# Why Forests? Why Now More Than Ever? An Update on the Science, Economics, and Politics of REDD+

Frances Seymour (Distinguished Senior Fellow, World Resources Institute (WRI))

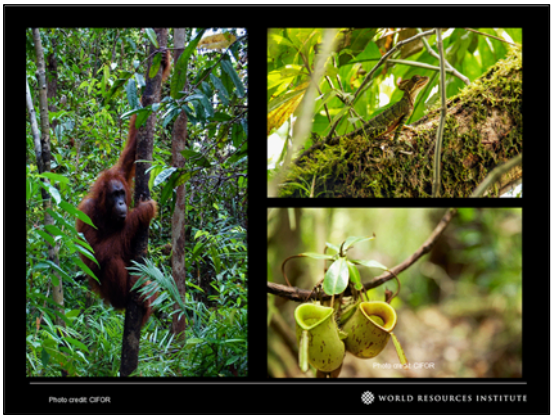


Thank you so much for inviting me to speak here in Tokyo again. I want to mention that in a few minutes, President Trump will be delivering his State of the Union Address in Washington D.C., so I appreciate your choice to come and listen to me speak, rather than President Trump.

The title of my talk today is 'Why Forests? Why Now More Than Ever?'

This talk is derived from the book my colleague and I published two years ago, titled 'Why Forests? Why Now?' The book was intended to make the case for international cooperation on REDD+, particularly to reach climate objectives and development objectives. I hope the content will be helpful to you, in making the case to your colleagues, for REDD+.

## Why Forests?

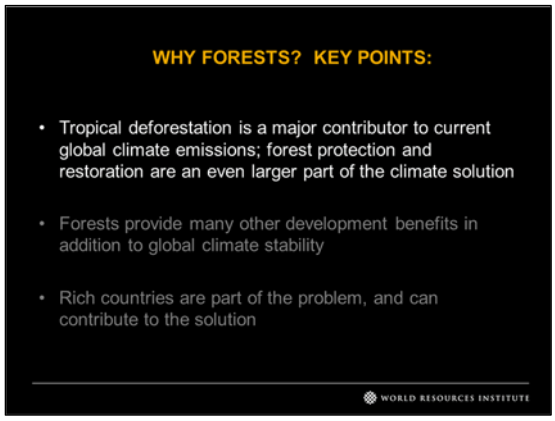



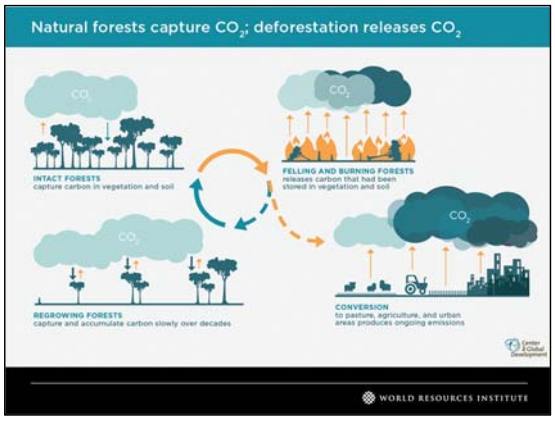

First, 'Why Forests?'

# Keynote Speech

Before diving into the policy, it is important to pause for a moment and appreciate the beauty of nature in tropical forests. The ultimate target of all of our activities is to protect forest.

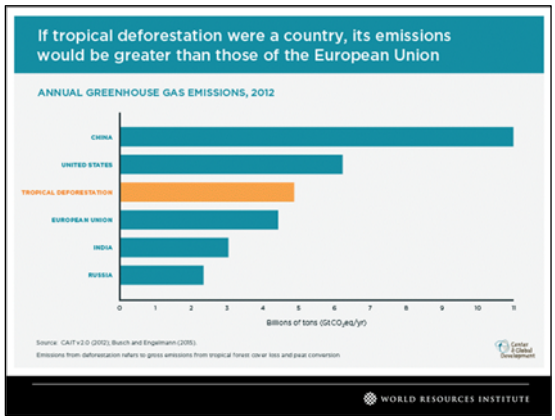
## Tropical Deforestation is a Major Contributor to Current Global Climate Emissions

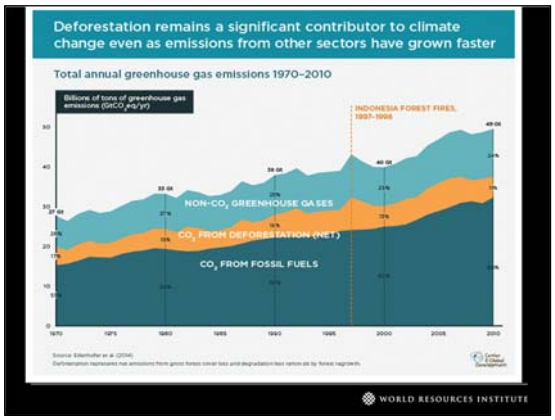



The first point I want to make is that tropical deforestation is a major contributor to current global climate emissions. In addition, forest protection and restoration are an even larger part of the climate solution.

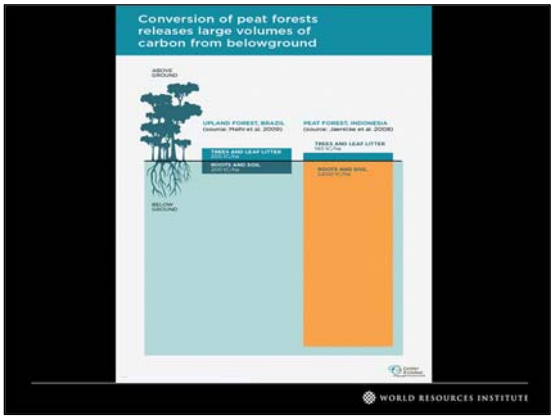
When intact forests are left as they are, they continue to actively pull carbon out of the atmosphere. When forests are cleared and burned, all of that carbon is released into the atmosphere; driving global warming. Often the land use that replaces forests, generate continuing emissions. If the forests are allowed to grow back, they can recapture that carbon; but unfortunately, it can take up to a hundred years to get back to where you started.

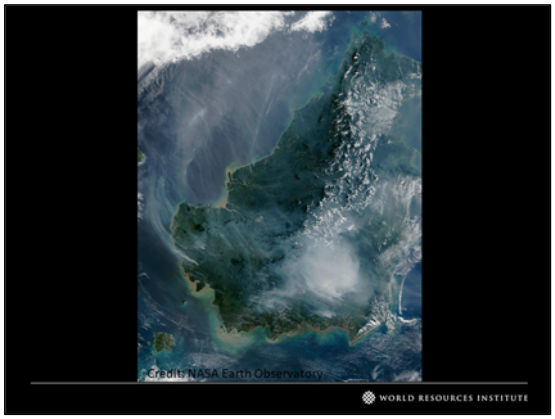



To give you a sense of the importance of this problem; if tropical deforestation was a country, it would rank third, in terms of its contribution to global emissions, after China and the United States; more than the European Union.

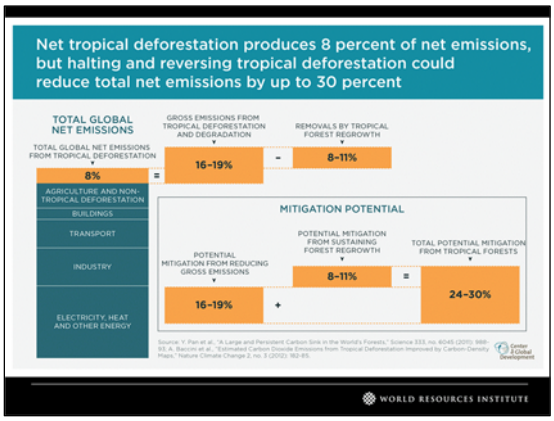
While the percentage of total emissions accounted for by net global forest loss has been shrinking; it is not because we are solving the problem of deforestation, but because emissions from fossil fuels and greenhouse gases are growing much faster.




A particular contributor to this problem is the conversion of peatlands. I am sure we will hear more about this from Dr. Ruandha. You can see by looking at the orange bar, that much more carbon is stored underground in a tropical peatland, than in a mineral soil forest. When the peatland drains and dries out through oxidation and burning, the carbon is released into the atmosphere.

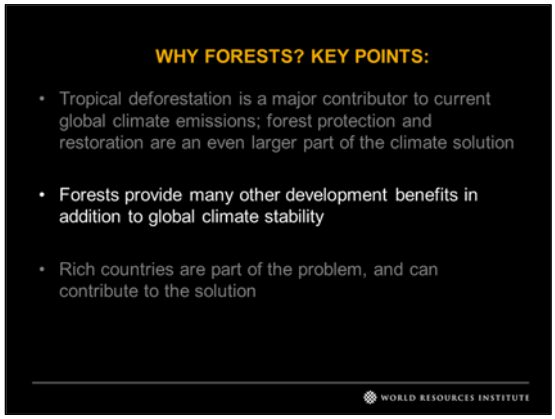
You can see this from space. This is an image of the island of Borneo, and it shows a massive group of clouds over central Kalimantan. It is right over the area of the Mega Rice Project, where 20 years ago a large area of peatland was cleared, and it continues to burn every year and make a globally significant contribution to climate emissions.




The 8-10% net number of how much tropical deforestation contributes to climate change is actually misleading. That number is a subtraction of the total emissions from deforestation and the amount of carbon growing trees pull out of the atmosphere. If our question is: how much potential do tropical

forests have to be part of the climate solution? That is an addition of those two numbers; because we can reduce the emissions from deforestation, and at the same time continue the act of sequestration from forests growing back. We estimate that the bio-physical potential of forests to contribute to mitigation is around 24-30% of current global net emissions.

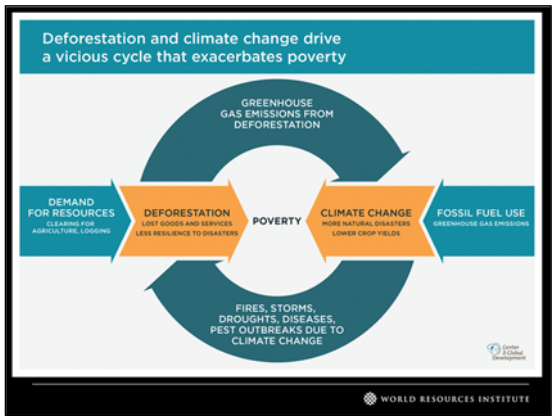
## Development Benefits Forests Provide in Addition to Global Climate Stability





The second point I want to make is that forests provide many other development benefits, in addition to global climate stability.

Forest contribution to climate stability is terribly important. This is an image of Hurricane Mitch hurtling towards Central America, 20 years ago. Events like this make a long-term impact on the development trajectory of poor countries; and they are likely to become more frequent and severe with climate change.



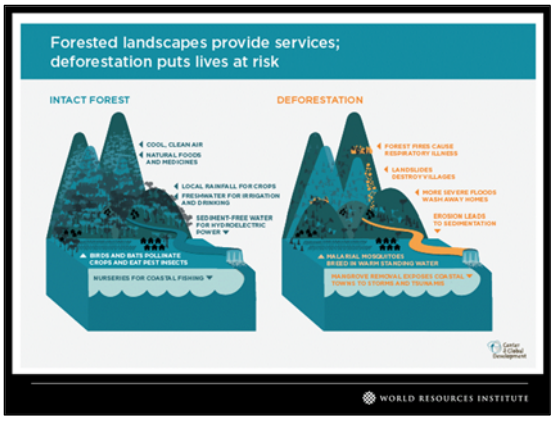


In our book, we depict the dual forces of deforestation and climate change as a vicious circle, with both direct and indirect components. Climate change leads to poverty, through natural disasters, and deforestation leads to poverty as well, through the loss of forest-based goods and services that the poor are particularly dependent on. At the same time, there is an indirect effect where deforestation contributes to

climate change, and vice versa. So we have a vicious cycle that contributes to poverty.

In addition to the mechanism of climate change, forests contribute to sustainable development goals in many other ways. These images depict the contributions of forest goods. For example, the role of bushmeat in providing nutrition; the role of timber extraction as a source of employment and income; the role of non-timber forest products, the gathering, processing, and marketing of which is particularly important to women; and the role of charcoal and firewood which are often important for subsistence and cash income. My colleagues at the Center for International Forestry Research[1] (CIFOR) did a study in more than 20 countries, of the value of this income. They found that on average these kinds of products, gathered from the wild, constitute about 21% of household income in communities in and around forests.


In addition to the visible goods, forests provide a number of services. These include: the pollination services of bees, bats, and birds; protection from events like landslides that happen with heavy rainfall; watersheds that fill the reservoirs behind hydro-electric dams; and the regulation of weather across landscapes, attenuating extreme temperatures and seeding clouds for rainfall.



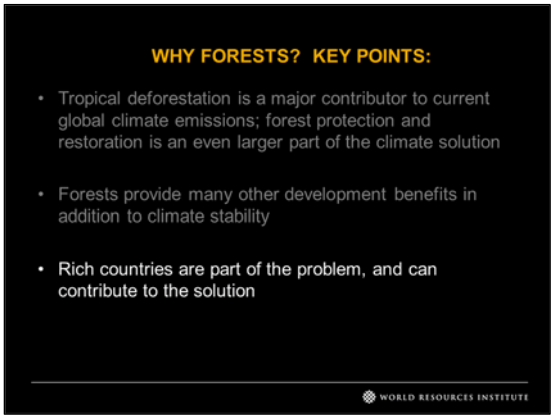


[1] https://www.cifor.org/

This diagram shows a schematic of all the benefits that come from protecting forests, upstream and downstream; and all the misery that can be inflicted on adjacent communities when forests are destroyed.

It is important to think about these forest-based goods and services, in the context of the Sustainable Development Goals; and be reminded how many of those goals forests contribute to. For example, contributions to income, food supply, energy production, health, and safety; in addition to the global benefits of biodiversity and carbon storage.

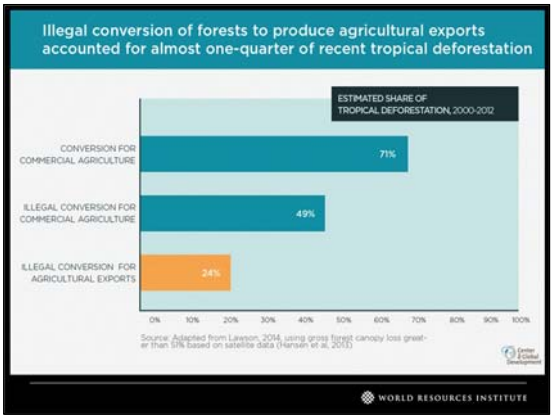
## The Role of Rich Countries





Last but not least, a reason for protecting forests is that rich countries play a part in creating the problem, so they should also play a part in developing the solution. So it is an area ripe for collaboration.

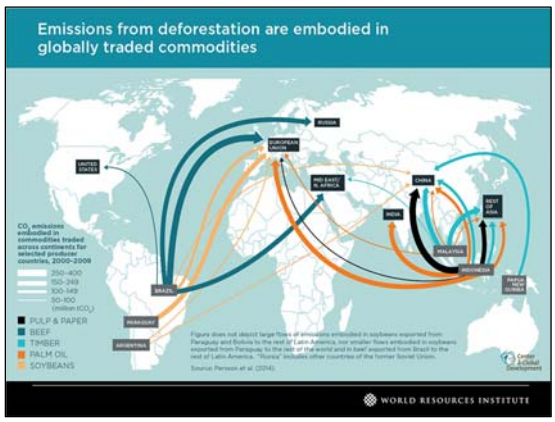
When many of us think of deforestation, the first thing we think about as a driver is logging. Indeed, logging is still an issue in many parts of the world, such as Papua New Guinea and parts of the Congo Basin. So there is plenty of work for Dr. Gerhard Dieterle and the ITTO to do, on making logging sustainable.

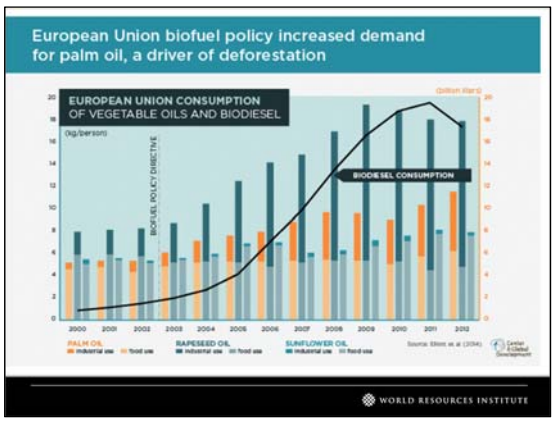




Nowadays, deforestation often looks like this. It is the permanent conversion of forests to produce

globally traded commodities. For example in Latin America, for beef and soybeans; and in Southeast Asia, for palm oil and fast-growing timber for pulp and paper. So it is outside of the forest sector.

Much of that land clearing is illegal. One study estimated that almost one-quarter of the tropical deforestation that has taken place in this century, was land cleared illegally for export-oriented agriculture.

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Not all of that is to feed individual consumption decisions. It is also policy driven. This graph shows just how successful the European Union[2] (EU)'s biofuel policy directive was in increasing demand for biodiesel. In turn, that demand for biodiesel increased demand for palm oil. So, much of this global demand for forest-risk commodities is policy driven in rich countries.

## Updates


What are some updates to this picture, since the book was published? First, I am afraid the problem is getting worse. 2016 and 2017 were record-breaking years for global tree cover loss. One of the few

[2] https://europa.eu/european-union/index_en

bright spots in these numbers, was a drop in the loss of Indonesia's peatlands. I am sure Dr. Ruandha will tell us how that happened.

Even more evidence has accumulated on the importance of forests for both climate and development. For example, new papers have been published, reconfirming the global mitigation potential of conserving forests and other lands; and new papers have been published on the importance of non-carbon pathways through which forests stabilize the climate across scales, which is important for the Sustainable Development Goals.

Global production and consumption of forest-risk commodities continue to increase, and they have become international political controversies. For example, the decision of the EU last year to begin phasing out palm oil as a feedstock for biofuel by 2030.

## Why Now More Than Ever?

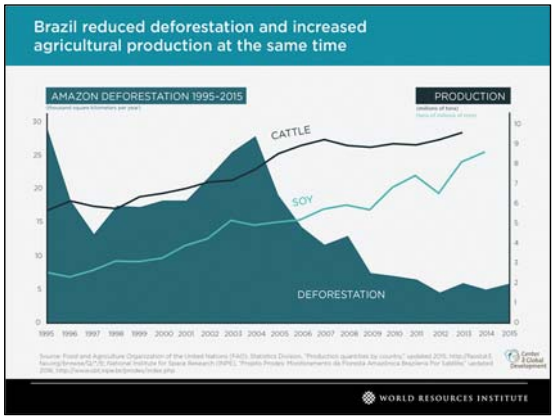


Now let me say, 'Why Now More Than Ever?'

Here are forests as we like to see them.

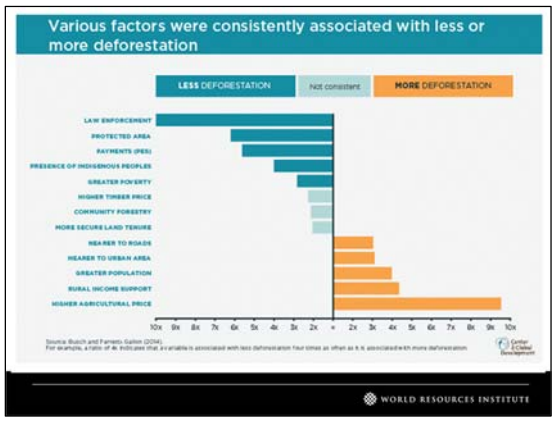

Here is what is increasingly happening.

## Reducing Deforestation is Feasible and Affordable


Why more than ever? First, we have evidence that reducing deforestation is feasible and affordable.

Brazil showed the way, beginning in 2004 a dramatic decrease in deforestation in the Amazon, even while production of cattle and soy continued to increase. How did Brazil do it? Brazil put in place a basket of policies -- both carrots and sticks -- that were consistent with research on what works to reduce deforestation.



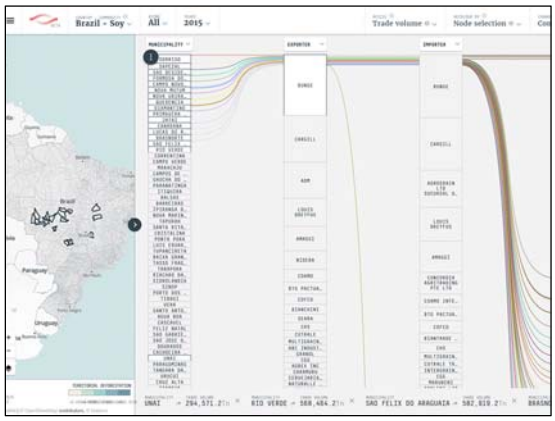

This shows the results of a meta-study of all the studies we have, correlating deforestation or conservation of forests with different factors. Basically, what Brazil did was follow this recipe. Law enforcement works. Establishing protected areas works. Paying people to protect the forests works. Recognizing the rights of indigenous peoples works. On the other hand, high agricultural prices are the biggest driver of deforestation; so Brazil cut off agricultural credit to high deforestation municipalities. So we know what to do; we just have to do it.

New Tools are Enabling Transparency and Accountability



New tools are enabling transparency and accountability. One secret to Brazil's success was being a pioneer in the use of remote sensing to detect where deforestation was happening, and do something about it.

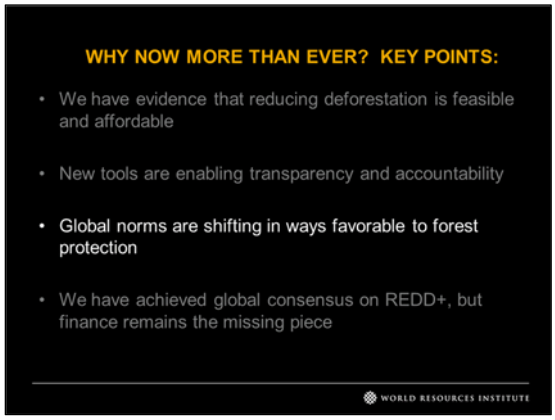
This is a screenshot from Global Forest Watch[3]. The pink areas are pixels showing recent deforestation events, allowing both advocacy groups and law enforcement to respond.



New platforms are marrying this data to trade-related data, to make commodity supply chains more transparent. This is one called TRASE that allows you to track shipments of soybeans from the municipalities in Brazil, through to the exporter, the importer, and the ultimate destination. This is now being developed for palm oil, in Indonesia.

[3] https://www.globalforestwatch.org/

## Global Norms are Shifting in Ways favorable to Forest Protection




Another reason: global norms are shifting in ways that are favorable to forest protection. I will highlight three.

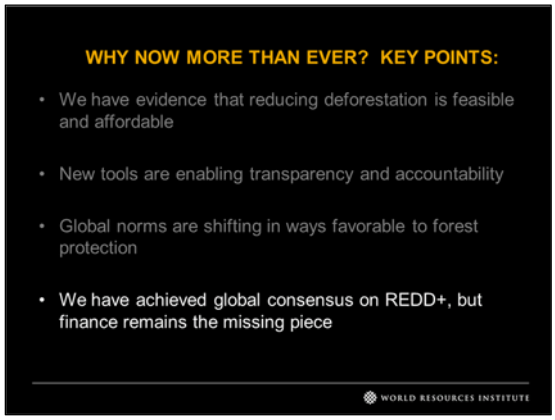

First is a decreasing tolerance for illegal logging and crime. Some of us are old enough to remember when it was taboo to admit that illegal logging took place. You could not even talk about it. Two years ago, thanks to much international effort, Indonesia became the first country to qualify for an agreement with the European Union (EU) that allowed it to export verified legal timber to the EU, based on its confidence of Indonesia's domestic legality system. This is a picture of the President of Indonesia and the President of the EU shaking hands on that deal.

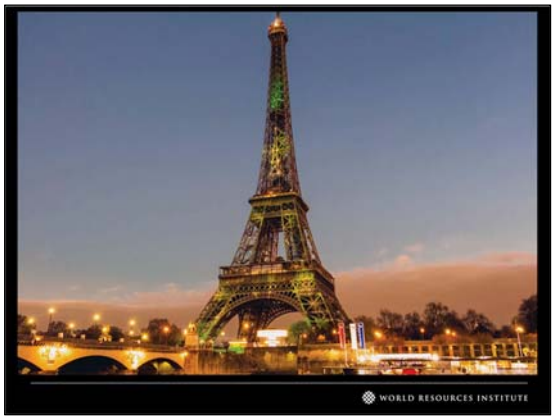


Second is an increased expectation for corporate responsibility in becoming a part of the solution to deforestation, rather than a contributor to the problem. The man in the picture is the former head of Unilever[4], Paul Polman; and he has led a movement with hundreds of companies, from many countries, to make commitments to get deforestation out of their supply chains. The deadline for doing so is coming up next year.

Third is an increasing appreciation and recognition of indigenous peoples' rights. The young woman in the picture is Mina Setra, from West Kalimantan; and she has been very eloquent in speaking about how REDD+ elevated the issue of deforestation and increased the attention to remote sensing efforts, which showed that the presence of indigenous peoples was associated with less deforestation. Many countries, including Indonesia, have begun to act on that insight and recognize indigenous rights.

## Finance is the Missing Piece

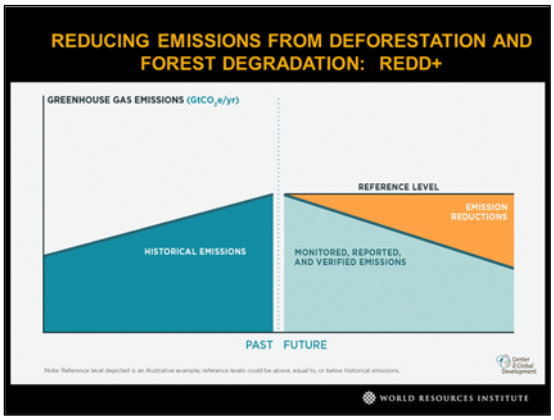


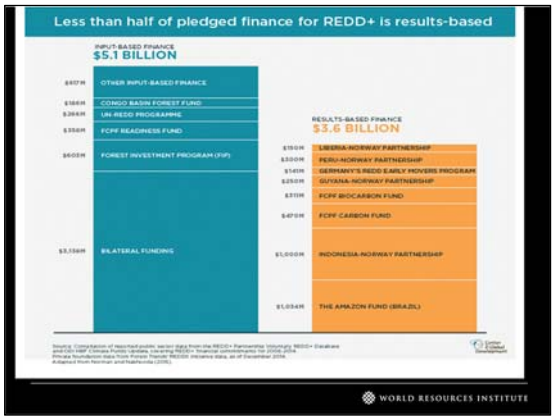




The last reason, and perhaps the most important one for this conference, is that we have achieved global consensus on REDD+; and only finance is the missing piece.

[4] https://www.unilever.com/

Paris was the culmination of ten years of discussions of REDD+. It was quite a landmark event because forest is the only sector that gets its own Article in the Paris Agreement. Therefore, Paris is important for climate mitigation overall, but especially for forests. That Article incorporates ten years of long constructive negotiations in elaborating all of the principles behind what we know as REDD+.



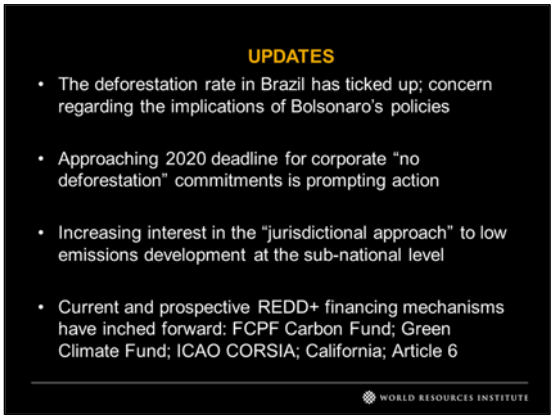




The simple idea of REDD+ is that if a country is successful in reducing its emissions below an agreed reference level, that amount is eligible for financial incentives, compensating for that performance. Two issues that I want to stress are: the challenges created from accounting and financing REDD+ at a jurisdictional scale and no longer at the level of an individual project; and that the key innovation of REDD+ is payment for performance as a financing model.

Unfortunately, we have not been doing very well in mobilizing the finance. This graphic depicts how much finance had been pledged at the time of our books publishing; with most of the finance pledged as input-based finance -- in other words for "readiness: developing, monitoring system, safeguard systems -- and a minority for performance payments. While this picture has changed somewhat in the intervening years, we are still far short of the finance that we need.

This map depicts the number of countries that have initiated national REDD+ programs with international support in blue. Only those in orange have signed agreements for performance-based finance. Even those amounts were not large, compared to the money that could be generated by alternative land uses. So we still have a long way to go.

## Updates




What are the updates on this picture? First, unfortunately the deforestation rate in Brazil has begun to tick up; in part because many of the policies that led to the dramatic decrease in deforestation have been relaxed. There is also great concern about the implications of the new policies announced by the new Bolsonaro administration that may lead to a further acceleration in deforestation.

Second is the approaching 2020 deadline for many corporate 'no deforestation' commitments. We are seeing quite an acceleration of activity among companies who are scrambling to see what they can do to accelerate their performance. I believe you will see more of that in the run-up to the UN Secretary General's Climate Summit in September, marking the five-year anniversary of the New York Declaration on Forests at the last Climate Summit in 2014.

Third is an increased interest in the 'jurisdictional approach' to low emissions development at the sub-national level, such as states, provinces, and districts; where the idea of combining REDD+ finance with implementation of 'no deforestation' corporate commitments shows promise of a value proposition for sub-national political leaders to move toward low emissions development.

Last is that current and prospective REDD+ financing mechanisms have continued to inch forward, but unfortunately at a slow pace. The Forest Carbon Partnership Facility (FCPF) Carbon Fund[5] at the World Bank[6] has signed its very first emission reduction performance agreement in the last few months. Other countries are on the verge of emerging from that pipeline. The Green Climate Fund[7] has set up a new pilot program for results-based REDD+ finance, but the half a billion dollars on offer is far smaller than the prospective demand. The largest source of potential funding on the horizon is Carbon Offsetting

[5] https://www.forestcarbonpartnership.org/carbon-fund-0
[6] https://www.worldbank.org/
[7] https://www.greenclimate.fund/home

and Reduction Scheme for International Aviation[8] (CORSIA) from the International Civil Aviation Organization[9] (ICAO)'s potential offset program for reducing international aviation emissions, but the rules for eligibility remain to be seen. Inclusion of international REDD+ offsets in California's cap-and-trade program will be revisited in April. I would argue that the Draft Tropical Forest Standard[10] being proposed for California is really setting the standard for international REDD+ transactions.

Finally, the one part of the Paris rulebook not concluded at the last climate talks, was on Article 6, about international transfers. The negotiations coming up in November will be very important for forests, because of how REDD+ and Article 5 relate to Article 6, which will be critical to our success.



With that, let me pause for a moment and let us remember the beauty of forests and what we are trying to preserve.

Let me close by saying that the book 'Why Forests? Why Now?' is still available for purchase, but you can also download it for free from the Center for Global Development[11] website. I wish I could have brought a copy of the book for everyone, but at 400 pages it is quite heavy. So I could only fit two in my luggage, and now I am pleased to invite Dr. Sawada, from FFPRI, and Mr. Orita, from the Forestry Agency, to present them with these two copies which I brought with me from the United States. Thank you very much.

[8] https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx
[9] https://www.icao.int/Pages/default.aspx
[10] https://www.arb.ca.gov/cc/ghgsectors/tropicalforests.htm
[11] https://www.cgdev.org/