CIFOR-ICRAF in Indonesia
Three decades of partnership
Forests and agroforestry in Indonesia

Indonesia’s biodiversity is greater than any other country except Brazil and Colombia.

74 types of ecosystems
15.5% of the world’s flora
16% of the world mammals

Wetlands, including mangroves and peatlands, are critical to Indonesia’s economy and climate goals.

80% of Indonesians live in coastal areas
50% of the world’s tropical peatlands – which store more carbon than most other types of ecosystems
1.8 million km² of seagrass
Trees and forests are critical to the economy, livelihoods, and the environment.

- Indonesia’s forest ecosystems support agriculture by regulating water quality and availability.
- Trees are a source of foods rich in micronutrients, such as leaves, seeds, nuts, fruits, mushrooms, honey, insects and wild animals. Agroforestry can diversify farmers’ livelihoods and increase income while enhancing biodiversity and carbon storage, especially under climate change.


“...this is a multi-faceted challenge. No country is able to overcome this crisis alone, so we must implement sustainable development together.” – at Global Landscapes Forum Bonn, 2020.

Siti Nurbaya
Indonesian Minister of Environment and Forestry

120 M ha
(64%) of the land area is forest

34%
of Indonesian villagers live inside or on the fringes of forest areas

>285k ha
Indonesians grow food on land under social forestry licenses in 30 provinces

>315k ha
of land in Java and the Outer Islands have the potential for agroforestry
About CIFOR-ICRAF

CIFOR-ICRAF envisions a world in which people enjoy livelihoods supported by healthy, productive landscapes made resilient through the transformative power of forests, trees and agroforestry.

“CIFOR-ICRAF is proud of its long-term engagement with a wide array of partners in this rich and diverse country. We congratulate the Government of Indonesia on its global leadership and commitment to forests, trees and agroforestry-based solutions.”

Robert Nasi
Managing Director,
CIFOR-ICRAF
and Director General, CIFOR

Global crises are amplifying each other in catastrophic ways, fuelled by deforestation and biodiversity loss, climate change, dysfunctional food systems, unsustainable supply and value chains, and inequality affecting women, Indigenous Peoples and other marginalized groups.

But trees – whether in forests or on farms – are a key part of the solution.

CIFOR-ICRAF delivers demand-driven evidence of the ways trees can revitalize both landscapes and livelihoods. Born of the merger of the most trusted research organizations on forests and trees – the Center for International Forestry Research (CIFOR) and World Agroforestry (ICRAF) – CIFOR-ICRAF harnesses a combined 70 years of expertise and extensive partnership networks across Africa, Asia and Latin America.

While maintaining separate legal entities and headquarters, CIFOR-ICRAF now operates under a single governing Board and leadership team, with a joint regional structure, five research themes and three holistic approaches – Transformative Partnership Platforms, Engagement Landscapes and Flagship Products – all guided by the CIFOR-ICRAF Strategy 2020–2030.

Our 730 dedicated staff work in 60 countries, with offices in 25. Our decades-long host country agreements with Indonesia and Kenya reflect their global leadership and commitment to nature-based solutions. We are deeply grateful for the financial support of our 159 funding partners and the collaboration of our 281 strategic partners.

In total, we have completed over 2,200 projects worth more than USD 2 billion in 92 countries. Through our over 25,000 research products and a suite of websites, news, social media and events, our message continues to mobilize an ever-growing audience, whether in academia, government or civil society.
The entities of the CIFOR-ICRAF network reinforce and advance our shared aim to unlock the potential of trees and forests to combat global crises. As the leading global movement on sustainable landscapes, the Global Landscapes Forum has connected 1.5 billion people, from youth leaders to large multilateral donors. The Global Partnership for Forests, Trees and Agroforestry has launched a new phase of collaboration. And Resilient Landscapes is fast becoming a critical nexus between science, business and finance.

CIFOR and ICRAF are CGIAR Research Centers.
CIFOR-ICRAF in Indonesia

CIFOR-ICRAF has a long history of research and engagement in Indonesia. In 1993, CIFOR signed an MoU with the Indonesian Ministry of Environment and Forestry (MOEF) and established its headquarters in Bogor, West Java. ICRAF started operations in Indonesia the same year, from the same location. As host country, Indonesia holds a seat on CIFOR-ICRAF’s board of trustees.

We work closely with MOEF, as well as with the Ministry for National Development Planning (Bappenas), provincial and local governments, communities, non-governmental organizations, universities and the private sector to help Indonesia meet its commitments to national and international agreements such as the Sustainable Development Goals (SDGs), the Paris Agreement, Nationally Determined Contributions to reduce greenhouse gas emissions, and the Bonn Challenge.

Our work focuses on issues critical to sustainable national development, such as landscape restoration, climate change action, reducing emissions from deforestation and forest degradation (REDD+), agroforestry, wetlands, sustainable and inclusive value chains, oil palm, land-use planning for low-emission development, biodiversity conservation, fire and haze, peatland restoration, bioenergy on degraded land, tenure and gender equality.

We have also developed with partners innovative tools and approaches, such as the Land Use Planning for Multiple Environmental Services (LUMENS) tools and frameworks, the ‘options-by-context’ approach, and a decision-making tool to reduce emissions from all sectors.

‘No surprise’ policy

CIFOR-ICRAF’s research in Indonesia sometimes makes findings of particular relevance to the Government of Indonesia. The Government is invited to review and comment on these findings before they are released to the public to ensure constructive dialogue without compromising CIFOR-ICRAF’s independence to publish results.
Policy support

CIFOR-ICRAF has provided evidence, analysis and technical support for the development of policies at various levels of government in Indonesia, including:

**Climate action** – Improvement of Indonesia’s Forest Reference Emission Level (FREL) through refined GHG emissions accounting in wetlands, as well as the national measurement, reporting and verification (MRV) system co-developed with GIZ and led by Bappenas

**Green economy** – Green Growth master plan and roadmap in five provinces

**Fire and haze** – 2017 Grand Design for Fire Prevention and related subnational policies

**Oil palm** – National Action Plan on Sustainable Palm Oil (NAP SPO)

Wetlands – 2020 Ministerial Decree initiating new efforts to better manage peatland and mangrove ecosystems in Indonesia

**Landscape approach** – 2021 report ‘Analysis of Sustainable Lowland Agriculture in Indonesia’, which is being used by the World Bank to design their investment in landscape approaches

Global partnerships

CIFOR-ICRAF has supported Indonesia’s participation in international partnerships, including:

- **International Tropical Peatlands Center (ITPC)** – Launched in 2018 to foster South-South cooperation on peatlands research, in partnership with the Democratic Republic of the Congo, Republic of the Congo, and Peru

- **World Mangrove Center (WMC)** – An international hub for sustainable mangrove management established in 2022 in East Kalimantan

- **Asia Forest Partnership** – A catalyst for existing initiatives to promote sustainable forest management in Asia by addressing good governance and forest law enforcement, capacity development for effective forest management, control of illegal logging and forest fires, and restoration of degraded lands

On the ground

Work in Indonesia by CIFOR-ICRAF and its partners in the CGIAR Research Program on Forests, Trees and Agroforestry (FTA) has resulted in key impacts:

- **24–69 million ha** of forests under enhanced protection from deforestation and degradation (representing 23–64 Gt of sequestered CO2)

- **1k–68k ha** of land under restoration

- **49–123 million ha** of landscapes better managed via policy mechanisms, monitoring systems, and adopted management practices on the ground
Over the past three decades, Indonesia has taken major strides towards conserving its precious forest and tree resources and creating more climate-resilient and prosperous communities. CIFOR, ICRAF and CIFOR-ICRAF have supported every step of this journey.

May
CIFOR was established as a global center of excellence in forestry research. ICRAF established its Southeast Asia Regional Programme. Both institutions were located at FORDA office in Bogor, Indonesia.

September
Indonesia pledges to reduce emissions by 26% by 2020 (41% with global assistance).

November
International workshop for post tsunami for Livelihoods and Natural Resource Management along Aceh’s west coast: agroforestry, coastal protection forest and forest management.

May
Indonesia imposes two-year moratorium on new forest concessions. CIFOR celebrates the inclusion of peatlands and calls for the protection of 46.7 million ha of secondary forests.

September
CIFOR holds Forests Indonesia conference.

September
Regional Agroforestry Day: Reflections on 20 Years of Agroforestry in the Global Context and Future Projections, held in Jakarta.
February
In close collaboration with Indonesian partners, the Bali Clean Energy Forum. Showcased ICRAF’s work with the Ministry of Environment and Forestry regarding bioenergy, peat fires, and climate change.

May
ICRAF Workshop on Peat Restoration: “Bringing Science Closer to Policy in Restoring Peat Ecosystem”, attended by FORDA, KLN-MoEF, Ministry of Agriculture, LIPI, Research Institutions, and universities.

October
Ministerial Decree informed by CIFOR-ICRAF research initiates new efforts to better manage peatland and mangrove ecosystems in Indonesia.

July
CIFOR supports the Indonesian National Carbon Accounting System (INCAS).

December
CIFOR helps develop the ‘Grand Design for Fire Prevention 2017-2019’ initiated and led by Indonesia’s National Development Planning Agency (Bappenas), as well as the ‘Standard for Fire Prevention’ initiated and led by the Coordinating Ministry for Economic Affairs (CMEA).

November
CIFOR contributes to strengthening the ISPO standards and informs the National Action Plan on Sustainable Palm Oil (NAP SPO).

May
ICRAF launched South Sumatra Masterplan for Green Growth Plan at the First Asia Bonn Challenge High-level Meeting in Palembang, South Sumatra Province.

January
CIFOR and ICRAF effectively merge.

January
The National Festival on Coffee Agroforestry held by MoEF featuring research by ICRAF and partners.
Investing in Indonesia

Finance

Indonesia has always received a significant share of CIFOR-ICRAF’s investments in research and human resources.

- **245 million USD**: total research investments in Indonesia (1993-2022)*
- **235 projects**: in Indonesia (2002-2022)
- **46 partners**: for Indonesian research projects (2018-2022)

*Includes some projects that operate in multiple countries, including Indonesia*
Knowledge

To support evidence-based policy and practice, CIFOR-ICRAF publishes and shares its Indonesian research findings with target audiences – from local partners and practitioners to policymakers to the global community.

3,425 publications (1993-2022)
346k downloads (2018-2022)
5,353 citations (2018-2022)

Coming together

Indonesia has been the site of major events, drawing global experts to discuss the latest findings on peatlands, forests and nature-based solutions.

» The Global Landscapes Forum (GLF) – From GLF precursor Forests Day held in Bali in 2012 to the 2017 Peatlands Matter conference in Jakarta, to the participation of Hon. Minister Siti Nurbaya at the inaugural GLF Bonn, Indonesia continues to play a key role at GLF events worldwide.

» The 3rd Asia-Pacific Rainforest Summit (APRS) – Hosted by the Indonesian government with the support of the Australian government and in partnership with CIFOR. More than 1,200 participants from over 40 countries participated in the 2018 event in Yogyakarta.

» Forests Asia – Organized by CIFOR and co-hosted by MoEF, the 2014 Forests Asia attracted more than 1,000 leading stakeholders from Southeast Asia and across the world.

Media training

Communicating science to the public is challenging. CIFOR-ICRAF has held media training workshops at major Indonesian events, bringing top scientists and journalists together to create great stories rooted in the most recent science.

» 17 media workshops
» 193 Indonesian journalists trained
Across the archipelago

CIFOR-ICRAF has active projects in 22 provinces across Indonesia, working with local communities, partner organizations, the private sector and governments at all levels.
Hidden riches in Indonesia’s wetlands: Revealed

For over two decades, CIFOR-ICRAF researchers have documented the hidden riches in Indonesia’s wetlands, including mangroves and peatlands. In 2010, groundbreaking research found that mangroves store 3–5 times more carbon than other tropical forests.¹ In partnership with Bappenas and local partners, CIFOR supported the establishment of a Coordination Strategic Team for Wetlands Management (enacted under the Ministerial Decree No. 89/2020) and contributed to the development of a roadmap on wetland management in Indonesia.

Climate change reporting: Strengthened

CIFOR was invited by Norway’s International Climate and Forest Initiative (NICFI) to assist the Indonesian government in refining its Forest Reference Emission Level (FREL) by incorporating missing sources and sinks in wetland ecosystems. Researchers provided evidence and analysis to the Ministry of Environment and Forestry to improve the accuracy, completeness, consistency and comparability of its FREL, including a recommendation to include peat fires and REDD+ activities such as enhancement of forest carbon stocks and conversion of mangroves for aquaculture, and peatland emissions due to decomposition. The team also developed a model on reference levels and predictions of future deforestation scenarios after the COVID-19 pandemic.

CIFOR-ICRAF’s work in Indonesia focuses on issues critical to sustainable national development, such as agroforestry, biodiversity conservation, sustainable and inclusive value chains, land-use planning for low-emission development, climate change, wetlands and peatland restoration, oil palm, fire and haze, bioenergy on degraded land, landscape restoration, reducing emissions from deforestation and forest degradation (REDD+), as well as tenure and gender equality.

Sustainable oil palm: Within reach

Research and engagement with policymakers, the private sector and oil palm communities contributed to the formulation and implementation of the country’s national action plan for sustainable palm oil, as put forward in Presidential Decree No. 6/2019, and to the development of provincial and district regulations on sustainable plantation development and the protection of High Conservation Value (HCV) areas. One CIFOR collaborator coordinated a group of IPB University scholars who became involved in key national processes to contribute to the development of policies on smallholder–private sector partnerships and the Indonesian Sustainability Palm Oil certification system.

Fire and haze: Clearing the air

Through scientific analysis, targeted outreach activities and proactive engagement with everyone from smallholders to ministers, CIFOR helped develop the ‘Grand Design for Fire Prevention 2017-2019’ initiated and led by Indonesia’s National Development Planning Agency (BAPPENAS) as well as the ‘Standard for Fire Prevention’ initiated and led by the Coordinating Ministry for Economic Affairs (CMEA). Researchers were also invited to help formulate Indonesia’s action plan for fire prevention. At provincial and regency levels, the project team helped develop PERDAs (local laws) for fire prevention through workshops and meetings with a range of stakeholders.

Bioenergy research targets the ‘food–energy– environment trilemma’

In Indonesia, bioenergy is seen as a potential route to energy security, better rural livelihoods and restoration of degraded lands. CIFOR and partners are building a database of key biofuel species – plants with oil-producing seeds or woody biomass that can be converted to energy – that grow well on Indonesia’s degraded lands, thereby transforming them back into profitable landscapes. With the right crops in right place and the right business models, bioenergy may be the solution to three problems.
Boosting local livelihoods through agroforestry

Over 631,000 people, around half of whom were women, raised their incomes by up to 18% by adopting technologies promoted by agroforestry development activities in Sulawesi, which aimed to promote marketing of a number of products harvested in forests and home gardens, such as honey, clove, coffee, indigenous fruits and sago. Farmers who were formerly dependent on a single commodity crop, and thus vulnerable to price fluctuation, benefited from the introduction of new crops and more diverse agroforestry systems and received training in the development of business plans and branding.

Supporting government initiatives to revive bamboo

Development of options by context necessarily includes work on value chains and agribusiness. Research in Indonesia, carried out by the Australian National University’s Marcellinus Utomo in Java’s central region and Forestry Research, Development and Innovation Agency’s Desy Ekawati who partners with Sustainable Bamboo Foundation in Flores, is being applied by CIFOR-ICRAF to support the Indonesian Government’s 10-year Seribu Desa Bambu (Thousand Bamboo Villages) program. It has identified options for more equitable participation of growers in value chains, particularly the lucrative handicraft value chain. CIFOR-ICRAF established village learning centres to help communities connect better and more equitably with the private sector.
CIFOR-ICRAF research has deep roots in Indonesia

Watershed management for environmentally friendly agriculture

CIFOR-ICRAF is developing instruments of environmental services in the context of watershed management and sustainable water resources in the Rejoso watershed, Pasuruan Regency, East Java, collaborating with financial institutions through blended finance and crowd-lending platforms together with the regional government and the private sector.

Targeting better food and nutrition security

Since 2018, the food system team at CIFOR has been carrying out several research projects in West Kalimantan, Papua, West Papua, Central Java and East Java Provinces. Findings suggest that ‘traditional’ diets can provide a substantial amount of nutrition compared to ones with more processed foods. And findings from a survey on the impact of COVID-19 on food supply and consumption in West Papua Province were disseminated in an online seminar that brought together Bappenas’s Papua Desk, Papua University and Balitbangda of West Papua.

Honey, nuts, teak and indigo: Kanoppi project

Jointly led by CIFOR and ICRAF, the 10-year Kanoppi Project aimed to increase forestry smallholder income by developing and promoting the production and marketing of timber and non-timber forest products on Sumbawa Island, West Timor and Gunungkidul. Using a complementary agroforestry approach and participatory action research, the project helped influence policy processes and translate landscape-based strategies into practices to develop a strong community-based inclusive business model as a driver of the regional economy.

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A roadmap to green growth for 5 provinces

The Government of Indonesia has made a commitment to mitigate climate change in the land-based sector by strengthening the capacity of subnational governments to plan and monitor green-economy development and to develop four locally appropriate mitigation actions (LAMA) that have the potential to be expanded to the national level (NAMA). ICRAF supported five provinces (Papua, West Papua, South Sumatra, Jambi and Aceh) in the development of a Green Growth master plan and roadmap. The master plans focused on comprehensive analysis and modeling of the land-based sector, and each plan was later mainstreamed into Provincial Medium-Term Development Plan.

Sustainable funding mechanism in conservation areas

ICRAF has identified sustainable, innovative funding options, designs, and financing mechanisms for Kerinci Seblat National Park and Bogani Nani Wartabone National Park. Funded by UNDP in collaboration with Bappenas, the Enhancing the Protected Area System in Sulawesi for Biodiversity Conservation (EPASS) and Transforming Effectiveness of Biodiversity Conservation in Priority Sumatran Landscape (TIGER) project identified innovative funding sources from, for example, income from ecotourism, environmental services and biodiversity in conservation areas, as well as conservation area buffer zones.

Shining a light on sustainable landscape planning

ICRAF has developed the Land Use Planning for Multiple Environmental Services (LUMENS), which is a framework accompanied with software to assist planning processes for sustainable development. LUMENS has been endorsed by the Ministry of Development Planning (Bappenas) to develop provincial action plan for greenhouse gas emissions reduction in 34 provinces.
Influencing multi-sectoral partnerships for the global market

Through support from IFAD, ICRAF has started a four-year research action initiative to strengthen farmers’ capacity for green commodities in South Sulawesi and North Sumatra, as well as to encourage the emergence of farmers who are able to manage agricultural land by following sustainable principles, who understand entrepreneurial principles to compete in the global market, and who have the skills to partner equally with the government and the private sector.

Stopping illegal logging and other forest crimes

Illegal logging was estimated to cost Indonesia more than USD 1 billion a year in unpaid taxes in 2003. CIFOR scientists joined forces with the Indonesian Financial Transactions Reporting and Analysis Centre to incorporate forestry-related crimes into the national anti-money laundering law. In 2009, the Central Bank of Indonesia took up their recommendations and required all banks in Indonesia to carry out customer due diligence processes.

Transformative approaches

Transformative Partnership Platforms are alliances focused on critically important challenges. The Operationalizing Resilient Landscapes through Green Growth in Indonesia TPP is being developed.

Engagement Landscapes are geographic locations where CIFOR-ICRAF carries out concentrated, long-term transformative work with diverse and committed partners. Launched at the 2022 World Forestry Congress in Seoul by His Excellency the Minister of Korea Forest Service, Choi Byeong Am, Landscape Partnership Asia aims to support the restoration of Asian drylands and drought-prone areas in 14 countries, including Indonesia.

Flagship Products are digital tools designed to address specific delivery challenges for important landscapes. Co-designing Smallholder Agroforestry Management (COSAM) is a smartphone app that enables farmers to design an agroforestry system, supported by the Sustainable Oil Palm Agroforestry in North Sumatra project and German Federal Ministry for Economic Cooperation and Development (BMZ). And Community-Based Restoration Monitoring System (CBRMS) are digital platforms to monitor restoration of degraded landscapes; these were applied in projects supported by Indonesia’s National Institute of Forest Science and Temasek Foundation.
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