on earth — some 23 percent of the world’s total. An acre of mangrove stores five to 10 times as much carbon as an acre of rainforest, making these dynamic, resilient, biodiverse ecosystems critical for the sequestration of ‘blue carbon’. The Indonesian government recognises mangroves as a vital tool not only to mitigate climate change but to address a whole range of national environmental issues (see below) and plans to rehabilitate 637,000 hectares of severely degraded mangrove forest by 2024.

To support the national agenda, KfW has been working through its ForClime project, to engage local communities in restoring mangroves in their pilot site of Berau (East Kalimantan). Activities in Berau have shown that relatively small financial investments (community training, livelihood inputs, packaging / marketing advice etc.) can help develop new mangrove-based enterprises that can significantly increase local income streams, whilst also restoring mangroves. For example, the sale of sustainably farmed crab, shrimp and fish products generated IDR 102,925,000 (EUR 6,000) for local women in the second half of 2020, with 50,000 mangroves seedlings planted over the same period.



Threats to mangroves

- Shrimp aquaculture
- Population growth
- Dwindling land availablely
- Coastal development
- Climate change
- Rising sea levels
- Low employment
- Natural disasters
- Trawl boats

23 percent of all mangrove forests are in Indonesia. They protect the coast against erosion, storm surges and tsunamis. At the same time, they are among the earth’s most productive ecosystems.



Why mangroves matter

- Store carbon
- Filter nutrients
- Maintain water quality
- Provide nesting and breeding habitats for thousands of species
- Protect healthy fisheries and therefore food & livelihoods
- Conserve biodiversity
- Stabilize shorelines
- Provide coastal defences
- Provide local resources such as medicines

This project demonstrates again that local livelihoods, incomes and environments can be improved concurrently and synergistically. Lessons learned from Berau are expected to have a direct influence on national guidelines for mangrove management, and have been further used to inform KfW’s new Forest Programme VI (2020–2028), which will expand mangrove protection to three additional provinces (reaching 40 new villages and over 34,000 people). The new Programme will also help establish an Indonesian-based World Mangrove Center, which will connect, coordinate, and foster collaboration between stakeholders across national boundaries, providing a platform for policy dialogue and research, and integrating global efforts to sustainably rehabilitate and manage mangrove forests.



By containing more than three times as much average carbon per hectare as tropical terrestrial forests, mangrove forests have the highest carbon density in the tropics. Storing this large amount of carbon thus also has a positive effect on the national carbon balance.

“I am delighted that Germany is one of the key funding partners of Indonesia’s new World Mangrove Center. Germany is supporting the Center in its mission to become an international knowledge hub, promoting cooperation on sustainable mangrove management and connecting a wide range of stakeholders across nations.”

Mrs. Ina Lepel, Ambassador of Germany to the Republic of Indonesia

Case Studies

Case study 4: Ocean optimism: Marine conservation & sustainable fishing in the Coral Triangle

The Coral Triangle spans the territorial waters of six nations, with its 5.7 million square kilometres it provides a home to the highest marine biodiversity in the world. Its economic and social power is no less mighty, with the region providing food for millions of people and generating billions from coastal tourism.

Conservation efforts will only succeed across the vast coral triangle with the support and active participation of the local stakeholders. Strategies to foster sustainable fisheries management need to be developed in order to move away from destructive fishing practices and damaging marine wildlife trade.

KfW support these efforts through two major marine biodiversity conservation/sustainable fisheries projects, one funded by Germany's International Climate Initiative/IKI (2019–25) and one by the EU (2020–26). Both projects work to develop alternative livelihood strategies for local communities, as well as create, protect and better manage marine protected areas (MPAs) and ecologically and commercially important small-scale fisheries.

KfW's projects in the coral triangle support the national goals of the Ministry of Marine Affairs and Fisheries, to gazette and effectively manage 32.5 million hectares of MPAs across the archipelago by 2030. This in turn will help Indonesia fulfil its international biodiversity commitments, including the Convention on Biological Diversity (CBD), the Aichi Targets, and SDG Goal 14: Life below water.

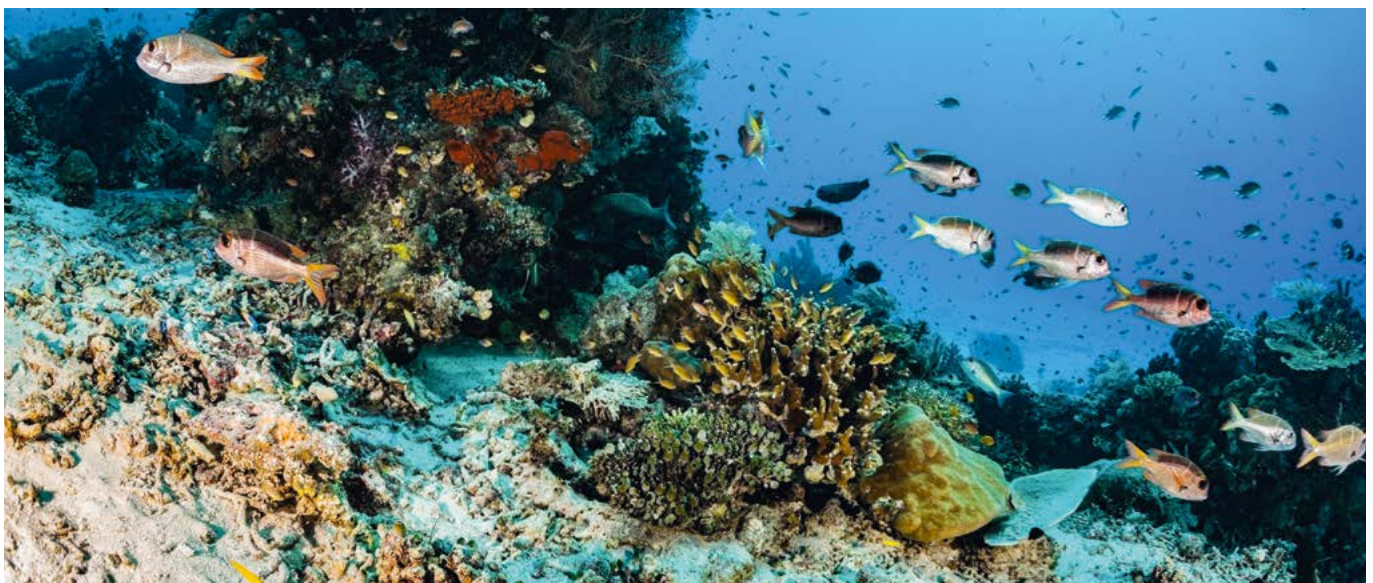


Threats to the Coral Triangle

- Over-fishing
- Destructive fishing practices
- Coastal development
- Pollution
- Climate change
- Unsustainable marine trade
- Habitat destruction



Fisherman repairing a net



The Coral Triangle in the waters of Indonesia, Malaysia, the Philippines, Papua New Guinea, Timor Leste and the Solomon Islands nurtures 600 different species of reef-building corals. It is home also to six of the seven species of sea turtles in the world.

Case study 5: Biodiversity conservation & the sustainable use of natural resources

Indonesia is one of the most biodiverse countries on earth. Its 17,000+ islands, located between two continents (Asia and Australia) and between two oceans (the Pacific and Indian) are home to thousands of rare, threatened and endangered species, including endemics such as the Sumatran tiger and the Komodo dragon. In recognition of their global significance, Indonesia's conservations areas include six World Heritage sites; twenty-two Biosphere Reserves; six ASEAN Heritage Parks, seven Ramsar Wetland sites and four Global Geoparks.

The Government of Indonesia protects biodiversity through 554 designated conservation areas, which stretch over 22.1 million hectares of land and 29.2 million hectares² of sea. KfW and its partners support vital aspects of conservation – including human-wildlife conflict mitigation, community education, empowerment and forest patrols – in biodiversity hot spots such as Sumatra, Java and Papua, where they are achieving important results, not least through livelihood and sustainable financing mechanisms that have the ability to protect biodiversity for years ahead.

The Government acknowledges that conservation areas are the 'final fortress for biodiversity protection'³, which is why KfW's assistance – including for a leatherback turtle breeding station in Rantau Sialang (Aceh), the protection of endangered Sumatran orangutans, Sumatran elephants and Sumatran tigers, and endemic maleo birds in Sulawesi – will continue to be critical in the years ahead.



Daily training for young orang utans in the Jungle school



KfW's environmental monitoring & protection activities

- Community education & empowerment
- Linkages to investment/business partnerships
- Provisions of commodities & initial inputs
- Support for value-added (production, packaging)
- Sales & marketing support



Rafflesia flowers in Bukit Barisan Selatan National Park



KfW partners with Frankfurt Zoological Society (FZS) and its local Wildlife Protection Units in the Bukit Tiga Puluh ecosystem to protect an estimated 40 tigers – some of the very last of their species – that live in and around the national park.

² Under the combined authority of KLHK and KKP.

³ State of Indonesia's Forests, 2020. MoEF.

Case Studies

Case study 6: Money from Honey & other financial sustainability initiatives

The Indonesian government is committed to building a prosperous, equitable and sustainable nation, and to boosting economic resilience and wealth through community-driven development. KfW supports this national agenda and promotes community resilience through an array of project activities that support entrepreneurship, income-generating enterprises and forest-based businesses.

Since 2012, for example, villages participating in our ForClime project have been given initial commodity inputs (for honey, rubber, livestock, agroforestry and fish ponds) to support and develop low-impact, non-shifting livelihoods. After products are sold, a proportion of their profits (up to 80 %) are placed in a community revolving fund, and subsequently reinvested in local tree planting, forest enrichment and crop production. Through repeated cycles and revolutions of the fund, the project ensures that livelihoods continue to grow in participating communities.



Fisherman lifting a net out of Sentarum Lake, Kapuas Hulu district



Financial sustainability activities

- Community education & empowerment
- Provisions of commodities & initial inputs
- Linkages to investment/ business partnerships
- Support for value-added (production, packaging)
- Sales & marketing support

Revolving funds are showing excellent results in pilot districts like Berau and Kapuas Hulu, where 23 villages collectively earned IDR 478.8 million (ca. EUR 28,400) in the second half of 2020 though the sales of environmental services (water treatment) and non-timber forest products. Other new pilots, for example with FZS on the high-value cash crop vanilla in Tebo, Jambi have even greater potential. Sustainable financing mechanisms – like KfW's revolving funds – demonstrate that investments in low-impact livelihoods can significantly strengthen local incomes and money-management, and that reforestation, climate protection and community development can go hand-in-hand.



Woman of the Dayak tribe producing traditional crafts from non-timber forest products, in Mensiau Village, Kapuas Hulu

Biodiversity in Indonesia at a glance



Villages located in or around these conservation areas:

c. 6,381



Total species endangered, threatened or vulnerable:

4,381



Number of visitors (foreign and domestic) to conservation areas (2015–9):

c. 34 million

Villages participating in the ForClimate project have reinvested revolving funds in clean water supplies, community forest patrols and aquaculture, with sales from horticulture products funding a farmers' market, a coffee shop and an internet hub in various project villages.



The Government of Indonesia is committed to rescuing and rehabilitating wild animals who have been held in captivity or lost their homes and released over 100,000 individuals back into the rainforest between 2015 – 19.

The jungle school in Bukit Tiga Puluh is one of the nation's 29 special conservation institutions, and prepares rescued orangutans for their new life in the wild, teaching them everything they need to live independently in the rainforest, including what to eat, how to climb and how to build a sleeping nest. The jungle school is run by FZS, and supported by KfW/ICI landscape conservation programme which is helping to build a sustainable population of Sumatran orangutans through habitat protection.



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January 2022

Responsible banking

KfW is one of the world's leading promotional banks. It applies its decades of experience to improve economic, social and environmental living conditions across the globe on behalf of the Federal Republic of Germany and the federal states. Its global network includes around 80 local and representative offices.



Imprint

Publisher: KfW Group
Author: Louise Hoole
Design and implementation:
CUBE Kommunikationsagentur GmbH

Photos: cover iStock/Cahya Nugraha, p. 3 Jan-Eric Voss; p. 4 icons Sustainable Development Goals (SDG) UN; p. 6 (top) KfW Office Jakarta, (bottom) Daniel Rosengren/FZS; p. 7 iStock/Jenhung Huang; p. 8 (top) KfW/Susanne Esche, (bottom) Jan-Eric Voss/GFA Consulting Group; p. 9 KfW/Fred Hoogervorst; p. 10 (top) KfW/Fred Hoogervorst, (bottom) Sabar Minsyah/MoEF; p. 11 (left) iStock/Wan Yong Chong, (right) shutterstock/Ethan Daniels; p. 12 (top) KfW, photothek.net (bottom) iStock/ifish; p. 13 (top) minden-pictures.com/Cyril Ruoso, (bottom left) Daniel Rosengren/FZS, (bottom right) KfW Office Jakarta; p. 14 (left) Hidayat Turrahman, (right) Sabar Minsyah/MoEF; p. 15 Jan-Eric Voss/GFA Consulting Group; backcover Daniel Rosengren/FZS