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>> CATHERINE RIIHIMAKI: Have you been told, like I have, that solutions to environmental problems are not free?

>> REPORTER: Automakers claimed they would spend more than \$200 billion dollars to comply with the targets, potentially endangering more than a million jobs.

>> CATHERINE RIIHIMAKI: That the environment may be fragile, but so is our economy?

>> REPORTER: Is that tradeoff worth it? Is the harming of the U.S. economy that a lot of people point to, and the president laid out some of the reasons why, is it worth this end goal?

>> CATHERINE RIIHIMAKI: That we can't afford to address issues like climate change?

>> REPORTER: Critics say the sweeping new rules are yet another Executive Branch power grab that will end up driving up the cost of electricity in some areas by as much as 20%, while putting thousands of American jobs at risk.

>> CATHERINE RIIHIMAKI: My name is Catherine Riihimaki, and my guest today has no time for those arguments. Marilyn Waite is with the William and Flora Hewlett Foundation, working on clean energy finance. She leads the foundation's climate finance portfolio, and she'll tell us more about that in a minute. Marilyn, thank you so much for joining us on All For Earth.

>> MARILYN WAITE: Thank you for having me, Catherine.

>> CATHERINE RIIHIMAKI: I'm curious what your job title means, and if you can describe for me, a financial novice, what your work looks like at the Hewlett Foundation?

>> MARILYN WAITE: So the climate finance portfolio is all about mobilizing the capital we need to solve climate change. So we need at least one trillion U.S. dollars globally and annually to solve climate change, to meet the Paris Agreement by 2050. So that's our minimum, that's our baseline. And right now, we need to approximately double or triple the amount we're currently spending towards those solutions.

>> CATHERINE RIIHIMAKI: So, you know, that sounds expensive. I mean, do you, we sort of started with this idea that solving environmental issues are too expensive. Do you see that as kind of a net expense? Or are there financial benefits to that work?

>> MARILYN WAITE: So the good news is that we have all the capital we need to solve this. If you look at the global pools of capital, so the stock we have globally, we have over \$100 trillion sitting in our bank deposits. So our everyday accounts, people, businesses. We have \$130 trillion in asset ownership, so that's the pension funds, mutual funds, insurance companies primarily. Continuing along that, that spectrum, we have, you know, roughly \$300 billion in our multilateral development banks and development financial institutions. We have just under two trillion in our private equity funds, and we have about \$200 billion in our venture capital funds. So if we can mobilize, let's say even 1% of our bank deposits, we would have met that goal. So the problem is not the availability of capital. It's the pricing of risk, it's the perception of risk, it's the short-term thinking that dominates the sector. So we have the capital. It's actually not that much money when you think about how much we have available.

>> CATHERINE RIIHIMAKI: So that's interesting. I want to come back to the short term versus long term in just a bit. So but first, you know, what is the role of the Hewlett Foundation in all of that? Because they don't have that \$100 trillion dollars presumably.

>> MARILYN WAITE: Only one, only one. We only need one trillion, globally and annually. Yes, so we, we have a just under ten billion in terms of our assets under management, so yes, globally, philanthropy foundations represent less than 1% of asset ownership. So definitely cannot be solved through philanthropy by itself. What we can do is use our capital in innovative ways to show the market that this is not risky. That this can be done with profits at the right risk-return profiles. What we can do is fund enabling, enabling the environment and infrastructure to support sustainable finance, and so that's what we do.

So for example, on the venture capital end, there's a number of stumbling blocks, we call them valley of deaths, that stop technologies from being taken to market after research and development. And so we've put money into an impact fund called the Prime Coalition Impact Fund that has a climate impact-first thesis. So they will only invest in a startup whose technology or whose solution can mitigate roughly one gigaton of carbon annually at scale. Moving along to the asset owner, owners and managers, we are providing concessional capital to a fund managed by one of the world's largest private asset managers, BlackRock, to provide that guarantee, so that they can move their money into emerging markets for climate solutions. We are also helping, for example, to capitalize a new credit union in the United States called the Clean Energy Federal Credit Union. And this credit union is providing loans for electric vehicles, for distributed solar, rooftop solar, for energy efficiency equipment, for ground source heat pumps and air source heat pumps.

>> CATHERINE RIIHIMAKI: So is climate and energy really dominating this field? Are, is there room for sustainable finance projects for, say, agriculture or water or biodiversity?

>> MARILYN WAITE: Well, sustainable finance definitely is much larger than climate. I would say climate change provides us with that now moment, so we have less than 12 years now to really have an impact and mitigate climate change before we see the worst effects happen. So that provides us with the impetus to solve this. So if we, for example, replace our fossil fuel energy systems with renewable energy systems, then we can actually solve not only climate change, but we're also solving air pollution problems. So there's also intersectionality with solving climate change.

>> CATHERINE RIIHIMAKI: Yeah, that, that's interesting. So you know, are there different models for foundations, you know? Hewlett Foundation is not the only group working on sustainability issues. Do you see other philanthropic groups having an impact?

>> MARILYN WAITE: Absolutely, and there's a lot of collaboration. We have a number of funder collaborations informally and formally, and so we definitely collaborate with others on mostly everything we do. We are one of the foundations that will make public our strategies, so oftentimes we become leaders in galvanizing others and bringing people together so that we can have more impact on whatever we're trying to achieve. So for example, there's a climate finance partnership which I alluded to before where the IKEA Foundation and the Grantham Foundation is joining us, the Hewlett Foundation, in actually providing this concessional capital along with some DFIs, development financial institutions, to private asset managers' managed assets. We're also working with others on something called the Platform for Carbon Accounting Financials, or PCAF, P-C-A-F, and that is a carbon accounting methodology and tool that's completely bank-led, allowing the banks to actually measure for each asset class, their carbon intensity, and disclose that. And then agree to reduce that year on year to meet the Paris Agreement.

>> CATHERINE RIIHIMAKI: You know, you've mentioned the Paris Agreement a couple times. Are you optimistic that we can reach those targets, given the right kind of financial instruments?

>> MARILYN WAITE: I have to be optimistic [laughter].

>> CATHERINE RIIHIMAKI: Me too.

>> MARILYN WAITE: I think that we can, this is definitely in reach. We have, we know what we have to do. That's the good thing about it. We know exactly what we have to do. I also was one of the senior research fellows at Project Drawdown, where we modeled and forecasted the top 80 solutions to solving climate change. We, we know the cost of it. We know how much we can mitigate from it. We have the road map. We just have to now execute on that, and have the financing and investment to support that. I don't think you can solve it with just finance and investment. You also need policy. You also need behavioral change, so it's really an all-hands-on-deck kind of problem, which makes it a wicked problem. But I have to be optimistic that we can get this done.

>> CATHERINE RIIHIMAKI: Absolutely. I'm wondering if we can kind of zoom out a little bit, and just think about some of the conflicts that I think arise in finance generally, and maybe in sustainable finance specifically. You know, it's always struck me that when it comes to finance, there's kind of an inherent conflict between shareholder interests and societal interests at large. Do you see those conflicts? And how do you try to navigate that?

>> MARILYN WAITE: So shareholders can be short-term thinkers. Not always, but they definitely can be, and so corporations have to look beyond shareholders. They have to look at employees, and they

are driven by that. They have to look at customers, and they are driven by that. I really like the definition of a stakeholder by the Project Management Institute, which is about perception. So any institute that perceives themselves to be impacted by your business is a stakeholder. And so corporations really need to look at the wider stakeholder, not just the shareholders. And definitely for the shareholders, especially the large passive investors like Vanguard, they can step up and vote in favor of resolutions that bring ESG - environmental, social, and governance - factors and climate scales to boards.

>> CATHERINE RIIHIMAKI: Do you think that, you know, shareholders really need to become better educated about what the companies they're investing in are doing?

>> MARILYN WAITE: Yes, well better educated. Also companies have to provide that information, right? So there's a data transparency issue. One initiative currently underway is called the Climate Action 100+. So, an analyst at one of the largest pension funds was looking at the carbon intensity of their, of their assets. And the companies, and they found that actually roughly 80% of emissions was coming from these top 100, 150 companies globally, publicly listed companies. And so the idea is that if you could focus on those, you know, relatively short list of companies, and work with the investors, and the investors then work with their companies to work on decarbonization plans, you could actually have a concentrated way of decarbonizing quickly. And so that's what the Carbon Action 100 Campaign is all about, and so they are actually working with the shareholders of these companies to decarbonize. And that starts with having this data transparency around the carbon emissions of those companies. Both the direct emissions and the financed emissions, if you're a bank, for example.

>> CATHERINE RIIHIMAKI: You know, do you also see sort of conflict on a, I guess the way I think of it is a temporal scale, so generations, older generations versus younger generations. I think you're a millennial, so you may feel that generational conflict in particular. You know, how, how does that get navigated, given sustainability goals that may be far-reaching, impacting people of different ages differently, and people who aren't necessarily born yet?

>> MARILYN WAITE: So I'm an old millennial.

[Laughter]

Definitely sustainable development forces us into the intergenerational conversation. It's all about what current generations are borrowing from future generations. And we see this playing out with student protests and younger generation lawsuits. So there is definitely that element, and I think we need everyone at the table. Like I said, all hands on deck. So people from all different backgrounds, all geographies, and all generations at the table to solve this. We can't really have solutions that only pertain to one generation or another. Because really, this is about the future generations.

>> CATHERINE RIIHIMAKI: You know, Silicon Valley sort of has this reputation of not being necessarily a diverse place. I think that you know you and I have talked about that being true for venture capital efforts, that they're not diverse, and the environmental world is not a particular diverse place either. Do you find that in dealing with a wicked problem like climate change that that lack of diversity

is problematic?

>> MARILYN WAITE: Absolutely! So less than 5% of venture capital in the United States goes to women-led startups. And when you add color to that, it's closer to 0%, and so I don't know how we do anything with 0% of the population, right? It's astonishing, and we know that there's higher return on equity for companies with high gender and ethnic and racial diversity. We, we have the data, we know it. So there's really no excuse. Men and women have to start investing in women and black, indigenous, and people of color at a much bigger scale. I think it's very ironic that the environmental community is still struggling with diversity, equity, and inclusion because biodiversity is a core tenet of environmentalism. And we know that ecosystems die with monoculture. If all the plants are exactly the same, it's not a healthy ecosystem. So we should definitely be the leaders, on the contrary, of incorporating diversity, equity, and inclusion in our society, in our organizations, in our companies.

>> CATHERINE RIIHIMAKI: You know, have you found being in Silicon Valley, I don't know, the way I describe it would be or think about it, is this tech mindset that, you know, we have the, the answer, and that answer is about disrupting the old ways of doing things?

>> MARILYN WAITE: It's interesting because you said the word "disruption," and what is encouraging about the current financial system is there is this positive disruption happening, and it's not really coming from Silicon Valley. It's coming from different parts of the world and different parts of the country. So there's a network for banking institutions that are pushing sustainability. Some are B-corps, some are benefit corporations, some are members of the GABV which is the Global Alliance for Banking on Values. Some are credit unions. So we're witnessing these innovations, global advisory and other fin/tech solutions that support sustainable development goals like climate change. So we're seeing that throughout the country and throughout the world, and it's not really concentrated here in Silicon Valley for that financial disruption or fin/tech solutions around climate change innovation and sustainability.

>> CATHERINE RIIHIMAKI: I think that's a great segue into where I want to finish our conversation today which is thinking about practical solutions that our listeners and I can take. And my first question along those lines is whether you feel like the onus is on institutions, or is it on individuals and the individual decisions that they make?

>> MARILYN WAITE: So back to the all hands on deck, I think we have to have both. Top down, bottom up, sideways, it has, it has to all come together. And so the various practical solutions for each person, one of the simplest things you can do is bank with a sustainable institution. A credit union, a bank like Amalgamated, Beneficial State Bank, Bank of the West, Clean Energy Credit Union, Self-Help, all of these are, are fossil-fuel-free, and many of them are mobilizing this capital directly for climate change mitigating solutions. So they are actually investing in resiliency and a future that we all want to be a part of. For those with direct contribution plans, so 401k's, 403b's, I would ask for an ESG fund, environmental, social, and government, governance fund. One that is preferably fossil-fuel-free, but at the very least, underrates the extractive industries. I would choose a fossil-fuel-free insurance like Lemonade. I mean, there's talk about disruption happening. You know, insurance companies represent roughly one-third of asset ownership. And they both underwrite that climate risk, and they invest, and they can, they have a choice in their investing, and they can invest for the solutions,

or they can invest for the activities that are exacerbating climate change. And don't forget, it's your money. Whether it's in a pension fund or your, or the savings, or it's in your bank account, it's your money. It's doing one of two things: it's causing harm, or bringing about healthy communities. So take charge of it. That's what I can tell anyone listening, whether you're a current student or a professional working. Whether you're a household or you're a company, business, startup, small, large, public, private: you can take charge of that money.

>> CATHERINE RIIHIMAKI: And presumably there are resources online for helping people to guide people in how to best invest that money?

>> MARILYN WAITE: Absolutely! And I have put a lot of resources on my website, MarilynWaite.com.

>> CATHERINE RIIHIMAKI: Perfect. I was teeing that up for you. [Laughter] You know, I just have one, one last question which is about our, our shared connection here. You know, we're both affiliated with Princeton University and institutions like Princeton have a tremendous amount of money. In the case of Princeton, a large endowment. There's been a lot of discussion over the last several years by students and others that Princeton should divest from fossil fuel supporting funds, and proactively invest in green funds. It sounds like you're an advocate for that, and that that's something that would be very positive for the environment.

>> MARILYN WAITE: So I would follow the lead of Middlebury, and gradually wind down fossil fuel holdings. I mean, they were also originally against any form of shifting their portfolio. I think the GMO analysis and others are clear: when you divest from oil or chemicals, it will cost you a few tiny basis points of deviation. And so there's really, there is no reason financially to keep coal assets today. So it just makes good financial sense as well. And then for those assets that you hold that are, for example, with the utility. So supposed source-agnostic firms, work with them to fund and finance that transition. So swapping, you know, coal plants for wind farms, for example. I think there could be a more active role in that transition as well, which is also teeing up the corpus, or the endowment for long-term sustainability.

>> CATHERINE RIIHIMAKI: Great, well Marilyn, thank you so much for all of this practical advice. I know I personally need to go look at my bank accounts. And you know, a really fascinating conversation. I, I want to wish you the best of luck with all of your efforts in sustainable finance and beyond.

>> MARILYN WAITE: Thank you, Catherine.

>> CATHERINE RIIHIMAKI: Marilyn Waite is a sustainable finance expert, and author of the book "Sustainability at Work: Careers that make a difference." Please follow her on Twitter @WaiteMarilyn. That's w-a-i-t-e, m-a-r-i-l-y-n. Or her website, www.MarilynWaite.com.

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there will be many more experts in all aspects of the environment and sustainability. Until then, be well.

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