



**The Brookings Institution  
Center for Sustainable Development**

**and**

**The Rockefeller Foundation**

**17 Rooms Podcast  
“Making human waste a resource at scale”  
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*Episode Summary:*

In this tenth interview of the “17 Rooms” podcast, Letitia Obeng and Jennifer Sara discuss reframing sanitation from ‘out of sight and out of mind’ to a resource for humankind. Obeng, chair at the Water Integrity Network and Sara, global director of the Water Global Practice at the World Bank, moderated Room 6 focused on Sustainable Development Goal number 6—on clean water and sanitation—during the 2021 17 Rooms flagship process.

**MCARTHUR:** Hi, I'm John McArthur, senior fellow and director of the Center for Sustainable Development at The Brookings Institution.

**KHAN:** And I'm Zia Khan, senior vice president for innovation at The Rockefeller Foundation. This is 17 Rooms, a podcast about actions, insights and community for the Sustainable Development Goals and the people driving them.

**MCARTHUR:** So Zia, how are things today?

**KHAN:** John, this is a morning of simple pleasures. I've got a hot cup of coffee in this new thermal mug that I bought, which is just perfect for keeping it warm through the morning.

**MCARTHUR:** Well Zia, that's a perfect segue, because when you had that coffee this morning, you might not have thought about the clean water that goes into making it because it's out of sight and out of my mind. As long as you get the water, the coffee gets made. Well, today we're going to talk about the large number of people who don't have access to water around the world, nearly a billion people, and the two billion plus who don't have access to sanitation.

**KHAN:** That's right, John, and in this episode, we're going to learn and hear about how water and sanitation issues can be reframed not as a problem, but as a resource to help address climate change and many other issues in ways that I never would have thought about.

**MCARTHUR:** In today's episode, we're joined by Letitia Obeng and Jennifer Sara to learn about their efforts to reframe sanitation from an out of sight and out of mind issue to a resource for humankind.

Letitia is a longstanding leader who chairs the Supervisory Board of the Water Integrity Network and spent decades in leadership roles within organizations like the World Bank Global Water Partnership and WaterAid America. Jennifer is currently global director for the World Bank's Water Global Practice, where she oversees a portfolio of, wait for it, 25 billion dollars in water related investments, analytical work, and global partnerships. Full disclosure to our listeners, the World Bank is also a financial supporter of Brookings. Everyone's opinion expressed today is their own.

So, Jennifer and Letitia co-moderate Room 6 in the 17 Rooms process. It's the working group for Sustainable Development Goal number 6 on clean water and sanitation. For our new listeners, 17 Rooms is an approach to spurring action for the Sustainable Development Goals. It convenes 17 working groups, one per SDG, and asks them to focus on an area within that goal that's ripe for action and to define some concrete next steps that can be achieved in 12 to 18 months to make a difference.

**KHAN:** And, John, these two were just fascinating. Individually, so deep and so knowledgeable, collaborated together in innovative ways, drew on their Room to come up with a completely new framing of the problem that I had never heard about. Jennifer and Letitia are co-moderators Room 6, the working group for SDG 6 on clean water and sanitation. And let's jump into their story.

**MCARTHUR:** Jennifer, terrific to have you here.

**SARA:** Thanks, John. It's great to be here.

**MCARTHUR:** And Letitia, so glad to have you here too.

**OBENG:** I'm really happy to be here. I'm looking forward to our conversation.

**MCARTHUR:** Well, we like to dive right in, so let me hand it over to my partner, Zia, to kick us off.

**KHAN:** John, thanks so much. Letitia and Jennifer, I'm so excited to have you here for this conversation, and one of the questions we like to start off with is just to understand your personal journey. You know, how did you start to care about this really critical topic? And how did you get connected to 17 Rooms? And maybe, Jennifer, if we could start with you and then go over to Letitia?

**SARA:** Yeah, thanks, Zia. I'm really, really happy to be talking about a topic I care so much about, which is water and sanitation, which is Room 6. How did I get here? My journey started off, actually I studied environmental engineering at university. I took a class, it was called the burden of disease in developing countries. And in that class was all pre-med students and there were only two engineers. And I'm always going to remember Professor Stanley Aronson, I remember his name, saying, if we want to make a mark in the world on the burden of diseases, it's not our pre-med students who will do it, but it's the engineers. And you need to work on water and sanitation.

So I took that to heart, I took a year off, but I worked in the Navajo reservation in United States on water issues, and noting today with the COVID 30 years later, many, many of the Navajo Nation, United States, still don't have water. And then I joined the Peace Corps after college and I lived in Liberia in a village for two years, and the village had no running water, no sanitation, no roads, no electricity. I'm always going to remember every evening we'd walk down to the watering hole, and it was a pond, and we'd have to move the dirty water out the way and get a bucket and fill it up with water. And it's all women and children, not too many men can carry the water. And I remember at that time how water and sanitation is just so much part of our common humanity. It just brings us all together.

And so fast forward about, you know, 30 years later, I came back and joined the World Bank, and I've been working at the World Bank on water and sanitation and infrastructure issues for so many years. And one of the first people I met at the World Bank was actually Letitia Obeng. She guided me from day one when I worked at the Bank, and she's been my mentor ever since, then partner, as we really wanted to put forth the water and sanitation agenda.

How I came to know the 17 Rooms is that in the last about three, four years ago, the UN secretary-general—at that time it was Ban Ki-Moon and the president of the World Bank, Jim Kim—created a high-level panel for water and sanitation because they realized the world was just not paying attention to water and sanitation. And so we worked for about a year and a half with 11 heads of state to try to bring a greater global visibility and political attention to the issues of water and sanitation. We did a very nice report, and through that I got very involved in the SDGs in general and came to know of the 17 Rooms and was invited to come and moderate the room. And I've been very pleased to be able to have co-moderated this room with Letitia for the last two years.

**KHAN:** That's fantastic, Jennifer, and I'll have to remember your professor's code as a former engineer when I next work with doctors on saving the world. Letitia?

**OBENG:** Well, I finished my Ph.D. in public health and water resources engineering and did some post-doc work on waste management. And I got the opportunity to go to the World Bank—this was back in 1982, so I've been around for a while. And my boss at the time was managing a bunch of projects focusing on delivery of water supply and sanitation services to the poor. Nowadays, we would say we're focusing on leaving no one behind. But back then his attention was on community participation, community engagement, hygiene education, getting women involved actively in water supply and sanitation for themselves. And it became very clear to me in working with him that water and sanitation were crucial to sustainable development, crucial for everything that we do in whatever sector we're working. And that sort of has grown with me over the years. And I also saw that every sector, every development sector thinks of themselves and their sector as the one that is crucial for life.

And over the years, what I've tried to do is to engage with the other sectors that use water, whether it's education, health and agriculture, et cetera, to try and get us to partner, to think through how we share this very precious resource, which is finite, in such a way that it benefits everyone. And that in such a way that the quality of lives of the people that we're trying not to leave behind gets improved.

So briefly, that's sort of the overview of my passion about water supply, sanitation, and more broadly, water management because it's so crucial for everything we do. And as Jennifer said, we got drawn into 17 Rooms and we've had a lot of fun with it. We've known each other a long time, we've worked together a long time, and we're both passionate about improving the quality of lives of those who are less fortunate than all the rest of us.

**MCARTHUR:** It's amazing to hear your personal stories, I've never heard it before. And you're at this stage inside and outside of the World Bank and such leaders and for so long on this issue. At the same time, you were describing, Jennifer, the need constantly to raise awareness. And even you get the heads of state and the secretary-general, the president of the World Bank to say, Please pay attention! I'm curious, what do you think is the missing piece that people don't get of why it's so important? How does this fit in or is it just that it's too obvious? Or is it that there's something that people are missing?

**OBENG:** I think a simple answer to that question is that we take it for granted. Everyone takes water for granted that has it. Those that don't have it do not take it as much for granted, but they don't have it, and that's who we're trying to help. But the rest of us, you turn on the tap, use the water, leave the shower running. You take it for granted. It's always there. It's available. And so when you're thinking about working in education—you're thinking about education sector, we've got to get the books to the classrooms and so on—we forget that if there aren't toilets and if there isn't water available for the students at school, that many of the girls aren't going to show up. And so your objective to educate them goes out the window.

**SARA:** Definitely that's one point is that people take it for granted. But even in addition to that, water and sanitation are really difficult to solve, even though we must recognize SDG 6 actually has what was called an accelerator framework. And last summer, I mean, we had every single head of every U.N. agency committed to an SDG 6 accelerator. And this was right after COVID, this is in the high-level political forum of the summer before last. I guess

that was in the summer of two thousand and twenty when COVID hit, when everyone said, wash your hands and everyone realized, well, you need water to wash your hands. We finally thought, well, aha! This is our moment. People are committing. So we can have high-level political leadership, high-level political commitment.

But translating that into action on the ground and financing doesn't materialize because it's so complicated, because water and sanitation are such localized solutions. Usually, it's local government, it's not a national program. There are very heavy investments that need to be made and very complicated because you need to run systems. It's the institutional side. It's easy to build a system, but to keep the water flowing, to keep the toilets running, to treat wastewater—they're capital intensive, they're localized decisions. So that makes it very, very difficult on the one hand. The other thing that is very, very difficult is that water is a public good and private good, it's not really clear. So water's out in the environment, it's not clear the ownership, it flows in different ways. It flows, as Letitia said, through every single SDG. It's used for agriculture, for energy, for cities. People pollute the water, there's no cost. So it's a very, very complex sector in that sense.

**MCARTHUR:** I do love the water as PPE, a phrase you guys taught me, you know, personal protective equipment, which was such an acronym everyone knew in 2020, we don't use it much anymore. But it's so true, water is the ultimate PPE. But you this year in Room 6 focused on sanitation in particular, and the way you've been talking, we've been having this conversation so far is water and sanitation. But here you're really drilling in on the sanitation issues. Tell us a bit more about that. Why did you pick the sanitation side this year as the entry point for what you want to take on?

**SARA:** Last year, we decided just to focus on water, because, as you said, water is PPE. But sanitation is always the poor cousin of water. I actually learned that from Letitia when I first joined the World Bank, because I was always talking about water and not sanitation. People don't want to talk about sanitation. And one of the subthemes for our Room this year, the slogan, is we always say "sanitation, out of sight and out of mind." People just want to get rid of it. And what we tried to do this year is we're trying to change it and turn it on its head. We're saying sanitation, out of sight and out of mind, but as a benefit to humankind. And what we tried to do this year is really turn the whole way that we look at sanitation on its head and look at sanitation as a resource. And maybe I'll let Letitia complement what we mean in sanitation as a resource.

**OBENG:** So sanitation as a resource. Have you ever heard of the word composting? Have you heard of the word fertilizer? Well, human waste can be used as a fertilizer, and if it's used as a fertilizer, you get better crops—it's a natural fertilizer. And so you can then be able to grow better quality crops, and we can help to feed people better and start to help with dealing with the problem of food security. So you can use sanitation or human waste as a fertilizer.

Human waste also is something that pollutes, it pollutes receiving waters. When you have sewage and you flush the toilet water flows away, it then goes out, if it's treated that's fine, if it's not, it goes out into streams and rivers and lakes, et cetera, polluting them. But if you can clean and remove those wastes and treat them, then human waste can actually help to give us more clean water, from that perspective.

Human waste is also something that I got to learn about a lot more in Room 6 this year, is also responsible for greenhouse gases in a way that most of us have never recognized. And the contribution that human waste produces to the greenhouse gas agenda is huge. And so you could actually work on having the human waste be something that provides a benefit, and we can get carbon credits, and so on. That would help with financing of solutions to waste management and waste treatment as well.

**SARA:** That's exactly what we tried to do in Room 6, and with the people in the Room is to identify what all the benefits were. And basically what we did see is that treating sanitation and human waste, you can generate energy, you can generate new water, fresh water, and many cities in the world are actually recycling wastewater and reusing it as water. You can make fertilizer, as Letitia mentioned, but also the carbon credits. And carbon credits is something very, very new. And it's not just carbon credits, it's methane. And methane is very, very important, as you might have just seen, and just recently, one hundred countries have committed to reducing methane emissions at the COP. So there might be something here, where we can really turn the sanitation on its head and look at benefits of sanitation.

**MCARTHUR:** Zia, this sounds like we're getting into your innovation territory. Carbon credits for human excrement as a new frame. We're talking about cows so much with methane and everything else, we're not talking as much about humans. What do you make of this, Zia?

**KHAN:** Well, I find it fascinating, and I always love it when a problem gets reframed in this kind of way. And I think this story over the past couple of years, very simplistically as we had a big shock with the pandemic. And I think water as PPE was a very novel response. And now everyone's paying attention to the stress of climate change in I think a greater way than maybe before. And so my question now is, let's take carbon credits as an example, you know, and as you've touched upon, water and sanitation touch so many issues. And this is, you know, an interesting issue now because it's so topical. For people who are focused on carbon credits when they look at the long list of levers that they might have, how important could water and sanitation be for them? I understand it as a benefit when you're working on water and sanitation, but for someone who's trying to optimize around, say, carbon credits, you know, would this be kind of a really under looked opportunity or is it going to be something a little further down the list?

**SARA:** Maybe if I could just start off, I mean, that was the benefit of the 17 Rooms process because we actually had Barbara at Leeds and we had some researchers who had been doing research. It's not even published, right, that she brought to the Room, starting to look at what the carbon benefits could be. You'd have to figure out how to translate it into carbon credits, right, in the markets. We'll see where we emerge on the carbon markets. But just being able to quantify and articulate that 9 percent of methane emissions in the world today are coming from human waste. And interestingly enough, they're coming both from treated human waste—so the wastewater treatment process is generating methane—but untreated waste, of course in many, many of the countries that we work in, we don't even have clear wastewater treatment systems. So both of these are contributing a huge amount. And so I think the real interesting part now is how do we move forward and translate this science and the knowledge into translating into where we might be able to find opportunities for finance and reduce methane, but at the same time, gather finance to invest into sanitation solutions.

**MCARTHUR:** Letitia, you might have something to add on this.

**OBENG:** Yes, and I just wanted to say something about something that was different, perhaps about our Room that helped us to think and talk a little bit more about these issues. And that is that we didn't have a bunch of sanitation people in the room. What we did was we brought people who we thought could innovate, think out of the box, and help us think through the potential opportunities that looking at sanitation as a resource could bring.

So we had people from the private sector. We had IFC. We had people who are doing research—Barbara Evans's research on carbon credits, she was part of the Room. People from municipalities, from cities, from utilities, from water and sanitation organizations. So a very broad mix of high-level professionals, half of them didn't do anything, necessarily with sanitation, but who could think about the potential of sanitation contributing to what they are working on. And therefore then human waste becoming a resource for them. And it comes back to what I was saying earlier on at the beginning that this subject is so important, water and sanitation are so important to everything that we do, that we've always tried, at least in our two years in the Room, to bring others to the table, to think about it and talk about it so we can try and find a common way forward. Because, as Jennifer said, this is not an easy thing to do. It's very difficult to get this sustainable delivery of these basic services that are crucial for humankind.

**MCARTHUR:** This is so interesting for me at least, and maybe for Zia, too, and our teams because we spend a lot of time thinking about how 17 Rooms can be helpful for getting diverse cross-sections of people together to think about problem solving. In a certain sense, your Toom is taking that to the next level by saying, who are the people who don't normally think about water and sanitation, but who rely on water and sanitation, they're kind of the ultimate demand side equation, the real users. And it seems to have been quite powerful, as you were describing, even for informing your own thinking, if I'm understanding correctly, about how these other constituencies can use in a new way your services from the water and sanitation community. I'm curious, as people who have spent so long in leadership positions in these in this domain, what do you see as the type of conversation that's needed to take these issues forward? Have you learned anything from the 17 Rooms process that you think has broader relevance for water and sanitation?

**SARA:** I mean, what we're trying to do here, and Letitia was saying the we people brought in the Room, we also brought in someone who works on fertilizers and understanding their work on chemical fertilizers, why can't you use natural fertilizer? And same with the energy sector. So understanding, like you said, John, at the end of the day, what we wanted to do in our Room, in our follow up action, and what we're actually going to take forward, is we're looking at the economic case and the business case to rethink sanitation. How do you look at waste as a resource? And we can't do it by talking to people in the water and sanitation sector. So we need to look at it at people who will use it as a resource, and we need to understand the business model. Of course this will be a public-private sector initiative, and very, very much involve cities, city governments, and people, I mean, the users of sanitation. And a lot sanitation is also off-site sanitation, household sanitation. And looking at the whole supply chain from the very beginning, all the way to the end to the reuse of it.

So I think that's what the 17 Room does, is it brings in the public sector, the private sector. But really, how do you take this forward? And for us, for me, it's taking it outside of just a public sector angle, because that's what we really need to do is look at economic case, but

business cases. And I think that was, for me, a really big outcome of our discussions this year.

**OBENG:** And if I may add, I mean, we also had a lot of energy in our Room about the technology, people sort of wanting to talk about technology. And a lot of technologies and approaches that might be used and expanded on and scaled up, et cetera, already exist. So it's not so much an issue of, you know, let's find the right technology. It's much more what Jennifer saying about building that business case and building an economic case that would then underpin whatever work that that may be done.

**KHAN:** We're always so energized around these conversations. You bring different perspectives, different disciplines together, and you discover sort of new takes. It can also be hard. And I'm wondering, as you are going through this Room process, which isn't a lot of time, you know, there's a handful of meetings and we're trying to make really rapid progress respecting everyone's time. I'm curious, were there particular just barriers in the conversation or some tough spots that you had to really break through and push through? Both in this Room but I also think this would be kind of an interesting lesson for all of us who are trying to figure out how to partner more effectively, do cross-sector initiatives, et cetera. Maybe we could start Letitia with you and then Jennifer, your thoughts.

**OBENG:** Yeah, that's a that's a good question. I mean, our conversations, everybody was engaged. I think some of the early challenges were, you know, I'm not really sure that there's anything I can contribute because this is about sanitation and that's not my field. I think maybe Jennifer, I don't know if you agree, but that was sort of one of the messages that came through. But I think they were persuaded that maybe there was something that they could contribute because this is something that could be of benefit to them in that particular field also.

**SARA:** Yeah, that's interesting, Letitia. I thought what was really good in our Room, the two of us co-moderated, but Monika Weber-Fahr was really, really helpful in doing the background documents. We actually organized on the side several technical discussions and sent some documents to those who were interested in reading them.

I think what was a big challenge at the very beginning was when we were trying to refine what we wanted to focus on in sanitation, everyone came at a different angle. Some people really cared about the universal access—let's talk about getting sanitation, household sanitation, in every city in the world. And we were saying, no, let's just try to only focus on looking at it as a resource and looking at it outside the sanitation sector. So I think our first meeting was trying to herd the different ideas into agreeing we're only going to focus on a subset, we're going to only look at sanitation as a waste to resource, and not the whole universal access, we're not going to look at water. And so that was important, I think, at the beginning to refine into something that was a bite sized piece, if we can call it that, where we could then go into an articulation of a problem statement and towards the next conversation on a solution space.

**MCARTHUR:** And how do you see that, or this moving forward next year? We like this question of what something that could be done next year to help move it forward. You've talked about the business case, the economic case. Jennifer, you've got a pretty big portfolio that you're overseeing at the World Bank day-to-day right now, and Letitia, you have your own massive array of activities and responsibilities. How do you think about taking



something at such a big reframe, and even you take that bite sized piece, it's still a huge amount of work—what are the next steps look like to help move it forward? What do you see as something that the world should be watching for as a sign of progress on this?

**SARA:** Yeah, and I think, you know, it was really wonderful also to hear at the wrap up meeting to hear the UN under-secretary general give this big priority. And she understood it, this importance of reframing. And because now because of COP, the timing where we are right now, we started very, very quickly to try to repurpose everything we say about sanitation to include the intro dialogue at the country level and to make a case for investing. So for us, what we're learning from the 17 Room process, we immediately feed it right back into our day-to-day work in mobilizing our teams, and we continue to work with some of the members of the Room who showed interest. So, yeah, I think for me, it's been very, very beneficial in that sense.

**OBENG:** And if I may add, I mean, the fact that Jennifer is able to be able to take this up and run with it and then show others who could do the same thing, that this is possible and that there are opportunities out there, I mean, that to me is a big win. And for my part, I mean, I'm semi-retired, retired, but I will continue to advocate and continue to think about how to get the different people at the table to get them to see that there are opportunities here. I mean, sanitation, shit, if I can use that word without anybody being upset, can actually be a resource instead of something out of sight, out of mind.

**MCARTHUR:** And, Zia, it's so interesting for me listening to Jennifer and Letitia talk about this because this notion of how policy change happens and how ideas happen, how reframes happen. And very sincerely, we're not fishing for compliments here at 17 Rooms, we're trying to understand it ourselves to see what works, what come together, what's hard, what doesn't work. And you just described this zoom out approach of connecting with diverse people to then pretty quickly, it sounds like, bring ideas back in, but there's obviously a huge amount of hard work to then push the insights forward. But this is exactly the form of causality that an econometric regression would have trouble finding, speaking as an economist. And I'm curious, Zia, how you reflect as someone who thinks a lot about the innovation process, what we've heard today. We don't have too much time left, but how does this look to you or what do you make of it in terms of how we think about policy or outcome change in SDG world?

**KHAN:** It's interesting, you shared a perspective as an economist. And John if I could share in a perspective as a former fluid dynamicist. So Jennifer, Letitia, if there ever is work to be done on the Navier-Stokes equations, give me a call and I'll jump in. Hopefully that won't be necessary, then we'll know the Room is in trouble. But I've been thinking about this, John, sometimes I see 17 Rooms where we are gardeners and we've got 17 plants growing and we're learning from every single plant. And as long as we kind of get a little bit out of the way and let really kind of creative talented leaders go forward, I learned a ton just from this conversation what actually happens in a Room and how to spark that.

But from my perspective on the innovation side and when it comes to policy, I think it's just having faith in get a group of people together with two strong leaders and some kind of construct, great ideas are going to come out. You know, like I would never have thought of connecting sanitation to carbon credits. That is just really, really interesting. Maybe this comes as no surprise to people working in sanitation right now, but for me, as sort of like a casual generalist across a lot of these issues, that would not have come to my mind. And it

seems to solve that issue with sanitation that we started this conversation with, which is when it's working well, no one's paying attention to it, you know. And when I even just think about my Brooklyn building here, when the water was shut off, everyone was going nuts, you know? But no one thinks about it or pays attention to it otherwise. So, I've just been really kind of thinking about, John, to your question around innovation specifically, kind of creating the conditions for emergence, and what's that balance of thinking of it as a garden and nurturing, but kind of getting out of the way and letting experimentation happen is what's really struck me here.

**MCARTHUR:** And the flip side, just to chime in quickly, Zia, no one wants to just have a chat. And there is something about how to create a good idea rather than just have a conversation that is spinning. And it seems like Jennifer and Letitia, with your community in the Room have really had a productive conversation that sparked some new ideas and created some new potentially approaches that could lead to instruments and policies down the line, which is invigorating for us and gratifying, I'm sure, for 17 Rooms community. I'm curious, we have to start tying up, but maybe you can share with us your thought of what success looks like in a domain like this by 2030. Not on a business-as-usual trajectory, because none of us are interested in that, but on more of a breakthrough. What does a big step forward look like by 2030 if this this reframe works, where could we go? Jennifer?

**SARA:** I mean, I get up every single morning and I think about universal access. So at the end of the day, I mean, every citizen in this in this world, right, having access to safe drinking water and sanitation and safe sanitation, it's just that's what keeps me going. And I think that it comes back to SDG 6 or part of SDG 6. But that's what it's about. At the end of the day, it's getting services, basic services, to everyone in the world in a way that we don't pollute our planet and destroy our planet. But Letitia, I don't know, I'd be curious to hear what you have to say on that.

**OBENG:** So, yeah, Jennifer, you and I used to talk about sanitation and the importance of that for so many reasons. And it brings me back, the thing that is always in my mind is the fact that this water supply and sanitation about people and getting people the kind of quality of life that each and every one of us deserves. And a very good friend of both Jennifer's and I many years ago had a definition of this term that everybody uses now called water security. And he talks about it as the availability of an acceptable quality and quantity of water for health, livelihoods, ecosystems, and production, while at the same time making sure that there's an acceptable level of protection, let's say, from risks like flooding and drought and big storms, for people, for the environment, and for economies.

And it's a lot of words, but it's basically saying that it's working to make sure that people have what they deserve, the quality of life that they deserve for themselves and for their children and everything else. And we'll continue to work to do that. And I believe very strongly that that can only be done, even though it is hard, if all the development sectors work together on this. It can't be done by just one sector alone. And so we'll continue to push to get different people, diversity across the table, to join in and to engage to make sure that we can move that agenda forward so that people will have water security.

But the specific answer to your question about 2030, as part of the learning that I got from being in the Room that we were in, the nationally determined contributions that every country has, very few of them actually recognize the fact that human waste is a big contributor of greenhouse gases. And maybe by 2030, if the leaders of those countries that don't yet see that

actually have and ensure that that is a part of their dialog, a part of their consideration, that would be a huge step forward because it will help us all to think about sanitation in a different way.

**KHAN:** And that maybe brings us to my last question here, you've referred to what you're hoping leaders take away. If you think about listeners to this podcast, if I could ask you the unfair question, and it's unfair because of the richness of your creativity and the problem, what would be the one thing that you hope listeners could take away from this podcast? Maybe, Jennifer, if we could start with you and then over to Letitia?

**SARA:** Well, we'll start where I started off. You know that sanitation should be out of sight and out of mind. I mean, every single day, every one of us, as Letitia says, it's a bodily function that we do every single day, and it's polluting our planet if we don't treat it in the way that it needs to be treated. So pay attention to sanitation, and it's so much about human dignity and health and so many other issues related to it. So we always think of the human face that's behind what we're trying to achieve.

**OBENG:** If I may add—If you have running water at home, or you have a toilet that you flush, count yourself lucky that you have those things because there are so many millions of other people who do not have that. So the next time you turn on your tap or you flush your toilet, just stop and think about that person, that girl, that boy, that mother, that father that does not have those basic things that you take for granted and say, Is there something I can do? Is there something I can say? Is there someone I can ask about what are we doing to help those who we are leaving behind, so that they can have not a fancy toilet with all the bells and whistles, but just a basic, safe place so that they can dispose of their human waste in a way that will not cause harm down the line? And so ask yourself that question, what can I do to help?

**MCARTHUR:** What a terrific place to bring us to a close. So, thank you so much, Jennifer and Letitia, and Zia and I, I think, have had an amazingly enriching experience just in this conversation, let alone all the ones before it. So a huge thanks to you, and we're so grateful that you've been able to join us today.

**SARA:** Thank you so much for having us. It's been a pleasure.

**OBENG:** Thank you so much for having us. We have fun doing things together, so thank you for giving us another opportunity to do that.

**MCARTHUR:** We can tell. We can tell.

Well, Zia, that was pretty cool. I learned a lot. How about you?

**KHAN:** That was fascinating, really, really fascinating.

**MCARTHUR:** One of the things that stood out to me was this notion of 9 percent of methane coming from human waste. And that having just come out of this big global climate summit at the end of last year, all of the so-called nationally determined contributions basically skip thinking about how human waste can be tackled to fight emissions.

**KHAN:** And that's what's so fascinating about 17 Rooms. Here you have these two amazing co-moderators so deeply experienced in water and sanitation issues, but they have the creative mindset to pull together a Room of really diverse perspectives, and sometimes that can go nowhere. But with those diverse perspectives think of new connections, new hooks, new ways to frame the problem and tap current conversations to find practical ways to, again, think about water and sanitation not as an issue, but as a resource that we should be taking more advantage of.

**MCARTHUR:** And it sounds like the diversity of people who were brought together in the Room from outside water and sanitation community, their ideas are already feeding back into what the World Bank as a big player is already doing to think about this in a fresh way. So only time will tell what works, what doesn't. But it's kind of cool to think about how those ideas of so many different types of people coming together can feed so quickly into a pretty important work stream for the world.

**KHAN:** And I wasn't aware of those knock-on benefits from the Room, but it was great to learn about them.

**MCARTHUR:** Amazing. Well, this has been a terrific conversation. To learn more, find this episode at [brookings.edu/17RoomsPodcast](http://brookings.edu/17RoomsPodcast). Coming up next, Room 14 with Lisa Dreier and David Obura on their efforts to develop a framework for local problem-solving that benefits people, ocean biodiversity, and ocean-based economic activity

I'm John McArthur.

**KHAN:** And I'm Zia Khan, and this has been 17 Rooms.

**MCARTHUR:** Our thanks go out to the guests you heard today, and also to the production team, including Fred Dews and Alexandra Bracken, producers; Jacob Taylor, associate producer; Gaston Reboredo, audio engineer, and Nicolette Kelly, audio intern. The show art was designed by Katie Merris. Additional support comes from Shrijana Khanal, Ian McAllister, Soren Messner-Zidell, Andrea Risotto, Marie Wilkin, Chris McKenna, Esther Rosen, David Batcheck, and Caio Pereira at the Brookings Institution, and Nathalia dos Santos, Sara Geisenheimer, Hunter Goldman, and Miranda Waters at The Rockefeller Foundation.

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