Dale Willman (00:00):

Welcome everyone, and thank you for joining us today. My name is Dale Willman. I'm a long time journalist and I'm now the associate director of the Resilience Media Project at Columbia University's Earth Institute. I'll be the moderator for this press briefing.

Dale Willman (00:13):

While the world races to battle the runaway coronavirus pandemic, many other issues receive little or no media coverage. A significantly underreported issue is the fires intentionally set in two of the world's most important rainforests in Brazil and Indonesia. These intentionally set fires will compound the effects of COVID-19, and stopping them could help curtail that catastrophe. Data show that land grabbers, companies and ranchers deliberately set these fires to clear land. That means that these intentionally set fires in Brazil and Indonesia are not inevitable, and they're not natural.

Dale Willman (00:47):

In a pandemic, the fires and COVID-19 collide in dangerous ways, compounding the threat to people's health, their lives and their livelihoods. And of course, there are other risks to nature and the climate. The good news is that if the right policies are put in place and those acting with impunity are held to account, fire outbreaks can be less catastrophic, but time is short. The dry season in Indonesia started in April and is expected to peak in August or September. In Brazil, the first fires in the Southeastern Amazon region were detected a few weeks ago, that's three months ahead of the fire season, which also peaks there in August or September. Our panelists today will offer initial remarks. For the remainder of our session, will be answering your questions.

Dale Willman (01:27):

Now, I'll briefly introduce today's speakers in the order in which they'll speak. Harvey Fineberg is the president of the Gordon and Betty Moore Foundation and the former president of U.S. Institute of Medicine, which is now National Academy of Medicine. He's also a former provost of Harvard University and former dean of the Harvard T.H. Chan School of Public Health.

Dale Willman (01:47):

Ane Alencar is the director of science at the Amazon Environmental Research Institute, known by its acronym, IPAM. Marcia Castro is the Andelot Professor of Demography and chair of the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health. And Ruth DeFries is the Denning Family Professor of sustainable development at Columbia University.

Dale Willman (02:09):

We'll have a time for questions following the speaker remarks. If you have a question during the briefing, please enter it into the Zoom chat and address it to all participants. Please enter your name and media outlet, your question, and the speaker you'd like to address the question to. We hope to cover as many of your questions as possible in the time we have available. And a quick technical note, participants will be muted during this briefing. So with that, let's hear from our first speaker, Dr. Harvey Fineberg, please go ahead.

Harvey Fineberg (02:37):

Dale, thank you very much, and hello to everyone. It's such a pleasure to be part of this distinguished panel and to be able to discuss the very critical issues that we have raised. This is the fact that the world is currently facing two calamities. We are, of course, in the midst of the COVID-19 pandemic affecting countries all over the world and peoples everywhere. And at the same time, we're just at the beginning of a fire season, which is especially troubling, concerning and worrisome when it affects intentionally set fires in tropical regions of the world. One of the reasons that fires are so devastating is of course the deforestation and, the effects that are devastating to the ecosystems that are directly affected by the fire. But in this year, it's especially concerning because the small particulate matter, the smoke, the soot that is emanating from these fires exacerbate respiratory infection.

Harvey Fineberg (03:45):

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 infection are more likely to be more serious among the populations who are directly affected by the fires. In many tropical areas, those who are especially vulnerable are the indigenous peoples on whose lands these fires may be set and who live in the region in proximity to the fires. So we have at the same time a season which is going to destroy ecosystems that are vital to the longterm wellbeing of the planet, and this year are very likely to exacerbate the presence and severity of the COVID-19 pandemic.

Harvey Fineberg (04:56):

It's a year when it is incumbent, especially on the leadership and those who have influence to do everything in their power to curtail the intentionally set fires which are a blight every year, but this year are especially damaging, not only to the ecology, but to human health.

Dale Willman (05:22):

Harvey, thank you. Ane?

Ane Alencar (05:25):

Good morning, everyone. It's a pleasure to be here discussing so important issue. And I was asked to talk about fires and deforestation in the Amazon. I mean, one thing that needs to be clear to everyone is that the Amazon doesn't burn naturally. So all the fires that we have seen in the Amazon are men set. So different from other forests, from other biomes, from other ecosystems that are dependent on fire such as some forests that are in the United States, like some forest in California, Florida, or in Australia, the Amazon doesn't burn naturally. Humans, although humans have changed that ability of the rainforest to hold fires, just for you to have an idea, the natural fire regime in the Amazon is said to be somewhere between 500 to 1,000 years. So naturally, we would need a very specific condition to have a natural fire in this humid forest, which means that we have changed that.

Ane Alencar (06:44):

We have changed that through deforestation that fragments the landscape, we have changed that through [inaudible 00:06:52] which degrade the forest, and our results have demonstrated that in some places in the Amazon, actually, that fire regime has changed to 12 years. So imagine, a one area that should burn naturally every 500 to 1,000 years is burning 12, and some places less than that 12 years. Som which means that the forest doesn't have means to recover. And so, okay, so this is one part of

that, and it's very important to understand, which means that fires in the Amazon can be controlled by policy.

Ane Alencar (07:35):

And this is really, really, really very important because this is also another point, is that fire is related to deforestation. Fires in the Amazon usually are the last stage of deforestation, or they are used in areas that were already deforest to clean some pasture fields. These are the most [inaudible 00:08:02] tool that people have to convert the 300 tons of biomass into ashes that are going to be used to put some pasture fields and things like that. So by saying that, and that takes us to, okay, to control fires, we have to control deforestation. And this was the main issue that happened last year.

Ane Alencar (08:28):

Last year, we had a major increase in deforestation. We have about 34% of increase from the previous years, and it's likely that we are going to have the same amount of increase this year in deforestation. So, which will take us back, unfortunately, to the 2005, when you have one of the highest peaks of deforestation since we started monitoring deforestation in the Amazon. So this is very worrisome and it's so curious that we reached about 5,000 square kilometers of deforestation, so we proved that we can do it, and we can do that through major policy interventions.

Ane Alencar (09:27):

Another important subject, just to finish, is that most of this deforestation, around 50, half of the deforestation that we have seen so far up to now is happening in public lands, which means that people are really, really going after public lands and grabbing the land and provoking conflicts. And this is [inaudible 00:09:56] illegal. So we launched three, four reports in the past two months that explain all these dynamics. And basically, like the public forests have 42% of the deforestation. And this only can be fight by having enforcement, strong enforcement and a strong, how can I say, signals from the government that illegal deforestation won't be allowed. This is very bad for our country because our economy, one of the less impacted sectors in our economy during the pandemics is the agribusiness. And the agribusiness right now is very sensitive to reputational risks. And the reputational risks are very associated with environmental reputation. So not fighting deforestation in the Amazon is going to be very bad for our country, very bad.

Ane Alencar (11:03):

And just to finish, I think is very important and very worrisome to think about what is going to happen during this fire season, because in the last report we released, we have about 45% of the areas that were deforest last year and were not burned. And this, only by, if we stop deforestation right now, we would have the potential to have the same amount of burns that we had last year. So, and we still have two months to go with highest peak of deforestation, so we are in a very, very bad situation if nothing has been done to stop the illegal activities in the Amazon. Thank you.

Dale Willman (11:56):

Ane, thank you. And a quick reminder to participants, if I could, that if you do have questions that you'd like to ask, start entering them in the chat function on Zoom. Be sure to include your name, your media outlet and the question, of course, and the speaker to whom you'd like to address the question. So with that, Marcia, please.

Marcia Castro (12:16):

Thanks, Dale, and good morning. I'm honored to be part of this discussion, and I'll make a few remarks on health issues. So as Ane just explained, the scenario of environmental degradation, particularly deforestation and intentional forest fires have serious public health consequences, and I want to mention three of them. First, an increase in hospitalizations, mainly due to respiratory diseases, but also heart conditions, as well as an increase in the mortality of children under the age of 10. Second, arboviruses, particularly dengue, which is now endemic in almost 90% of the municipalities in the Amazon, and malaria, which is mainly restricted to the Amazon region, are directly connected to environmental change.

Marcia Castro (13:05):

Third, the threat of emerging zoonoses. And at least 187 different species of arboviruses and other viruses have been isolated in the Amazon, two thirds of which have been confirmed to be pathogenic to humans. So an active fire season in the coming months would worsen the consequences of COVID in at least three ways. First, respiratory conditions increase the vulnerability to, and the severity of COVID-19, as Dr. Fineberg already mentioned. Second, there is a risk of co-infections, yet the consequences and severity of coinfections of malaria and COVID, and of dengue and COVID remain a knowledge gap, but could be potentially serious. Third, an increase in the demand for hospitalizations due to respiratory diseases following forest fires would add up to the demand for hospital care due to the seasonality malaria cases, which is about to happen, but also due to COVID.

Marcia Castro (14:09):

In a region that has some of the worst indicators of hospital beds and physicians per person, this would lead to a similar collapse as was observed in mid May in Manaus, into an increase in mortality. And as a footnote, currently 90% of hospital beds are occupied in several cities in the Amazon region. It's also important to keep in mind that what happens in the Amazon does not stay in the Amazon. And I'll briefly mention three possible spillover effects. First, the particulates from the forest fires can travel to other areas, as we saw last year, when the sky above Sao Paulo City was darkened by the smoke blown from the Amazon fires. So effects on respiratory conditions are not really limited to the Amazon borders. Second, environmental damage affects the climate regime in the region-

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Marcia Castro (15:03):

Environmental damage affects the climate regime in the region, whose impact extends across Brazil and to neighboring countries. And third, pathogens travel with people and the spread of diseases can have large social and economic impacts way beyond the Amazon borders.

Marcia Castro (15:19):

So to conclude, it's important to remember that states in the Amazon region currently do not have the largest number of COVID-19 cases and deaths, but they certainly have the highest rates when we consider the population. So the burden is extremely significant and much higher among the most vulnerable. As cities now, relax social distancing measures in Brazil, without adequate surveillance, testing and contact racing, as we are seeing. An intense fire season could have devastating public health consequences, with the unnecessary loss of many lives and the widening of local inequalities. There's really no option other than preventing those fires from happening. Thank you.

Dale Willman (16:06):

Marcia, that's powerful. Thank you. And Ruth DeFries. If you'll lend me your [inaudible 00:00:16:12].

Ruth DeFries (16:17):

Apologies. Thank you, Dale. Hello to everyone. We're going now to Indonesia, to Ecuadorian Asia, where there are similar issues, but some distinctions. I'd like to reiterate the point that fire is not a natural feature or it's extremely rare in the humid tropics. Fire just does not occur naturally in those biomes, which as Ane said, 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's no burning. That means all fires that we see have some source of human ignition.

Ruth DeFries (17:06):

We see fires in the humid tropics because essentially it's an inexpensive way to clear debris. In Indonesia, the fires are associated with many different types of human and admissions to clear forest for expansion of concessions. For small holder farming, for agricultural management to get rid of pests and clear debris. Escape fires, fires that move on to degraded lands. A particularly important feature of the Indonesia situation is the peat, the large stores of organic matter that build up and when they catch fire, they can smolder and burn and put out a lot of harmful emissions. Those occur primarily in Sumatra, in Kalimantan, where the large proportion of emissions come from. So in terms of the policy and reducing emissions from the fires, the focus is on stopping the fires in the peat, restoring those peat lands, where they have been drained for agriculture, to re-wet them and bring them back to a condition where fires cannot burn for so long in those systems.

Ruth DeFries (18:25):

So in equatorial Asia, every year, there is a dry season which peaks in August and every year there is the problem of trans-boundary haze. That's a well known public health problem. That's been reported in the media probably not as much as it should given the public health implications, but it is a known problem that the fires that burn in Indonesia, the smoke disperses to Singapore, to Malaysia across equatorial Asia, and affects a lot of people. This happens every year. Seasonally, some years are worse than others, and the most severe burning seasons are when there's drought dry conditions. And in that part of the world, dry conditions are associated with El Nino.

Ruth DeFries (19:18):

So in 2015, we had massive fires in Indonesia that created a very severe haze, trans-boundary pollution problem in 2006 and '97-'98. So El Ninos are associated with this very dry conditions. There's also a condition which is called the Indian El Nino, which has the same sea surface temperature phase issue in the Indian Ocean, where that is also associated with dry conditions. So that occurred in 2013. 2019, last year, we saw a massive fires in Indonesia as well. So there have been estimates of how many premature deaths are associated with these haze. Episodes and the estimates range, but they are tens of thousands. From about 44,000 to a hundred thousand premature deaths associated with fires in a severe fire year.

Ruth DeFries (20:22):

And the people who are affected, and these premature deaths are mostly affecting Indonesians and many rural Indonesians. It's not affecting people in Jakarta because that's not the way the wind blows. The wind blows across rural Indonesia, Sumatra, Kalimantan, up through Singapore and through that

route. So it does not really affect the capitol. Fortunately, very fortunately, this year is not projected to be an extremely dry year, but we can certainly expect fires to occur as do every year in the dry seasons. So on top of the chronic exposure that people have experienced this chronic seasonal exposure, COVID is now being added on top of that. And we also have the potential acute problem of stress on the health infrastructure, both from the health impact, from the fires, and the associated added complication of COVID. So I thank you and look forward to some questions now.

Dale Willman (21:35):

Ruth, thank you. And each of you in some way, talked about the transport, the smoke of the haze and how distance it can go. And I just want to point out there is some nascent research, at least, talking about how that smoke constituency has changed the further away it gets some. And so it's not just one thread of particulates, but other elements of that can also pose additional threats and in different ways, depending on how far you are away from the source, which I think is, is pretty fascinating through all this. Harvey, I should say that we're getting some questions coming in, and a reminder that if you have a question for any of our panelists, please be sure to put that in the comments and we'll get to as many as we can. Harvey. I want to expand a little bit first though, on some of the things that you said, and some of the others have talked about, which is the compounding effect of risk.

Dale Willman (22:28):

So we've talked about two major risks, that of wildfire and that of COVID. But it's not that you have this one and then the other one is there and they each have their separate effects, but layering on top creates a compound risk, which is a magnifying effect for these. So the sum of the two is much greater, is that correct?

Harvey Fineberg (22:48):

Dale, thank you for that. And I noticed there was questions about the nature of the evidence that undergirds the worry about the compounding effect that you're describing. There are studies, first of the relationship between air pollutants generally, and the mortality from COVID. There is an association of course, many, many factors affect COVID severity and spectrum in different populations, but there is pretty good documentation in preliminary studies of an association with greater air pollutants of these small particulate and a higher severity spectrum of the disease.

Harvey Fineberg (23:38):

Secondly, we've already talked about the evidence year in and year out about how the smoke from wildfire adds to the problem of air pollution, which in turn is associated with excess mortality. Now, if you ask specifically, "Okay, this year, what about fire and COVID?" Of course it's the first year of COVID and the fire season is just beginning, so there's not a way of pointing exactly to this fire in this location and that increase in mortality or severity of COVID. However, it's a little bit like asking whether a coal fired power plant in particular place in a developed country is responsible for the mortality in Cincinnati, Ohio that year. It works more around the totality of the burden of these small particulates demonstrably exacerbated by the forest fires. And those in turn have all the effects that Marcia and others have talked about in terms of respiratory susceptibility.

Harvey Fineberg (24:59):

In addition to this, if it turns out that the presence of wildfires, for example, requires communities to evacuate and to be kept in locations of emergency housing, in congregate housing, well-documented

that those locations, especially when there's respiratory susceptibility, especially when there are less than ideal sanitary conditions will become very, very susceptible to rapid spread of COVID in those locations. So the lines of evidence are pretty well connected step by step, between the increase of fire, the increase of particulate, the increase of susceptibility and both direct and indirect effects that can be anticipated from COVID severity in those locations. At the same time, the evidence is a chain of connection. It is not a single study that looks at a particular fire and a particular degree of mortality.

Dale Willman (26:16):

Great. Thank you. All right, so we're going to start taking questions from those who are viewing and again, make sure you have your questions in the Zoom chat. We'll take our first question from Seth Borenstein at the Associated Press, and it's directed to Dr. Fineberg. And may I ask that we keep our answers as succinct as possible so we can get through as many questions as we can. So the question is, do you have any data of studies to show the evidence of the fires exacerbating COVID-19, and you've addressed that a bit here, but if so, please share how much different are COVID-19 morbidity, hospitalization and mortality rates in fire hit areas compare to what would be in control areas? Or is this more extrapolation than data at this point?

Harvey Fineberg (27:03):

Yeah, that's exactly the question I was trying to respond to. I wouldn't describe it as extrapolation. I would describe it as a chain of connection. The preliminary study suggested that you could get as much as an 8% increase in severity mortality of disease with a one part per million increase in the particulate burden, but that's a preliminary study and the directionality is pretty clear. The quantitative amount of additional mortality is going to be a range. But the abundant evidence over many years about the relationship between part particulate matter in the environment and excess mortality is very, very well established.

Dale Willman (28:00):

Okay. A question from Oliver Griffin from Reuters directed at Marcia. Amazonian regions have been some of the hardest hit by coronavirus already. What will the severe fire season mean for these regions in the event of a second wave of coronavirus later this year?

Marcia Castro (28:19):

Yeah, so that's a great question. That's one thing that is being discussed in some cities in the Amazon that by the time they have the peak of the first one, or they have another wave, then that would coincide with the fire season. So the consequences go along with what we discussed in here. So that's the region where the availability of hospital beds are among the worst in Brazil. So, if you imagine that the demand that is being created just due to coronavirus without the fires and what we saw in [inaudible 00:13:59], in [inaudible 00:13:57], we see in several of those capital cities where the ICU beds are. We see a system that is overloaded. They cannot possibly take all the patients that need hospitalization.

Marcia Castro (29:10):

So, if on top of this, we have the fires and all the respiratory complications, I'm not even mentioning the chronic ones, heart failure, stroke, and all of this, but just respiratory diseases, there is no way that the system will be able to have enough beds for COVID, for the respiratory conditions, for the combination of both. And let's not forget that's also the season now when we can have hospitalizations because of

malaria. And there is an epidemic of dengue going on in Brazil and it's type two. So there's going to be hospitalizations because of dengue. And in at least two states in the Amazon, they're seeing way above expected incidents of dengue. So it's going to be several layers of demand for hospital beds that-

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Marcia Castro (30:03):

... layers of demand for hospital beds, that will be even more complicated if we have the fire season.

Dale Willman (30:09):

And that 90% rate of hospitalization right now that you're talked about is because of these other factors as well. Not just COVID.

Marcia Castro (30:17):

It's mainly COVID, but it's because of the other conditions as well.

Dale Willman (30:22):

Okay. Our next question comes from Michael Codas from Inside Climate News, directed at Dr. DeFries. How will COVID effect efforts to remove dams and reset peat in Indonesia?

Ruth DeFries (30:34):

Yeah. Well, thank you for the question. After the 2015 severe fires, Norway donated, got involved with the effort to restore peatlands and there has been an effort on rewetting the peatlands. I honestly don't know specifically how the COVID crisis has siphoned off attention on that problem. I can imagine it probably has from the government's point of view, to deal with the COVID crisis and the hard work of restoring the peatlands at the same time.

Dale Willman (31:16):

And the difficulty with COVID of getting workers to go into these areas. That's also a huge-

Ruth DeFries (31:19):

Yes, yes. To get workers and also to train the firefighters. So firefighting resources, it takes a lot of resources to fight the fires, particularly on the peatlands where the smoldering can go on for so long. So the inability to get the fire fighters to those places and to train them and prepare and get the resources ready for the fire season. I don't know the specifics, but I would imagine that it's certainly not getting the attention it needs partially because of the COVID crisis.

Dale Willman (32:01):

Thank you. All right. So a question from Megan Rowling from the Thomson Reuters Foundation directed at Dr. Alencar. We've avoided talking about politics at this point, but policy prescriptions of course are important. So are you seeing any signs yet that policymakers are taking this message onboard? And have you seen any specific efforts being made to increase forest fire prevention because of the added health risks from the pandemic? If so, could you please give some examples?

Ane Alencar (32:35):

Well, unfortunately we haven't seen any policy up to now that would fight this problem of the deforestation and fires. Last year, after we had the major big in fires in the Amazon, that everyone was... I mean, national and international, everybody was worried about the Amazon. We did have two major policies that were created that did get some results in terms of reducing fires in the region. So one of them were like put the army in... I mean, to be used by the states in the Amazon to fight fires and also a fire moratorium. Two months of fire moratorium. And in fact, fires reduced and reduced up to the point that we had in October one of the lowest number of hot pixels in the last years, which means that confirming that there was not a weather problem, like a climate problem. It was like a policy oriented... How can I say, problem.

Ane Alencar (33:56):

Anyway this year, however fires reduced, deforestation continued to increase even in the months that they are not used to. So, which means that we have a problem now, as I said before. This year, what we had in May when the deforestation continues to go up, we had a major... How could I say, commission of the government led by the president, which is a general, that went to the Amazon with the army to fight the deforestation and fires, but this didn't give any results yet. Deforestation continues to increase.

Ane Alencar (34:44):

Which means that really, we still don't have the solution for that problem, even though we know how to fight this problem. We need to have the government really onboard to fight illegal activities and to give the signal that is going to fight illegal activities. And why we don't have that, we have a major disaster in Amazon. We have an environmental crisis on top of a sanitary crisis. And on top of the political and ethical crisis and economic crisis that we are already having.

Dale Willman (35:27):

And a quick follow up, it just occurred to me, Ruth and perhaps Ane, for both Brazil and Indonesia, we talked briefly about the reluctance of government workers, others to go in to areas because of COVID or potential COVID infection. I'm assuming that's not affecting those who are doing the deforesting and setting the wildfires because they are already there. Or what would indicate that those fires will continue given that we're talking about other people being reluctant to healthcare workers, others being reluctant to perhaps enter some of these areas? So Ruth?

Ruth DeFries (36:04):

Well, to the extent that fires are used by small scale farmers, I think it's a fair assumption that that's their livelihood and they will continue to do what they need to do to maintain their livelihood. To the extent that the fires are associated with large concessions, large multinationals, the plantations for pulp and oil palm, those are amenable to policy and pressure. And we've seen that in the deforestation pledges and the sustainability certifications and those sorts of things. So for those types of fires that are associated with the large concessions, which is the clearing stage, is when the fires occur in those concessions. Those may be amenable to some kind of pressure, but I would imagine from the small scale farmer side, people need to maintain their livelihoods. And we've seen that people put themselves at risk of COVID to maintain their livelihood

Dale Willman (37:11):

And Ane, similar in Brazil?

Ane Alencar (37:13):

Yeah. It's similar in Brazil, although like most of the deforestation, is not done by small farmers, which means that the people there are investing in the forest in the Amazon, really, they do have money and they do invest on that. And I think the perception that in the beginning of the pandemics were in the big cities. So not in the interior of the Amazon. Right now, we have seen that the pandemic suspended trading over in the Amazon, in the other places in Brazil. So maybe we'll have some impact of that, but really like the people that is in front, like in the field, they are not doing home office. They are really continuing to deforest.

Dale Willman (38:08):

Okay. I see just a quick clarification, if we could on something, a question from John Cannon from Mongabay, you've answered much of it, but the question about the 90% occupancy figure. And he's wondering if that's a baseline level of occupancy for healthcare providers there. We've talked about the difficult healthcare conditions generally, is that the baseline occupancy or is that because of these other factors that you've described?

Marcia Castro (38:36):

No, it's not the baseline. The baseline is more something between 40% to 55% because there are so few that they are usually being used, but definitely not 90%. It is at 9% because of the current demand for treatment for COVID.

Dale Willman (38:54):

Okay. So move to our next question, please, from Adam Vaughn at New Scientists for Dr. Alencar. I'd be interested in hearing from you on specific actions for how to stop forest fires in the Amazon, Indonesia, and other tropical forests. Is it all about enforcement? What sort of policies are needed? Is it mostly about stopping force being lit rather than putting them out and what can the rest of the international community and consumers globally do? I hope you're taking notes on this question. Presume reputational risk is a part of that, as Ane touched on. Lastly, what action, if any, came from the international outrage at the Amazon's fires last year? So let's look first at the specific actions. And is it about enforcement and policy?

Ane Alencar (39:43):

Yeah, enforcement is a key piece of that. Policies such as moratorium is also a good policy, except with the fact that the small holders, they do need to burn, I mean, for their livelihoods, but this is the smallest area of burns. I mean, we are talking about large scale operations in terms of deforestation and fires in the middle of the Amazon in public lands. We're talking about some type of criminals, like stealing public lands. And this is very bad for the country. And I think how national international communities can help is in fact, pressuring on the products and the companies that buy products from the agro business. And this is one way of getting out of this situation and pressing the government to actually respect this patrimony that we have, which is the forest. So I think policies, how can I say, and strengthening enforcement are very important. Because only that would stop with half of the deforestation in the region, only that.

Dale Willman (41:26):

And Ruth could you quickly respond as well for Indonesia, if that's similar or if there are differences there?

Ruth DeFries (41:32):

Yeah. So enforcement is certainly important, but incentives might be more important, incentives not to burn in the first place. So the reason that people use fire is because it's cheap and it's easy. You set fire to your debris and you let it burn, and then you have your land cleared. So to the degree that there are incentives that may be more expensive, to not burn is where I think where we need to go. And we can see that in Malaysia. So Malaysia has policies that are in place where when there's clearing, that's not associated with fire, that there's up chipping. Mulching the wood, which is more expensive and requires mechanization, but there's not fire associated with that. So I think we got far with thinking about the right incentives. So we don't have the fires in the first place.

Dale Willman (42:34):

Ane, could you then address another part of that question is what can the rest of the international community and consumers globally do to, I guess, presume to put pressure on this issue to try and reduce it?

Marcia Castro (42:46):

Yeah, I think international pressure has been very important. Right now, the [inaudible 00:42:55] occurred with the European Union has been putting a lot of pressure on how Brazil should come back to its leadership on the environmental agenda. And that would be important for our business. I think also people would start to think about their consumption and the restore-ability of the products. That would help a lot. And it would force the producers to pay attention to that again.

Marcia Castro (43:23):

And then, I just want to come back to 2008... I mean, some years ago when they have the lower rates of deforestation. At that point, we created a lot of protected areas. We increased our exports in soybean and increased our production of [inaudible 00:13:50]. At the same time that we had the lowest rate of deforestation. And we protected several hectares of our forest officially, which means that we can do and know how to do it. We know how to do it, and we can do it again. So we only need really political will. And I think the pressure of the society and the companies that want to do the things right are very important.

Dale Willman (44:16):

And could you give just a very, very brief description of the market store agreement with the EU and what pressure that brings to bear?

Ane Alencar (44:25):

I think recently the Netherlands didn't want to sign due to these environmental constraints related to the Brazilian new policies, environmental policies.

Dale Willman (44:39):

Was this not an agreement that that was helping to require that materials exported meet certain environmental standards?

Ane Alencar (44:54):

Yes. But this has a pressure on what the European Union buys from Brazil in terms of products, which are-

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Ane Alencar (45:03):

European Union buys from Brazil in terms of our products, which are basically agribusiness products. But it has facing a lot of concerns about the way we are dealing with our domestic environmental policies.

Dale Willman (45:20):

So it's the report... Yes, please.

Marcia Castro (45:23):

I just want to make a quick note is that if you talk to the agribusiness, they are very confident that there is no way that other countries will impose restrictions. And I will just give one example... Soybeans. And Brazil is one of the major exporter and one of the big buyers is from Asia.

Marcia Castro (45:42):

And the agribusiness basically says there's no way they're going to stop buying from us because of deforestation because they don't have another country to supply. So the agribusiness has a level of confidence that nothing is going to hit us because nobody can supply the products we're supplying.

Marcia Castro (45:59):

It's important to keep that in mind, too.

Dale Willman (46:02):

Thank you. A follow-up to this from Megan Rowling from Thomson Reuters Foundation for Ane, if you could please... Are you seeing any signs that policymakers are taking this message onboard? And have you seen any specific efforts being made to increase forest fire prevention because of the added health risks from a pandemic?

Ane Alencar (46:27):

Unfortunately, I haven't seen any results on that. And the major movement that the government has been doing in fighting deforestation and fires... I mean, which haven't started at the peak of the season... Is actually sending the Army to the Amazon.

Ane Alencar (46:49):

But we haven't seen any plan. For example, Brazil had a very good plan to control deforestation, and we haven't seen any plan on that with targets, with where to go with priority areas. And right now we are in a better position than we ever had before because we have a very good monitoring systems.

Ane Alencar (47:13):

We know exactly where the deforestation is happening. We know even the social security number of the person that is deforesting. So I think it's really a matter of political will. And I think international pressure and national pressure are very important.

Ane Alencar (47:32):

And we know that Marcia just said that some... I mean, most of our sales is to some countries that don't... Are requiring a lot of... How can I say environmental standards? But in fact, a lot of companies that buy from Brazil, they did sign agreements that says that deforestation is not. So I think that the pressure of the society is very important to help the Amazon right now.

Dale Willman (48:07):

And a question for Marcia from Justine Calma from Vox media's The Verge... Is mining, particularly for gold, becoming a bigger concern at all when it comes to deforestation?

Marcia Castro (48:16):

Oh, absolutely. That's one of the other reasons that drive a lot of deforestation, and it's a different type of deforestation because it leaves the area full of beds with water. And that becomes a one of the major [foreign language 00:03:31] for mosquito-borne diseases, particularly malaria.

Marcia Castro (48:34):

So you take all the Southern part of Venezuela and along the border in the [foreign language 00:48:43] and other areas, that's what's driving all the transmission locally. So since the 80s, mining is one of the driving forces behind environmental damage and associated public health events.

Dale Willman (49:01):

Okay. I'm going to sneak in one quick question. Then we'll go to the closing remarks. One last question for Marcia and Ane... How do you see the efficiency of federal government actions, such as the operation Verity Brazil Two in fighting deforestation and also in fighting COVID-19 from reaching indigenous populations in the Amazon?

Ane Alencar (49:19):

Do you want to start, Marcia?

Marcia Castro (49:24):

Yeah, so when it comes to governmental actions in the Amazon, unfortunately I'm an optimist person, but I have a very pessimistic view because I honestly don't see the agenda of the minister or of the president to being something positive. If anything, they want to change the laws in ways that remove rights of indigenous areas and remove the demarkation of some preserved forest reserves.

Marcia Castro (49:57):

So there was nothing done to prevent what we're seeing in indigenous populations. In fact, there is a separate health department that only serves indigenous populations, and they are lacking physicians for almost two years now. And there was nothing special done in anticipation... Because that's the keyword. You have to plan. You have plenty of time to plan. You know it's coming. And nothing was done in that way.

Marcia Castro (50:25):

And part of the indigenous people that are being effected is connected to mining, is connected to environmental damage. So people that come to transform their land and end up infecting them. So with

the current administration, I think we need a lot of pressure, a lot of pressure that will harm in some way the economy for them to take action.

Marcia Castro (50:50):

But that's my view. And I don't expect Ane to fully agree with me. But that's my reading.

Ane Alencar (51:00):

This scenario is not a good scenario for sure. But I would just talk about... There are some people really trying to do something. And the public health attorney, for example... I don't know how to say that in English, but it's the public ministry that we have is actually... They are supporting the federal police in some specific types of operations to fight illegality and criminal's activities in the Amazon.

Ane Alencar (51:36):

And some results have been shown. They have got some [foreign language 00:06:41]... I don't know how to say that.

Marcia Castro (51:44):

Gangs.

Ane Alencar (51:45):

Some gangs.

Marcia Castro (51:45):

It's the militias that we have in the Amazon. Yeah.

Ane Alencar (51:48):

Yeah. That are linked with narco-traffic. So it's very... It's big, you know? So when you talk about deforestation, half of the deforestation, we are talking about that. We are talking about militias that are linked with the narco-traffic. And I guess this happens with the other Amazonian countries as well.

Ane Alencar (52:15):

But the public ministry and the public health attorney, and also the federal police have been doing some actions. But they are still not enough. We need some signal. The ideal thing would be the president to go step and say, "We won't allow illegal deforestation in the Amazon anymore." You know?

Ane Alencar (52:39):

I mean with this, him going and saying that would have an effect. And just to give him an example, like in the beginning of April, the [foreign language 00:07:50], which is the Asian governmental agency... And together with the federal police, went to fight some illegal invasion to some of the indigenous territories in Pariah state because they wanted to fight COVID spread in these areas.

Ane Alencar (53:11):

And then the operation was on TV in the best time in Sunday... Everyone saw. Next day, the minister of environment fired the guy that did that operation.

Ane Alencar (53:28):

So what do you think is the signal that people there are willing to deforest illegally in the Amazon get? They get... The signal is that I can do whatever... That I won't be punished. So we need to stop that. And if people need to be punished by doing illegal activities in the region.

Marcia Castro (53:52):

And a lot of them were pardoned by the fees they had to pay because of illegal deforestation. That's another signal. Go ahead and do it. You're not going to have to pay for it.

Dale Willman (54:03):

All right. Thank you all for your responses. We're going to wrap up the questions now. One thing I'd like to throw out that we didn't have time to address... I want to say for the reporters who are participating in listening in this, that we've seen a number of entry points to this story, and that's very important to think about how you can access the story.

Dale Willman (54:22):

Another one is the idea of PM 2.5 I'm just going to throw out here without a lot of discussion. But something to think about is that not only are these particulate matter that are carried in the smoke dangerous to respiratory systems, but toxins and toxics can adhere to them. So not only is it that respiratory issue, but it can be a pathway for these other elements to more readily enter into your body.

Dale Willman (54:46):

So the health effects and the compound effects of smoke and a fire are pretty severe.

Dale Willman (54:53):

So with that, I'd like to ask Dr. Fineberg for some closing remarks, please.

Harvey Fineberg (54:59):

Dale, thank you very much. I have learned so much from our panelist's comments and insights that we've gained.

Harvey Fineberg (55:07):

I'd just like to stress five points that all build from the premise of leadership... Leadership at a national level. Leadership at a local level. Leadership at a state-based level. Leadership from the NGO community. Leadership from the media. Leadership from those who can call attention and take action on this confluence of problems.

Harvey Fineberg (55:32):

First, we have a very serious need for stronger regulation that will provide the foundation to avoid the degradation of our forests in a wildfire and in other purposes. Secondly, especially worrisome are the illegal land grabs in the tropics, which are not only destructive, but fundamentally undermining to the social fabric of those societies. And these are elements that are especially worrisome because it is the illegal intrusion into public lands which is so often the basis of the clearing in the Amazon for soy or for cattle and in Indonesia for palm oil or pulp and paper and other local products.

Harvey Fineberg (56:29):

Third, it's really important to build on the efforts that are already underway to insist on deforestation-free products. Reducing demand is a very powerful financial incentive that can ultimately improve the balance of protecting these very precious, limited resources.

Harvey Fineberg (56:56):

And that applies to the intermediate agribusiness companies that are so fundamental in the distribution of these products. And it also applies to consumers worldwide, who could be a much more powerful influence on affecting deforestation-free products in the marketplace.

Harvey Fineberg (57:20):

Fourth, we've alluded to the importance of the indigenous populations and protecting indigenous rights. So often these rights and lands, which are by right and by law under the control of the indigenous peoples, a fundamental resource, a bow work against deforestation, against the degradation of these vital ecosystems and deserving of much more attention.

Harvey Fineberg (57:50):

And finally, data are increasingly available. It is possible to track, identify and know when and where deforestation is taking place, where the fires are being set very early in the stage. Transparency about this data, utilization of the data, will help reinforce those who are of goodwill and want to take the leadership that is needed to avoid these dual problems of deforestation and fire and worsening of the health conditions, especially in the face of COVID-19 in today's world.

Dale Willman (58:39):

All right. So I'd like to thank all my guests for participating in today's webinar and all the insights you provided.

Dale Willman (58:46):

I'm immensely grateful for that. I've learned a great deal as well. All the participants will be sent by email a list of resources from today's events. Also an alert for two more briefings coming up next Tuesday, June 23rd at 11:00 AM Eastern Daylight Time. Indigenous and local community firefighters will speak about their experience with COVID-19 in their communities while describing the impact of the pandemic on their firefighting strategies... A very important webinar.

Dale Willman (59:14):

Researchers report on the drivers of wildfires in the Amazon and other emblematic tropic forest regions. We'll send you an invitation to that.

Dale Willman (59:23):

And on Monday, June 29th, the Earth Institute will be hosting a webinar on compound risk. You can drop me a note if you're interested in attending that briefing.

Dale Willman (59:33):

Also some resources and story ideas will be posted on the state of the planet, the Earth Institute blog in the next few days in regard to this webinar.

Dale Willman (59:43):

And with that, I'd like to say thank you all again for joining us and to everyone for being a part of this briefing. I hope you have a great day. Bye-bye now.

PART 4 OF 4 ENDS [00:59:52]