

# Transcript of 'Sunway, ASEAN and Tacking Inequality'

## Season 2, Episode 29, Transforming Tomorrow

[Theme music]

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

I'm Paul Turner.

**Jan:** And I'm Professor Jan Bebbington.

**Paul:** How did a former mining site become home to one of Malaysia's leading universities and a beacon for sustainability for more than 50 years?

We're at Sunway University to talk ASEAN, planetary health, addressing inequalities and Liverpool FC.

[Theme music]

**Paul:** Well, Jan, our first week in Malaysia went well enough. Let's just stay here, shall we, for a little while longer?

**Jan:** That seems fair. I like, I like the food, I like the people. I like the weather. What's not to like?

**Paul:** Well, you, you like the weather, but we've had lots of thunderstorms and it's quite humid. But that aside, it is, it's a very nice place. The people have been very welcoming too.

**Jan:** They have indeed, have indeed.

**Paul:** Yes. So shall we find out a little bit more about various sustainability issues here?

And specifically, shall we come to Sunway University?

**Jan:** Yes, please.

**Paul:** We've come today to Sunway University, which is about a 30 minute drive to the southwest of Kuala Lumpur, and we're here to speak to a few different guests today.

The first of which we're gonna find is very, very senior.

**Jan:** Well, you'd better behave yourself then.

**Paul:** Yeah. We're in trouble, essentially. [Jan laughs]

Yeah. If we get kicked out of somewhere before the end of the day, this will be why.

Uh, and we're gonna speak about a bit about Sunway, we're gonna speak a bit about ASEAN, and we'll discover what that is. We're gonna speak about something called the Desa Mentari Housing Project, which is all to do with housing inequality and things like that.

We've got quite a few topics to discuss.

**Jan:** Well, we better crack on then.

**Paul:** Yes, because we are today joined by Professor Mahendhiran Nair, who is the Pro Vice-Chancellor of Research and Sustainability here at Sunway, and he's also a member of the National Science Council of Malaysia.

So, you know how we said we really better behave. It's not just gonna get us kicked out of the whole university, we'll get kicked outta the country because that is chaired by the Prime Minister, that council.

Yes. Yeah, yeah. We need to be very, very much on our best behaviour. Welcome Mahendhiran.

**Mahendhiran:** Thank you.

Thank you for having me, and welcome to Malaysia and uh, I hope you have a great time here.

**Jan:** Thank you. We are, we are, and we shall, I think is the answer to that.

**Paul:** Um, I just want to start, you are our first guest from Sunway. Can you tell us a little bit about the University and a little bit about the business school that we're in today.

**Mahendhiran:** Sure. Before I start with, uh, Sunway University itself, let me give you a kind of a history of this location.

Um, Sunway, uh, used to be a place called Sungai Way, which is actually a mining land. 50 years ago if you visited, uh, this place, it looks like a mining typical, like many other mining, uh, places. After the mining is done, it looks like a crater on the moon.

We had a, a leader who's, uh, Tan Sri, Sir Jeffrey Cheah, who saw, um, that though this mining land was quite, you know, not well developed, uh, given that, you know, a lot of the resources had been extracted, he saw an opportunity on transforming this mining land into something very sustainable.

So for Sunway actually, sustainable development started 50 years ago. Uh, and we celebrate our 50th year, you know, last year and, uh, and core to this, uh, development was that the institution higher learning, which is actually Sunway College, started off as Sunway College.

So, uh, this mining land, uh, which a vision of a person, uh, saw that it could be transformed into a sustainable, vibrant community where you see education, training, research is critical for transforming.

And it started off as Sunway College and eventually evolved to becoming Sunway University, which is core, uh, to the Sunway Group's development and also the uni, the city itself.

We say that most people have a campus, we have a city, so which is, uh...

**Paul:** [joking] ...that's just showing off. [Mahendhiran laughs]

**Jan:** I did see that, um, in some of the advertising as we, I think it was actually on the inflight and entertainment.

**Mahendhiran:** Correct.

**Jan:** Yeah, so I felt like you were speaking to me from a distance. [Mahendhiran laughs]

**Paul:** So you can't get away from Sunway, it's everywhere. Yeah, there, there's, it seems to be certainly around KL, here and somewhere that education and higher education seem to have such a big emphasis placed on them.

You see lots of advertisements for many different universities in the area. So obviously it's such a key area, the recognition of being educated to advance yourself.

**Mahendhiran:** This is true, uh, not just in Malaysia, but also in ASEAN, which we'll speak about. There are about 670 million people living in the ASEAN region close to, you know. And, uh, we see that, uh, the region is developing rapidly and there is a need for a whole host of, uh, um, you know, development needs from infrastructure to, uh, education and training.

And this is where we are starting to see in the, you know, the forties and the fifties and the sixties, many of the students went out to other parts of the world, you know, Australia, UK, US, uh, and many countries. But, uh, very few returned.

But then, uh, over the years, uh, what we saw was a trend where governments particularly actually led by Malaysian, uh you know, uh, policy makers that realised that we need to look at creative models of education because it is a major capital drain on many countries.

They're all developing, sending students overseas, uh, you know, it has an impact on the, uh, coffers of the country. But many of them don't come back, so you're not even getting the return.

So they realise that can we develop partnerships with, uh, local institutions and international institutions? And this is where the term twinning arrangements came in, where institutions started working with leading universities.

And one such is actually Sunway and Lancaster University, which has got a very strong, you know, transnational, uh, relationship. And, you know, UK has a very strong tradition of, uh you know, transform, I mean, impacting the institutions of higher learning legal systems.

So it was natural for UK institutions to have that synergy with, uh, institutions here. And again, Lancaster was, was one of the major transnational institution that is working with Sunway University.

And there are other, uh, institutions of higher learning here. But again, here it is that we are now transitioning from students leaving and, and studying elsewhere. It's truly becoming a transnational education hub, uh, particularly in Malaysia and ASEAN.

**Paul:** Yeah. That, that partnership obviously is why we're here...

**Jan:** ...yes, indeed...

**Paul:** ...in Malaysia, it's why we've made the, the trip over to KL, that it's a really active partnership as well between Lancaster and somewhere, there's lots of overlapping areas of interest, particularly around stuff such as sustainability.

**Jan:** And, and indeed we're very pleased that we have Pentland Centre members that are based here. And so our meetings are totally unsociable for

them, but they still come to them and, um, yeah, we really appreciate that connection.

**Paul:** Yes. So. You are a Pro Vice-Chancellor, which as I say, scares me and Jan somewhat. [Jan and Mahendhiran laugh]

Yeah, that, that's too far, too much, but, but one for research and sustainability, so really stressing, obviously, how sustainability has been embedded at every level really here at Sunway.

So what would you say your role involves, and, you know, what are your ambitions for somewhere when it comes to research and I guess especially sustainability?

**Mahendhiran:** Yeah, I, I think one of the key things that we see is that, uh, educational institutions play a key role in, uh, nurturing the next generation leaders, that are more, uh, you know, sensitive to the needs of, uh, society.

And if you see, over the last few years, uh, the issue of climate change, global warming, uh, you know, we are seeing that, uh, many countries and corporations are doing really well in terms of economic development, but yet the gaps between the haves and the have nots have increased.

So one hand you have development, but the other hand you also see that, uh, climate is paying a price. Uh, many people are falling between the cracks. So this is where we see that, uh, the vision of the leader, thought about sustainability 50 years ago and 15 years ago, the United Nations crafted this sustainable development goals with 17 SDGs to address this inequities, and, you know, within society.

That while development is very important, we need to take cognisant of its impact to environment and also the people. We are seeing that the traditional development model has helped humanity over the last, since the industrial Revolution, but we are also seeing that the development models of the old economy may not be suitable to the current environment because the, the old development model, uh, did not explicitly include environment into the development model.

So what we have was a zero-sum development model where many, most of the development was at the expense of the environment. And we are seeing this, you know, in most developed countries, what we saw in the, the forest

fires in California, in Spain, climate change. We are seeing this here, in, in this part of the world, we're seeing flooding, you know, and a whole host of things.

So while society and, you know, we had tremendous development, but we are also seeing the negative externalities that it started. So we need to rethink about our development model from a kind of a, a zero-sum development model to a more co-operative development model that incorporates the environment and also society and, and, you know, to, to kind of mitigate the risks of, uh, both global warming and the slippages that are happening within our own society.

**Paul:** I know we're certainly here outside of what is meant to be the wet season, the rainy season, but we've seen a fair bit of rain, uh, that's coming down quite heavily in quite suddenly.

Do you think that that's the kind of evidence you can see here of things such as the climate change and the effect it's having on Malaysia?

**Mahendhiran:** Definitely, because I, I live in the coastal areas in Malaysia and we've lived there for almost 60 over years. So you know what my age is. But, but in the last four years, my house was flooded twice. We've never had this before.

So you can say that I am a climate, uh, you know, global warming refugee or climate change refugee. So it is real. And, and, and there's a massive cost for, for individuals, for homes, for societies, for businesses.

So we are seeing this and currently we have the last two months, flooding has been a major challenge in many parts of, uh, Malaysia and ASEAN. so we are seeing this is real. Not that flooding was not there, it was there, but we are seeing the magnitude of that is, is phenomenal and it's disrupting lives and you know, businesses and so on.

So again, it is real. I had had firsthand experience and that's why I thought, look, I think, you know, as an academic, as a researcher, we need to start thinking about, you know, I'm trained as an econometrician and economist. We need to re-look at our development models very, very carefully.

So a lot of my work is through research, uh, you know, and also informing policy makers. And this is where in the National Science Council, national High Tech Council, we actually provide evidence based, uh, you know, models and,

and you know, scientific evidence to show actually this is real and these are the impacts on the economy, on society, and so on.

We did a study that we showed that the impact of climate on, you know, premature deaths and the welfare costs is close to about 5% of our GDP, which is quite substantive. And, and so we are doing a lot of those works to actually show that, uh, you know, we need to think very carefully how we use the most important resources that we've been blessed, that is actually the environment.

And, and sometimes that's missed out in, in the process of development. We have adapted this notion of return on investment, and sometimes that is a very short-term perspective looking at shareholders, as opposed to a return on values that we are now working on, that if we don't look at the values from an economic, social, environmental, and political empowerment, you know, governance, we see that we are unable to create the value proposition.

In economics we see that the value proposition is really important. If we are able to create value, we bring in the right investments, right jobs, right economic development and prosperity. So we can't really decouple economic development from everything else.

And that is why at Sunway we focus on sustainability and planetary health. If the planet is not healthy, people are not healthy. If people are not healthy, we see that our economic development and prosperity will be hindered.

And we saw that in Covid, right? Covid was, you know, uh, if you go back to the scientific evidence, it is an outcome of some of the changes that are happening in the environment, mutations of viruses and so on.

And that had a massive impact globally on health, plus also brought many of the supply chain to a screeching halt. Businesses went, you know, bankrupt people lost jobs. So we are starting to see firsthand evidence that we cannot ignore the climate and the environment.

**Jan:** So you mentioned earlier, um, ASEAN, which is the Association of Southeast Asian Nations.

Um, for our listeners who might not be familiar with it, it was founded in 1967 and involves, um, the countries in this region getting together and, um, dealing with things together.

So, 670 million people, as you said...

**Mahendhiran:** ...approximately, yeah...

**Jan:** ...so quite a substantial group of people. And when we've been here, we noticed that Malaysia is the host this year of, of ASEAN and the 2025, uh, sort of logo is, uh inclusivity and sustainability. So that's pretty encouraging that, that's at the heart of it.

Can you just maybe briefly tell our listeners what the association does and what does that mean to have that at the heart of the mission this year?

**Mahendhiran:** Sure. So I think collectively, uh, you know, ASEAN realise that, uh, while the 10 countries are very different in terms of, uh, you know, culture and, you know, a whole host of, you know, uh, governance and the legal system and so on, but they realised that, uh, that ASEAN itself collectively could have a major impact globally.

Uh, particularly if you see in the, in Europe, you have the European Union. In North America, you have the North American free Trade. So ASEAN in the, in the seventies realised, in the sixties realised that coming together could give them greater leverage globally, but also be able to overcome some of the challenges within ASEAN itself.

And, and foster strong economic partnerships, reducing tariffs, creating a kind of a market, uh, which is much more harmonised. Also social. Um, there's a lot of common things that they share, uh, but plus also celebrating the diversity of ASEAN. So again, that is really important.

The third aspect is also environment. Many of the ASEAN countries share the same environment, the oceans and, and so on. So what a particular country does has an impact on the other, uh, countries.

And obviously the other one is also governance. If, ASEAN could come together and manage, uh, you know, bring in greater, uh, understanding, they could manage the geopolitics within the region more effectively.

Uh, and also more importantly, uh, be able to strategise on how ASEAN can collectively have a lot more voice globally in many of the challenges that it faces. So, inclusivity is, there is diversity within ASEAN on, from economic to social. How do we close that gap? Right.

Uh, the second one is of course sustainability is going to be really important because if you see ASEAN, although ASEAN is only, the land mass is only 3%.



But if you see in terms of the flora and fauna and the biodiversity, it's about 25% of the global, uh, flora and fauna.

So it's, it's quite substantive. And we see that many of the economic development, socioeconomic development is dependent on the environment. On the coastal communities. On the forests, and a whole host of things, and we see that that needs to be managed effectively.

As I said earlier, uh, the zero-sum development, uh, framework will yes, bring prosperity in the short term, but long term there are major consequences. So, ASEAN now collectively is brought in, sustainability as really critical to ensure long, long-term development of this region.

And, and this is where the push towards, you know, more interconnectivity and economic, you know, and, and so on.

**Jan:** And that's been quite inspiring because the EU has a sustainability taxonomy. And, um, quite often when I'm talking to people, they say, oh, well it's all very well for the EU to be doing something like this. And I always point out that ASEAN has a taxonomy as well.

And so in that respect, if you, like, you, you see the, these groups of nations actually coming together and, and propagating ideas. To mean that there, you know, if you like, the whole globe lifts together rather than, you know, one place looks pristine and another place is being exploited in order to do that...

**Paul:** ...before you go, the EU has a what now? A taxonomy?

**Jan:** Yeah, a taxonomy.

**Paul:** Go on. Explain that to me.

**Jan:** Okay. [laughing] Oh, oh, so quick.

**Paul:** You've got 30 seconds to explain in the most basic terms, what a taxonomy is.

**Jan:** Uh, it's politically contentious, however, they've classified what does, um, like a, a low carbon technology look like? What does environmental positive technology look like, et cetera?

And it's set up in a way that, um, allows you to classify both economic activity, um, but also like how many finance, how much people are investing, but also the activity of companies into these different categories.

And it interlocks, so you have to achieve, say, climate change without harming biodiversity and being socially just. And then you just keep on doing that, that run through.

So achieving biodiversity without undermining climate change and being socially just, so it's that three-way process. It's a really nifty way of trying to shape, not to shape, say you should do this or you should do that, but saying, categorising it...

**Paul:** ...mm-hmm...

**Jan:** ...so you know what it is doing...

**Paul:** ...yes. Okay, carry on.

**Jan:** Thank you, righty-ho.

**Mahendhiran:** So I just adding onto that, I think, uh, one of the fortunate thing is being a university that is, uh, involved in research and education, we were fortunate enough that our research team actually helped academic science Malaysia and the Malaysian government draft the ASEAN 2035 plan.

And, and, uh, that is, that is really important because, uh, this year Malaysia is the chair, um, of the ASEAN, uh, that study will be, uh, you know, uh, launched, uh, very soon.

But that actually maps out what would ASEAN look like in 2035 and 2050. 'Cause 2050 is most countries pledge decarbonisation. But yet many countries, the oil and gas sector is very important sector.

How do we do the transition? How do we help countries, uh, make the transition? And this is where, uh, Prof mentioned about the taxonomy is really important. How do we help countries that are finding it hard to make the transition? What kind of support system from education, technology, training, capability development?

So there needs to be a systematic framework to help ASEAN do this. But more importantly, getting the leadership on board. Because what's in it for everybody? And this is the key thing that, you know, we need to, to bring on board.

And this is where articulating that yes, uh, you know, the transition will need to happen, but there is a value for the transition because this is the long term

trajectory of ASEAN. If ASEAN is successful, every country within ASEAN, you know, could, will also benefit.

Example is that transportation system at the present moment's fragmented. But if we had a more integrated transportation system, right up from all parts of ASEAN, where you have trains and roads coming through all the way to Indonesia and others, can you imagine the economic spillover impact?

Energy! You know, many of them have, uh, hydro, how do we make sure energy sufficiency? Food systems. So this requires an integration of multiple systems. Without the taxonomy and the framework and the governance system, it's gonna be very difficult.

But we are learning from EU and we are learning from other countries on how they have done this effectively and what are the things that did not work and what, what are the things that work?

And this is where researchers, universities play a key role in undertaking evidence-based research, plus also research that impact, have that impact of what I call return value, but training the next generation leaders, policy makers, business leaders, to make that transition.

**Paul:** This all ties in very much with the message we had in the last episode when we spoke to Ann Marie about the need, and we were talking maybe about smaller companies at that time, SMEs, about the need to show them the benefits of doing positive action.

This is talking about the need to show whole countries the, uh, the benefits of taking positive action when it comes to sustainability and how that can be beneficial and flow through the chain. And the examples you've given there about look, if you can develop this kind of sustainable transport network, think of the benefits that's gonna have not just here in Malaysia, but north, south.

I won't say west because west is a whole lot of ocean, but east as well. So yeah, you've got the potential benefits across more than one country from working together. That's a really positive thing.

**Mahendhiran:** So this is what we call the grid economy, GRID. Where it's interconnected, right?

Transportation, you know, energy, water system, food system. But that requires the leadership, the institutional leadership, to actually develop that institutional vibrancy.

What does that mean? That partnerships that you need among ASEAN countries, not just at the political level. Industries, NGOs coming together to craft this taxonomy that I've spoken about.

Plus, if we had that, then you'd have that, what we call the institutional vibrancy's leadership. You know, that partnership and the governance mechanism. If you had that very clearly with clear KPIs on what you're gonna achieve and what are the benefits for everyone, this is going to be very important.

Coming back to SMEs, almost 95% of the economy in this part of the world is SME, right? They contribute about 40 to 50% of the wealth of the country. Now, with the advent of technology, you know, uh, talent requirements, there's a need to transition them.

And this is where, how do we work with government policies, incentives, support mechanisms, and also the big players, the multinational companies, to build a sustainable, you know, green environmental friendly supply chains.

The universities play a key role because the universities is where you have research and development and training. So it's part of that ecosystem. As I said earlier, it's, it's transitioning from the shareholder to the stakeholder. And key stakeholders are actually university, the environment and so on.

So it is an ecosystem, uh, and there are multiple systems, and this is where the taxonomy's critical, and it requires, you know, both at the highest level, but also, uh, the, the policy makers crafting and orchestrating the governance and so on so that you have a more organic ground up stakeholders coming together.

**Paul:** So before we move on from ASEAN, I just have one last thing. So, you've probably got more on ASEAN as well, Jan, but one last thing from me.

So yeah, the, the message for 2025 is sustainability and inclusivity. So we've talked a lot about the sustainability side. Where, where does the inclusivity come from? What kind of message of inclusivity are we looking for?

**Mahendhiran:** So let's, let's look at the macro level of ASEAN, and then I'll go down to, to industry and then the community, right?

At the macro level, we have 10 countries, uh, possibly 11th one coming on board. Uh, but these countries are different stages of development, right? If you see in in, in the context of ASEAN, you see Singapore is highly developed.

Then you have Malaysia, others which are more industrialised, that are transitioning. And then you have other countries that are kind of emerging. Yeah, Laos and Cambodia. So there, there is a major gap.

How do ASEAN collectively support countries to move up that value chain? So this is the first part. This is where the, the policies and the direction from the leaders in terms of tariffs, in terms of technology support, capability development, you know, sharing of resources to look at the ASEAN 2035 vision. What do we want to become as, uh, as a region, right?

Very similar to what EU had that, and 2050, uh, when we become more carbon decarbonised economies, right? How do we make that transition? That's at the macro level because the policies and structures are very important.

The second aspect is actually the industries. How do we bring industries' leaders to think about, uh, not just return on investment, return on values? How do we nurture these values? And to impress upon them that these values that we create, generates value proposition, that bring in that investments, right?

So it is government, industry, community on the ground, the community leaders, people on the ground, that know what's happening on the ground. That information is really important.

Of course, universities, research centres are also critical. So it's at the macro level you've got to get understanding among the leaders. Then it's industry, which is also an, you know, an integral part of this ecosystem. Then the community and the people, right? That is really important to make it happen.

So having that vision of, you know, ASEAN being prosperous, contributing to, to not just ASEAN, but also the global community, right. We have to remember that, you know, uh, ASEAN is critical in terms of the, the, uh, you know, nature based industries.

Nature's here and, and we haven't harnessed the nature-based industries. You can say that ASEAN is a critical part of the global lungs, right? And, and this is where countries like UK and developed countries can play a key role in investing into ASEAN, and, and that is, and that is why I think the relationship between Lancaster and Sunway is critical.

One institution, but can you imagine many institutions, universities, industries, we've got quite a lot of, uh, UK industries out here that are supporting the development.

But if this is done collectively right, we see that ASEAN could play a critical role in economic social, environmental globally, and, and this is where we see there are multiple layers. That's why I said systems on systems.

That is we need to think about very carefully.

**Jan:** So tell us about the 10-10 My STIE framework...

**Mahendhiran:** ...great, uh...

**Jan:** ...we'll have to demystify all of those...

**Mahendhiran:** ...okay...

**Jan:** ...numbers and letters for us.

**Mahendhiran:** Sure, sure, definitely, you know.

I, I think, uh, uh, when I started working with the, uh, policy makers here, we realised something that, uh, you know, I, I come with, uh, multidisciplinary background. Come from the science, mathematics, and I did economics and social science.

Uh, I worked with the Academy Science Malaysia. I'm a fellow of the Academic Science Malaysia, and I realised something which is really, uh, interesting reading all the national plans.

You have one hand, the scientists talking about all the science and technology that is needed. But then one hand, the other hand, we see that industry is saying that actually, you know what, uh, we can, uh, we don't know what, uh, the scientists are doing.

So there was a gap between the science that we are doing and what was happening in the economy. Right. And I said, hey, this, so we did this study that showed there's a huge gap between the knowledge generators and the knowledge users.

We then, uh, my research team then said, hey, uh, we should look at science, technology, innovation and economic development. How does science technology connects with economic development?

So we then said, okay, let's look at all the global technology. So in 2017, 18, we were working on foresighting of technologies, and we were studying patents, we were talking to industry leaders, we were talking to experts.

And then we realised there were hundreds of technologies. Nobody remembers them, right? So I said, can we cluster them into 10 technologies?

So the first 10 is actually the 10 global technologies. This is in 2017, 2018, we were working and we were already seeing at that time, Malaysia was just rolling out the 4G.

But we already saw countries that were doing 5G and experimental work on 6G, but today we already know, we know there are two or three countries that are already experimenting on that. That will change the whole platform, digital platform.

We looked at sensor technology. That is becoming more and more integrated in a mechanical, biological systems coming together. We saw, most people are familiar with, uh, 3D printing, but we were seeing that 4D and 5D printing were coming in. Which is more complex systems where, uh, you can actually print, uh, you know, uh, liver and things like that, which is much more complex.

Advanced materials. We're seeing new, emerging advanced materials. We're seeing advanced intelligence system, at that time, AI, but now we know advanced intelligence system is all your ChatGPT and all those things.

We saw that through the patents analysis. Cybersecurity and encryption technology, augmented analytic, and data discovery. Blockchain is very important technology.

Um, the other one is neurotechnology. Increasingly behavioural work is coming online. And of course, bioscience, which is, you know, very important for countries like Malaysia where you have agriculture, medicine, medical vaccine.

So we saw this, and below that there are so many technologies, so we them into 10, uh, global technology that impacts everybody.

Then we looked at the socioeconomic sectors in Malaysia . There 10, uh, from energy to business, financial services, culture, art, tourism. We saw medical and healthcare. Uh, we saw smart manufacturing, manufacturing's morphing into smart manufacturing. We saw smart transportation systems coming online, you know, and infrastructure.

We saw water and food systems. Uh, a very important agriculture and forestry education is really important to this part of the world, as I mentioned earlier, education, training.

And the last one is actually environment and biodiversity. How do we manage this? So when we put it into a matrix, we realised actually all the 10 technology can value at this 10 socioeconomic sectors.

And that's how the 10-10, and we worked out case studies on how if you're doing an agriculture plan, it has to incorporate all this 10 technology. But that requires an ecosystem, which means that, you know, what does that mean? Everybody talks about ecosystem, but actually there are eight enablers to the ecosystem.

The first one is actually on infrastructure, on the ground, right? Both the natural and physical infrastructure manmade. The second one is infrastructure, digital infrastructure. The third one is intellectual capital. The third I, right? The fourth one is actually integrity systems, governance systems. The fifth one is actually incentives.

The sixth one is actually institutional leadership. The third one is interaction. This is your smart partnerships and linkages, and the last one is internationalisation. This is global best practices and standards and embracing your SDGs and ESGs and so on.

And we have clear metrics for that. So, to operationalise the 10-10, we realise that we need to have the enablers of the ecosystem to do this, right? So in that paper that we wrote, uh, we realised actually we had this, uh, framework that actually closes that gap.

And so we had a lot of case study. So that's how the 10-10 emerged. But we have a revision of that coming up this year. Ten global technology, 10 socioeconomic drivers, but 10 global forces that are shaping the technology and economic development.

That's called triple 10.

**Paul:** Ah, I wondered if it, what it was gonna be called. [Jan laughs] Saying 10-10-10 My STIE...

**Mahendhiran:** So it's triple 10...

**Paul:** Yes. Triple 10, triple 10.



**Jan:** But that's a, that's a lot of attention to, to mapping and horizon-scanning and, you know, road mapping. I mean, that's a, that's a lot of attention to detail to see how these things work together.

**Mahendhiran:** And we translated that from the Malaysian study to the ASEAN study. So the July one actually, we mapped what the triple 10 for each of the ASEAN countries and collectively for ASEAN, and where the complementarities, uh, will take place.

**Jan:** And if that's happening in the UK, I don't know about it. Or at least it's, yeah, there's a, there's a sense in which I don't think there's that kind of strategic policy making that, that I'm aware of.

**Mahendhiran:** So, so one of the things that we realised that we cannot leave it a chance, it has to be by design.

**Jan:** Yeah.

**Paul:** Yeah. It, it's funny. Again, this is something we talked about with Ann Marie about what, not just, it was very much, we didn't want to focus on what Malaysia could learn from us it's what we could learn from Malaysia...

**Jan:** ...ooh, a whole heap, a whole heap...

**Paul:** ...and ASEAN. And that there is some people like, well, why aren't we doing that? Why isn't the EU doing that if ASEAN and, uh, other, you know, other countries are doing it?

**Jan:** Yeah. And they might be, but if, but if we've never heard of it, then it's as good as it not being done. [laughs]

**Mahendhiran:** Yeah, actually you can download...these reports are, are there. Uh, we have had, uh, uh, you know several countries actually downloaded these studies and now are using this framework.

And we've been traveling and, and, and know, uh, providing greater awareness, uh, to this. And one of the things recently I did was in Davos, was to actually talk about this values-based development, uh, and bringing in the technology, the global trends and, and also the economic priorities of the Global South.

**Jan:** So thinking back to the podcast on Society 4.0 and Industry 4.0, that's sort of got the same feel to that, so it's a nice companion podcast to this one.

**Paul:** Yes. Yeah. Just a couple weeks ago we were speaking to Rebecca and Steve about both of those issues. And you may remember, not this exact part of the world, but a lot of that has evolved in East Asia, far East Asia, with Japan and such, a lot of those ideas and concepts coming from over here.

**Mahendhiran:** It's very interesting because we had a delegation from Japan visitors yesterday, and they were looking at ASEAN and what ASEAN is doing because of the focus of ASEAN.

But here it is that we realise that, you know, in a lot of our work we are seeing, we do global scanning. We study UK, we use some of the best practices in Europe, uh, other parts of the world.

And this is where we see that universities and the transnational research is really important. It helps bridge the, you know, sustainability issues of Global North and Global South.

It becomes a bridge between the two. And this is where I think, uh, the, the relationship between, uh, UK institutions and other institutions to this part of the world is really critical.

**Jan:** And I'm going to go from global to local now.

**Paul:** Don't you dare say that word. [Mahendhiran and Jan laugh]

You know what word you're, you know what word you're thinking of and don't you dare say it.

**Jan:** I'm not gonna say it. I'm not gonna say it, 'cause it'll upset you. Mind you maybe I'll say it 'cause it will upset you. Nope, I shan't!

So can you tell us about something much more local, and that I know is also really close to your heart, and that's the Desa Mentari housing project.

**Mahendhiran:** Yeah. I think, uh, this has a lot of, uh, kind of, uh historical, but also inspirational for, for us, for me and, and, and my research team. Because many of us come from those communities which are from, uh, you know, from plantations.

And as you know, the history of Malaysia, many of the, uh, indentured labourers came in to work the plantations. And of course, some, uh, did well, majority found it hard too as, as the economy is transitioning at a fast pace.

So Desa Mentari is one of those communities. It's in kind of a urban locality, uh, just two kilometres from here, close to about 26 to 28,000, uh, residents there.

Many of them were from, uh, you know urban areas and rural areas that were put in these projects. Uh, many of them come from families where income levels are very low.

Uh, and of course, with projects such as this, you see that, um, there are multiple layers of challenges that they face, what I call a polycrisis, right? Where you have, uh, you know, economic, social conditions there may not be suitable, uh, you know, the location.

So that impacts, uh, their health and wellbeing. So there's a clear nexus between economics, the health and wellbeing, environmental, social mobility, other social challenges where you see kids dropping out of school, you know, and a whole, whole host of things.

So what we wanted to study, and I, um, you know, have been in, in, you know, when I was very young, in communities such as this. And we saw that a key, uh, aspect to, to break away from that cycle is education, right?

If you educate one person in the family, the whole family is able to make that social mobility. And this is where I remember two years ago I said, look, two kilometres from here we have, uh, this community, which is about, and we have a smart city here and a university here.

And, and I went there and I've been doing a lot of work in rural areas. A lot of my research is centred around this too. And I said, look, I think we as a university can play a key role.

And, and I took the leadership of, uh, Sunway University there, and said look, this is a fantastic opportunity in, in multiple ways. Number one is that we can really put SDGs in action, Sustainable Development Goals in action because it's actually transforming learning and transforming society through evidence-based approach.

Number two is that actually inspiring people there that you too can make it and, and are providing them access to education, training, support. So, bringing that aspect of, of hope and inspiration, but more importantly for our students to learn that, you know, while, and many of them come from very privileged families.

But I think privilege comes with responsibility and teaching them that leadership programme. So you'll see that in our courses we have three important things, four aspects actually.

One is, uh, planetary health and sustainability core, uh, entrepreneurship, because the university was built on entrepreneurship. Not everybody will be an entrepreneur, but at least they need to know how to, to interface to create that economic and social value.

The third aspect is community development. So every Sunway student will have to do community programme. And Desa Mentari is, is where they will craft out projects and, and make a difference.

And students love it because this is completely different from what they learned, because now they put into practice. They design development, the programmes. They work with the community leaders, you know, and, and also from things such as education for kids, health and wellbeing, a whole host of real-world projects that they test out.

So it's, you know, uh, giving hope to this, to the community, learning from the community, addressing the Sustainable Development Goals, nurturing the next generation leaders.

And our researchers looking at solutions, you know, problem-based solutions and doing some fantastic work, that what may work for this community in terms of technology, new models, new systems, could be replicated in other, uh, housing projects, not just in Malaysia, but also in ASEAN.

So we are starting to see now the nexus between economic development health. So we have a big study that is studying, tracking people's health and wellbeing.

You know, we see a lot of non-communicable diseases emerging. You know, in spite of all the development we have malnutrition. Kids are not getting the nutritious food, So we have stunting problems.

We have high incidences of, uh, in many parts of Malaysia is a non-communicable diseases, diabetes, heart disease, you know, and they're all nutrition related. They're also lifestyle related. They're also related to the environment.

So this Desa Mentari gives us a fantastic opportunity to study the interrelationship between multiple factors, right? On this multidimensional poverty, right?

And people have attempted this, but it's, you know, unidimensional or taking a small part of it. But here it gives us a comprehensive understanding of what happens in a particular environment.

And, and this is why we have this data collection just commenced. We have whole host of other leading universities coming out here to say, hey, let's study on public health issues. So, it's a window into what's happening in the Global South. So it's not just Desa Mentari or in Sunway, but in the Global South.

And this is why we are very excited with the work that you are doing in the Morecambe Bay area. And uh, because I visited two years ago and I visited Morecambe Bay and Blackpool and Liverpool. And by the way, Liverpool is a football club I've been following since 1972...

[Jan laughs]

**Paul:** ...we have something in common here. [general laughter] I'm a Liverpool supporter...

**Jan:** [joking] ...can you explain football to me?

**Mahendhiran:** ...and I know all the team members from 1972 'til today.

But I visited these cities and I thought, wow, this is really, I've seen, but there are challenges too, right? So, so how can we learn from one another what you are doing that worked or does not work?

What, so I see the Desa Mentari as addressing this polycrisis. And how do you transition this polycrisis into poly-opportunities for the communities, for researchers, for students, and for the global community from a policy and impact that we can, we can make?

**Paul:** It's great that you brought that up because while you were talking about that, I thought, this is, in the UK we have something called Civic University. Which is the message where you try and do good in your community around you, you try and help those who are less fortunate, who need help, you know, the, um, whether it be 'left behind' people, whether it be people who are, um, struggling financially, socially.

And it seems like that's what you've done there, without necessarily using the Civic University label that would inevitably get put on it in the UK, is exactly that.

You're, you're helping those people and, you know, seeing what can be done and how they can help themselves as well. So yeah, it's, it's a really positive message there.

**Mahendhiran:** It's very interesting because on Saturday, uh, this is the second time we are doing, this Monday, uh, school started in Malaysia. Public school system.

And when we went down to the ground, 'cause I, I think I know most of the families there, and speaking to them and I realised many of the kids don't want to go to school.

And I asked them, why is it that you don't want to go to school? This primary one to secondary school. Simple thing is that they cannot afford the uniforms and clothes and they feel so, from a motivation and, and, and...

So I spoke to, uh, the president who was very, very supportive, uh, Tan Sri Jeffrey Cheah. I said, is there something we can do? This is, and he says, yes, no problem. Find out how many children that we can provide uniform schools and school uniforms and other things.

Last year we supported 1,200 students. )n Saturday, we supported close to 1,300 students. You should see the happiness of the kids, you know, and the parents, right? That, I've got new uniforms, new shoes, and, and that in itself is a fantastic motivation, right? That's just a small drop. Right?

And can you imagine the psychological studies that could be done to show small nudges that could make a big difference in a child's? Similarly, we, our researchers and our students are working with programmes that are there for children on, you know, language IT, uh, you know how to be safe.

We also had another program where, economics is tough. Particularly there's a lot of single women of single family, they have, uh, you know. So we said, let's run an entrepreneurship programme.

So we brought 10 entrepreneurs here. Most of it, it was open to everybody, but 10 women came in. And we gave them all the tools and technology and knowledge on how to make their businesses better. And a few of them, and then we plug them into the Sunway ecosystem.

And some of them are doing really well. So we've got this kind of a structured programme, training. You know, if you did it outside, it's very expensive, but this is free.

We handhold them and plug them into the Sunway ecosystem and eventually, and our students are helping them with TikTok and, you know, all the online things and, and they become more confident.

So it's about directly intervening to do the right thing, as what Tan Sri say. You do the right thing, you create value for everybody, and that's what the return and value concept is.

**Jan:** You've been very inspiring. And so what, what's bringing you sort of hope about the future and where we're going to get to?

**Mahendhiran:** Oh, I, I think, you know, uh, the, I, I'm a optimist, right?

And, uh. I think, uh, you know, everybody, deep down in all of us, uh, we want to make a difference, right? And I remember, uh, uh, my, I asked my father, what's the purpose of my life?

And he says, the purpose of your life is to live a life of purpose. Right? And that's what keeps you happy. I mean, everybody's searching for something. I mean, you know.

But success comes if we are able to continuously be inspired. I mean, you know, yes there are challenges, but how do we transform the challenges? No question, that's what we scientists do. I mean, you know, we don't get, the best solutions come from problems, right? We are problem solvers.

And if we can solve their problems with an inspiration, and that's what we pass on to the next generation. You know, your kids and your students and so on. So I tell my kids I love school so much I decided to stay in school forever.

[Jan and Paul laugh]

And more importantly, I say I don't have a job. I have a hobby that pays me very well.

[Jan and Pau laugh]

**Paul:** I don't think my 6-year-old would go for that.

[Everyone laughs]

**Jan:** Me neither, yes...

**Paul:** ...no, no, no...

**Jan:** ...there's two optimists against the pessimist there, so...

[Mahendhiran laughs]

**Paul:** [mock outraged] Hang on. You tell me you're never pessimistic and I'm never optimistic. Stop tarring me with that brush. That's not...

Right. Mahendhiran, thank you very much for coming along and speaking to us.

**Mahendhiran:** Thank you very much, and thank you for having me.

**Jan:** Thank you.

**Mahendhiran:** Thank you.

[Theme music]

**Paul:** Gosh, Jan, he was very enthusiastic.

**Jan:** Yes. But also I think, you know, really focusing on, what I really liked is that robust evidence-based data, logic, really thinking about how these things are going to work.

And I think if you, if you just sort of deal with a, a polycrisis as he was talking about it, and don't have a plan for, okay, well what's the way out of it? What's the steps that can start to be taken? Then I think it's hard to be enthusiastic.

But if you're doing it, I think that's, it helps.

**Paul:** And he has it on so many levels as well. From the project that's taking place, the Desa Mentari project here, you know, within two kilometres of where we're sat at Sunway, all the way through to the ASEAN level.

And, you can see the interconnections that he has in his own mind as well as in the practice of what's actually going on between those two things, and how that all fits together.

**Jan:** And um, one of the things I really enjoyed, uh, him talking about is planetary health. So there's something called the One Health Agenda, which looks at human health, planetary health and animal health and the same framework.



And these things, you know, if, if planetary health is, is poor, then the other two healths suffer. And so actually seeing those three elements together, um, so that, that was sort of a return to a, a really key concept that I've seen several times before.

**Paul:** And then seeing as well with ASEAN and the links they have between diversity, governance and environment and how they are three key pillars there, and how that flows through the organisation and how they need to interconnect. So you need good governance in order to have good diversity, in order to do well with the environment.

You can't ignore one and concentrate on the other two. And yeah, there's so much there that we see here, and we've seen in previous podcasts, how the recognition that you can just concentrate on what element of sustainability, say.

**Jan:** And I suppose the other thing, and this is I guess really speaks to, you know, us as working for an education institution, and other educators that'll be are listening to the podcast.

By putting education at the heart of it, whether it be education of, of youngsters at school, or through the university system or education through gathering evidence together, that is one of the underpinnings that actually feeds out and brings the rest forward.

So, I mean, I, I love working at a university and, and I, I love the careers that I've had teaching students from all sorts of backgrounds over all sorts of topics and all sorts of stages of their studies.

And I guess that's, you know, one of the hugely motivational things about working uh, for a university is the educational mission.

**Paul:** And I particularly liked him 'cause I discovered he was a Liverpool supporter.

**Jan:** [laughing] Yes.

**Paul:** My main team in life is Barrow, but I always, from a child have followed Liverpool and supported Liverpool as well. You know, I've not been to anywhere near as many Liverpool games as I've been to Barrow games, but yes, to find another, you know, Liverpool fan here, that was, that was good.

And you got totally lost at that point, but you know.

**Jan:** [laughs] I know it's a team. I know it's a game.

**Paul:** Yes. It wasn't quite another Wayne Gretzky moment, but yeah, it was, yeah, it was. I could see a similar glazing over of the eyes and, oh dear, don't let us talk about football for the next, uh, half hour.

And, yeah, and the connections that are there between Sunway and Lancaster. You could see how Mahendhiran had seen when he's been over there the way that we work around the communities in Morecambe Bay, and such, and seeing that and how he can apply that to the work he does here and how no doubt we could apply what he's doing, um, here to the work that we do at home.

**Jan:** And I think sometimes there's a, that bit of a colonial attitude that, you know, the rest of the world might learn from wherever you are and whoever you are and wherever you're based, but actually learning from the rest of the world is a, a much better option.

**Paul:** Yes. And the good news is I don't think he's gonna kick us off the Sunway campus before we do our next series of interviews.

**Jan:** And we're not gonna be drummed out of the country. So between those two things, we're on a winner.

**Paul:** Yeah. And because we're allowed to stay in the country, we can do our next podcast, and that's gonna be with Professor Yuka Fujimoto, who's a researcher, an academic here at Sunway, and she's gonna be talking to us about issues around inclusivity again, but more around EDI and inclusivity.

**Jan:** I think it'll be really interesting, especially because ideas of diversity, equality and, and inclusivity are getting a bit of a global backlash at the moment, so she'll be able to help us navigate through those grounds.

[Theme music]

**Paul:** Until then, thank you very much for listening. I'm Paul Turner.

**Jan:** And I'm Professor Jan Bebbington.

[Theme music]