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DOLLAR & SENSE: THE BROOKINGS TRADE PODCAST

THE THREAT OF CATASTROPHIC BIODIVERSITY LOSS

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Guest:

VANDA FELBAB-BROWN
Director, Initiative on Nonstate Armed Actors
Co-Director, Africa Security Initiative
Senior Fellow, Foreign Policy, Center for Security, Strategy, and Technology
The Brookings Institution

Host:

DAVID DOLLAR
Senior Fellow, Foreign Policy, Global Economy and Development, and the John L. Thornton China Center
The Brookings Institution

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DOLLAR: Hi, I'm David Dollar, host of the Brookings trade podcast "Dollar and Sense." Today, my guest is Vanda Felbab-Brown, a senior fellow in the Center for Security, Strategy, and Technology in the Foreign Policy Program at Brookings. We're going to talk about biodiversity, the potential for mass extinctions, and a UN conference that's ongoing. It's aimed at preserving biodiversity. So, welcome to the show, Vanda.

FELBAB-BROWN: Thank you, David. I am very glad that we are talking about biodiversity issues.

DOLLAR: Let's start with the the big picture. What's happening in terms of biodiversity loss? What's happening with mass extinctions, or the potential for mass extinctions. What's the basic foundation?

FELBAB-BROWN: Well, let me first explain what biodiversity is in the sort of narrowest sense. It's the number of plant and animal species on the planet. But in a broader sense, biodiversity is what makes the planet function and what allows for life to be sustained in the richness of species, but also just life to be sustained, period. And we are really seeing catastrophic biodiversity losses. The planet has gone various times through such losses before. For example, a very famous one is when dinosaurs died out and entire nature of plant and animal species changed. In the Cambrian period, there was another mass extinctions of that kind.

So, right now, we are seeing the greatest biodiversity loss since the dinosaurs died out, about 1,000 times the historic average. Since only the beginning of the 20th century, the 1900s, about every single biome—that's a natural community of plants and animals, like a forest or desert, a tundra—so every single biome in the past 120 years lost about 20 percent of species. Those are just extraordinarily losses, and they are due to human activity.

DOLLAR: So, why should people care about this, Vanda, how does it affect ordinary people's lives that we have this biodiversity loss?

FELBAB-BROWN: Without biodiversity, there will not be life on the planet. There will not be humans. So, many people know that the reason there is life on Earth is because plants emerged first. Plants and other organisms emerged first in the sea and then plants migrated on land, produced oxygen that every single animal that lives on land needs for survival. So, if you lose our plant coverage on the land surface of Earth, you lose oxygen. Humans will no longer exist, just as animals will no longer exist.

We have many other elements of that. For example, agriculture—food production—the survival of animal species depends on plants, also, for food. Many plants exist because they get pollinated. And for that, we need insects: butterflies, beetles, bees. Yet in various parts of the world, we are seeing 70 percent loss of insect species. Just an extraordinary number. And this is not just in faraway places. This 70 percent loss actually comes from a study in Europe that was based in Germany but looked at western and central parts of Europe.

For soils to be fertile, to be able to sustain plants, they need a richness of warmth and other organisms that exist in soil. Again, we are seeing dramatic losses of those organisms. So, it's not just about losing iconic species like tigers, orangutans; it's what the planet is really experiencing, just the dramatic collapse of entire classes of animals and plants.

DOLLAR: So, I want to ask you next about what's the main cause of this biodiversity loss? You've hinted at it already by referring to human activity, but can you go into more detail? What aspects of human activity are leading to this biodiversity loss?

FELBAB-BROWN: Sure. So, there are various sources of biodiversity loss that are linked to human activity. As the predominant driver of the biodiversity loss we are experiencing today, it's human activity. Climate change is one prominent, significant driver of biodiversity loss, but it's not the only one. And in fact, there is a really confluence of other factors. The most significant one being habitat destruction now.

But climate change is one factor why habitats are being undermined. But it's not the sole factor. Logging is another massive one. Conversion of forested land into agricultural lands or into urban spaces. And related to such losses are mining, another big driver of deforestation and pollution. Pollution comes from many sources, mining being one of them, but all kinds of emissions, like plastic waste, for example.

Other sources of destruction are just overuse of resource, overfishing, for example, or hunting species, wildlife trade, wildlife trafficking, extermination of species because they pose threats to human activity and human types of food production. And pollution broadly, industrial pollution emissions, not just of carbon, climate change producing releases, but also nitrogen releases. All of those are sources of habitat loss and biodiversity loss.

So, another way is to put it, almost every human activity is causing significant impact on losing species. And very few human activity, whether it's our travel, our food production, our heating, our industrial production, really takes into account its impact on biodiversity.

DOLLAR: What's scary for me, Vanda, as a non-expert, is it seems to me that climate change is not progressed very far. We've really had a rather small amount of temperature increase on average. Obviously, we're having more extreme weather events, but it seems that climate change hasn't proceeded very far. But we're still seeing massive habitat destruction and we're seeing species loss. So, it is kind of scary thinking about where we might be headed.

FELBAB-BROWN: Yeah, no, the trends are very ominous, and so, you know, the other issue, of course, is that unfortunately, although habitat loss, biodiversity, species loss, and climate are deeply intertwined, they are also treated in isolation. And so that is really not adequate integration of thinking about ways to mitigate and prevent further climate change and integrating biodiversity preservation into it.

In fact, some of the policies are quite at odds with each other, so that there's predominant focus on climate change—and it's appropriate to focus on climate change—there is a vastly inadequate focus on biodiversity loss and the two are not integrated. Some of the policies adopted for mitigating climate change are in fact contradictory for preserving biodiversity, and that needs to change.

DOLLAR: So, let's talk a little bit about this UN effort. I understood it initially as a big UN conference in Kunming, China, on biodiversity, trying to develop a convention, but it seems to be divided into two parts. So, can you explain what's happening with the UN and what's the objective there and the potential to make some difference?

FELBAB-BROWN: So, there will be both a first part of a biodiversity conference in Kunming. The second part will come in the spring. This is not to create a new convention. There actually is already a convention on biodiversity that has been signed by all the countries in the world, except for the United States and the Vatican. And the United States hasn't signed the Biodiversity UN Convention, mostly because of Republican opposition to the treaty and to the topic at large. But the United States participates on the sideline of the conference in consultation and in trying to shape the outcomes.

So, what happened in Kunming was what's called a Conference of Parties. When there is a convention like climate, like endangered species are the topics, every so often the various countries get together to discuss what to do next and to review progress. The prior biodiversity conference, the prior Conference of Parties for the Biodiversity Convention took place in Japan in 2010. And at the time countries had 20 objectives, 20 measurable goals to preserve biodiversity and hold the recognized catastrophic loss of species of plants and animals.

Well, 21 years later, unfortunately, none of the 20 commitments that they made in Japan were met. So, the Kunming Conference has been trying to negotiate a new set of

measurable targets. The most famous one is something called “30 by 30.” The notion that by 2030, at least 30 percent of a country’s land will be set aside for preserving biodiversity. But there are other goals, too, in addition to the 30 by 30, and we can talk about the goals in a minute.

So, there are other targets like making sure that every economic activity considers its impact on biodiversity. Kind of abstract, important, but very abstract goal. Or, for example, that economic chains, supply chains are cognizant of impacts on biodiversity. A very important target would be to reduce subsidies for activities that drive biodiversity loss. For example, in fishing many countries provide subsidies to the fishing fleets, even though the fishing fleets engage in catastrophically unsustainable fishing. So, eliminating those subsidies would be a good step toward biodiversity.

So, there is about 21 proposed targets and it was hoped that at this first part of the conference, the targets would be set. That it hasn’t happened. In fact, the Kunming meeting was quite underwhelming. Instead of resetting the targets, the decision was ultimately to portray it as simply generating political will with the hope that the second part, which will again take place in China in the spring, will make it to setting the actual targets.

And that’s really very important, and I would say that, you know, it’s important that China steps up its leadership, its diplomatic handling of the first part of a very mixed review. On the one hand, it was good to see China caring about environmental issues, as China is a very significant source of deforestation abroad, very significant source of species loss abroad. China’s fishing fleet is one of the most intense drivers of overfishing, often engages in illegal fishing in very many ways. So, China is responsible for to a very significant extent for biodiversity loss. So, seeing China to take the mantle would be important. Wasn’t great in the first part.

I would also say that the U.S. could have done much more and that the U.S. leadership was also very underwhelming for the Kunming COP. On the one hand, the U.S. is not part of the conference, is not part of the Treaty of the Convention, so it cannot play a direct visible role. But it can and has played a very important role at the previous COPS from the background, from the sidelines. They didn't do so this year. The Biden administration announced at the time of the Kunming Conference a new program called America the Beautiful. It got very little press, very few people sort of focused on it, it made only very general vague commitments, spoke in generalities.

So, as we head into the spring, preparations for the spring conference, I think it's very imperative that China and the United States and other countries really get far more serious about nailing down concrete commitments. And, importantly, that we get into a situation where the commitments are implemented, so we don't end up with a repeat of the Japan 2010 commitments just completely falling by the wayside, zero out of 20 met, yet no consequence. Similarly, with Paris and climate.

I would also add here that the biodiversity efforts have been a kind of poor orphan of the focus on climate, including with respect to the Biden administration that has focused far more on climate targets than on biodiversity. And we really need to merge it and see those as a synchronized activities with equal level of political focus and economic priorities.

DOLLAR: So, that 30 by 30 is a nice slogan. And I know in some countries it would make a significant difference. China, where I've done a lot of work, I think they have about 18 percent of their country is protected. So going to 30 would be very significant if you're talking about really setting aside areas for conservation. But I guess, I wonder sometimes when you have a nice slogan is 30 by 30, is that really a good target? Is that really enough? Are there problems with that kind of objective?

FELBAB-BROWN: The target is useful. I mean, the notion should be that at least one third of the country's land has a healthy, sustainable ecosystem. But we need to unpack it. So, the fact that 30 percent of the land is protected does not necessarily mean that there is good habitat. In Southeast Asia, for example, countries like Thailand and notoriously Indonesia, places are designated as national parks after they have been terrifically degraded through logging and mining. And essentially, they become wasteland of leftovers of African oil palm plantations with an orangutan hanging in this, on this foreign, alien landscape in the foreign alien plain of an African oil palm. And that's a national park and it could be very significant areas of national park. So, protection alone if it comes after the destruction is not enough.

The number also matters. So, as you mentioned in China, about 18 percent of land is protected. The quality of the habitat is again highly varied. Some of the protected ecosystems can be very degraded, others are in much better shape depending where it is in China. And for China to make it to 30 is a very hard objective, and it's one reason why China is not keen on the number. And so we haven't had that commitment.

On the other hand, in a place like Brazil, if the target is only 30 percent of land protected, that actually gives Brazil a license to de-forest far more of the Amazon than is set aside for conservation right now. Already, both in Brazil and Indonesia, we have been experiencing since the beginning of COVID, massive increases in illegal logging and deforestation, destruction and loss of forest due to fires, and we have also seen very bad, very counterproductive weakening of legislations in both countries to permit far more logging exploitation.

So, to say certainly a uniform objective would be bad in the case of two vital areas of great tropical biodiversity and two crucial ideas for mitigating increases in climate change.

So, you know, at the same time, if it's useful as a slogan, it's useful as an objective for some countries, I would not be hung up on the numbers. It gets difficult, though, to move

away from the targets because if it comes down to negotiating sort of individual commitments, that would make sense for a country to say, you know, in the United States, the objective could be 40 percent of land; in China, maybe 20 percent is meaningful. But when it gets into allowing for country by country variation, as necessary as that is, it becomes more difficult to make commitments. So, maybe better phrasing would be at least 30 by 30, but a country is not allowed to reduce the area that it protects right now—if it protects more than 30 it's not allowed to go down to 30. So, we will see what will happen with with the numbers at the spring conference, if anything, if there in fact, will be a target.

DOLLAR: So, aside from that potential target. Are there specific policies that would make a difference? Concrete actions that you'd like to see out of this UN effort?

FELBAB-BROWN: Well, I think that the broad objective that we really need to integrate, thinking about the environmental impact into human activity broadly and certainly economic activity must become how policy operates. That's might require different mechanisms, and I personally am a big fan of pricing human activity. Just as we talk about pricing carbon release, we should be pricing impact on biodiversity losses. It's not necessarily easy because it's not always easy to say, if I drive my car for one mile, I will have affected biodiversity in x y z ways, right? So, achieving measurable linking, measuring impact enough to be able to set prices is something to be developed. But to me, that would be an important element.

The aspect that we talked about, getting away from subsidies for very environmentally biodiversity-destructive activities, is much more concrete, much more feasible in terms of the technical execution of a policy, also tends to be wickedly politically difficult. Subsidies exist because of particular lobbies, industries, fishing fleets, are very, very powerful, and they capture policy. But that, to me, is an important objective.

I think we can get more concrete about some of the disastrous emissions, and I don't mean just carbon emissions, but other kinds of waste and pollution, such as setting targets for plastic reduction, setting targets for recyclable plastic. I mean, there's still tremendous amount of use of plastic that's not recyclable. We should just not allow, at least the countries like the United States, to be producing plastic that cannot be recycled.

So, you know, among the 21 broad targets that's are being spoken about in the working draft since August, I think there is a lot of good thrust. The key is how to get them operationalized.

And finally, I think that it's also important that we integrate into the thinking much better discussion of how to make ecosystems sustainable while they exist with people. So, a lot of western conceptions of ecosystem preservation have been ecosystems without people living on the land. So, think of national parks in the United States, you can go visit them, but that is no one who is living and exploiting the land. And that has often worked well.

At the same time, it's often come with significant costs, particularly for indigenous communities. But it's worked in the U.S. because it came at the time when population, demographic changes and when economic development naturally moved people to other areas. In some cases there was forcible expulsion of people. Yellowstone, one of the most amazing treasures in the world, the first national park in the world, was created by forcing Native American communities out of the park where they lived, that they used for hunting, for religious purposes. But in other parts of the world, pushing people out of land to create national parks often has been a disaster, has been an environmental disaster and has been a human disaster.

And of course, we are seeing huge population growth still. And so in many, many places of the world—in Asia, in Latin America, in Africa—there is a deep conflict between humans and the habitats and the animals and plants.

And so, as crucial as it is to preserve biodiversity and to protect natural habitats, it has to be done in ways that gives people enough economic stake in preserving the habitats and doesn't squeeze them economically. Otherwise, people will just ignore the long-term consequences for their children and grandchildren and focus on day-to-day survival.

And this is really coming to a head in the kind of very rapid ways in places like Africa, where human-animal conflict, where human-animal pressures are just significant on a daily basis and where there is very often very little appetite for setting land aside for conservation. So, some of the best environmental efforts in Africa have been efforts that have allowed people to exploit land in a sustainable way, even perhaps with cattle in protected areas. But it's not easy, often allowing some human use, some hunting, some cattle ranching co-existence with wild animals doesn't work. It becomes a mechanism for hiding activity that is harmful to the preservation of species and to preservation of habitats. And it becomes a mechanism to launder hunting, to hide unsustainable cattle ranching or other ranching. So, it's not easy. And there still is not just a need to set said good targets, there is still a need to really experiment with policies to have better outcomes than has often been the case.

DOLLAR: The last question I want to ask you, Vanda, is about wildlife trade. We are the trade podcast, so I did want to get to this. So, is international trade in wildlife an important problem, or part of this issue? Can it be part of the solution?

FELBAB-BROWN: Oh, I'm glad you asked about wildlife trade, the legal trade in wildlife and wildlife trafficking, poaching—illegally hunting animals and illegally trafficking them, are a massive problem. They are a massive problem for biodiversity loss, and they are a massive problem for the spread of zoonotic diseases. In fact, COVID very likely emerged as a result of either wildlife trafficking or wildlife trade. But the transportation and sale of animals and in fact, in prior iterations of some aspects of wildlife trade have produced zoonotic disease that reached a level of potential epidemic in about three years.

At the same time, you're also absolutely right, David, that sustainable, well-managed wildlife trade is a key part of the solution. Now, a lot of trade is deeply unsustainable. The prominent example is fishing. You have just a huge amounts of fisheries, which are crucial, fisheries are crucial for human food security, and they are absolutely unsustainable, and we are seeing enormously destructive fishing activities, illegal fishing, bottom trawling that threaten humans in a very, very direct, very immediate ways.

So, why is trade part of the solution, if it's well-designed, well monitored, well managed? Because it gives humans an incentive to preserve natural habitat. And that's sort of the ideal version of trade in wildlife. So, for example, if we can preserve a part of the African savanna and part of some African forest where there sustainable target set that X amount of antelopes for meat can be hunted and the meat is inspected, then the community of both big, powerful trading entities, industries, as well as local communities living around, will have an incentive to keep the habitat standing. If local communities and perhaps industries cannot exploit the habitat at all, it's protected and cannot be used, then there might be significant pressures to deforest the habitat, to use the timber to converted into production of soy, or production of African oil palm, or other kinds of industrial mono-cropping plantations, which often bring about 90-95 percent collapse of prior existing biodiversity.

So, trade and giving people economic incentives to preserve habitats and a whole set of, a whole component of the ecosystem are very important. The trick is if they are sustainably used, right? And here is where often the sustainability is lost in the execution and the human activity becomes the problem that shreds the habitat and over-exploits species.

Illegal wildlife trade is a crucial driver of biodiversity loss. It has been to a very large extent driven by China and Southeast Asia. The United States is often suggested that it is the number two after China consumer of illegally sourced wildlife. The data are not necessarily precise, but certainly there is tremendous use of all kinds of wildlife species—tigers, lions,

pangolins, frogs, lizards, snakes, in China and Southeast Asia, where they are shark fin, for example, where they are consumed for traditional Chinese medicine, something that China is very aggressively exporting, including through its New Silk Road. But they are consumed as aphrodisiacs or their components are used for clothes.

It's not unique just to Southeast Asia. In Latin America—I'm speaking to you today from Mexico—in Latin America, there is significant poaching of wildlife and the use of snake, lizard skins, furs for clothes, for cosmetic products like bags. So, there is a significant human utilization of wildlife that, if sustainable, could allow for preservation of natural habitats and biodiversity.

Even farming of wildlife might help sometimes if it takes pressure off poaching and hunting naturally occurring species and preserves the wildlife stocks. Often that doesn't happen. Often wildlife farming becomes a source of wandering animals that are poached into [ ] claim to be bred on farms. And sometimes you have wool farming and hunting and poaching going on at the same time and badly designed wildlife husbandry. But like farming itself a huge potential source of some of zoonotic diseases. So to the extent that wildlife farms exist, and they exist in China still today, they exist in the United States, they may need to be coupled with much better sanitary, veterinary practices to really make sure that zoonotic diseases like COVID do not become a pandemic within a very short amount of time.

Incidentally, while many countries have taken various economic and public health measures to suppress COVID, essentially no country, with the exception of China to some extent, has taken effective measures to prevent the emergence of the next zoonotic disease. What China did was to ban the consumption of wild animal meat and it disbanded farms that cultivated wildlife for meat. It keeps other farms, such as for pets or for skins and furs and clothing and other curio products.

But just about no other country took any measures at all. And wildlife trade has significantly increased during the COVID period. It's really why wildlife trafficking has significantly increased, and poaching has increased during the COVID period, and so we could easily find ourselves in this phase of COVID when we have another zoonotic disease emerging that could become a pandemic. So, we could be still coping with COVID, and we can have the new pandemic of another virus happening in the space of next year or the year after.

All of which is to say that we really need to start far more deeply and far more pervasively thinking about how our life on a daily basis and how big economies impact biodiversity. This is not about altruism. This is essentially about basic survival for humans that depends fundamentally on the preservation of other plants and animals.

DOLLAR: I'm David Dollar, and I've been talking to my colleague, Vanda Felbab-Brown, about biodiversity loss and the critical situation. It's linked to climate change, but it's a different issue and it seems to get a lot less attention than climate change. So, Vanda, thank you for shining a light on this critical issue.

FELBAB-BROWN: Thank you for having me.

DOLLAR: Thank you all for listening. We'll be releasing new episodes of Dollar and Sense every other week, so if you haven't already, follow us wherever you get your podcasts and stay tuned. Dollar and Sense is part of the Brookings Podcast Network. It's made possible by support from producer Fred Dews, our audio engineer Gaston Reboredo, and other Brookings colleagues. If you have questions about the show or episode suggestions, you can email us at bcp@brookings.edu, and follow us on Twitter @policypodcasts.

Until next time, I'm David Dollar and this has been Dollar and Sense.