

Indonesia Sustainable Development News Digest

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The **Indonesia Sustainable Development News Digest** is a biweekly collection of brief summaries of English-language articles related to conservation, environment and sustainability that have appeared in print or online in Indonesian, regional or global media. We welcome all comments, suggestions, and corrections.

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A. The Covid-19 Crisis in Indonesia

Government under increasing pressure to control pandemic

—Dio Suhenda, The Jakarta Post, 18 August 2021

Delivering the State of the Union address on the 70th anniversary of Indonesia's independence (17 August), President Joko "Jokowi" Widodo attempted to convince the Indonesian people that the country was on the right track to victory over the Covid-19 pandemic. The president defended the mobility curbs, including current multi-tiered public activity restrictions (PKKM). "It may be perceived as an ever-changing policy, an inconsistent policy, but it is imperative to find the best combination between public health and economic interests," he said. "Covid-19 handling must be adaptive." On 16 August, the government extended PPKM on Java and Bali again, through 23 August, but relaxed some restrictions in some areas. New cases and hospitalizations are generally trending downwards in most areas, but the nationwide daily death toll remains stubbornly high at more than 1,100 per day, bring the cumulative total to more than 120,000 as of 17 August, after the Delta-fuelled second wave of infections killed 50,000 in just three months. Public approval of Jokowi's handling of the crisis has fallen.

Indonesia turns passenger ferries into Covid-19 isolation centers

—The Maritime Executive, 17 August 2021

Indonesia is converting inter-island passenger-cargo ships into Covid-19 isolation centers as part of an ongoing attempt to contain the Delta variant of the Covid-19 virus. In Makassar, South Sulawesi, authorities in July reconfigured the KM Umsini, a 14,500 GT passenger ferry into a floating isolation center for patients who have tested positive for Covid-19 but have mild or no symptoms. The vessel, which normally accommodates 1,600 and cargo, now serves as an isolation center with 800 beds and 60 medical workers attending to patients. Features were installed to support self-isolation, including surveillance cameras, polyclinics and jogging tracks with the top deck converted to an open space for exercising or sunbathing. PT Pelni (Persero), which operates the ferries, announced that four more passenger ferries would be made into floating isolation chambers and based at Bitung (Sulawesi Utara), Belawan (Sumatra Utara), Sorong (West Papua), and Jayapura (Papua). Early in the pandemic, Italy also used ferries and cruise ships to provide additional ward space for those that were not critically ill.

Poverty, Disease, Customs: Why so many Indonesian children die of Covid

—Dera Menra Sijabat et al, The New York Times, 14 August 2021

Across Indonesia, children have fallen victim to Covid in alarming numbers, particularly since June when the Delta variant began taking hold. The pandemic has killed at least 1,245 children, said Dr. Aman Bhakti Pulungan, head of the Indonesian Pediatric Society (IPS). In the US and Europe, people under 18 have accounted for only about one of every 1,500 reported Covid deaths, but the toll in less developed countries tells a different story. In Indonesia, about one of every 88 officially counted deaths has been that of a child, the IPS says. A number of factors are behind the large number of child deaths, including underlying health problems, severe air pollution, multigenerational families living in cramped quarters, poor nutrition, cultural factors, and a lack of access to information, diagnosis and treatment. In Indonesia, nearly 6% of reported child deaths from Covid have been of children suffering from tuberculosis. Southeast Asia also has some of the world's highest rates of thalassemia, a genetic disorder that hampers oxygen transport.

Antibodies from Sinovac's Covid-19 shot fade after about six months, but a booster helps —Roxanne Liu, Ryan Woo, Stanley Widianto, *Reuters*, 27 July 2021

Antibodies triggered by Sinovac Biotech's Coronavac Covid-19 vaccine, the vaccine most widely used in Indonesia, declined below a key threshold from around six months after a second dose for most recipients, but a third shot had a strong booster effect, a study showed. Among participants who received two doses 2-4 weeks apart, only 16.9% and 35.2% respectively still had neutralising antibodies above the threshold six months after the second shot. The threshold level set by researchers demarcates antibody levels considered low or undetectable. However, apart from durable antibodies, other immune system components such as T cells and B cell memory elicited by the vaccine may also contribute to protection, the researchers said. Participants in some cohorts who received a third dose of the Sinovac shot about six months after the second showed a 3-5 fold increase in antibody levels after a further 28 days. "In the short-to-medium term, ensuring more people complete the current two-dose schedule should be the priority," the study said.

Vaccine resistance and hoaxes impede immunizations in Papua and West Papua provinces —Rahmad Nasution, *Antaranews*, 12 August 2021

Authorities in the two Papuan provinces face challenges in implementing vaccination policies due to misinformation about Covid-19 vaccinations and vaccine resistance among the public. A private TV channel released footage showing priests and congregants at a local church in Mimika District expressing their disbelief in Covid-19 and burning face masks. "We must massively conduct public awareness campaigns and keep providing the public with accurate and reliable sources of information on the benefits of joining the COVID-19 vaccination drives," said Welliam R. Manderi, head of the Papua Province Covid-19 Task Force. West Papua province also faces vaccine resistance and a resurgence of infections. "There are still people who believe Covid-19 was created to destroy people of certain ethnicities," West Papua Deputy Governor Muhamad Lakotani said. "That is absolutely not true at all." The West Papua government is asking indigenous Papuans and non-native Papuans residing in the province to get vaccinated and pay no heed to misinformation and hoaxes about Covid-19 vaccines.

Mass vaccinations planned for residents of Arfak Mountains in West Papua Province —Hans Arnold, Raka Adji, *Antaranews*, 14 August 2021

The Covid-19 Task Force in West Papua Province plans to start mass vaccinations for residents in the Arfak mountain region involving vaccinators from the Government, Indonesian military (TNI), and the National Police. Governor Dominggus Mandacan, who also heads the Covid-19 Task Force, said he will ask the district head to coordinate with local police. Vaccination coverage in the province has reached 32.9% of the target, but the rate in the Arfak Mountains district is still very low compared to the other 13 districts and cities. "We will ensure that by the end of August, 50% of the targeted 70% of the West Papua population have been vaccinated, the governor added.

B. Marine & Fisheries

Indonesia's WPP-RI 718 "fishing silo" targeted to contribute IDR 3.71 trillion (US\$257.9 million)

—M Razi Rahman, Uyu Liman, AntaraNews, 29 July 2021

The Ministry of Marine Affairs and Fisheries (KKP) has targeted the National Fisheries Silo (*Lumbung Ikan Nasional, LIN* to contribute IDR 3.71 trillion annually to non-tax revenues (PNBP) in Fisheries Management Zone (WPP-RI) 718, Minister Sakti Wahyu Trenggono said. WPP-718 comprises the Aru Sea, Arafura Sea, and the Eastern part of the Timor Sea, located within Papua, West Papua, and Maluku Provinces. The area has the potential to support 5,500 fisheries workers out of eight fishing ports to led by Ambon New Port as the main integrated harbour and export gateway for fisheries products in the LIN area. Refrigerated container vessels will be provided to serve domestic seafood markets, transporting products from ports in the LIN area to destination ports. The KKP plans to streamline supervision of the marine area using satellite-based technology to monitor fish stocks, condition of corals, shrimp, and seaweed farming areas, oil spills, as well as integrated coastal regions and supervision of fishing boats with and without vessel monitoring system (VMS) transponders, he explained.

Indonesia assessing fish stock health to improve sustainable planning

—Basten Gokkon, Mongabay, 16 August 2021

Indonesia's Ministry of Marine Affairs and Fisheries (KKP) is carrying out an assessment of the stock health of commercially valuable fish populations in its eleven Fisheries Management Zones (*Wilayah Pengelolaan Perikana*n, or WPP-RI) to help policy-makers identify areas with populations that are healthy, recovering, or over-fished. Indonesia is the world's second largest capture fisheries producer after China, and its fisheries industries employ about 12 million people. The Ministry also wants to reduce economic disparities between fishing communities in different parts of the country, for example more developed fishing industries in Western Indonesia operating in the Arafura Sea and Eastern Indonesia but landing their catch back in Java. In 2016, studies reported that the country's fish stocks were fully- or over-exploited, but by 2018, official estimates indicated that total fish stocks had increased by 5%, largely attributed to efforts by then Minister of Marine Affairs and Fisheries Susi Pudjiastuti to keep illegal foreign boats out of Indonesian waters.

Marine Stewardship Council (MSC): We cannot fight solo for sustainable fisheries—Jayanty Nada Shofa, *Jakarta Globe*, 13 August 2021

"It is impossible for one [entity] to champion sustainable fisheries management alone, considering how vast [Indonesia's] fisheries are, not to mention the various fishing fleets and fish species, Marine Stewardship Council (MSC) Indonesia Program Director Hirmen Syofyanto said. "This calls for integrated collaboration among stakeholders." For example, tuna fisheries need to comply with regulations issued by the government as well as by the regional fisheries management organizations (RFMOs). Indonesia currently has three MSC-certified tuna fisheries whose combined annual harvest is about 14,290 tons. There should be more efforts to drive more Indonesian fisheries towards sustainability and to become MSC-certified, Hirmen said. The Ministry of Marine Affairs and Fisheries (KKP) has signed a memorandum of understanding on sustainable fishing with the MSC. Consumers can encourage fishery actors to meet sustainability standards by purchasing eco-labelled seafood products. About 90% of fishers are small-scale artisanal fishers. "Fisheries can remain resilient to global issues as long as we manage them sustainably," Hirmen concluded.

Opinion: Building a Southwest Pacific regional organization

-Gilang Kembara, The Jakarta Post, 12 August 2021

Indonesia's multilateral relationships extend throughout its maritime boundaries, from the Indian Ocean Rim Organization (IORA), the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), as well as our ASEAN, augmented by trilateral cooperation among Indonesia, Malaysia, and the Philippines in patrolling and safeguarding the Sulu and Sulawesi seas. But Indonesia's border in the Arafura Sea is a maritime "hotspot" for criminal activities with increased IUU fishing, smuggling and maritime slavery. Timor-Leste and Papua New Guinea (PNG) have the desire to manage security issues in the Arafura and Timor Seas, but there are capacity constraints. Australia is a capable

partner for the Southwest Pacific sub-region. Indonesia and Australia have announced a Joint Declaration on Maritime Cooperation, as well as a plan of action. Indonesia can air security concerns through the RPOA-IUU, but it would be beneficial to set up a new grouping that prioritizes marine security in the Southwest Pacific, including Australia, Timor-Leste, PNG, as well as the Solomons, Vanuatu and France (via New Caledonia).

Gilang Kembara is a researcher at the Centre for Strategic and International Studies in Jakarta

Indonesia, partners make unified efforts to address illegal fishing

-M. Razi, Nabil Ihsan, AntaraNews, 7 August 2021

Indonesia's Ministry of Marine Affairs and Fisheries has secured support from regional partners in the Regional Plan of Action to Combat IUU fishing (RPOA-IUU) to eradiate illegal fishing in national waters. The RPOA-IUU protocol is paramount to efforts by Indonesia and ASEAN countries to eradicate illegal fishing through diplomatic collaboration, Antam Novambar, Acting Director General of Marine and Fisheries Resources Surveillance said, stressing that poachers have increasingly advanced their modus operandi and develop new illegal working networks. Through the end of July, authorities seized 125 illegal fishing boats, of which 81 were Indonesian vessels seized for violating fishing regulations, while 44 were foreign vessels, including 15 from Malaysia, 23 from Vietnam, and 6 from the Philippines. Secretary of the Directorate General and Coordinator of the RPOA-IUU Secretariat Suharta noted that the protocol had received support from Australia and was endorsed by other regional organizations, including the Arafura and Timor Sea Environmental Action Phase 2 (ATSEA-2), the United Nations Development Program (UNDP), and the UN Food and Agriculture Organization (FAO).

Open-access database of Indonesian government support measures for marine fisheries published

—Anissa Suharsono et al, International Institute for Sustainable Development, 26 July 2021

An open-access database of support measures for marine fisheries provided by the central government of Indonesia and three provinces (Aceh, Maluku and North Sulawesi) has been published. While some government interventions play a critical role in achieving key public policy objectives such as poverty alleviation, job creation, or resource management, there is strong evidence that certain forms of support can also contribute to the build-up of excessive fishing capacity and the depletion of fish stocks. Central government support varies between US\$140-210 million per year, but it is unclear whether it always achieves designed socio-economic impacts without undermining the environmental viability of the sector. Half of the central government support for fisheries is provided via fuel subsidies, an approach which benefits boat owners more than low-income small-scale fishers and can encourage overfishing. Provincial-level support focuses on vessel acquisition, modernization and equipment, mostly targeted at pelagic fisheries, some of which are already fished at unsustainable levels.

Report: Anissa Suharsono, Achmad Mustofa, Nuraini, Lalu Hizbulloh, Christophe Bellmann, Tristan Irschlinger, and Sari Tolvanen, "Supporting Marine Fishing Sustainably: A review of central and provincial government support for marine fisheries in Indonesia", International Institute for Sustainable Development (July 2021).

C. Forests & Land Use

To hit climate goals, Indonesia urged to ban new palm oil plantations forever

-Michael Taylor, Reuters, 11 August 2021

Indonesia's three-year moratorium on new permits for oil palm plantations expires in September. Put in place in response to catastrophic forest fires in Indonesian forests and peatlands in 2015, the ban was intended to prevent forest fires and deforestation. Since then, the annual rate of primary forest loss has declined for four straight years. "The moratoria contributed to reduced deforestation in Indonesia, both in terms of greenhouse has emissions and the smaller forest area converted and degraded," said Johan Kieft, a green economy advisor for the UN Environment Program. Benefits have included improving yields

among smallholders, better law enforcement, and reviews of existing permits, said Aditya Bayunanda, a director at WWF Indonesia. "We believe the moratorium has been an important first step and that it should continue to give time until the initial purposes of the decree are met," he said. The best course now is to extend the moratorium and double-down on implementation, said Andika Putraditama at World Resources Institute Indonesia.

Plantations and roads strip away Papua's forests. They're just getting started.

—Hans Nicholas Jong, Mongabay, 16 August 2021

Deforestation in Indonesia's Papua region (Papua and West Papua provinces) has ramped up in the past two decades as companies clear forests to make way for large-scale plantations and the government embarks on a massive push for infrastructure development. More forests are set to disappear in the future as the government has allocated millions of hectares of land to be developed into industrial plantations and the development of new roads, a new study in *Biological Conservation* warns. Another study, by the Indonesian Forum for the Environment (Walhi), the country's biggest green NGO, attributes 22,009 hectares (54,400 acres) of forest loss between 2001 and 2019 to the Trans-Papua Highway. It notes that 22% of this deforestation, an area of 4,906 hectares (12,100 acres), occurred in protected and conservation zones.

Paper: David L. A. Gaveau et al, "Forest loss in Indonesian New Guinea (2001-2019): Trends, drivers and outlook," in Biological Conservation, September 2021, https://doi.org/10.1016/j.biocon.2021.109225

UNESCO calls for closure of road running through World Heritage park in Papua

—Hans Nicholas Jong, Mongabay, 11 August 2021

UNESCO has urged the Indonesian government to close a 190-km stretch of road that runs through Lorentz National Park in Papua Province. Lorentz NP is a World Heritage Site and the largest protected area in Southeast Asia, citing negative environmental impacts. Construction of the Habema-Kenyam road, part of the Trans-Papua Road project, represented "a significant additional risk for the fragile alpine environments of the park, which may exacerbate the impacts of climate change," UNESCO said. In a report to UNESCO in 2020, the Indonesian government said it had prepared a mitigation action plan and had begun to implement in 2017, but had to wind down the implementation due to security concerns in the area. UNESCO also asked for clarification on the Trans-Papuan Highway and its potential impacts on the park. A 2018 study by the Asia Foundation and the Indonesian Institute of Sciences (LIPI) found that the road had led to clearing of trees that serve as habitats for wildlife.

Report: Ringkasan Eksekkutif, "<u>Jalan untuk komunitas: Membangun infrastruktur konektivitas jalan untuk penghidupan orang asli Papua dan Lingkungan hidup</u>," Asia Foundation, 5 June 2018.

Efforts to protect peat ecosystems in Sumatra reinforced as the dry season gets underway —Sudibyo Wiradji, *The Jakarta Post*, 17 August 2021

Sumatra is home to 6.4 million ha of peatland, 43.2% of the nation's total, but some of these peatlands have been drained for conversion to agriculture, which can lead to peatland and forest fires which affect the environment and health and also increase global carbon emissions. For these reasons, IPB University professor Bambang Hero Saharjo is calling for an early-warning system for fires and strict law enforcement in peatlands areas. Head of the working group for peatland restoration in Sumatra, Soesilo Indrarto, said that the Mangrove and Peatland Restoration Agency (BRGM) is acting to ensure that peatwetting infrastructure (IPG) continues to function during the dry season by utilizing water from deep wells and blocking canals. The operation of rewetting peatlands started in 2021, with Riau as the first targeted location. "The local community has been prepared as the first responder and key stakeholders in an emergency situation," he said. Meanwhile, local community groups and students are involved in safeguarding the blocked canals.

D. Energy, Mining and Climate Change

Climate change threatens to squeeze out Indonesia's medicinal plants

—Basten Gokkon, Mongabay, 18 August 2021

More than half of Indonesia's medicinal plant species won't be able to grow in most of their current range due to climate change impacts by 2050, a new study revealed. Of 43 medicinal plants studied, 26 are expected to lose up to 80% of their distribution area by 2050 and 2080 under medium and high levels of greenhouse gas emissions. Wild medicinal plants species in Papua and West Papua, Java and Sulawesi will experience the greatest reduction in range, partly due to sea level rise. "The number of medicinal plants listed in the IUCN Red List threatened species categories will increase under all future scenarios, lead author Ria Cahyaningsih of the University of Birmingham and the Indonesian Institute of Sciences (LIPI) said. Medicinal plants are valuable for personal health but also for their economic value. The Indonesian government estimated the economic value of its medicinal plants in 2013 at US\$14.6 billion. The most threatened plants include tree species (68.2%), shrubs (18.2%), herbs (9.1%) and climbers (4.5%).

Paper: Cahyaningsih, Ria et al, "<u>Climate Change Impact on Medicinal Plants in Indonesia</u>", in *Global Ecology and Conservation* (13 August 2021). https://doi.org/10.1016/j.gecco.2021.e01752

Editorial: Salvaging the heating planet

-Editorial Board, The Jakarta Post, 14 August 2021

The landmark Sixth Assessment climate report of the Intergovernmental Panel on Climate Change (IPCC) sounded a deafening alarm about a warming Earth and the impending catastrophes it may entail. Global warming is now expected to hit 1.5° C above preindustrial in early 2030, a decade earlier than projected three years ago, or sooner if some countries fail to reach their net-zero targets for emissions of CO₂ and other greenhouse gases. In another time, the report might be dismissed as fear-mongering or overstatement, but with the pandemic and unexpected natural disasters, it is harder to turn a blind eye. Indonesia has long coexisted with natural disasters, but the risk of sinking Jakarta is now just a speck of dust amid the many climate challenges Indonesia faces. Cyclone Seroja wreaked havoc in East Nusa Tenggara. The country is still experiencing forest fires in parts of Sumatra and Papua. With the government's ambition to become the world's electric vehicle hub, Indonesia may face worse environmental problems, amplified by the heating planet.

Report: Ministry of the Environment and Forestry, "Indonesia Long-term Strategy for Low Carbon and Climate Resilience 2050" (2021).

<u>As scientists signal 'code red for humanity', Indonesia's climate change targets still too modest</u>
—Jack Board, *ChannelNewsAsia*, 13 August 2021

Despite bringing forward its net zero emissions target by a decade from 2070 to 2060, Indonesia missed an opportunity to upgrade its climate change ambitions ahead of the COP26 meeting in Glasgow, amid dire warnings from scientists about global warming. Experts typically update their plans before the talks, but experts say Jakarta's new strategy is no more ambitious than previous versions. "It's unfortunate Indonesia is not aiming or higher targets, [but] not a surprise," said Arief Wijaya, forest, climate and oceans senior manager at World Resources Institute (WRI) Indonesia. Multiple factors complicate Indonesia's green transition, including the prioritization of economic growth and the importance of coal and coal exports. But there has been little evidence of green recovery efforts to counter the impacts of Covid, with subsidies instead flowing to prop up the fossil fuel industry. Coal is a big part of the political machine, said Abidah Setyowati of the Delft University of Technology. "At the moment, the economic tipping point is not coupled with a political tipping point."

Indonesia's claimed coal phaseout is really just more business as usual

—Hans Nicholas Jong, Mongabay, 11 August 2021

Indonesia's plans to phase out coal is merely a rebranding of existing timelines for decommissioning ageing plants without any meaningful shift toward actually reducing use of the fuel. In May, the state-owned utility PLN announced it would start shutting down coal fired power plants and phase them all out by 2055, amounting to 50 gigawatts (GW) of capacity, with a view toward achieving net zero carbon emissions by 2060. However, there is no early retirement of coal plants in sight. The first four plants to be retired in 2030 will have been in service for 50-60 years and long overdue for decommissioning, and 44 new coal-fired plants with a capacity of nearly 16 GW are still expected to be built between 2021 and 2030, according to the Jakarta-based Institute for Energy Economics and Financial Analysis (IEEFA). In its report, IEEFA also asked what steps PLN has taken to prepare for the decommissioning of those plants, including remediation of environmental impacts the plants have caused during their operation.

Report: Elrika Hamdi and Putra Adhiguna, "Putting PLN's Net Zero Ambition into Context", Institute for Energy Economics and Financial Analysis (June 2021)

<u>Finance Minister Sri Mulyani: Indonesia needs US\$312 billion to make good on its carbon pledge</u> —Divya Karyza, *The Jakarta Post*, 29 July 2021

Indonesia will need to invest US\$312 billion to reach its 2030 for reducing greenhouse gas (GHG) emissions, according to Finance Minister Sri Mulyani Indrawati, based on the reworked estimated nationally determined contribution (NDC) under the Paris Agreement on Climate Change. In the NDC, Indonesia promised to reduce emissions by 29% against a business-as-usual scenario. From 2018 to 2020, Indonesia allocated US\$7.08 billion or 4.3% of the state budget to climate change measures, which is only a third of the annual funding needed, the minister said.

Indonesia's seeks to tap massive Australian solar farm cable while building capacity —John McBeth, *Asia Times*, 2 August 2021

Indonesia stands to benefit from the ambitious US\$17 billion project to lay a 4,500-km high-voltage direct current (HVDC) cable to link a 14 GW solar power farm to be built near Darwin in Australia's Northern Territory to Singapore through the Lombok Strait and the Java Sea. The Australia-ASEAN Power Link (ASPL) project, planned for completion in 2027, would meet up to a quarter of Singapore's energy needs and supply power to Indonesia's two main tourism islands of Bali and Lombok through off-take agreements, and would be the world's largest solar farm and battery storage facility. Under Indonesian cabotage law, much of the 3,750-km undersea section of the cable would have to be laid by an Indonesian ship on its planned path through the Indian Ocean into the Lombok Strait (between Bali and Lombok) and then west across the Java Sea. Indonesia would need to commit to the project, and Singapore still needs to grant its approval as well.

Coastal Indonesian village adapts to life amid rising tidal floodwaters

—Nuswantoro, *Mongabay*, 5 August 2021

Timbulsloko village on the northern coast of Java was previously surrounded by rice paddies, but the area now experiences severe tidal flooding caused by land subsidence (due to excessive groundwater extraction), abrasion, construction in the nearby city of Semarang, and climate change. Residents have built a network of boardwalks to connect to dry land, now 3 km away. The village has also designated a protected coastal area and prohibited further clearing of mangroves. The Ministry of Marine Affairs and Fisheries (KKP), in collaboration with Wetlands International, an NGO, has built hybrid engineering structures designed to capture and hold sediments like mangrove roots, eventually making it possible for mangroves to grow in the area again. "The state has not been present amid an environmental crisis caused by development policies that do not favor the affected communities," said Masnuah, secretary-general of the Sisterhood of Indonesian Fisherwomen (PPNI), who initiated the campaign to raise funds to build the boardwalks. "[Coastal] abrasion and climate change are increasingly eroding the lives of coastal communities."

E. Pollution and Waste Management

Environment Ministry: 59% of Indonesian rivers are heavily polluted

—HreeloitaDS, Fardah, Antaranews, 28 July 2021

Of Indonesia's 564 rivers, 59% are heavily polluted, according to Luckmi Purwandari, Director of Water Pollution Control and the Directorate General of Pollution and Environmental Damage Control of the Ministry of Environment and Forestry. "In 2020, out of 564 [rivers], 59% were heavily polluted, 26.6% were moderately polluted, and 8.9% were lightly polluted, Purwandari said. However, this is an improvement over 2015, when 79.5% of rivers were considered polluted, she added. But rivers are still being polluted by dumping of industrial waste, including oil and gas, mining materials, household and livestock waste. Thanks to the improvement in water quality, some biota which had nearly disappeared previously have partially recovered. To deal with river pollution, the government first needs to control the volume of waste entering rivers from existing pollutant sources such as home industries, small-scale businesses, households and livestock, Purwandari explained. "Secondly, it needs to stabilize the water discharge so that water flows are better balanced between the dry season and the rainy season."

F. Conservation and Protected Areas

Maleos bounce back in Sulawesi after villagers resolve to protect their eggs

—Carolyn Cowan, *Mongabay*, 9 August 2021

The maleo (*Macrocephalon maleo*) or megapode is an endangered bird endemic to Sulawesi, Indonesia. It lays a single large egg in a hole that is then incubated solely by the geothermal heat of the sand or soil. But maleo eggs are prized as a high-status delicacy and are frequently dug up to be eaten or sold illegally online. Two community-led projects to protect maleo nesting grounds from egg-poaching in Tompotika in Central Sulawesi have succeeded in quadrupling and tripling local maleo numbers over 14-year and 5-year periods, respectively. Since the 1970s, conservationists have removed maleo eggs from nesting grounds to incubate in hatcheries, but none have reported increases in the number of nesting adult maleos. The Tompotika projects are the first documented conservation efforts to generate sustained increases in maleo populations, according to a study published in *Global Ecology and Conservation* which called for more maleo conservation efforts to adopt the low-intervention approach by leaving maleos to nest naturally and engaging with communities to discourage or end poaching.

Paper: Johny S. Tasirin et al, "Maleo Macrosephalon maleo population recovery at two Sulawesi nesting grounds after community engagement to prevent egg poaching," Global Ecology and Conservation, August 2021 https://doi.org/10.1016/j.gecco.2021.e01699

Indonesia arrests five in decapitated elephant case

—The Nation, 18 August 2021

Five suspected poachers have been arrested over the beheading of an endangered Sumatran elephant, Indonesian authorities. Police in Aceh, on the tip of Sumatra island, said they nabbed the suspects Tuesday after a month-long investigation and were still searching for a sixth poacher. The 12-year-old male elephant's rotting carcass was discovered with its head and tusks missing at a palm oil plantation in July. An autopsy found that the animal had also been poisoned, authorities said. One of the arrested suspects killed and then decapitated the elephant, and his accomplices tried to sell pieces of its valuable tusks, Aceh police spokesman Winardy said. "We are still looking for a sixth suspect who remains at large," said the official. The suspects could face up to 10 years behind bars if convicted under Indonesia's conservation law, he added. Rampant deforestation has reduced the critically endangered elephants' natural habitat and brought them into increasing conflict with humans, while their tusks are prized in the illegal wildlife trade.

Indonesia reports two new Javan rhino calves in the species' last holdout

—Basten Gokkon, Mongabay, 17 August 2021

Indonesian conservation authorities have reported images of two Javan rhino calves taken in camera traps in Ujung Kulon National Park on the western tip of Java, the species' last holdout on earth. The sightings bring the total population of Javan rhinos (*Rhinoceros sondaicus*) to 75 individuals. There has been at least one newborn Javan rhino calf recorded every year since 2012, according to the International Rhino Foundation (IRF). Thanks to strict protection and patrol teams known as rhino protection units deployed in the park, there have bee no reported poaching attempts in more than 20 years. However, conservationists note that the park is threatened by possible nature-based disasters that could instantly wipe out the remaining population of Javan rhinos.

G. Other

How your Cup of Coffee is Clearing Protected Rainforest

---Wyatt Williams, The New York Times Magazine, 11 August 2021

In 2015, Matt Leggett, a newly-hired senior advisor for the Wildlife Conservation Society was wondering about reports that Bukit Barisan Selatan National Park in Sumatra—one of the last habitats of the critically endangered Sumatran Tiger—was reporting larger populations of tigers, but satellite photos showed that the forest area was getting smaller, though the borders of the park had barely changed. A team reported that the real reason for the disappearance of the forest was thousands of small robusta coffee farms, cleared one ha at a time within the park's boundaries. The small-scale growers sold their coffee to middlemen who purchased from legal and illegal growers, on-selling the beans to traders and exporters. Leggett concluded that Nestlé, Olam International and the Louis Dreyfus Company, among a dozen other exporters, had most likely purchased coffee illegally grown in the national park and distributed it throughout the world. Unlike Arabica coffee, robusta is an inexpensive commodity product primarily used for instant coffee, coffee flavoring and for blending which can be successfully grown in humid climates at low altitudes locations like Bukit Barisan Selatan NP. The coffee companies acknowledged the problem and agreed to work together with park officials and local governments. What to do? The solution arrived at was not expelling coffee growers from the park, but providing fertilizer and technical assistance to farmers so that they could increase their harvest without converting more land to coffee, and asking farmers to sign agreements to return the land in the park, replanted as forest, over the next 14 years.

'Influence for hire' networks are manipulating online discussions in Indonesia, the Philippines, Taiwan and throughout the Asia-Pacific Region

-Mariam Kiparoidze, [dot] Coda, 13 August 2021

Commercial "influence-for-hire" services are increasingly manipulating online discussions by promoting government policies in countries throughout the Asia Pacific region using financially-driven content farms, coordinated websites, social media accounts and videos, according to a report by the Australian Strategic Policy Institute (ASPI), an Australia-based think tank.

The report examines how an online campaign in November 2020 in Indonesia flooded Twitter with tweets using the hashtags #AdaApaDenganBBC ("What's up with the BBC?"), #JebakanFramingBBC ("BBC framing trap") and #KampanyeHitamBBC ("BBC black campaign") aimed at discrediting a BBC article by Ayomi Amindoni and Rebecca Henschke, titled "The burning scar: Inside the destruction of Asia's last rainforests" which suggested fires in Papua province had been deliberately set to clear forests for palm oil plantations and that the South Korean palm oil company Korindo was pressuring indigenous tribal landowners to transfer their land. The BBC report was published in collaboration with Greenpeace and the Forensic Architecture Group.

More than 1,000 tweets using the #AdaApaDenganBBC were shared over the one hour from 13:00 to 14:00 on 30 November, of which almost 70 occurred between 13:00 and 13:01, suggesting a level of automation and/or coordination and potentially an effort to make the hashtag trend. Several accounts involved also posted screenshots from one of six Indonesian news articles that contained criticisms of the BBC's palm oil deforestation story and the Greenpeace report, two of which described a local man in Papua who was said to be questioning the BBC's report.

In December 2020, a coordinated network of Twitter, Facebook, and Instagram social media accounts posted shared messages supporting claims that Papuans do not support independence for the region,

with some of the same accounts also used to counter the Greenpeace's palm oil investigation report and sharing commercial messages promoting mobile phone deals and advertisements for Alibaba's ecommerce company, Lazada.

Globally, online influence is often outsourced by governments and industry to lobbying firms and commercial operators. Since this network of Twitter and other social media accounts shared explicitly commercial content as well as pro-palm oil industry messages, it appeared to operate as a network for hire, with the flexibility to adapt images and messages, possibly in order to evade sensors which might catch more fully automated behavior. Given the high penetration of social media in the Asia-Pacific region and the perceived need to promote a positive public view of key industries and political messages, the use of online influence-for-hire networks by political and business interests is likely to continue to grow and adapt.

Policy Brief: Dr. Jacob Wallis et al, "Influence for hire. The Asia-Pacific's online shadow economy", Australian Strategic Policy Institute, 10 August 2021

Article: Ayomi Amindoni and Rebecca Henschke, "The burning scar: Inside the destruction of Asia's last rainforests," BBC News, 12 November 2020