Transcript of ‘An Ocean of Issues’

Season 1, Episode 13, Transforming Tomorrow

[Theme music]

Paul: Hello, and welcome to Transforming Tomorrow, the podcast from the Pentland Centre for Sustainability in Business here at Lancaster University Management School. I'm Paul Turner.

Jan: And I'm Professor Jan Bebbington.

Paul: And today Jan we're going intercontinental.

Jan: Indeed. We're going to the West Coast of the US from the West Coast of England.

Paul: I'll let you off with that one. We had discussed whether this counted as the West Coast to me, and I'm just going to let you off because it's too complicated a discussion to have. We're not quite on the coast, neither I think is our guest. And let's introduce him.

[Theme music]

Paul: So we're joined today by Dr Jean-Baptiste Jouffray, JB quite conveniently because if I was to say Jean-Baptiste every time it would be just taking up half of the podcast. Sorry JB!

And he's joining us from one of my favourite parts of the world, yes, the West Coast of America, Northern California, where he is the Wallenberg Postdoctoral Fellow in the Center for Ocean Solutions at Stanford, and his research covers social, economic and ecological ocean challenges.

He's also part of the Seafood Business for Ocean Stewardship collaboration alongside you here, Jan, that's SeaBOS. And I'm told he's the most fascinating person in the world I could ever talk to about sand. And later on we'll discover whether or not that's true.

Jan: That sounds like a good, um track we're heading off on. And I suppose the thing that I want, why I was really keen to have you come and chat with us, JB, is that I think we complement each other perfectly. In that, you're an ecologist, but interested in organisations, and I'm an accountant, but I'm interested in ecology.

And I think the really great fun that we've had over the several years is making that mix work together. And I suppose the start of that journey is really understanding how you've come to do what you're doing, what, what's your background and how did you come to be interested in sustainability in business?

Jean-Baptiste: Well, thank you Jan and, and Paul for having me. To start with it's a real pleasure to, to be on this podcast, and it's always a pleasure to actually interact and, and chat with you, Jan, as you mentioned.

How I came to be interested in, in sustainability in business that's, that's a longer uh question, and longer answer. But I think I started as a natural scientist, uh so my background is in natural science and in ecology. Um my Master was looking at coral reef system and, and it's during that Master that I started taking a social-ecological lens to what was otherwise a natural science research, and that was very much due to the place I was doing the research, at the Stockholm Resilience Centre at Stockholm University which had that mandate and that view of a social-ecological lens.

And then the PhD became a much bigger journey from ecology to sustainability science which, is often defined as, uh, problem-driven and solution-oriented. And, so if you like, my PhD starts with a study on uh coral reef ecosystems in Hawaii and ends with the role of the financial sector in the seafood industry, and whether this could be leverage points, there could be leverage points for sustainability.

So that gives you a range of, of, um transdisciplinary journey in a way, uh, that I, that I undertook during my studies. And interestingly it goes beyond academic disciplines, right, so a lot of people would refer to interdisciplinary science, sustainability science being an interdisciplinary science.

I think you can also argue that sustainability science is very much transdisciplinary, um, in the way that it engages beyond academia. So it not only collects and synthesise sciences from multiple disciplines, but it has a mandate to engage beyond academia with societal actors. And those actors can be governments, they can be local communities, they can be indigenous communities, uh but they can also be big organisation, and companies.

And I think that's where we met, Jan, originally it's when we started engaging with large corporations as part of our work, as part of our transdisciplinary work to translate knowledge into action with some of those companies.

Jan: I was particularly struck by your use of something called a leverage point. And I think our listeners will be really interested to know what you mean by that, because if we're wanting change we're all searching for places where change can happen, and a leverage point perspective gives us some view on that.

Jean-Baptiste: Yes, so a leverage point is really a, anywhere in your system, it comes from system thinking right and, and sustainability science is really anchored in system thinking, I think, which fits quite well with organisational science as, as I believe, and as I understood.

And so a leverage point is where in your system you can act, or like a, where in your system a small change can have a large impact across the entire system. So that's what it's meant by leverage point. So like, an entry point where you can actually, with a small change uh, some, doesn't mean the change is easy, but it means it would cascade through your system

So what are the key points, what are the key actors what are the key governance or norms that can actually transform across the system. That's what we're after. And of course there, there are different depth to your leverage point.

You can think of a very shallow leverage point where it's going to be easier to leverage, but then it will cascade less, or you will have less of an impact. And then you have much deeper leverage point which are the, the much more difficult ones to actually leverage, you know, norms, mindset, worldviews. But those would actually transform your system in a, in a bigger way.

Paul: You're talking a lot about systems there, and when it comes to system what is the system we're talking about here? I'm told it's not 'oceans', but 'ocean'. That that's a key distinction.

Jean-Baptiste: [laughs] Yeah that's right, that's a, that's a nuance I like to make in, in my work and, and I try to convince people around me, um, that there is only one global ocean. You know it's, it's quite fascinating, I mean if you go down the weeds of like five ocean basins, uh like actual geological basins, but one single ocean.

And I find there's much power in the description of a single ocean where you understand that first, it's a finite space. So whatever happens in it, whatever

falls into it, whatever ends up in the ocean, doesn't disappear against the horizon into another ocean. It's the same ocean basins.

And then it also convey the interconnectivity of it. SO everything is connected because it's one body of water. Um, there's a beautiful depiction of that which is a world map based on the Spilhaus projection, which actually shows the ocean as one single body of water, uh, bounded by continental masses.

Paul: Yeah, I, I've seen that map and it is fascinating because you're not looking at the world as we traditionally look at it, with the North Pole at the top, the South Pole at the bottom, you've got it all sort of folded in on itself. And it is quite fascinating to see how the Indian Ocean becomes the Pacific Ocean, becomes the Atlantic Ocean, becomes the Arctic Ocean, and all of the oceans flowing together like that.

And, what challenges does the ocean face now, what are the main challenges that it's facing now and going forward in time?

Jean-Baptiste: So here it really depends how long you want that podcast to be, Paul, um because [laughing] the ocean is certainly facing a lot of challenges. And so I'll try to, I'll try to be brief, and usually people who start with that sentence you know already they won't so I, I'm aware of that.

But you can answer that question in many different ways. Some people will tell you, you know, plastics is the big thing, there's so much plastic pollution going on. Um, a lot of people and a lot of scientists would tell you climate change, because indeed climate change is a major threat on it, and I think all those are correct to their own extent.

Again, if you take a system view which I like to do, I would argue that some of the challenges that the ocean is facing is based on this notion of a blue economy, or an ocean economy, and so it's this rapid increase of ocean use, of human use and of the ocean, like human expansion into the ocean, which has been defined as the ocean economy.

it's the perception that the ocean is a new economic frontier that will sustain human development. And with that comes a wide range of sectors, and each one of those sectors interacts with each others, um sometimes there are conflicts, so it, you know, the ocean space becomes increasingly more crowded, and so I think that's one of the challenge we're already seeing

happening into the ocean, is how crowded that space becomes, um with interactions and conflicts between users.

Each one of those activities also have environmental impact. So there is, there are consequences to drilling for oil and gas, there are consequences in over-fishing, there are consequences even in increasing by 50,000% the capacity of wind farm, which is a good thing from an energy perspective but comes with other, perhaps, drawbacks, uh in the ocean.

And I could go on. So there are consequences to each one of those environmental impacts. There also equity concerns with those activities. You know, if there is a race to the ocean then the question is, who's racing and who's benefiting from that race? And there also, therefore, who is like, who's, who's lagging behind, so who's not benefiting from that new economic frontier?

And finally there are governance challenges, because the ocean is a really big place. Um, we're talking about 70% of the Earth's surface and two third of it lies beyond national jurisdiction, which is really unique to the ocean, right? I think with the exception of, perhaps, Antarctica that could be compared and that is currently governed under an international treaty, there are no other place on Earth with, in the same way as the ocean is.

You can have all the president of the world, and I'm thinking of the French one right now, uh saying that we need to protect the Brazilian Amazon, rightly so. But at the end of the day it's under the jurisdiction of Brazil. The ocean is very different. Two third of it lies beyond those national jurisdiction. It, it requires multilateral cooperation and collaboration.

Paul: I'm going to put you on the spot then. Is there any one challenge you feel that you would like to see addressed first, or are all the challenges so interlinked that you couldn't really think, oh, we can address one without addressing the others.

Jean-Baptiste: The, the latter. They are absolutely interlinked, Paul, and, and I think, of course you have you know all those activities that I described. I took on purpose a kind of like an extractivist view on it, or a user view on the ocean.

But they are happening on the backdrop of climate change and, and we are seeing changes in the ocean. The ocean has been one of the most wonderful buffer that humanity has had for climate change absorbing up to 93% of excess

heat. You know, providing oxygen, and so on. A tremendous diversity of life in the ocean, so we every time we dive somewhere we're discovering something else, a new species. Every time you go in the deep sea you come up with a new spaces that humanity didn't know, and now there are, are proposal to wipe out those hydrothermal vents where those species occur in less than two days to go mining down there.

So I think it's, it's really interlinked and it would be unfair to pick one uh single challenge.

Paul: I find that Jan. No researcher I've ever come across when there's many challenges will ever pick one as their, I want to say favourite here, but you know what I mean by that 'cause obviously these things, it's you shouldn't really have a favourite about which disaster is worst or anything like that.

Jan: It's tough to have a favourite about that. But I'd like to sort of go back now to some of your thinking around leverage points, and in particular ask you to introduce a really novel analytical lens that I think you are absolutely at the centre of developing, and that's the keystone actor analysis.

Because this is also where the likes of myself who are interested in organisations really you know started to connect with and really enjoy and be invigorated by the work that you did.

So what is a keystone actor, and how did you put together a notion of a set of keystone actors on one part of the ocean.

Jean-Baptiste: Yeah so, so the notion of a keystone actor is, is really an idea from Carl Folke, Professor Carl Folke at the Stockholm Resilience Centre, more than 10 years ago now, together with Henrik Österblom, who at the time was one of the co-supervisor of my PhD.

Who you know came up with that idea of well there's a very well-known concept in ecology, which is the one of keystone species, that describes species in an ecosystem that have a disproportionate influence in their surroundings and in their, in their ecosystem.

You would see it typically in food web studies, like where you remove a keystone species, and suddenly everything changes and, and they have a really strong influence.

And I think, you know, Carl Folke who has always this kind of visionary view when it comes to science and trying to break silos and, and take you know

inspiration from one field and apply it to another, thought well are there similarities with what we're observing in industries, or in different sectors? Can we identify keystone actors, like large companies, that would you know also have a disproportionate influence on their system?

And so it started from there, and at the time we were looking at the seafood sector, and so we went on and tried to identify those keystone actors in the seafood industry, and we ended up defining keystone actors as companies that dominate global production revenues and volumes, so both the economic aspect but also the material aspect of their activity.

That control globally relevant segment of, in that case of seafood production, so they are operating across the supply chains, if you like.

They connect ecosystems globally through their subsidiaries and that's because they are transnational in nature, so they operate all across the planet. And of course, they influence global governance processes and institutions, so you have that kind of link of how that, of that influence linked between some of those companies and some of the governance processes.

And this is how we, we put forward a proposal, [laughs] a definition for this is, this is what keystone actors could be. And you know how science goes, uh a lot of people were unhappy with that, including ecologist who thought this was not doing justice at all to the original concept of uh keystone species.

And I'm sure that if ecologists are listening to us now, I'm probably pissing a lot of them by just mentioning it again. Um, and so over the years we made sure to say, you know, it's, it's not an analogy, um we're inspired.

So the, the notion of keystone actor is inspired by one of keystone species, but it's not analogous to how keystone species operate in their system, and I think that's an important um distinction to make.

Jan: So once you figured out some of these entities, what happened next?

Jean-Baptiste: Well, you tell me Jan. No [laughs].

One way to, to answer that is to say that originally when we first proposed that, that idea of keystone actors it, it was drawing on another use of the 'keystone' word itself, which was applied to revenue distribution, right?

And it was said to be a keystone pattern, if you had asymmetrical distribution of revenues with a large, a few very large actors in that context, like companies

accounting for most of the revenues, typically, of an industry, which is something you see across the board.

And so we identified that in, in the seafood sector. And at the time the, the paper that was very descriptive, trying to make the point and identify the operation, like who those companies were what, what they were doing, where and how, had that conclusion, had that speculative conclusion that, given their size, sustainable leadership by those actors could result in cascading effect throughout the entire seafood industry.

And enable a, a critical transition towards improved management of marine living resources and ecosystem, and that was a speculative conclusion. It was like, given their size, if they were to do things right, that could actually have a big effect. We're going back to this idea of, of leverage point earlier.

And what was a speculative conclusion became a hypothesis of, of an experiment that is actually still ongoing, and so we went on and said well, let's try it, let's try whether those companies have an appetite for such a leadership.

And so the Seafood Business for Ocean Stewardship initiative, that you referred earlier Paul, is very much that experiment. It's that ongoing experiment of engaging with the CEOs of ten of the world's largest seafood companies in the world, and trying to figure out whether they can change practices not just in their own operation, but also across the seafood sector.

And I think this is the paper that, that brought some attention to Jan originally and, and that made her reach out to us.

Jan: Absolutely, and that was the point of intersection for me.

Paul: [joking] You're, you're too involved. Is that the problem, this is all you from here. [Jan giggles]

No, that's actually what I wanted to ask about though, JB, because you've worked with Jan. You're, you're working with people from totally different disciplines as well as business as well, so how does that work?

How can people who are used to so totally different methods of research come together and, you know, produce something that actually does work, rather than clashes with each other?

Jean-Baptiste: Well, I think that that will really depends on who you ask. And, and depending on who you ask you going to get a very different answer to that question.

I, I think it might be harder for some people than to others, based on how grounded or anchored into a particular disciplines you are. For me it's, it's an absolute joy [chuckles] to actually cross those, break those silos and, and cross [inaudible].

I get a, get a big kick out of it, even intellectually I think, to figure out you know there's, so much knowledge out there in a different disciplines that I do not possess whatsoever, and yet is so relevant for some of the research questions that I'm investigating.

There are methods out there that I don't know anything about, and yet could be apply on data that are not being used under, with those methods because those, the people developing those methods don't have access to those data, if you, if you follow me there.

And so I think, like, cross-pollinating um different fields certainly different academic fields, but even beyond academia, and we're going back to this notion of transdisciplinary science to engage with those societal actors, is really interesting because the learning becomes multidirectional.

So it's not just, you know, top-down science tells you [claps] what it is, but you're actually also learning, in that case from companies themselves that have a legacy of operations.

Um, and interestingly in an initiative like SeaBOS, the learning is also between companies. So it's from science to companies, from companies to science, but also between companies, because there is cross-learning and peer pressure.

So this multi-directionality of learning is something that I find very stimulating.

Paul: [straight faced] That's a wonderful answer JB, but I suppose what I was really asking is: how on Earth do you manage to get along working with Jan?

[Jan laughs]

Jean-Baptiste: [straight faced] Oh sorry, that's a whole different question.

[Jean-Baptiste and Paul laugh]

Jan: But I think there is something to that - I'm going to try to remain serious while you boys lose your, lose your minds…

Paul: [joking] … lose our minds? [Jan giggles] I have to work with you on this, I know what it's like working with you. I mean, JB works on with you on far more serious things than I work with you on, I just, no… um, yeah, using Jan as just an example of these accountants, you know, that, that's…

Jan: …fair enough…

Paul: …do, do you find that the different ideas that can come together can spark your thinking in totally different directions, it can take your research in, uh, in ways that maybe you had never foreseen would have happened previously?

Jean-Baptiste: A hundred percent. I mean if, if again if you look at SeaBOS it was a bunch of ecologist or, or natural scientist looking at companies and not knowing anything about companies. [laughs]

And so, so I think like the, the major input that Jan and her team made early in the process was to come with this organisational lens and say well, you know, we spent decades looking at organisation, understanding how organisation work. What works within companies how companies work with each other, which is a knowledge that we had no clue about.

And so I think it, it really brought the, the work in a different direction, and for the best, I believe. Now it doesn't mean it's always easy, because we often speak different languages.

We started, we were very proud of the term 'stewardship' and, and you know we were, we had stewardship all over, and we were putting stewardship in every single subheadings of our paper, because this was the end goal.

And, and I recall early discussion of Jan saying well stewardship was hyped like 30 years ago in our field, but has totally faded since then, and, and is very contested. And so you, you have that kind of dance if you like between those disciplines where you have to dance with your partner and, and understand and make it into a coherent move.

It's not always easy of course.

Jan: And…

Paul: …I want to ask you the same question…

Jan: …oh…

Paul: …because I've asked JB what it's like as an ecologist working with accountants. I want to know what it's like from you, Jan, as an accountant working with ecologists.

Jan: I really enjoy it but, but I love science and I've always been a bit of a science nerd. But in a sort of like, reading popular books kind of science nerd. I was also trying to understand how to be a sustainability science, 'cause I had read about it and, and thought it was a really grand idea.

And so I was sort of primed and ready to be able to meet some ecologists and find some language in common. And then, [pause] I think it's also predisposition. So I've spent time sort of explaining how capital markets work, which is really quite hard because I just know how they work, and so I have to actually lay it out, and sort of be really systematic about it.

But the flip side is, when you do our kind of accounting work you tend to look at large economic units in a single country. But you don't know whether or not they are, they're sensible sort of ecological cohorts or, or what impact these companies have.

So, for me, the real excitement has been knowing which companies to worry about from an ecological perspective. And, you know, the, the colleagues that we work with, and JB in particular, are really generous as I, I make a mess of the natural science, and then help me along.

Paul: And just as I asked JB, is it taking your research in directions you maybe, you would have never envisaged before teaming up with them?

Jan: Yes. So it certainly has, um, me publishing in science journals, which I would have never had any hope of ever publishing in um ever before. So communicating to a new group of people than I would have before. But also I think I'm much more worried about the underlying materiality of things now.

So when I see a firm I start thinking, oh, okay where are you getting your resources from, where are you polluting? And that, that for me is just a slight change of lens, but a really important change of lens.

So, one of the things that we, we were we did promise to talk to you about is other places where this keystone actor idea might be important, and might be relevant. And I know that you've done a lot of work on the so-called Ocean 100, and I've done a little bit of work in that area.

So, and coming back to your characterisation of the ocean as providing places where people are competing against each other to use the same space for quite different activities, and sometimes activities that you probably can't combine together very well, tell us a little bit about the Ocean 100 work and, in particular, how is that different from the SeaBOS? 'Cause it hasn't ended up in a dialogue of companies together, but there'll be very specific reasons for that too.

Jean-Baptiste: Yes and, and so this, this is too, so the blueprint was supposedly the same. [short laugh] Like, identify big companies out there, um do the homework of figuring out how big they are and, and you know what kind of influence they have, and then reach out and engage in the dialogue to see there is an appetite for leadership, and for sustainability leadership, given the urgency of the situation.

The difference was the scale of things. SeaBOS was within a single industry, seafood. And already, at the time, SeaBOS was perceived as novel because it was, it was engaging companies across multiple segment of seafood production.

So it was not just, you know, aquaculture companies or aquafeed companies, but it was aquafeed companies, aquaculture companies and fishing companies. Like, wild capture fishing companies across, across the whole supply chain of seafood.

Um, and so that was the novelty, but it was still one sector. The Ocean 100 was to say, the idea was to say, well look there are all those commercial uses of the ocean, all those activities that we discussed earlier taking place in the ocean. Let's identify companies in each one of those big sectors and engage them.

So this was work led by John Virdin at Duke University trying to, to identify keystone actors in every single of those ocean industries. Think container shipping, offshore oil and gas, ports infrastructure, seafood again, is one of them, offshore wind as an emerging uh renewable, and so on.

We used the OECD definition of the ocean economy and eight of those big industries. Cruise tourism, if you like, another one. And, and the idea was to identify those keystone actors, which we did. Um, and then try to engage with them the same way as we had with SeaBOS.

Turned out much harder. And the first big hurdle is that SeaBOS, we were able to engage from the onset with CEOs of those companies. Which never happened with the Ocean 100. And maybe here there's a difference in sheer scale and size of the companies we're dealing with.

The seafood sector is relatively smaller than a lot of the other ocean economy in terms of uh corporate revenues, certainly. So that was one aspect there's also a timeline aspect, where SeaBOS, you know, was initiated and started in 2016.

And which means that we were talking to companies already in 2014 and 15, um to get that initial dialogue in 2016. And the landscape of voluntary commitments, the landscape of sustainability initiative, has changed tremendously over the past eight years.

And so there, all we could hear of is 'coalition fatigue'. So, it was basically companies saying, you know, we're getting 15 different ask every day to join that new initiative that will solve all the problem. Why should we, why should we talk to you in, in very simple term, like why you, and not the other one that asks us five minute ago?

And so there was this notion that the, the landscape of initiative had changed and had become a much more crowded space where it was therefore harder to make your point. And then, of course, the difference in segments which might have been, you know, under we, we might have underestimated the difficulty of actually getting some of those industries to talk to each other, which was the original point.

And not least the having the oil and gas involved. Not because they do they didn't want to talk to us - quite the opposite. We had many oil and gas companies actually joining initial calls. But the other sectors didn't want anything to do with an initiative that would involve oil and gas companies, from a reputation perspective.

Even though those very same companies originally came from oil and gas [laughs] themselves but had transition a bit quicker and a bit earlier than some of the others.

So, interesting dynamics there, where companies didn't want to be associated with you know a dialogue or an initiative that was involving, uh oil and gas

companies. So a very different landscape in the end than what we experience for SeaBOS.

No CEOs, multiple sectors, and some hardcore reputational risk involved.

Jan: And I think one of the things that really comes through from that as well, is that sort of coalition fatigue as well. Because we kind of assume working together we can go further, but people have to have the energy and the time to work together, and it's not always just straightforward.

Jean-Baptiste: Absolutely. So I think the coalition fatigue and the year are key. So I'm going back to the CEO point, because I think we had a series of dialogue over one year with those companies with a cohort of 20 of those companies across sectors.

And, and I think there was a genuine interest and a genuine conviction that there could be something done together. What we were after was like, what can those companies do together across those sectors that they couldn't do alone?

And those people, I believe we were talking to were genuinely convinced that there was something to do. But the minute they had to go back up the hierarchy within their individual companies and get a green light from the top management, that faltered, and they didn't have it.

Paul: Well, I think Jan, we're going to come to an end here, and we haven't talked about sand so, my suggestion is we're going to do a bonus episode this week. A very, a short episode, where we can just talk about sand, 'cause I want to talk about sand.

[Theme music fades in]

Paul: I, I've never wanted to talk about sand more in my life than I want to talk about sand. But for the minute, we're going to call it a day and say thank you very much JB.

That's the end of this episode. We will be back with a bonus episode on sand, and then we'll also be back in the, uh in the very near future with an episode with Georgiana Allison, who will be talking all about the efforts of sustainability here at Lancaster University.

In the meantime, if you want to message us please do email pentlandcentre@lancaster.ac.uk or fill in the form on wherever you download your podcast, there is a link to a form on that and on our podcast homepage.

Until then I'm Paul Turner.

Jan: And I'm Professor Jan Bebbington.

[Theme music]