

COVID-19 Report



Photo by Aina Eric Andrianarisata

INTRODUCTION

What the world has experienced over the past year with the COVID-19 pandemic is a symptom of a larger emergency, an emergency that demonstrates our porous and interdependent relationship with nature. COVID-19 has revealed, in high relief, that humans are only as healthy as the ecosystems we inhabit.

Health In Harmony's work to prevent the deforestation of high conservation value tropical rainforests is particularly relevant as scientists continue to link deforestation to zoonotic disease outbreaks. Preserving rainforests is critical to preventing the next infectious disease pandemic.

As Dr. Monica Nirmala, former Executive Director of ASRI and Senior Health Advisor to the Indonesian President on COVID-19 response, has said, "Protecting the forest is an antivirus."

Prevailing coverage of the virus continues to bury the lede in how human encroachment upon ecosystems and wildlife has exacerbated the possibility for future, and much worse, pandemics. Our model shows what is possible when the inseparable web of human populations, rainforests, animals, and water are considered as one.

The October 2020 publication of a paper by scientists at Stanford University in the Proceedings of the National Academy of Sciences (PNAS) proves the efficacy of a planetary health approach. Over a ten-year period researchers at our pilot site at Gunung Palung National Park in Indonesia showed a 90% decrease in logging households, stabilization of primary forest loss, \$65 million worth of carbon loss averted, and the protection of habitat for over 3,000 Critically Endangered Bornean orangutans. In addition, we saw positive health outcomes including a significant decline in common diseases such as malaria, tuberculosis, and diabetes, and a 67% decrease in infant mortality. By listening to and collaborating with rainforest communities, we were able to prioritize the health of all living things, in concert with each other.

Our work is an actionable framework for accomplishing multiple U.N. SDG's simultaneously and was recognized with the 2020 [U.N. Global Climate Action Women for Results Award](#).

In 2020 Health In Harmony reacted nimbly and transitioned to a natural emergency response mode. As detailed in this report, the value and adoption of a planetary health approach to a multiplex of ongoing crises - from poverty to gender equity to deforestation to endangered species - is urgent. We demand a new path forward - one that moves beyond short-term siloed approaches to managing climate and nature shocks. This response rests on the pathfinding leadership of those who know best how to live in balance with nature - rainforest communities.

In spite of the challenges surrounding COVID-19, we began work at a new program site in the Brazilian Amazon. Because of the dire healthcare needs there, we immediately activated emergency response to COVID-19 in order to protect 8.5 million hectares of high conservation value rainforest. Our ability to sustain and expand programming during a global pandemic is the result of community-designed and -led solutions, implemented by 100% in-country, local staff. This past year also prepared us to advocate for the adoption of a planetary health approach in the U.S. and globally, to avoid the next pandemic. This would not have been possible without your committed support.

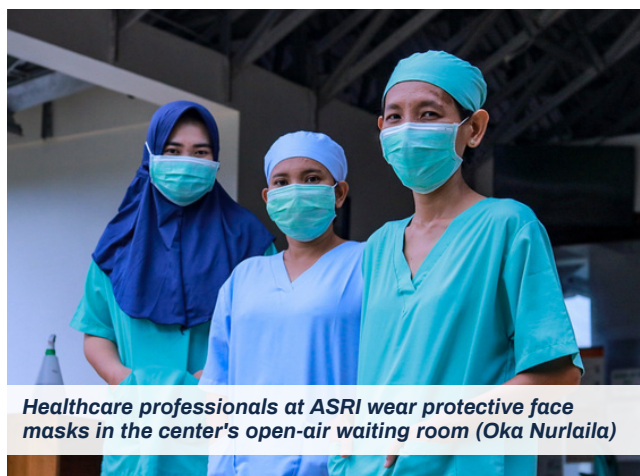
Our response to COVID-19 in Indonesia has been proactive, allowing us to keep programs going while also meeting the most pressing needs of the communities and the rainforest.

In the first week of March, we quickly began preparation and prevention interventions to protect the communities with whom we work. We ended international travel for staff and sent visitors home. We hired Dr. Monica Nirmala, ASRI's former Executive Director, to begin working with the national government of Indonesia to guide them on the development of a strategy for addressing the pandemic. We carried out a public information campaign on how to stay safe and debunking myths about the disease. We worked with the local government hospital to ensure that they were prepared and procured protective gear for both the ASRI medical team and the local government facilities that were unable to get enough protective gear from the central Ministry of Health at that time. There are four ventilators in Kayong Utara Regency at the Public Regional Hospital (of Sultan Moh. Jamaludin), but only two can be fully operated due to limited human resource availability. At the ASRI Medical Center we have five regular beds, two isolation rooms for mild COVID-19 cases with 16 emergency isolation beds. Due to limited resources, preventing the spread of the disease continues to be crucial to our plan.

Thanks to kind and generous donations from individuals and grantmaking organizations, ASRI was able to purchase the equipment, tools, and additional help needed in these uncertain times.

ASRI has bought a total of:

- 650 hazmat / coverall suits
- 75 goggles
- 800 N95 / KN95 masks
- 180 boxes of surgical masks
- 234 boxes of gloves
- 20 gowns 20 pairs of boots
- 75 face shields
- 5 thermo-guns



Healthcare professionals at ASRI wear protective face masks in the center's open-air waiting room (Oka Nurlaila)

ASRI has also commissioned local women to make 3,600 reusable cloth face masks. Out of the total supplies bought, in order to support the local health authorities and government healthcare providers in their ability to care for COVID-19 patients safely, ASRI has donated 1,000 fabric masks, 250 hazmat / coverall suits, 50 boxes of gloves, 50 boxes of surgical masks, and 250 KN95 masks.

ASRI has also supported its team by distributing vitamin supplements, fruit, and hiring extra staff to ensure adequate rest in-between shifts. ASRI has welcomed a new doctor, nurse, and cleaner and has outfitted an isolation room in the medical center to prepare for patients that are suspected or diagnosed with COVID-19.

Ensuring staff were well trained in case detection and management was essential. In early March, Medecins Sans Frontieres / Doctors Without Borders (MSF), with its nearly half a century's worth of experience responding to medical emergencies due to outbreaks, shared with ASRI its clinical guidelines and awareness-raising collateral culturally adapted for dissemination to rural communities. MSF staff in Jakarta conducted virtual training for ASRI's medical staff.

In tandem with our emergency response efforts, we brought on a conservation manager and an additional doctor, built a new nursery, and conducted vital midwife and shaman training in Bukit Baka Bukit Raya National Park, our replication site; educated hundreds of children and community members; collected 28,625 seedlings from patients, reforested 84 hectares, and treated 4,213 patients across 8,618 visits. We also successfully bought 37 chainsaws from ex-loggers and provided them with small startup capital.

In fact, through our Chainsaw Buyback program, we are on the verge of eliminating illegal logging entirely, saving over 43,656 old-growth trees, which equals 127,616 tonnes of CO2 preserved.
(Chave et al., 2005)

Recognizing that the current pandemic would have wide-reaching economic impacts, we ensured that the communities in and around Gunung Palung and Bukit Baka Bukit Raya National Parks had avenues of support, so they wouldn't have to return to unsustainable harvesting and hunting practices. In June of 2020, we launched a rainforest stimulus program for community members who have prior agreements with ASRI, such as our Forest Guardians, Chainsaw Buyback program participants, and organic farmers. We were very concerned that the economic downturn caused by the pandemic could force former loggers to resort to active logging - an outcome that would be harmful to both human health and the rainforest ecosystem. Because farmers could no longer transport their produce to markets in other towns, ASRI began buying their produce and distributing it to some of the community's most vulnerable members. Our Forest Guardians also helped train former loggers on how to grow seedlings in backyard nurseries. We are supporting 65 former loggers through this stimulus program, each of whom is planting and caring for 500 seedlings in exchange for \$71 USD every month for six months. As of December 2020, we received 32,500 seedlings from this program. The program allows Health In Harmony to acquire more seedlings for reforestation while simultaneously supporting former loggers, farmers, and their families during the economic precarity to prevent them from returning to illegal logging.

In the spring of 2020, ASRI began to support a group of women who made biodegradable polybags from leftover bamboo. These eco-friendly polybags are a great alternative to the more common and less sustainable practice of using plastic. ASRI and the park service have made a formal arrangement with the group to purchase their eco-polybags to replace plastic polybags. ASRI made a commitment to purchase 15,000 eco-polybags, with the potential to purchase more in the future. ASRI is working to further this partnership by providing financial management training, capacity building, and bamboo cultivation training to the women to ensure the sustainability of the bamboo and their project.

We officially launched our work in Manombo Special Reserve in Madagascar in the fall of 2019 and in 2020 we began our conservation interventions and increased healthcare access.

In Madagascar, we work with 31 rural farming communities of Antaisaka, Antaifasy, and Betsileo ethnic groups. Health In Harmony's 2019 baseline survey of 1,321 households uncovered extreme multidimensional poverty among these communities, especially for women. Communities requested high-quality, affordable healthcare for the 7,885 people living around the reserve. This healthcare reduces the high medical bills and emergency evacuations that often drive people to hunt and log illegally in the rainforest for income. In collaboration with the local health centers, a team of two doctors, three midwives, and community health workers run two mobile clinics per month to each of seven accessible locations. They provide adult and pediatric services, reproductive counseling, vaccinations, malaria treatment, prescriptions, and referrals. To ensure everyone has access to affordable and high-quality healthcare, patients can pay with non-cash payments, such as handicrafts and seedlings. In 2020, our health team conducted a total of 30 mobile clinics treating 2,343 patients.

Health In Harmony's Medical Program Manager, Dr. Evelyne Rahevivololona, was selected by the government's district health authorities to be a regional leader in COVID-19 preparation and prevention. We helped the government train medical staff, conduct readiness assessments, and set up health monitoring checkpoints. In addition, we provided face masks and other protective gear to the communities and local health authorities.

In spite of the pandemic, Health In Harmony has made significant progress in Manombo. We signed an MOU with the Ministry of Health, conducted COVID-19 response and outreach, strengthened the local response through partnerships with local health authorities and regional health centers, supported health checkpoints, supported communities with radio communication and face masks, and delivered supplies to community health centers.



Our reforestation team:

- Constructed nine seedling nurseries
- Will plant a total of 10 hectares inside the national park and another 78 hectares outside the national park within the next three years

In 2020, our agricultural training in rice cultivation and organic farming reached 740 participants, 60% of whom were women. The next three-month training will commence in April of 2021 and reach over 850 participants. In the coming year, we seek to deepen and expand our agricultural and agroforestry training and launch a planetary health education program based on the success of ASRI Kids and ASRI Teens at our pilot site in Indonesian Borneo.

Health In Harmony has partnered with Traditional and Indigenous communities in Terra do Meio to protect the Xingu River Basin of the Brazilian Amazon. Terra do Meio is a vast region of forests located in the Xingu.

The Traditional and Indigenous lands of Terra do Meio are part of a mosaic of almost 8.5 million hectares of protected areas, also known as the Xingu Corridor of Socio-Environmental Diversity. The Xingu generates rain that feeds the entire Amazon and acts as a firewall holding back degradation and deforestation. To understand the needs of communities there, we conducted an assessment trip in 2019 and six Radical Listening meetings via Whatsapp and radio in 2020.

Communities determined that improved access to healthcare and evacuations, support in the city for treatment when needed, improved capacity to sell natural forest products, and better access to education for their children, would allow them to stay on their land and resist external pressures. We are working with partners to expand our investment in their solutions to continue their critical stewardship of the Amazon during this particularly difficult time. In early June, the WHO recognized that the health and economic independence of the communities in Terra do Meio are particularly threatened.

Because of the immediate need brought on by the pandemic, we began with health interventions including health expeditions, installing Wi-Fi points to increase communities' capacity for communication, hiring and training community nurses supported by telemedicine, improving evacuation capacity, and providing medical equipment such as oxygen supplies.

In the first two health expeditions, we:

- Treated 534 patients
- Provided 1,280 vaccinations
- Performed 321 dental visits and 735 dental procedures
- Administered 69 COVID-19 tests (28 positive)
- Performed 423 medical visits
- Conducted 200 nurse health consultations



Sr. Reginho of Resex Riozinho do Anfrísio in the Xingu during a medical consultation (Marcelo Salazar)

A third and fourth expedition to vaccinate Traditional and Riverine communities is expected to commence in April or May of 2021. Within the next year, we will begin working to support a forest economy system to enhance training around and commercialization of non-timber forest products to help communities support themselves and live in harmony with the forest. We will also provide support through advocacy and resources to bring high school education to communities. Our partners include Instituto Socioambiental, the Federal University of Pará Medical School, and local Indigenous and Traditional community associations.

Health In Harmony hired Dr. Monica Nirmala, ASRI's former Executive Director and recent graduate of the Harvard School of Public Health, to liaison with government officials in Jakarta, and supported her as she did so.

Jointly with the team of experts, Dr. Nirmala wrote and presented recommendations on national strategies to Indonesia's COVID-19 Task Force. She specifically recommended centralized quarantine/isolation facilities to curb the spread, especially in areas where social distancing is impossible and in the context of protecting the elderly in multigenerational households. To her knowledge, the idea was adopted in some areas, including Maluku, East Java, and Rote Ndao, NTT. Simultaneously, she also advised Minister Luhut Panjaitan and his team on Indonesia's exit strategies from lockdown, contact tracing, and a proposal for massive testing in Jakarta.

Through her work during the pandemic, she was invited to speak on approximately 20 educational webinars. Besides speaking solely on the COVID-19 response, she brought a planetary health message to the conversation, including how to build back a better future that is safer and healthier for us all.

Health In Harmony's media and communications team generated press interest for Dr. Nirmala in the U.S. that was then able to be leveraged in her Jakarta-based advocacy. For example, she was interviewed by [Forbes](#) on April 8th warning of how travel for the Mudik¹ holiday could increase the spread of COVID-19 as a result of the millions of Indonesians who move during this time. Fortunately, on April 21st, the Indonesian government canceled Mudik to avoid accelerating transmission.

Dr. Nirmala helped the government establish centralized quarantine facilities at the provincial level (i.e., at referral hospitals) or in some cases the village level (i.e., primary health clinics), based on case-by-case contexts. ASRI Executive Director Nur Febriani has also been in contact with the Director of the Ministry of Health based in Jakarta and has provided peer-reviewed evidence and ASRI's case study to influence government guidelines to allow for patients to leave quarantine based on symptoms and time rather than two consecutive negative tests. The Ministry of Health recently updated the national guideline according to this recommendation.

1 Mudik is a holiday where migrants and migrant workers return to their hometown or village to visit family.



Community members sew over 1,000 cloth face masks for distribution (Oka Nurlaila)

In Brazil, Health In Harmony's Executive Coordinator Marcelo Salazar has conducted extensive advocacy for the health and rights of Indigenous and Traditional communities living in the Xingu River Basin. As the healthcare system in Maunas collapsed at the end of 2020, and Altamira collapsed in March of 2021, advocacy is crucial to the lives of thousands of people affected by COVID-19 and President Bolsonaro's authoritarian mandates that devalue Indigenous sovereignty and destroy the rainforest.

In Altamira, the biggest city in the region, as of March 17th, 9,500 cases were confirmed as well as 198 deaths. Across the region, more than 400 deaths have been registered, and the numbers continue to rise. Altamira's two hospitals provide healthcare for an estimated population of 354,000 people, and only one of them can handle high-complexity cases. The city also receives Indigenous and Riverine people from 11 Indigenous Lands and 7 Conservation Units. In response to the dire health situation, Marcelo brought together a coalition of local, national, and international organizations through the Respira Xingu (Breathe Xingu) campaign to raise awareness and funds for the region.

In the U.S., our advocacy has also expanded significantly, with op-eds by Executive Director Jonathan Jennings and Founder Dr. Kinari Webb published in the [Boston Globe](#) and [The Hill](#), and narratives published in [Forbes](#), [Christian Science Monitor](#), and [Devex](#), among others.

Recent advocacy features:

- The best climate change solutions benefit humanity and nature | [Boston Globe](#)
- Reentering the Paris Climate Agreement is a must for the U.S. | [The Hill](#)
- Lessons from the rainforest: human health leads to planetary health | [Forbes](#)
- Arctic to the Amazon, telehealth is having a moment [Christian Science Monitor](#)
- How the pandemic is connecting conservation and public health | [Devex](#)

Our capacity to conduct impactful advocacy was strengthened by the publication of Stanford scientists' 10-year analysis of our pilot site in Gunung Palung National Park in PNAS last October. In November 2020, our founder Dr. Kinari Webb gave a keynote address at [WHO's Race to Zero Campaign](#) (48-minute mark). This brought about a tidal shift for Health In Harmony, as we can now speak to public health entities and make bold statements backed by both quantitative and qualitative data. To this end, in partnership with a robust coalition - including Rainforest Alliance, Right to Health, Wildlife Conservation Society, and WWF - we co-wrote a letter to the U.S. Congress urging them to include \$2.5 billion in the next COVID-19 relief bill to go towards preventing zoonotic spillover events in the future. This is an example of how Health In Harmony is now pivoting and taking on advocacy - locally and globally - to prevent future pandemics and halt deforestation.



Sr. Sebastião of Resex Riozinho do Anfrísio in the Xingu wears a newly provided face mask (Marcelo Salazar)

THANK YOU

Our planetary health approach has made us nimble and responsive to emergencies such as the COVID-19 pandemic.

We've learned that disease prevention and community repair are major priorities in our work. Just as deforestation is inextricably linked to zoonotic spillover, we know that human-made climate change will only increase these types of challenges, and we must be prepared in order to support rainforests and their inhabitants. With your support we made our way through 2020 finding ourselves prepared for the many climate crises that will come our way in future years, thus underscoring the importance of the work we do.

Thank you for accompanying us on this journey.



Video footage from Madagascar:

A glimpse into
our mobile clinic
services during
the COVID-19
pandemic

Video footage from Indonesia:

A testimonial
from ASRI
Clinic Manager,
Dr. Alvi Muldani,
on COVID-19





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Healthcare programs in the Manombo Special Reserve, Madagascar (Aina Eric Andrianarisata)



COVID-19 response at ASRI Medical Center, Indonesia (Oka Nurlaila)