WRI INDONESIA

ANNUAL REPORT
WRI INDONESIA 2021

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TABLE OF CONTENTS

ABBREVIATIONS

ACOP	:	Annual Communication on Progress
AFi	:	Accountability Framework Initiative
ACTION	:	Indonesian Conservation Alliance
ASEAN	:	Association of Southeast Asian Nations
ASN	:	State Civil Apparatus
BAPPENAS	:	National Development Planning Agency
BIG	:	Geospatial Information Agency
BMP	:	Best Management Practices
BPDAS	:	Watershed Management Center
CAC	:	Clean Air Catalyst
CEIA	:	Clean Energy Investment Accelerator
C4F	:	City for Forest
CHSE	:	Clean, Health, Safety, Environment
COP	:	Conference of the Parties
COVID	:	Coronavirus Disease
CSO	:	Civil Society Organization
CUT	:	Coalition for Urban Transitions
DAS	:	Watersheds
EMISI	:	Emission Reduction and Sequestration Initiatives
ESC TF	:	Environment, Sustainability & Climate Change Task Force
FOLU	:	Forestry and other land uses
GAP	:	Good Agricultural Practices
GDP	:	Gross Domestic Product
GEF	:	Global Environmental Facility
GRASP	:	Mutual Cooperation to Overcome Shrinkage & Food Waste
GHG	:	Greenhouse Gases
HHI	:	Indonesia Forest Day Consortium
ICRAF	:	World Agroforestry Center
IIASA	:	International Institute for Applied Systems
ILOK	:	Location Permissions
IUMK	:	Small and Micro Business License
IUP	:	Plantation Business License
JIGD	:	Regional Geospatial Information Network
SBTi	:	Science-Based Target Initiative
KADIN	:	Indonesian Chamber of Commerce and Industry
KBCF	:	Kawal Borneo Community Foundation
KKI	:	Indonesian Conservation Community
KKN	:	Community Service Program
MoEF	:	Ministry of Environment and Forestry
KPH	:	Forest Management Unit
KPK	:	Corruption Eradication Commission
KPPA	:	Indigenous Women's Craftsmen's Group
KTT	:	High-Level Conferences
KUB	:	Joint Venture Group
LCDI	:	Low-Carbon Development Initiative
LEZ	:	Low-Emission Zone
LPHA	:	Customary Forest Management Institute
LPHD	:	Village Forest Management Agency
LTKL	:	Network of Partners of Lingkar Temu Kabupaten Lestari
LTS	:	Long-Term Strategy
MEKAR	:	Restoration Opportunity Evaluation Methods
MHA	:	Indigenous Peoples
NCA	:	Natural Capital Accounting for Coastal Ecosystem
NDC	:	Nationally Determined Contribution
NGO	:	Non-Government Organization
HCV	:	High Conservation Value
NIB	:	Business Permit Number

NPAP	:	National Plastic Actions Partnership
UNILAK	:	University of Lancang Kuning
USAID	:	United States Agency for International Development
OPD	:	Regional Apparatus Organization
PKTKH-HA	:	Tenure Conflicts over Forest areas and Customary Forests
PLN	:	State Electricity Company
PS	:	Social Forestry
PPIIG	:	Geospatial Information Infrastructure Development Center
PRIMS	:	Peat Ecosystem Restoration Information Institution
RDI	:	Research, Data, and Innovation
REC	:	Renewable Energy Certificate
RPHA	:	Customary Forest Management Plan
RPHD	:	Village Forest Management Plan
RSPO	:	Roundtable on Sustainable Palm Oil
SDGs	:	Sustainable Development Goals
SI-PEAT	:	Peat Ecosystem Data and Information System
SI HUTSOS	:	Social Forestry Information System
SIKATAN	:	Agroforestry Tandun Village Information System
SI PAKATAN	:	Forest Area Tenure Conflict Data Collection Information System
SONGKET	:	Integrated Forest and Land Fire Control Operational System
SOP	:	Standard Operational Procedures
Stranas PK	:	National Strategy to Eradicate Corruption
SUPA	:	Sustainable Use of Peatland and Haze Mitigation in ASEAN
TBS	:	Fresh Fruit Bunches
TFA	:	Tropical Forest Alliance
UCRA	:	Urban Community Resilience Assessment
UNCEN	:	University of Cendrawasih
UNEP	:	United Nations Environment Programme
UNFCC	:	United Nations Framework Convention on Climate Change
UNIPA	:	University of Papua
UNL	:	University of Nebraska Lincoln
UNSRI	:	University of Sriwijaya
UPTD KPH	:	Technical Implementation Unit of the Forest Management Unit
WRI	:	World Resources Institute
WWF	:	World Wildlife Fund

EXECUTIVE SUMMARY

Supporting the Achievement of Government Targets

WRI Indonesia supported the country's efforts to transform the energy sector and achieve its clean energy mix target of 23% by 2025, and collaborated with state-owned electricity company PLN (Perusahaan Listrik Negara) to issue renewable energy certificates (REC) and initiate a green tariff scheme for their its energy products. Under the REC framework, WRI Indonesia supported the capacity-building of PLN staff by providing basic knowledge related to the clean energy procurement process, as well as materials related to the marketing of REC products.

For the first time, the government included the intensity and target of reducing green house gas (GHG) emissions as one of its macro indicators of development, which is listed in the 2020-2024 National Medium-Term Development Plan (RPJMN). WRI Indonesia continued to support the National Development Planning Agency (BAPPENAS) with pilot projects in several provinces that aimed to transform regional development and action plans into low-carbon development plans and reduce GHG emissions.

In addition, WRI Indonesia provided further support at the national level through capacity-building programs involving BAPPENAS staff, continued cooperation and communication with several technical ministries, engaged with lawmakers, and communicated Low-Carbon Development Initiatives (LCDI) at the international level during the 26th United Nations Climate Change Conference of Parties (COP) in Glasgow, Scotland.

WRI Indonesia, which was appointed as the secretariat of the National Plastic Actions Partnership (NPAP) initiative, supported the government's commitment to reducing plastic waste in the ocean by 70% by 2025. WRI Indonesia supported the government through a strategic alliance consisting of state institutions, members of the private sector, multi-development banks, and non-governmental organizations to accelerate this initiative.

WRI Indonesia supported the sustainable land-use sector by accelerating the implementation of the Social Forestry program, helping to reallocate 4.8 million hectares of state forests to local communities in 2021, from the total government target of 12.7 million hectares of forest areas. The

management rights of these forests were granted to the indigenous communities.

WRI Indonesia supported local governments in their efforts to increase forest cover monitoring capacity using the Global Forest Watch platform and develop a data management platform for plantation companies and independent smallholders in order to achieve the National Action Plan for Sustainable Palm Oil Plantations. WRI Indonesia also empowered local oil palm smallholders by helping them obtain sustainable palm oil production certificates, increase plantation productivity, and develop more sustainable oil palm planting practices.

Support at the Global Level

The Covid-19 pandemic still limited WRI Indonesia's involvement in international forums, although when possible, WRI Indonesia continued to maintain an online presence.

At COP26, WRI Indonesia collaborated with the New Climate Economy and the global World Resources Institute team to sep up a meeting between BAPPENAS and the British government to discuss low-carbon development initiatives in Indonesia and help the latter accelerate and strengthen the implementation of these initiatives with multi-year funding that is scheduled to begin in 2022.

With regard to the Group of 20 (G20) Summit to be held in Bali in November 2022, WRI Indonesia actively supported the Coordinating Ministry for Maritime Affairs and Investment (Kemenkomarves) in coordinating several key activities focused on reducing marine plastic waste. WRI Indonesia also cooperated with the Indonesian Chamber of Commerce and Industry (KADIN) and the Business 20 (B20) Environment, Sustainability, and Climate Change Task Force (ESC TF) to bolster the business sector's support of the government's efforts to achieve its net-zero emissions target before 2060, which will be featured in the B20 international forum in Bali.

In this annual report, we will outline some of our main activities of 2021 and our plans for the coming year to boost Indonesia's low-carbon development. We believe that we cannot achieve this goal by working alone. We are extremely grateful for our partners, collaborators, and donors; without them, none of our activities or the impacts we made throughout 2021 would have been possible.

CHALLENGES AND WAY FORWARD

In 2021, WRI Indonesia continued its activities on a limited basis due to the COVID-19 pandemic. We conducted several internal surveys to determine whether we would work from home, remotely, with limited hours, or using a hybrid system. It was decided that throughout 2021, WRI Indonesia employees would work from home.

WRI Indonesia's partners, such as central and regional government agencies, community groups, the business world, and donors, understood the need to work remotely as part of the so-called "new normal". Various concessions related to work targets were enforced, but it was hoped that key achievements could be redesigned or implemented in a different time frame.

On a limited basis and by implementing strict health protocols, various field activities were carried out in Papua, West Papua, Riau, and South Sumatra to ensure we could achieve our goals and prevent delays in our projects.

Meanwhile, the pandemic also affected the allocation of government spending and economic growth. As a result, various government programs and activities to ensure the transition to low-carbon economic growth — as stipulated in the 2020-2024 RPJMN — were no longer a priority. Budget allocations for green development were still not prioritized as of the time of writing.

However, in terms of the discourse on sustainable development, low-carbon development, and climate change actions, Indonesia still shows a strong political commitment. At COP26 in November 2021, Indonesia and more than 120 other countries declared their determination to reduce and even stop deforestation as a way to reduce GHG emissions and subsequently prevent the Earth's temperature from increasing by more than 1.5 degrees Celsius by 2030. At the same forum, Indonesia also signed a commitment to reducing methane emissions.

At the G20 Summit held in October 2021 in Rome ahead of COP26, Indonesia also voiced the importance of implementing climate change actions as a framework for G20 countries. In fact, one of the three primary agendas of Indonesia's G20 presidency is the transition to renewable energy. This means Indonesia has the strong political commitment to reducing GHG emissions in the energy and transportation sectors.

In October 2021, BAPPENAS launched a report titled "A Green Economy for a Net Zero Future", which contains net-zero emission scenarios and economic growth impacts resulting from development activities to achieve net-zero emissions. This report is expected to provide inspiration and a reference for 2023 planning and budgeting, and for Indonesia to accelerate low-carbon development as stipulated in the 2020-2024 RPJMN.

The discourse on sustainable development, low-carbon development, and climate change actions was also strengthened by the issuance of Presidential Regulation No. 98/2021 concerning the economic value of carbon. This regulation is meant to galvanize the formation of trade-based climate finance or carbon investment as additional sources of funding for Indonesia to tackle climate change.

With these preparations, 2022 was expected to be the year when Indonesia began to rise from the ravages of the COVID-19 pandemic, strengthening itself to accelerate economic recovery in a green manner and build within the framework of low-carbon development.

In 2021, WRI Indonesia also ended the implementation of a series of low-carbon development activities in the forestry and sustainable land-use sectors funded by grants from the Norwegian government and USAID Indonesia. The final report on the implementation of the grant was submitted to the Norwegian Embassy and USAID in June 2021, discussed on a tripartite basis in August 2021, and was well received. The second phase of the grant is scheduled to be implemented in 2022-2024.

As an independent research institution, WRI Indonesia collaborated with various parties — including the government, the private sector, academia, and on-governmental institutions — to help keep the global temperature rise to below 1.5 degrees. Through cross-sectoral, cross-jurisdictional cooperation and an inclusive and socially just approach, WRI Indonesia encouraged the acceleration of achieving half-carbon neutrality by 2030.

WRI Indonesia's main focus in the coming years include food security and sustainability for Indonesia's 296 million people, securing 90 million hectares of forest cover, and reducing the deforestation rate to less than 100,000 hectares per year. In the energy sector, WRI Indonesia will work on, among other areas, ways to increase the use of new and renewable energy, and promoting more efficient energy use in the transportation sector. In the urban sector, WRI Indonesia's work will focus on promoting healthier cities, encouraging buildings to be more energy efficient, and accelerating the equitable turnover of the urban economy. WRI Indonesia will also encourage environmentally-based financial transfer policies and support low-carbon-based development to be outlined in the National Medium-Term Development Plan for 2025-2029.

FOREST AND LANDSCAPE

The Ministry of Environment and Forestry (MOEF) noted that 25,863 villages in and around forest areas, consisting of 9.2 million households and more than 50 million Indonesians, depend on forest ecosystems. Forest ecosystems play an important role in stabilizing the climate by producing food, water, wood, and medicine, and housing most of the world's biodiversity. Despite reduced deforestation rates in some parts of the world, forest ecosystems are still severely threatened. According to WRI research, 30 percent of global forest cover is now bare, while another 20 percent has been degraded. Most of the rest have been fragmented, leaving only about 15 percent intact.

Indonesia is home to the third-largest tropical forest area in the world, after the Amazon jungle in South America and the Congo tropical forest in Africa. Indonesia's forest area is estimated to span 110 million hectares of its total total land area of 188 million hectares. According to government data, it is estimated that 50 percent of Indonesia's forests are degraded. However, in the consecutive years between 2016 and 2021, Indonesia was able to reduce its deforestation rate from 900,000 hectares (2016) to 200,000 hectares (2021).

WRI Indonesia worked with its partners to promote better and more sustainable forest and landscape governance by: 1) supporting the one-map policy, 2) encouraging social forestry, 3) supporting peatland restoration, 4) promoting sustainable commodity governance, and 5) supporting the provision of a better forest monitoring platform.

WRI Indonesia consistently supported the acceleration of the one-map policy, both at the national and provincial levels, from 2016 to 2021 to realize inclusive and accountable land governance decision-making. At the national level, WRI Indonesia supported, among other institutions, the Geospatial Information Agency (BIG), the Coordinating Ministry for Economic Affairs, and the Executive Office of the President. Support was provided through research, communication strategies, capacity-building, the establishment of the Center for Geospatial Information Infrastructure Development (PPIG), policy drafts and standard operational procedures (SOP), and the establishment of Regional Geospatial Information Networks (JIGD). Meanwhile, technical support was provided to improve geospatial platform management and data enrichment, as well as geospatial information monitoring and evaluation tools through SIMOJANG (a national geospatial information network node performance monitoring information system).

WRI Indonesia supported government policies that encouraged the reallocation of 12.7 million hectares of forests to social communities through the Social Forestry program. Data from the Ministry of Environment and Forestry shows that as of December 13, 2021, 4.8 million hectares of forests have been reallocated. WRI Indonesia's support came in the form of, among other efforts, assistance in proposing social forestry schemes in Riau and South Sumatra, the development of social forestry navigation systems, and helping social forestry permit holders to improve their living standards.

WRI Indonesia supported forest and peatland restoration efforts by conducting capacity-building programs for the Peatland Restoration Agency (which later became the Peatland and Mangrove Restoration Agency), taking part in the development of a peat restoration monitoring platform, initiating research on the adaptation of peat restoration opportunity evaluation methods, and establishing the Peat Monitoring Coalition initiative.

WRI Indonesia supported the government's efforts to realize sustainable palm oil governance in the palm oil supply chain in Indonesia. In collaboration with major companies, such as Unilever, WRI Indonesia helped more than 700 independent oil palm smallholders obtain certification from the Roundtable on Sustainable Palm Oil (RSPO), which is recognized by the world market. In addition, WRI Indonesia and nine palm oil producers and buyers became members of a coalition that developed a radar data-based forest monitoring system and piloted it in Siak district in Riau province and Aceh Tamiang regency in Aceh. This was done with landscape-monitoring initiatives using a collaborative approach with local governments and other civil society agencies. Finally, WRI Indonesia joined hands with WRI China to raise awareness about sustainable palm oil consumption in China, which in turn would support sustainable palm oil production in the East Asian country.

To boost national forest monitoring, WRI Indonesia supported the government's improvement of the National Forest Monitoring System by adding features in its online monitoring platform with an analysis function. WRI Indonesia also worked with local governments, law enforcement officials, and local community organizations to use the Global Forest Watch platform to improve the effectiveness of forest monitoring in their respective areas, where available resources are often very limited.

Key Achievements

WRI Indonesia aimed to promote healthy, productive, and sustainably forest management practices and contribute to climate change mitigation and adaptation efforts, improve community welfare, and maintain biodiversity. During this period, we made several achievements:

- Support the One Map policy: Regental Decree No. 18/2021 on the One Data regulation of South Manokwari regency, West Papua; revision of Riau Gubernatorial Regulation No. 5/2019 for adjustments to the One Data policy; amendments to Kampar Regental Regulation No. 47/2020 on the One Data, One Map policy; support the issuance of Governor Regulation No. 4/2021 on One Data.
- To accelerate social forestry programs, WRI worked directly in Tanah Papua, Riau, and South Sumatra. In Papua, WRI collaborated with the Customary Territory Registration Agency (BRWA), the Limited Association for the Study and Empowerment of Indigenous Papuans (PTPPMA), and FOKER to map 303,904.5 hectares of indigenous territories covering the Bhuyaka area (75,036.4 ha), Klisi (62,202.5 ha), Namblong (53,249.2 ha), and Kemtuk Elseng (113,416.3 ha). In South Sumatra, together with the Dempo forest management unit, HAKI, and social forestry managers, WRI Indonesia carried out participatory mapping in the Mude Ayek Tebat Benawa area (336 ha) in Pagar Alam city. Meanwhile, in Riau, WRI focused on improving local people's livelihoods by helping them develop pandana wicker handicraft businesses, cultivate *kelulut* honey bees (trigona), establish tree adoption businesses, and take part in ecotourism.
- Three tenurial conflicts were resolved (two customary forests in Riau and one customary forest in South Sumatra), which were recognized by the local government and the MOEF.
- In 2021, our main support of the BRGM through Peat Ecosystem Restoration Information Institution (PRIMS) activities ended with the submission of all results. WRI remained committed to supporting peatland restoration by developing initiatives to promote sustainable peatland management in the ASEAN region within the Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA) framework. We further developed the Peat Restoration Opportunity Evaluation Method for tropical peatlands in Southeast Asia and supported Peatland management with several modules, including the Peatland Discussion Module, Peatland revegetation Module, Peatland Restoration Unit Determination Module, Sustainable Peatland Utilization Module by

Communities, and South Sumatra Peatland Restoration Module. WRI Indonesia also developed several scientific papers were also developed, including on the "Economic Feasibility of Sustainable Peat Management".

- In managing sustainable commodities, WRI Indonesia completed a detailed map of independent cocoa smallholders in Jayapura regency (Kemtuk, Nimboran, Yapsi, South Gresi, Kaureh, Nimbokrang, Namblong, and Kemtuk Gresi) in Papua, and in South Manokwari (Oransbari, Ransiki, Momiworen, Tahota, Isim, and Neney) in West Papua, with a total of 53 villages. The Cultivation Registration Certificate (E-STDB) mobile platform was developed and tested in Musi Banyuasin, South Sumatra. E-STDB version 2.0 was installed in the Agrarian Ministry's server.
- The Radar for Detecting Deforestation Alerts (RADD), a new forest monitoring product with better spatial and temporal resolution, can now be accessed and used by the public.
- The automated digital mapping classification technique for strategic commodities in southern Sumatra was developed together with the National Institute of Aeronautics and Space (LAPAN) by utilizing Google Earth Engine.
- Communication strategies and general narratives regarding sustainable palm oil were generated to advocate for palm oil trade from sustainable sources between Indonesia and China. Additionally, we developed ecosystems for domestic carbon markets and presented them in a regional sustainable commodities dialogue jointly held by the Tropical Forest Alliance (TFA) and the Accountability Framework Initiative (AFI).
- WRI Indonesia developed several studies and policy recommendations to improve fiscal mechanisms and budget allocations to promote sustainable policies at the national and regional levels. An academic paper for the General Allocation Fund (DAU) that considered the scope of forests in jurisdictional areas was published in 2021 by the West Papua government. The Caucus of ForestEd Regions was formed in November, consisting of governors/representatives from Aceh, Papua, West Papua, and North Kalimantan provinces, as well as regents both within the region and outside the region, to request that the scope of the forests be considered for the financial balance and relationship between the state and regions.

ENERGY

Indonesia is committed to reducing greenhouse gas (GHG) emissions by 29% by 2030 independently and by up to 41% through international cooperation and support, in accordance with the Paris 2015 agreement. In 2014, the government revitalized the national energy policy, increasing the target to not only achieve 100% of the national electricity level by 2020, but also achieve 23% of the renewable energy mix by 2025. Unfortunately, ambitious renewable energy targets and the high potential of renewable energy sources, such as water, geothermal, biogas and biomass, solar power, and even the sea, have not been supported by the development of electricity projects, 90 percent of which are still dominated by the use of coal as an energy source.

PLN's 2021-2030 Electricity Supply Business Plan (RUPTL) is the firm's greenest RUPTL so far. In it, PLN targets to have renewable energy plants make up 52% of total additional plants by 2030. This figure is a positive signal from the government, especially with the increasing trend of demand for renewable energy from consumers in the commercial and industrial sectors. These are largest energy consumers in Indonesia, representing 52% of the country's total electricity consumption. Many commercial and industrial companies, such as those involved in the Renewable Energy 100 *(RE100)* initiative, have already launched climate targets, including through the Science-Based Target Initiative (SBTi), as well as targets for the use of renewable energy in their supply chains.

WRI Indonesia, through its Clean Energy Investment Accelerator (CEIA) initiative, sought to facilitate the achievement of the commercial and industrial sectors' renewable energy targets through capacity-building, policy recommendations, and technical assistance. CEIA also played a role in bridging corporate aspirations with government policymakers via multiparty dialogue and formulating policies.

The commitment and efforts of the government at the national level certainly needed to be realized at the provincial level. Despite the existence of the Regional Energy General Plan (RUED), the energy transition at the provincial level will depend heavily on regional leadership and the participation of local communities. For example, Bali became the first province in Indonesia to have a gubernatorial regulation on clean energy and electric vehicles. These regulations are the cornerstone of the growing clean energy and electric vehicle business ecosystem that many local companies in Bali started. WRI Indonesia assisted the Bali provincial government in designing derivative policies and innovative business models, such as through the creation of Bali's electric vehicle roadmap. The involvement of the private sector and local communities, including indigenous villages, in implementing the energy transition was one of WRI's focuses on ensuring an equitable transition.

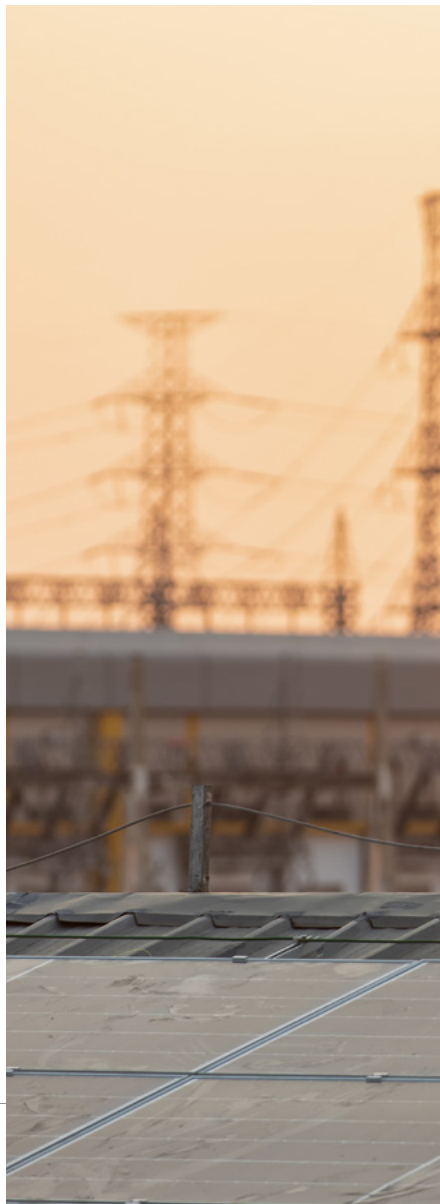
In this reporting period, the synergy sector completed the following achievements:

- Cooperation with PLN for the Renewable Energy Certificate (REC). To make it easier for the commercial and industrial sectors to obtain renewable energy in Indonesia, WRI Indonesia extended the memorandum of understanding (MoU) with PLN to develop green products in accordance with international standards. In 2021, WRI Indonesia through CEIA assisted

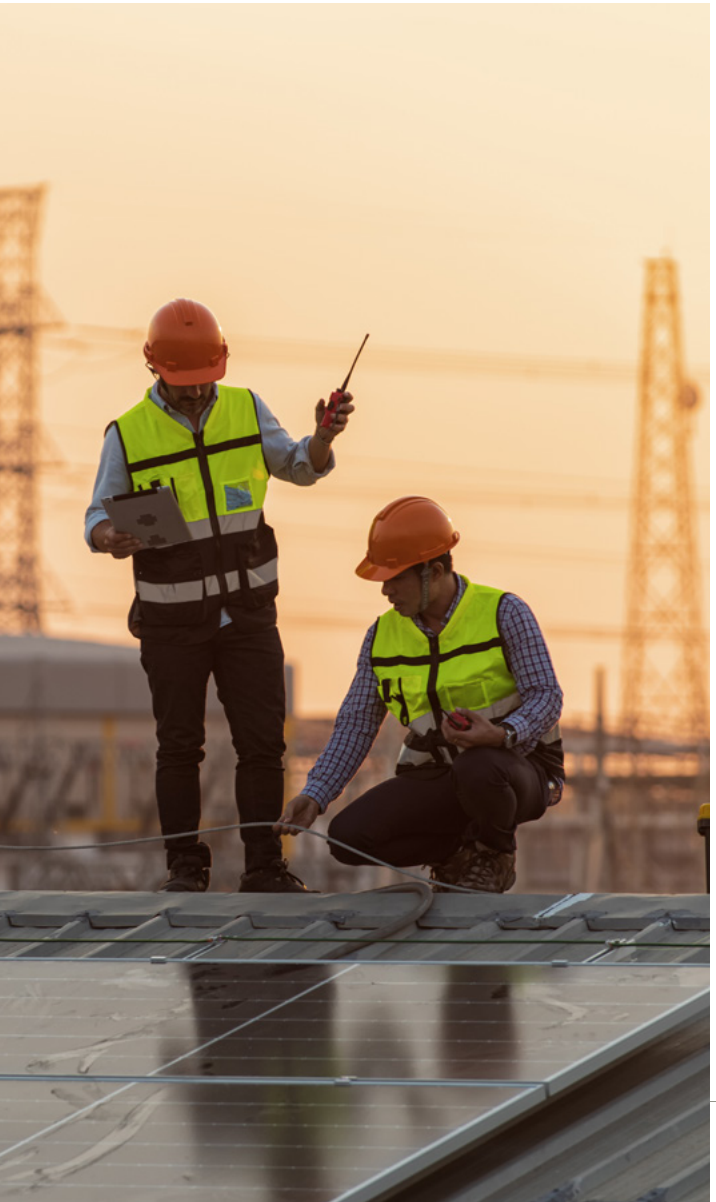
PLN in strengthening the framework for the implementation of REC products through an impact analysis and recommendations for the continued development of REC. A series of activities to increase the knowledge capacity of PLN and companies were also carried out to deepen the understanding of REC, which is an option for the procurement of renewable energy by companies, in addition to on-site installations that have limited capacity.

- Efforts to convert coal to biomass as a source of thermal energy for the textile industry in Indonesia. WRI Indonesia provided technical assistance and piloted the implementation of biomass fuel mixtures as a substitute for coal in two supply chain factories of a textile company. The technical assistance enabled factories to make an energy transition from using fossil fuels to more environmentally friendly fuels. WRI Indonesia, in collaboration with WWF Indonesia, conducted a series of technical analyses to reassure the most compatible biomass fuels for the boiler type used. The selection of boilers takes into account the ease of procuring sustainable fuel resources, investments, and the implementation of the required fuel and technological turnover. In the future, the results of this piloting will be a lesson for other factories that use similar technologies to switch to more environmentally friendly energy sources.
- Provided policy recommendations for the Directorate General of Electricity. To support the REC market's buying and selling ecosystem in Indonesia, WRI Indonesia collaborated with Earth Justice to formulate a policy recommendation aimed at enabling the REC voluntary market in Indonesia to develop and run transparently and fairly. In the future, the policy will oversee and ensure the realization of quality REC products and a healthy REC market.

- Mutual of Aspiration (MoA) Publications for Renewable Energy. On August 16, 2021, CEIA Indonesia and 13 companies in Indonesia published a joint statement of aspiration to voice their demand for new and renewable energy from the commercial and industrial sectors. The statement also contained encouragement for implementing actors and policymakers in Indonesia to accelerate the energy transition. After jointly expressing their strong demand for new energy, more companies became more vocal in expressing their energy transition targets along with a desire to start implementing renewable energy in their operations. Going forward, CEIA and these companies will continue to oversee the procurement of renewable energy that is easier for the commercial and industrial sectors.
- Technical Assistance and Rooftop Solar PV (RTS) training for the commercial and industrial sectors. WRI Indonesia provided technical assistance and assistance in evaluating RTS projects for several supply chain factories from our partner companies, which subsequently encouraged two companies to successfully execute the project in accordance with the steps recommended by CEIA. In addition, we also conducted a series of RTS trainings attended by more than 20 companies from various industrial sectors. The scope of the training included the stages recommended for conducting RTS procurement.



- Prepare a Regional Action Plan for Electric Vehicles for Bali province. The Bali Transportation Agency, as the Chairman of the Committee for the Acceleration of Battery-Based Electric Vehicle Implementation (KBLBB), partnered with WRI Indonesia to prepare the KBLBB Regional Action Plan for 2022-2027. WRI Indonesia conducted a series of multiparty studies and discussions to formulate the annual achievement targets of the Bali KBLBB and related policy targets, both from the management, industry, infrastructure, human resources, and marketing aspects. WRI Indonesia's assistance of Bali province will continue until the implementation phase and is expected to be replicated in various other provinces in Indonesia.



OCEAN

The ocean sector contributes US$2.5 trillion to the global economy each year and is a food source for 3 billion people. It is home to more than half of the world's species, produces half of the planet's oxygen, and absorbs a quarter of the world's carbon dioxide emissions.

Indonesia continues to struggle with various environmental problems that occur as a result of unsustainable development. Problems such as marine and coastal pollution, climate change, and habitat destruction continue to occur. The increased demand for resources, technological advances, overfishing, and inadequate governance and enforcement has also contributed to the deterioration of marine ecosystems.

WRI Indonesia implemented the New Ocean Economy initiative. This project, among other initiatives, aimed to emphasize that economic growth, job creation, and social welfare for the people of Indonesia today and in the future can go hand in hand with sustainable ocean management. The New Ocean Economy will demonstrate the benefits of sustainable ocean management, the costs that must be incurred if Indonesia does not manage the oceans well, and a roadmap for achieving new forms of economy. The New Ocean Economy will support Indonesia in achieving Sustainable Development Target 14 and in implementing Indonesia's commitments related to oceans.

WRI Indonesia prepared the Indonesia Marine Pollution Database, a platform that displays the state of marine pollution throughout Indonesia, measured through various methodologies and verified through a peer-review process. The platform's goal is to input data into an online interactive map to support a variety of stakeholders in taking action, such as marine park rangers, law enforcement officers, fishermen, environmental journalists, campaign organizations, the private sector, and policymakers.

WRI Indonesia also worked to mainstream blue carbon in Indonesia's New Ocean Economy. This included calculating the monetary value of mangrove ecosystems, conducting a cost-benefit analysis on mangrove restoration, gathering experience and learnings from mangrove conservation and restoration throughout Indonesia, and identifying innovative investment mechanisms for mangrove restoration. WRI Indonesia also sought to encourage the inclusion of the blue carbon component in Indonesia's nationally determined contributions (NDC). Mangrove ecosystems play an important role in mitigating climate change, but for now, they are still considered "affected ecosystems" only.

Together with other non-governmental organizations working in the marine and coastal sector, WRI Indonesia supported advocacy for better mangrove management at the national and subnational levels.

WRI Indonesia worked to create a healthy and productive ocean by conserving marine ecosystems, increasing fisheries productivity, and improving the living standards of coastal communities through the following activities:

- Indonesia National Plastic Action Partnership (NPAP) — a multistakeholder collaboration aimed at reducing 70 percent of plastic waste in Indonesia's oceans by 2025.
- Marinetrends Report and Platform for Trends in Marine Resources and Fisheries Management in Indonesia — a trend in marine resources and fisheries management in Indonesia that presents information on opportunities and threats to marine health and the economy. Both had a major impact on the fisheries sector and the welfare of the people.
- The Natural Capital Accounting for Coastal Ecosystem (NCA) project — an activity that supported the management of coastal ecosystems based on scientific data, which will ultimately drive the agenda of sustainable development and blue carbon in Indonesia.
- Ecosystem Services Factors — a project that supported the implementation of marine resources balances, which was a key framework for understanding the contribution of the ocean to communities and the economy, to encourage data-driven policy-making for a sustainable ocean economy and ocean-based climate action.

In this reporting period, the marine sector achieved the following:

- Produced knowledge products about sustainable capture fisheries, sustainable aquaculture, and the management of conservation areas and marine resources through the Marine Trends Report, which also aimed to improve sustainable fisheries management and practices.
- Reducing pollution from plastics, agricultural runoff, and other sources through activities carried out by the NPAP and its five task forces, which constantly involved local governments, development partners, donors, civil society organizations (CSOs), and religious groups. Assess the linkage gap between terrestrial impacts and coastal areas through an evidence-based analysis.
- Mainstreamed the science-based policymaking process in fisheries governance, which is contained in the Marine Trends Report. Developed *trenlaut.id*, free open data visualization of the best available data in capture fisheries, sustainable aquaculture, and areas and conservation management.
- Produced knowledge products in the field of coastal assessment/accounting, including in the form of working papers related to the mangrove moratorium, ecotourism, and coastal vulnerability index. This achievement also included suggestions for the World Bank's Ocean for Prosperity report.

CITIES

Around 68 percent of Indonesia's population is predicted to occupy urban areas by 2025. Sea levels are also expected to rise, threatening cities, especially in coastal areas. Amid these challenges, Indonesia needs to have a new development paradigm. Development planning must consider all important aspects of urban life, such as public transportation, traffic safety, energy and building efficiency, water management, and community resilience to climate change. In addition to considering development within the city, the government must also protect the forests inside and outside cities, as well as along watershed areas.

WRI Indonesia provided technical support to policymakers and urban development planners to improve the resilience of urban communities to climate change and reduce traffic accidents. WRI Indonesia's activities included:

- *Bandung Road Safety Initiative/Road Safety in Bandung, West Java*. Through WRI Indonesia's collaboration with *Bloo*mberg's Global Road Safety initiative, WRI Indonesia collaborated with the Bandung city government to address road safety issues by combining urban planning and infrastructure improvements.
- *Cities4Forest*. The Cities Support Forests initiative is a coalition of cities around the world aimed at integrating urban forests, urban forests, and forests far from cities into urban development programs and planning.
- *The Clean Air Catalyst* (CAC) is a program led by WRI and the Environmental Defense Fund and supported by USAID to build a shared understanding of the sources of air pollution and strategies to address it.
- *Low Emission Zone (LEZ)* is a project that aims to improve air quality in Jakarta through a series of research and communication strategies. Activities in 2021 were a continuation of steps taken prior.
- The Emission Reduction and Sequestration (EMISI) Initiative, in collaboration with the private sector, developed an online and mobile-based application to calculate the level of emissions and efforts needed to reduce emissions from the transportation sector.

WRI Indonesia implemented a strategy to transform cities, particularly in coastal areas, to be more inclusive, low-carbon, and resilient by advancing nature-based solutions through inclusive and transformational planning to improve air quality, strengthen water security, reduce solid waste, and improve the welfare of the general public. The target at the expected level of impact of this strategy is to achieve thriving and livable coastal cities capable of optimally addressing climate and pandemic issues by utilizing natural-minded solutions and inclusive development measures

In this reporting period, the urban sector has completed the following achievements:

1. Improved the management of inner-city forests (parks and trees) in Jakarta through the issuance of two gubernatoiral regulations, namely No. 49/2021, which was established on July 9, 2021, and promulgated on July 15, 2021, concerning the provision and utilization of parks; and Gubernatorial Regulation No. 24/2021 dated April 21, 2021, concerning tree management and protection. Helped the Jakarta government adopt flood control infrastructure assessments as part of its plans and regulations. The flood analysis

under development will result in Nature-Based Solutions (NBS) on flood mitigation recommendations.

2. Launched the EMISI v.2 application, which aims to attract crowdfunding for sustainable forest restoration activities. The peak of the launch was carried out in collaboration with the Jakarta government, BBC Media Action, Climate Policy Initiative, World Wildlife Fund, Rahsa Nusantara, SukkhaCitta, and Waste4Change.
3. Engaged national decision-makers to commit to more ambitious sustainable urban action, which was followed up with the launch of the Coalition for Urban Transitions (CUT) country report involving national government agencies on May 7, 2021.

CLIMATE

Indonesia has committed to supporting the global efforts to address climate change and prevent temperatures from rising by no more than 1.5 degrees Celsius. In line with this commitment, the government launched the Long-Term Strategies for Low Carbon and Climate Resilience, which contains Indonesia's commitment to achieving net-zero emissions by 2060.

Indonesia's recent submission of its NDCs and the Paris Agreement were a great opportunity for stronger climate action, particularly to support countries' efforts to keep the Earth's temperature rise below 1.5 degrees Celsius and adapt to the worst impacts of climate change.

WRI Indonesia sought to assist the Indonesian government in achieving its climate commitments to ensure a successful transition to low-carbon development. Some oftheinitiatives to encourage low-carbon development included:

- The Low-Carbon Development Initiative (LCDI). For the first time, the government through BAPPENAS included GHG emission reduction indicators in the national development macro indicators of the 2020-2024 RPJMN.
- The Secretariat of the Food and Land Use (FOLU) Indonesia Coalition by positioning itself as a knowledge hub that connected various stakeholders working in the food sector to realize a sustainable food system.

WRI Indonesia drove the transformation toward a sustainable food system that ensured the availability of healthy and nutritious food, the safety of supply and access throughout the food value chain, the reduction of shrinkage and food waste, and the protection and preservation of nature to achieve long-term commitments as stated in the Indonesian RPJMN, Sustainable Development Goals (SDGs), and NDCs.
In particular, WRI Indonesia through the FOLU Indonesia Coalition also supported the government of Indonesia by being a part of a national delegation participating in the 2021 United Nations Food System Summit (UNFSS), especially on Action Line No. 3 related to efforts to encourage environmentally friendly production. The UNFSS gave the government the opportunity to convey its main opinions and strategies related to the transformation of Indonesia's sustainable food system.

The FOLU Indonesia Coalition cooperated with the government, especially Bappenas, to carry out the Action Agenda and Roadmap Strategy to realize a sustainable food system. This document provided insights into changing the way land is used, as well as the way food is produced and marketed, and then consumed and discarded. As a follow-up, the FOLU Indonesia Coalition, BAPPENAS, and their partners also formulated a sustainable food system platform that would later become a forum for the collaboration of various stakeholders, such as universities, CSOs, the private sector, and various ministries, as part of their goals to usher in a sustainable food system.

In this reporting period, the Climate portfolio completed the following milestones:

1. WRI Indonesia and the New Climate Economy continued their support of BAPPENAS's efforts to incorporate COVID-19 scenarios and impacts into the 2020-2024 RPJMN as part of the International Climate Development Institute (ICDI). BAPPENAS launched the Green Economy Report in October 2021, covering the COVID-19 scenario to achieve net-zero targets by 2045, 2050, and 2060.
2. Supported BAPPENAS's efforts to change the narrative of economic development and implement low-carbon development plans in several pilot provinces, namely West Papua, South Sulawesi, and Riau. The development of technical documents at the provincial level to inform provincial development planning is ongoing
3. WRI Indonesia and the FOLU Coalition worked to inform policymakers about the existence of Indonesia's FOLU Action agenda and that they could use it as a reference to improve the country's food and land-use systems.
4. WRI Indonesia and the New Climate Economy formed an economic narrative and involved economic decisionmakers on climate action in Indonesia and began an in-depth analysis and engagement efforts on the new Food and Land-Use economy. A summary of sectoral LCDI policies, including food and waste shrinkage and the regulatory impact of carbon pricing, was made.
5. Published five issue papers on key aspects of the long-term strategy and aspects of improving the NDCs, and conducted outreach and provided technical assistance for Indonesia's long-term climate commitments. Published a scientific paper on improving sectoral NDCs for West Papua and a Long-Term Strategy (LTS) working paper on more ambitious climate action. The papers were published in various publications under the titles: *i) Toward Low-Carbon Solid Waste Management in West Papua; ii) Low-Carbon Energy Model in West Papua; iii) Scenario for West Papua's Contribution to NDCs on the Forestry Sector; iv) Toward Eco-Industrial Development in West Papua's Economy; and v) Development of the Sustainable Human Development Index Model in West Papua*.

6. Supported Indonesia's green fiscal stimulus and Building Back Better initiative through low-carbon development. The BAPPENAS Green Economy Report was launched in October 2021 and featured a post-COVID recovery scenario, as well as policy recommendations in achieving net-zero Emissions by 2045, 2050, and 2060.
7. The LCDI modeling platform was jointly developed and implemented by BAPPENAS and selected pilot provinces to carry out national and provincial development planning. Worked closely with provincial governments and local universities to develop sectoral models of the LCDI at the provincial level.
8. Science-Based Targets and GHG Protocols helped translate national climate commitments into more actionable plans for the private sector. An SBTi webinar was held that was participated by members of the private sector from across the Southeast Asia region.
9. In-depth modeling and analyses to support the growing long-term ambitions of Indonesia's NDC and land-use planning policies. Three sectoral NDC improvement papers for West Papua were produced.
10. Engagement with non-state actors in Southeast Asia to raise awareness and the role of the private sector in the region in achieving the objectives of the SBTi. We also worked with WRI India to engage in SBTi private sector capacity-building in the Philippines

RESEARCH, DATA, AND INNOVATION

In accordance with WRI's motto of *"count it, change it, scale it",* the strategy taken by WRI Indonesia in each of its program portfolios is always based on scientific considerations. The resulting scientific papers were part of WRI's commitment to making changes and expanding these changes based on scientific findings made in studies conducted by WRI Indonesia .

The Research, Data, and Innovation (RDI) Division is one of the most important parts of WRI Indonesia that ensures all knowledge products produced have gone through a rigorous peer review process and involve internal and external experts in order to ensure quality, accuracy, institutional coherence, and reduce research bias. These works provide an indispensable scientific argument in advancing environmental sustainability issues in policy-making both at the national and subnational levels.

At the national level, research activities related to dynamic system modeling carried out in the Low-Carbon Builders Initiative program, for example, were expected to provide valuable input for Indonesia's environmentally friendly economic growth. At the subnational/regional level, learning and input were obtained from the implementation of programs carried out by the WRI Indonesia regional team. WRI Indonesia's programs and activities in Papua and Sumatra included laboratories for research topics. For example, WRI Indonesia's role so far in facilitating the recognition of indigenous peoples (MHA) both in the Sumatra region and in Papua resulted in many lessons related to the MHA recognition process and also the role of MHA in optimizing climate change adaptation/mitigation. Documentation related to learnings obtained at the site level will be useful input for policy formulations both at the national and regional levels.

Throughout 2021, WRI Indonesia's research team published more than 20 publications consisting of nine WRI Knowledge Products and 12 international journal articles. The scientific papers examine important issues and are relevant to the programs at WRI Indonesia. Some of the titles of these publications by WRI researchers include:

1. Women's Participation in Customary Forests
2. Rural Forests and Deforestation in Indonesia
3. Dynamics of Local Governance: The Case of Peatland Restoration in Central Kalimantan, Indonesia
4. Assessment of Coastal Ecosystem Services and Its Condition for Policy Management Plan in East Nusa Tenggara, Indonesia
5. Improving Indonesia's Climate Data and Ambitions Through Increased Transparency and Incentive Schemes

These publications provided important feedback regarding the performance and evaluation of programs implemented by nationl and sub-national governments. For example, in the research for "Women's Participation in Customary Forests", WRI Indonesia researchers provided findings and analyses that could be used as input for the implementation of a more inclusive and gender neutral Social Forestry Program. In the publication "Improving Indonesia's Climate Data and Ambitions through Increased Transparency and Incentive Schemes", WRI Indonesia researchers discussed the relationship between the government and the private sector to increase climate ambitions through data sharing. The full list of publications published by WRI Indonesia can be found at: https://wri-indonesia.org/id/publications.

ACTIVITIES AT THE SUBNATIONAL LEVEL

Riau

Encouraging the Implementation of One Map at the Site Level

WRI Indonesia continued its support for the implementation of the One Map One Data program in Kampar regency in collaboration with BIG and also the Geospatial Information Development Center (PPIG) Riau University (UNRI). The JIGD Kampar team also compiled standard operational procedures (SOP) for the Implementation of One Data in Kampar regency. The JIGD Kampar core team received spatial data standardization training and uploaded standardized spatial data to the Kampar Geoportal.

WRI Indonesia supported the Riau province JIGD, together with the Informatics and Statistics Communication Service (Diskominfotik), in continuing the process of ratifying the gubernatorial regulation on One Data Riau through the Home Ministry. WRI Indonesia supported the process of preparing SOPs drafted by the One Data Indonesia Secretariat (SDI). The SOPs were successfully completed and introduced directly at roadshow activities to each agency.

WRI Indonesia supported PPIIG UNRI's efforts to develop a strategic plan (Rentra). During this period, the strategic plan was completed by the UNRI PPIIG team with assistance from WRI. This design was then disseminated to all relevant OPDs, as well as BIG, and received a lot of feedback for improvement.

Support for Stranas PK in Riau

WRI Indonesia and the Corruption Eradication Commission (KPK) continued to assist the regency/city government in Riau province to standardize, synchronize, and compile location permit (ILOK) and plantation business permit (IUP) data as stages of the implementation of the National Strategy for Combating Corruption (Stranas-PK) in Riau. Coordination, monitoring, and evaluation of this activity were also carried out regularly together with BIG and the Riau Provincial Plantation Office. At the end of March 2021, all ILOK and IUP regency/city data in Riau province (except Kuantan Singingi regency) were completed and sent to BIG.

The Stranas PK team of the KPK met with the governor of Riau, which was followed up by the Riau Provincial Plantation Office calling companies operating in Riau to submit the necessary data. As a result, as many as 70 plantation companies submitted data related to their plantation business licenses.

Participatory Mapping Through the Thematic Community Service Program

At the end of February, a series of participatory mapping activities in Mining district and Kampa Kampar regency were successfully completed through thematic Community Service Program (KKN) activities, as well as data processing and the creation of participatory mapping modules as documentation of knowledge and experience during participatory mapping in Kampar regency. All these outputs were disseminated (digital files) to Regional Apparatus Organizations (OPD) and various related parties in Riau province as learning media.

Conflict Transformation of Natural Resource Management

WRI Indonesia together with local CSOs in Riau built a coalition in order to encourage the institutionalization, handling, and mitigation of natural resource conflicts in Riau province. The CSOs that agreed to jointly build a coalition were Bahtera Alam, Yayasan Pioneer Sehati, Riau Legal Aid Office, and Riau Peat Foundation. Koalisi compiled a policy brief that was then advocated to executive and legislative institutions in Riau province to encourage the institutionalization of natural resource conflict management.

Various land conflicts between Tandun village and surrounding villages were resolved by the Tandun Village Forest Management Agency (LPHD) with support from various parties, including the Regional Administration Section of Rokan Hulu regency, KPH Suligi Batu Gajah and the Tandun village government. Likewise, we completed various administrative documents requested by the Ministry of Environment and Forestry as a requirement to obtain a permit.

The WRI Riau Regional team and LPHD Tandun also developed a simple platform (Tandun Agroforestry Village Information System/ SIKATAN) for the inventory, monitoring, and dissemination of agroforestry initiatives in Tandun in the form of detailed data on seeds that were planted, locations, conditions, photos etc. SIKATAN was also integrated with tree adoption initiatives that were also being developed as an alternative source of livelihood for communities surrounding forests.

In a series of discussions involving several CSOs, such as Sawit Watch, Bahtera Alam, and representatives of the Sajogyo Foundation, it was agreed to jointly provide support for efforts to resolve conflicts over land tenure covering an area of 140 hectares between MHA Petapahan and a company. Several stages were carried out, including a preliminary assessment with the aim of completing the data and information needed to make claims in efforts to restore the customary rights of the Incumbent State MHA, which was managed by the company; dialogues with various parties aimed at resolving the conflict of the Incumbent State MHA; assisting the Incumbent MHA in the process of submitting complaints to both the company and the RSPO.

Support for Livelihood Initiative Development

1) Pandan Woven Handicraft Business

   WRI Indonesia continued its support for the pandan woven handicraft business managed by the Indigenous Women's Group and Ayoung women's and children's group in four villages in Kampar Kiri Hulu.

   From the marketing aspect, it was carried out, among other ways, through direct distribution (offline) at a local target market. Various products were successfully sold to local consumers at the village and subdistrict levels. A shop was established in Gema village named Kodai Umbai, as well as a warehouse to help facilitate the distribution of products. We cooperated with the Gema village adventure tourism community, @senjasubayang outdoor tourism community, and Shelter Riau Adventure. Additionally, online marketing was carried out through social media. WRI Indonesia also helped Kodai Umbai participate in various product exhibitions in collaboration with related OPDs.

   With regard to group strengthening, governance, and business development, the WRI Indonesia team compiled and disseminated SOPs for processing raw materials, proposing products to offline shops, and for online marketing to all members of the Indigenous Women's Craftsmen Group (KPPA). In addition, the profit-sharing scheme was also the main discussion. In terms of business development, the team also initiated cooperation and support from the government, the private sector, and various other parties. Various training programs were also provided to improve Kodai Umbai's and women's groups' capacity to produce quality and environmentally friendly products.

In terms of product certification, WRI Indonesia helped Kodai Umbai obtain a *Clean, Health, Safety, Environment* (CHSE) certificate from the Indonesian Ministry of Tourism and Creative Economy. Kodai Umbai was granted a certificated in the category of "providers of souvenirs".

In licensing, WRI helped a group of wicker craftswomen (KPPA) obtain a permit to become a Joint Business Group (KUB). In addition, after the four KPPA received a Business License Number (NIB), Kodai Umbai also registered for a NIB as an online and offline production and marketing business. Currently, Kodai Umbai is registered on the platform and has a Small Micro Business License (IUMK).

In the aspect of sustainability, a survey was carried out on the availability of pandanus raw materials in customary forests in the four regions. The results of the survey were the basis for an analysis to ensure the development of the pandan woven handicraft business was not exploitative (in accordance with the availability of sustainable raw materials).

2) Kelulut Honey bee Cultural Business (Trigona)
Support for capacity-building, including training on harvesting Kelulut honey in Kampa and Petapahan, equipment support, and additional Kelulut bee boxes. By the end of the period, the Lebah Madu Cultivation Group in Kampa managed 160 bee boxes, which came from WRI's support, the addition of logs made independently by the group, assistance from the government, and the results of culture development (colony rupture). It is hoped that in the future, the managed Kelulut log can continue to grow in accordance with the potential availability of feed in customary forests (using non-exploitative principles).

We also supported the establishment of collaborations among various parties, one of which was with Lancang Kuning University (UNILAK). An MoU between UNILAK and Ninik Mamak Kenegerian Kampa was signed on October 15, 2021. UNILAK also officially provided full scholarships to Kampa's indigenous youth at UNILAK's School of Forestry, which is expected to advance the education of the indigenous people while protecting Kampa's customary forests.

3) Tree Adoption Business Development
WRI helped develop a tree adoption online platform (website) that will be used as a tree data storage database, interact with potential adopters, and as a platform that will ensure transparency in the management and utilization of tree adoption funds. On August 11, 2021, the Riau Tree Adoption initiative was inaugurated by the governor of Riau accompanied by the head of the Riau Province LHK Office. The number of Tree Adoption commitments at the time of inauguration from individuals, institutions, and companies reached 11,869 trees or equivalent to Rp 1.76 billion. Only 2,800 trees were inventoried in the system. Therefore, the Riau LHK Office worked hard to inventory additional trees to follow up on the commitments of these parties.

4) Ecotourism
Ecotourism is one of the alternative sources of livelihood proposed by the indigenous people in Petapahan and outlined in the RPHA that was prepared. For this reason, WRI Indonesia provided support for the preparation of a block plan for the development of Imbo Putui ecotourism. The preparation of the block plan was assisted by the Riau architect community and Savana Studio. Technically, the design was chosen after intensive discussions and consultations with LPHA and indigenous people.

Imbo Putui Ecotourism was officially inaugurated on November 29, 2021. To support the LPHA Petapahan initiative, BPDAS Indragiri Rokan provided support for 5,500 seedling stems for the restoration of the Petapahan River. In addition to that, the Imbo Putui ecotourism group also raised an additional 1,000 stems. WRI Indonesia also provided support in the form of equipment for the development of ecotourism in Imbo Putui, such as *photovoltaics*, camping tents, portable toilets, signposts, and information.

Driving the Transformation of Sustainable Independent Plantation Management

After passing the audit for RSPO certification, the four WRI Indonesia-assisted groups, namely Koperasi Beringin Jaya and Koperasi Sawit Jaya in Siak district and FPSS Semarak Mudo and PPKSS Tayo Barokah in Rokan Hulu, still had to wait several months to obtain RSPO certificates from auditors. WRI continued to assist the group in monitoring and evaluating the application of RSPO principles and criteria after certification, including High Conservation Value (HCV) management, canal bulkhead maintenance, monitoring water levels, implementation Good Agricultural Practices (GAP), recording of fresh fruit bunches (FFB), etc.; preparing three groups to register on https://PalmTrace.rspo.org platform for RSPO credit transactions; helping the group to compile an annual report (Annual Communication on Progress/ACOP).

On December 14, 2021, the governor of Riau handed over RSPO certificates to four WRI-assisted groups as a form of support for sustainable independent oil palm smallholder groups. Meanwhile, all four groups also secured RSPO credit funds from the company.

WRI Indonesia in collaboration with the University of Nebraska Lincoln (UNL), is still conducting research on the application of best management practices (BMP) to pilot farmers in Tandun village. Monitoring is carried out through monthly data collection by pilot farmers and non-pilot farmer groups. The analysis results from the UNL team showed a significant increase in productivity with the application of BMP in the pilot group.

South Sumatra

Encouraging the Implementation of One Map at the Site Level

WRI Indonesia in collaboration with the South Sumatra provincial government built and inaugurated the SONGKET Sumsel (South Sumatra Integrated Forest and Land Fire Control Operating System) application. WRI officially handed over the management of the platform to the South Sumatra government. SONGKET is the result of a collaboration between the South Sumatra provincial government, the South Sumatra Police, the South Sumatra Watershed Forum, and WRI Indonesia in an effort to support forest and land fire mitigation activities in South Sumatra.

WRI Indonesia provided a grant in the form of a server, including the Peat Ecosystem Data and Information System consisting of a peat database and WebGIS Monitoring Peat Ecosystems in South Sumatra. The two system applications were developed in collaboration with the South Sumatra Environment and Land Agency. In addition, a Forestry Data and Information System was also handed over, consisting of a forestry database and the Forestry Monitoring Information System, in collaboration with the South Sumatra Forestry Service. It is hoped that with the grant, the system can support the South Sumatra government in monitoring and evaluating land use and the environment in the province.

WRI Indonesia facilitated and assisted the South Sumatra provincial government in the Bhumandala Awards: Innovation in the Utilization of Regional Geospatial Information, which was organized by the Geospatial Information Agency. WRI Indonesia and the South Sumatra government created two applications that participated in this competition, namely the Forest and Land Fire Control Operating System (SONGKET) and the Peat Ecosystem Data and Information System (SI-GAMBUT). SONGKET was acknowledged with the “Superior Innovation/Silver” prize.

Participatory Mapping Through Thematic Community Service Program

WRI Indonesia and the UNSRI Thematic KKN Team (Sriwijaya University) finalized a report on the Participatory Mapping of Village Boundaries and Potential in Musi Banyuasin regency and disseminated the results of the activity. In addition to the report, a village/district boundary map and a participatory mapping module prepared by the Thematic KKN Team were also finalized. Activity documents and maps were submitted to the Musi Banyuasin local government.

Conflict Transformation of Natural Resource Management

WRI Indonesia provided support for the creation of an information system for mapping tenurial conflicts in forest areas in South Sumatra. After going through various technical stages and discussions with stakeholders, including conflict handling experts, the Forest Area Tenurial Conflict Data Collection Information System (SI PAKATAN) was successfully built.

WRI Indonesia in collaboration with the Forestry Service, the Social Forestry Working Group (Pokja PPS), and the Tenurial Conflict Mapping Working Team for Forest and Customary Forest Areas (PKTKH-HA) in South Sumatra, conducted introductions and trials in an effort to spread awareness about the system, emphasize the need for such data, and solicit suggestions and input on the improvement of SI PAKATAN.

Forest Monitoring and Protection

WRI Indonesia conducted a boot camp for the creation and improvement of a web-based land cover automation/digital mapping application using the Google Earth Engine platform. Research and the development of strategic plantation commodity mapping in South Sumatra based on remote sensing data and information are expected to be utilized by relevant parties, especially in South Sumatra, in terms of using and utilizing Google Earth Engine for making land cover maps.

In collaboration with the South Sumatra Forestry Service and the UPTD KPH Region I-XIV in South Sumatra, we participated in the supervision of forest and land cover monitoring. WRI Indonesia provided a variety of training programs, ranging from an introduction to the Global Forest Watch and Forest Watcher applications to trace monitoring methods. The training was followed by an investigation simulation with a field survey using the Forest Watcher application, utilizing cellular technology to collect field data and monitor changes in forest and land cover in the KPH work area.

Recognition and Sustainable Management of Customary and Social Forestry Areas (Forests)

WRI Indonesia assisted the SI HUTSOS Management Team in updating its social forestry information system, in accordance with a Head of the Forestry Service Decree. In September 2021, an introduction and a trial run of SI HUTSOS were carried out in collaboration with the South Sumatra Provincial Forestry Service and the Working Group for the Acceleration of Social Forestry (Pokja PPS). In its implementation, SI HUTSOS is expected to support the planning, developing, monitoring, and evaluation of Social Forestry activities in an integrated system.

WRI Indonesia collaborated with the South Sumatra Provincial Forestry Service, the South Sumatra Social Forestry Working Group, and the Region X Dempo KPH to conduct capacity-building for the Customary Forest Management and Social Forestry Business Group of Pagar Alam city. This consisted of training on customary forest management and business development of environmental services: training and field practices for the management of foster trees in Tebat Benawa, Dempo Selatan district, Pagar Alam city; monitoring the development of seedling gardens in HA Tebat Benawa and HKm Dempo Lestari: observations and discussions on the development of seedling gardens in HA Tebat Benawa, HKm-Dempo Lestari; coffee processing business development training; training and discussions on the development of processed ground coffee products in Tebat Benawa, South Dempo district, Pagar Alam city.

In collaboration with the South Sumatra Provincial Forestry Service, the South Sumatra Social Forestry Working Group, and the Lakitan-Bukit Cogong KPH, WRI Indonesia organized a series of institutional capacity strengthening activities for social forestry permit holders at KPH Lakitan-Bukit Cogong, Musi Rawas regency. The activities included preparing a work plan for the management and development of social forestry businesses at KPH Lakitan-Bukit Cogong; assistance in the process of

preparing Village Forest Management Plan (RPHD) documents for four LPHDs in Lakitan-Bukit Cogong, Musi Rawas regency; training on the business development of trigona honey bees at the LBC Breeding Center, KPH Lakitan-Bukit Cogong; the construction of seedling gardens and diversification of crops in the KP area; and the provision of seeds for seedling gardens by a group of PS permit holders in Lakitan Bukit-Cogong, Musi Rawas regency.

Aceh and West Sumatra

WRI Indonesia started new programs in Aceh and West Sumatra provinces to support sustainable forest and land management through social forestry schemes. This program was implemented with a consortium consisting of the Indonesian Conservation Community (KKI Warsi) and Kawal Borneo Community Foundation (KBCF). KKI Warsi implemented the program in villages in West Sumatra, Bungo regency, Jambi province, and North Kalimantan. Meanwhile, KBCF implemented the program in the East Kalimantan region. The program started in June 2021. WRI and the consortium focused on preparing the implementation of the program with intensive coordination involving various parties, including local governments, village governments, academics, CSOs, and other social forestry activists.

Papua and West Papua

Encouraging The Implementation of One Map at the Site Level

In collaboration with the Center for Geospatial Infrastructure Information Development (PPIIG) of the Cendrawasih University of Papua, WRI Indonesia developed a GIS module/curriculum to be used in an elective course for bachelor's degree students. This module was also used as an introduction to student study services (KKN).

WRI Indonesia supported PPIIG UNCEN by providing technical implementation assistance for Network Nodes in Papua province and Sarmi, Kerom, Jayapura and Jayapura districts, including facilitating coaching from Bappenas and BIG.

Analysis of Land-Based Permits in Papua Province

To support the Stranas PK program in Papua province, WRI Indonesia provided technical assistance to the Papua government in conducting legal analyses and policy analyses for the licensing of 55 oil palm plantation companies spread across eight districts (Jayapura, Kerom, Sarmi, Merauke, Boven Digoel, Mappi, Nabire, and Mimika). The results recommended that 33 companies have their license revoked and 22 be subject to administrative sanctions. This process is still ongoing and continued through the Licensing Evaluation by the KPK.

Recognition of Indigenous Peoples and Indigenous Territories

In Jayapura regency, WRI Indonesia supported the Agrarian Reform Task Force in the social mapping and spatial mapping of indigenous territories, especially in six districts. Since 2019, Jayapura regency has carried out large-scale mapping of indigenous territories with an indicative total of 1.2 million hectares. In Sarmi regency, WRI Indonesia supported the proposal of customary forests in the Isirawa customary area.

For West Papua province, WRI Indonesia assisted the CSO Working Team's efforts to standardize participatory maps of indigenous territories, supported by the Customary Territory Registration Agency, FOKER NGO Papua, and PPIIG UNIPA.

Sustainable Community Garden Management (cocoa commodity)

WRI Indonesia supported the economic development model for a village unit for cocoa commodities in Neney district, South Manokwari regency, in collaboration with the Eber South Cooperative, which exports cocoa. Together with the NGO Mnukwar, we provided training on product development using cocoa, especially for women's groups.

Pushing the Women's Forests of Jayapura City

Jayapura is a member of City for Forest (C4F) with a specialization based on indigenous territories. WRI Indonesia supported the process of involving indigenous peoples in spatial planning revisions that integrated the C4F initiative, which was a collaboration with the Jayapura government and Ottow Geissler University. The mapping of important places in indigenous territories was carried out and pushed women's forests into areas protected by the Jayapura government. Women's forests are forests in coastal areas dominated by mangroves where their use and preservation are carried out by indigenous women from certain tribes or clans.

Research and Capacity-Building

WRI Indonesia conducted research activities on two thematic studies, namely a study of forest conservation funding for sustainable development in Papua province in collaboration with a research team from Cendrawasih University (UNCEN) and preliminary studies on indigenous Papuan women and natural resource management. In collaboration with UNCEN and the University of Papua (UNIPA), WRI Indonesia made a Call for an Essay with the theme Tenurial Conflict Resolution Based on Local Wisdom in the Land of Papua. There were 25 selected essays to document.

With UNIPA and UI, we provide technical assistance (coaching clinics) for writing scientific journals, with 10 selected journals.

WRI Indonesia conducted an online Tanah Papua Learning Circle with themes relevant to WRI's strategy in Papua and in collaboration with various parties.

With UNIPA, UNCEN, and Ottow Geissler, WRI Indonesia developed GIS Club Tanah Papua through basic and advanced GIS training for young people with diverse backgrounds, including students, activists, and civil servants (ASN). More than 100 people participated in GIS Club Tanah Papua.

PARTNERS AND FRIENDS OF WRI INDONESIA

COALITION AND COLLABORATION

- **Accountability Framework Initiative (AFi)** - AFi is a form of collaboration between companies and civil society organizations to accelerate increased accountability in supply chains. AFi, which launched in mid-2019, provides clear, consistent, and effective guidance in order to increase accountability in the implementation of supply chain commitments that are more environmentally friendly and socially friendly.
- **Indonesian Conservation Alliance (AKSI) -** Founded in 2015 under the name of the Indonesian Conservation Communication Forum (FKKI) and now transformed into the Indonesian Conservation Alliance (AKSI), AKSI is a discussion forum for nine civil society organizations engaged in nature conservation and sustainable development.
- **Clean Energy Investment Accelerator (CEIA) Indonesia** - CEIA Indonesia is a coalition between the public and private sectors initiated by Allotrope Partners, the World Resources Institute, and the United States National Renewable Energy Laboratory (NREL) to encourage the development of new and renewable energy in the commercial and industrial sectors in Indonesia.
- **Gotong Royong Overcome Shrinkage & Food Waste (GRASP) 2030 –** GRASP 2030 is a voluntary-based initiative that encourages joint action to reduce shrinkage and food waste.
- **Coalition Food and Land Use (FOLU) Indonesia** - The FOLU Indonesia Coalition is a global initiative that seeks to improve the world's food and land-use systems. Indonesia is one of the countries leading this initiative, along with Colombia, Etipia, China, India, Australia, nordic countries, and England. In Indonesia, FOLU initiatives focus on healthy diets, productive and regenerative agriculture, nature conservation and restoration, and healthier and more productive oceans. WRI Indonesia is the Secretariat of the FOLU Coalition in Indonesia.
- **The Network of Partners of the Sustainable District Circle (LTKL)** - LTKL is a forum that bridges support for districts from a network of national and global development partners, including civil society, academia, and the private sector, in order to realize sustainable development. Through LTKL, the direction of district development is supported in order to balance economic, social, and environmental aspects.
- **Indonesian Forest Day Consortium (HHI)** - The HHI Consortium is a coalition of more than 25 organizations and is supported by more than 70 collaborators who help echo the celebration of Indonesia's Forest Day every August 7. In 2021, HHI celebrations were filled with virtual exhibitions, webinars, and petition signings.

- **The RESTORE+** - RESTORE+ consortium is an initiative initiated by the International Institute for Applied Systems (IIASA) involving the World Agroforestry Center (ICRAF), WRI Indonesia, and WWF Indonesia. RESTORE+ examines landscape restoration policy options that can simultaneously address concerns related to environmental, food, energy security, and sustainable land use issues. RESTORE+ in Indonesia has developed the Urundata mobile application as a data collection platform needed in preparing restoration plans.

- **Pantau Gambut** - Pantau Gambut is an online platform that aims to raise awareness of the importance of peat protection and monitor the development of peat ecosystem restoration activities and commitments carried out by the government, civil society organizations, and business actors in Indonesia. In carrying out its activities, Pantau Gambut is supported by various national and regional level organizations that are members of the Peat Monitoring Network Node, which is spread across eight provinces in Indonesia.

- **Indonesia's Low-Carbon Development (LCDI)** - The Indonesia Low-Carbon Development Indonesia (LCDI) Initiative, led by the National Development Planning Agency (Bappenas), analyzes various development policy options that can boost economic growth and reduce greenhouse gas emissions. The findings of the low-carbon development analysis have been included in the 2020-2024 National Medium-Term Development Plan (RPJMN). Thus, the direction of Indonesia's development in 2020-2024 considers the carrying capacity of the environment.

- **Peat Ecosystem Restoration Information Institution (PRIMS)** - The PRIMS Gambut team carried out a Journalism Fellowship, in collaboration with the Alliance of Independent Journalists (AJI) Jakarta. This activity targeted journalists throughout Indonesia, and 10 journalists managed to get fellowships. The results of this activity were in the form of 15 in-depth reports on peatlands in six provinces, using data from the Peat PRIMS platform. These reports have been published in various mass media outlets, such as Detik.com, the Jakarta Post, Mongabay Indonesia, Liputan6.com, among others.

- **Sustainable Peatland Management and Haze Mitigation in ASEAN (SUPA)** - The SUPA Program, an initiative funded by the European Union, aims to support a sustainable peatland management strategy in ASEAN through collective action and collaboration of non-governmental actors. As a first step, the consortium consisting of WRI Indonesia, the Tropical Rainforest Conservation & Research Center, and the Green Trade Initiative successfully held a series of virtual conferences with non-governmental actors from eight Southeast Asian countries.

FINANCIAL STATEMENTS

Amid the ongoing pandemic, WRI Indonesia was honored to have received the continued trust and backing of its partners and supporters. As in previous years, in 2021, we received funding from foreign governments and independent philanthropic institutions. One hundred percent of the funds went directly to WRI Indonesia's projects. To maintain our credibility and effectiveness, our revenues and expenses were regularly reviewed by professional auditors.

NET ASSETS REPORT (Figures within Rp 000,000)

SOURCES OF FUNDS	YEAR 2021	YEAR 2020	YEAR 2019
Grants/Contributions	106,309	12,548	198,030
TOTAL	**106,309**	**12,548**	**198,030**

EXPENSE			
Program Activities	107,675	77,593	82,021
Administration	5,480	6,887	12,071
Development			
TOTAL Cost	**113,155**	**84,480**	**94,091**

NET ASSETS			
Net assets at the beginning of the year	132,793	204724	100,785
Changes to Operating Assets	-5,777	-26,621	3,758
Changes to Bound Assets	-1,069	-45,310	100,181
Total Changes to Assets	-6,846	-71,931	103,939
YEAR-END NET ASSETS	**125,947**	**132,793**	**204,724**

BREAKDOWN OF INCOME AND EXPENSES PER PROGRAM

INCOME	YEAR 2021		YEAR 2020		YEAR 2019	
Philanthropic Institutions	16%	16,574	22%	2,773	2%	4,148
Overseas Governments	84%	89,765	78%	9,726	98%	193,845
Other income	0%	-30	0%	49	0%	37
TOTAL Revenue	**100%**	**106,309**	**100%**	**12,548**	**100%**	**198,030**

EXPENSE	YEAR 2021		YEAR 2020		YEAR 2019	
Water Forest Food	78%	88,790	76%	64,327	73%	69,014
Climate	10%	11,743	12%	10,103	9%	8,528
Energy	4%	4,870	2%	2,110	2%	2,345
Strategy / Administration	2%	1,827	1%	682	1%	958
Cities and Transportation	0%	444	0%	371	1%	1,176
Operational	5%	5,480	8%	6,887	13%	12,071
TOTAL EXPENSES	**100%**	**113,155**	**100%**	**84,480**	**100%**	**94,091**

* Fiscal year 2021 (1 January 2021 - 31 December 2021) compared to fiscal years 2020, 2019
* Figures within Rp 000,000

HUMAN RESOURCES

WRI Indonesia recognizes that human resources are invaluable assets in the organization. WRI provides an equitable opportunity for all genders to thrive and make a positive contribution to environmental justice. The balance of gender composition in the organization is always sought, although the figures go up and down from year to year. Gender equality and justice is one of the values that organizations adhere to.

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