FOR IMMEDIATE RELEASE

Editor's note: Please find a corresponding <u>fact sheet</u> and background information on the <u>pressroom</u>, which will be updated throughout the forest fire season in the tropics. Please note a second, related briefing on 24 June. Information <u>here</u>.

Intentionally Set Forest Fires Threaten to Deepen COVID-19 Catastrophe in Brazil, Indonesia and Across the Tropics

Experts warn that another devastating fire season in Brazil and Indonesia could accelerate coronavirus deaths and overwhelm health services unless governments act now to stop the fires before they spark

NEW YORK (17 JUNE 2020)—Governments in Brazil, Indonesia and across the tropics are running out of time to prevent illegal and intentionally set forest fires from magnifying the deadly impact of COVID-19, with potentially catastrophic consequences for millions of people already reeling from the global pandemic. On the cusp of the forest fire season in the tropics, leading experts on health and forestry from the US and Brazil laid out in a briefing the urgent need for aggressive action against deforestation to keep two respiratory health crises from colliding. The <u>briefing</u> was run by the Initiative on Communication and Sustainability at Columbia University's Earth Institute.

"In tropical countries, COVID-19 and intentionally set forest fires—both serious and urgent public health crises on their own—could converge to create a public health catastrophe," said Dr. Harvey Fineberg, president of the Gordon and Betty Moore Foundation and former president of the U.S. Institute of Medicine (now National Academy of Medicine). "While the world races to rein in the coronavirus pandemic, stopping the fires could help curtail the potential devastation, saving lives, safeguarding economies and protecting the environment."

Studies have shown that smoke from forest fires in tropical countries, including Brazil and Indonesia, sicken vast numbers and could make them more vulnerable to the novel coronavirus, ramping up death rates, overwhelming health services and wrecking families and economies. The fires also decimate biodiversity and fuel the mercurial rise in global temperatures.

"To prevent the ash and flames from taking their toll, we need to fight deforestation, the root cause of these fires. Protecting tropical forests from intentional fire starters would put a stop to these catastrophic, man-made fires and, at the same time, lower the risk that new diseases like COVID-19 will emerge and thrive," said Fineberg.

While firefighting is critical to minimizing the immediate destruction and impacts of fires once they start, the speakers emphasized that stopping deforestation is the only way to prevent catastrophic fires.

"Fire is not a natural feature or it's extremely rare in the humid tropics," said Ruth DeFries, a professor of ecology and sustainable development at Columbia University. "Fire just does not occur naturally in those

biomes, which is unlike fire adapted forest in California, the American West, Australia -- they're different systems. In the humid tropics, when there's lightning, it's too wet, so there is no burning. That means all fires that we see have some source of human ignition."

The speakers suggested that protecting forests against these man-made blazes requires:

- Stronger environmental policies, preventing roll back of regulations, and greater enforcement to stop illegal deforestation and fires.
- Avoiding land grabbing and holding to account illegal land grabbers in Brazil and oil palm, pulp and paper, and logging companies in Indonesia seeking to illegally deforest.
- Reducing domestic and international demand for commodities that drive conflict and forest destruction.
- Supporting Indigenous Peoples and traditional communities on the frontlines protecting and managing their forests.
- Greater transparency in data and accurate information about deforestation, COVID-19, and fires.

What's at Stake

Health experts are concerned that if the forest fires were to break out, smoke inhalation from the current fires--but also past fires, which cause lasting health damage--will increase the severity and even the prevalence of COVID-19.

Furthermore, responses to the outbreak of forest fires, such as evacuations, crowded fire-fighting camps, and overloaded hospitals, will add difficulty to efforts to battle COVID-19 in tropical countries such as Brazil, which has recorded the second-highest number of infections in the world behind the United States.

Forest fires could collapse straining health systems by increasing the number of emergency visits and hospital admissions for people suffering respiratory symptoms from smoke inhalation, some of whom may need critical intensive care in units already full of COVID-19 patients.

The Brazilian state of Amazonas, for example, has just one intensive care unit, which is already overwhelmed by the pandemic. Cities close to the state—such as Porto Velho, Rio Branco and Cuiaba— could be particularly affected by the combination of fires and COVID-19.

Indigenous peoples could be at particular risk. Illegal miners, loggers and land-grabbers may be setting fires and spreading the new Coronavirus into the remote corners of indigenous territories, where health facilities are limited or non-existent. In Brazil, there have been hundreds of reported cases and dozens of deaths in indigenous communities, mostly in the Amazon.

Moreover, there is growing evidence linking the severity of COVID-19 in some patients to their exposure to poor air quality, which can weaken the body's ability to fight infections and affect the lungs. Preliminary research also suggests that many people in areas where fires have broken out have respiratory preconditions stemming from past fires that make them more vulnerable to COVID-19.

"The small particulate matter--the smoke, the soot--emanating from forest fires exacerbate respiratory infection," Dr. Fineberg said. "In fact, it's well established that chronic exposure to these small particulates increases the risk of respiratory disease, cardiovascular disease, and premature death."

"In the acute stages, when fire exposure occurs, respiratory disease increases. That respiratory susceptibility means that COVID-19 infections are more likely to be more serious among the populations who are directly affected by the fires."

Beyond the health impacts, emergency responses to forest fires--such as large-scale emergency evacuations--lead to collision with COVID-19. Placing the victims in overcrowded shelters, for example, would provide ideal conditions for the spread of the virus. Some 80,000 people were evacuated during the 2016 fires in California and tens of thousands were shifted from their homes during the Australian bushfires in 2019-2020.

COVID-19 may also impact the ability of fire-fighters and others to prevent and respond to forest fires by diverting resources to fighting the pandemic, and by locking down the staff of government agencies and conservation organizations to slow the spread of the virus.

The inhalation of smoke and fine particles from fires and other sources is by itself a major global health hazard, associated with chronic respiratory problems and weak immune systems, which impact millions of people every year. Globally, fire emissions alone are believed to be responsible for 5 to 8% of the 3.3 million annual premature deaths from poor air quality, and fire is the primary cause of elevated mortality from air pollution across much of the tropics.

"With COVID-19 added to an already large environmental degradation and disease burden in the Amazon region, Brazil could see an even more unimaginable public health tragedy play out in the coming months," said Marcia Castro, Andelot Professer of Demography and Chair of the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health.

Brazil's Burning Season

Experts worry that a recent surge in the number of fires in the Brazilian Amazon will continue in 2020. In August 2019, the number of active fires in the Brazilian Amazon was nearly three times higher than a year earlier and the highest since 2010. In past fire seasons, tens of thousands of Brazilians have sought medical care because of persistent smoke.

The fires are closely linked to deforestation. Brazilian government figures show a 50% increase in forest loss in the first three months of 2020 compared to a year earlier, a jump that could leave a lot of combustible material on the ground and point to another major fire season.

Government policies and pronouncements have led to a particularly sharp up-tick in deforestation and fires in undesignated public lands – a prime target for land-grabbers and speculators. Fires and deforestation have also grown in Indigenous territories and protected areas due to illegal encroachment into these areas. Most of the burnt land ends up as pastures for cattle grazing.

"It is fundamental that President Bolsonaro steps up to act against deforestation. As he describes himself as a patriot who is against corruption, he should be the first to fight against the appropriation and destruction of public forests by criminal groups of landgrabbers, responsible for at least half of the deforestation happening in the Amazon region", said Ane Alencar, the director of science at the Amazon Environmental Research Institute (IPAM). "With the COVID-19 crisis, the need to halt deforestation is greater than ever. But the country is moving further in the opposite direction."

Indonesia's Peat Fires

In Indonesia, clearing land for pulp and palm oil plantations is a major cause of fires, including the months-long blazes that have repeatedly covered swaths of South-East Asia in a choking haze. Industrial-scale plantations account for nearly half of the country's deforestation. Companies use fires to clear land and force out villagers and increase the fire risks by draining peat wetlands. When fires are set on drained and cleared peatlands, they emit particularly large amounts of carbon, creating severe climate and health impacts.

"A particularly important feature of the Indonesia situation is peat--large stores of organic matter that build up. When they catch fire, they can smolder and burn and put out a lot of harmful emissions," said DeFries.

During fires in 2019, nearly one million Indonesians suffered from acute respiratory infections. If current trends continue, air pollution from Indonesian fires will cause an estimated 36,000 premature deaths per year across Indonesia, Singapore and Malaysia in the next few decades.

Thus millions of people have a history of exposure to air pollution and of respiratory conditions that put them at greater risk from COVID-19. The number of confirmed infections of the new Coronavirus in Indonesia has topped 36,000 and new cases recently increased to more than 1,000 per day. Singapore has reported about 40,000 cases.

Solutions for stopping these fires include transparency about who owns land and how they are using it, which would enable the government to keep a closer watch over the country's vast and spread-out expanse of humid tropical forests. In terms of addressing peat fires, DeFries said that restoring and re-wetting peat lands that have been drained for agriculture will help to reduce the dangerous and long-smoldering fires in those systems.

"In Indonesia and across the tropics, prevention is critical. Only when incentives are in place to prevent fires before they start will it be possible to keep people healthy and safe," said DeFries.

###