

AIB Podcast Episode 3 | Transcript

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INTRODUCTION

00:10 Fang Shihan

Good evening everyone, across Asia and Europe the funds to tackle climate change already exist but much of this capital remains idle. The challenge is not scarcity, but how to activate these resources so they flow to green projects that protect and sustain the planet. In this episode of AIB podcast we will explore how governments, investors and communities are rethinking finance for the green transition.

I'm Han, your moderator for today's panel discussion and joining me are our esteemed experts. First, we have Professor Johan Solaeman, Director of Sustainable and Green Finance Institute SGFIN and Professor of Finance at NUS Business School at the National University of Singapore. We also have Dr Vincent Lim, Chief Financial Officer at A*STAR, an R&D agency governed by Singapore's Ministry of Trade and Industry. Last but not least, we have Eloise O'Carroll from the European Commission. She's the programme manager in charge of forestry natural resources and energy at the EU delegation to Indonesia.

<shorter opening – segment transition>

WHAT IS GREEN FINANCE?

Thank you everyone for coming today. Let's start with the first question maybe.

Okay, so this is for everyone - what does green finance mean to you and how does it differ from traditional finance?

01:25 Prof Johan Sulaeman

I'll take it first. So thanks for having me, so green finance is to some extent in a lot of ways very similar to conventional finance, it is about allocation of resources. When I think about green finance, I see it as a powerful tool to align economic progress with environmental and social responsibility. It's about allocating and channelling resources into projects, initiatives, that can help to protect our planet and our society. So we can think about things like renewable energy, sustainable agriculture, even climate resilient infrastructure as part of this equation, so therefore this green finance is just a shift in perspective to some extent, right? We typically are allocating resources in finance to projects that are the most profitable. Now we are trying to allocate resources to projects that will sustain us the longest in this planet. Profitability and sustainability, they don't have to be at odds I think, they can work hand in hand and I think green finance recognise this potential of having the synergy between profitability and sustainability, so that finance can be a tool and equipment a facility for economic growth, right? And also for environmental and social and well-being.

02:59 Eloise O'Carroll

I'd be happy to chime in here, but I think the introductory definition was really valuable. Maybe just to add one nuance is that maybe, it's important for us to look at green finance with respect to our climate commitment. So for me I work for the EU, so with the EU we have a commitment with our 27 member states to reach climate neutrality in 2050 and that's in law. And on that journey, we obviously need to finance things that have an environmental and social impact that is green, but on our transition to net zero there's also what we call transition finance and that's for financing economic activities that today might not be fully green, but that are you know, in the process of becoming green, to add some differentiation in terms of financing that we see. And so it's really important to bear this

in mind that there's also some nuances in the types of activities that we finance but all are really crucial to meet our net zero targets.

04:04 Dr Vincent Lim

I basically agree with the fellow panellists, but I want to add one additional item. Green finance in my personal opinion has been around for a very long period of time, but in the recent age or recent few years, one or two years, I think the clarity has not been there. There are a lot of people who talk about green finance and then it is basically just a bond that is linking with some ESG that basically some money. But capital is idle if we don't have clarity, and what kind of clarity are we looking at? I think if we thought a little bit deeper it could be one four zero six four (ISO 14064), the ability to calculate to the, for example the emission. When people talk about net zero it could be carbon neutrality one four zero six eight (ISO 14068) for example. It could be the ability to use the ISSB S2 and calculate the specific number. So I think green finance need to have a little bit of additional clarity and it's no longer the same as what we have for the past like maybe 20 years, 30 years ago, but in the current age it should be slightly more climatic and slightly more clear.

<transition for question>

WHY IS CAPITAL IDLE?

05:24 Fang Shihan

So there is a lot of chatter that despite all the commitments that have been made to green finance, very little of it has actually been dispersed. From your experience in your line of work, is that true? And if so, why? Johan, let's start with you and maybe Vincent.

05:40 Prof Johan Sulaeman

Okay, so I think I would echo what Vincent is saying which is that I think the capital is quite inactive right now. It's not scarce, I think we have capital. The issue is the lack of understanding about what can generate the most impact. So I think this goes back to Eloise point earlier about, you know, sustainable and social and environmental impact and capital is looking for actual impact, right? Because otherwise, the investors will struggle basically to find clear impact, credible impact, clear data and this goes back to Vincent's earlier point about clarity. I think they're looking for clarity so that they understand what is the risk in the projects, what is the opportunity in the project and therefore we can do our usual financial modelling. So we can do valuation, so we understand how to value projects more easily. There are many assets that already exist in the economy that are, right now actually are becoming less liquid because our inability to evaluate climate risk. Not just transition risk, but also physical risk like flood risks. And all these things actually require just better measurement of risk and better measurement of potential opportunities, and once that happens it'll be much easier for capital to flow into these projects, to be deployed into worthy projects that can generate, hopefully, beneficial impact for the sustainability of the planet. One last thing I want to say is that the cost of capital being on the sideline is huge because in the long run, if we don't transition as more quickly, then we will need to spend more money on that adaptation.

07:38 Fang Shihan

Ok Vincent, over to you.

07:39 Dr Vincent Lim

I fully agree with Johan and I think we listen like this, sometimes people don't get it, don't get what Johan mentioned and it's so, so true. I just want to share right, not so long ago I was in COP 28 and it was in Dubai and I delivered a speech in Dubai during the green zone and I said, carbon credit could be the next financial instrument to save many things, among them, our carbon emission. And there were people come up and say "oh Vincent you are, you know, allowing people to use money to avoid

their responsibility,” but you remember I was speaking in Dubai, and Dubai, Riyadh, Abu Dhabi, all these very nice places, they are basically oil-producing organisation and country. So the ability for us to, so I told them the ability for us to criticise people who are focussing on green finance or carbon credit or carbon-related financial instruments is very low if you are doing absolutely nothing. The ability to actually know what is the real amount that the capital is contributing is very crucial. Today, if I say one dollar, how many carbons are you reducing? That is a bit low, so that is a bit unclear. So basically this is the view, pretty strong one, that we need to have stronger clarity to enable capital, otherwise, the green financing is a bit slower recently.

09:18 Eloise O'Carroll

I think in forestry, one of the key developments in the recent decades, but increasingly so in the past couple of years, is the use of observation. So satellite monitoring to monitor forestry using satellites from space. So at the EU we have the Copernicus programme which is our flagship space programme and there's a number of Sentinel satellites that go around the world, paid for and managed by the European Space Agency to assess many things, including forestry or vegetation, so forest cover, but also things like water, oceans, coastal to really assess what's going on and to see the impact of human life basically on the planet.

<transition for question>

10:07 Fang Shihan

I want to go back to our previous question which is about unlocking capital. So we've learned that there's lots of technology that's being deployed now for monitoring deforestation or forest growth, correct? But is all that technology, is that inspiring confidence among investors and is that unlocking capital for you?

10:29 Eloise O'Carroll

Indeed, it is it is inspiring confidence and it can unlock capital if the tools are there. So one way in which we the EU support unlocking this private capital in this case is through the European Fund for Sustainable Development plus (EFSD plus), which is the financial arm of the global gateway, which is our strategy to boost climate smart investments around the world in a way that's environmentally and socially mindful. So, looking at infrastructure but also governance education and so on. Through this instrument we provide guarantees as well as grants and concessional loans. And through the guarantees here we can guarantee private sector lenders, so for example think of Dutch development bank FMO, to invest in carbon sinks in key countries. Indonesia could be a potential candidate but many countries in the region are eligible for our guarantee cover to enable them to invest more and to share the risk with us. And this is something that's really great and that's starting to work around the world and this is a model that we are really looking to replicate in key markets or nature-based solutions as one example.

<shorter opening – segment transition>

GREEN FINANCE TO SUPPORT GREEN TECHNOLOGIES, ESPECIALLY THOSE CURRENTLY UNPROFITABLE BUT WITH SIGNIFICANT POTENTIAL.

11:50 Fang Shihan

We've just heard a mixed bag of lots of wonderful new climate innovation technologies that you just mentioned. But I want to come back to the expert that we have here on the panel, which is Vincent. So the next question is for you in your opinion what is the latest in climate technology innovation and which ones in your opinion are the best bets for green financing?

12:10 Dr Vincent Lim

This is an exciting time so, just now, we just heard about the carbon capture and utilisation and storage. But carbon capture and store is not so simple. We think about pumping the carbon into the ground, you need pressure and temperature and therefore it's about 800 metres deep, usually one to three kilometre usually, but minimum 800 metres. In Singapore, I don't know there's any place that we can do that. So utilisation of carbon after carbon sequestration is I think, the next potential way where we can look at a real innovation. You can utilise by let's say, pyrolysis or you can use that to simple things up, maybe take A*STAR for example. So in A*STAR, we have about seven programmes, but one of them is the ability to go to rubbish. So we have a Samakau Island for example, take rubbish, grind it, add carbon into it and make it into sand. So once it's crystallised into sand, we can use it for construction, we can use it into bricks, we can use it for many other things. The ability to sell this brick doesn't make a lot of sense, because I can create bricks in a simpler way and cheaper. But the ability to use mandatory carbon credit for example, will be very exciting. The second technology maybe, is SAF. SAF stands for Sustainable Aviation Fuel. The most recent newspaper article states very clearly the Ministry's intention to ensure that every single flight from Singapore is to sustainable aviation fuel. So ladies and gentlemen, what is SAF, where do we get? Today not many people know, we don't really have. So the largest test rig in the world last year was from A*STAR and we have it in Jurong Island. We have been testing the ability for us to generate SAF (sustainable aviation fuel) and today the quantity is not a lot. So ladies and gentlemen, think a little bit. If the whole Singapore flight will have to be on SAF and today our supply is so low, wow. I mean I'm just predicting the future but wow, the potential is so so big and how many people are investing with us? Not many. Today we are IHI, Japanese company. Singapore, some startups, small ones. So the ability for us to recognise the potential and actually do it there's so much, but how many people actually do it? I didn't see a lot. So the third is for example, hydrogen and hydrogen is so easy right, oh just use hydrogen. It's not like that. It's the ability to carry hydrogen. So to carry hydrogen you need ammonia and to manage ammonia, it is a totally new technology. The essence or the summary of what I wanted to say is that the potential for innovation and research is so large but there are many people who are looking at this. Most of the people when I talk to in university and also in conferences is to do something very simple –to reduce electricity, reduce water, reduce waste. If it's so simple. I think the ability for us to move green finance forward is clarity, but at the same time letting our colleagues, potential advocates, to really understand the deep tech and power of innovation.

<transition for question>

PROMOTE TECHNOLOGY FOR CLIMATE ACTION – INCREASE CLARITY, REDUCE RISK AND GENERATE DEMAND

15:50 Fang Shihan

Okay, this one is for Johan actually. I think he got something to say. So we've heard about Vincent advocating for number one, CCU (carbon capture and utilisation). Number two, SAF. Number three, hydrogen, preferably-green hydrogen. What are your thoughts about the business model and the commercialisation about these three innovations that he just talked about?

16.09 Prof Johan Sulaeman

I think the point that Vincent made earlier, if it's a simple project, simple technology and it's readily profitable, then it would have been done, right? Reducing water, reducing waste, if to the extent that it's economically viable, companies would have done it. Now, what is left are things that are relatively difficult, technologically challenging, potentially unprofitable at the moment. So this technology requires several things. One is de-risking, I think Eloise talked about de-risking some of the technology. You also can go the other side which is to increase the potential revenue by generating demand,

incentivising companies by providing stable demand for their technology, the new technology. And finance will only flow to some extent if we either reduce the risk or increase profitability by generating this stable demand. So for all the technology that Vincent is saying, the demand now is actually quite limited, right, because like you can find bricks cheaper some other way, you can find jet fuel some easier way, some cheaper way, then all these things that are being discussed, I think regulations and some clarity will result in demand for these more sustainable products. And I think scaling is the issue there. So when you talk about finance, I think it cannot be in isolation relative to regulations and policies because we need to generate economic demand for these products. But I think the hope to me is like the younger generation is probably more sensitive to this. This is their planet. And to some extent, they are probably more willing to pay for this.

<transition for question>

18:03 Fang Shihan

So realistically though, in our current economic climate, not just in Singapore, but also globally, is it realistic, number one, for regulators to push for off takers to maybe buy into such premium technologies? Or number two, is it responsible for consumers to expect consumers to pay the premium for such technology?

18.26 Prof Johan Sulaeman

The answer is yes. These are opportunities, right? Look at the Chinese EV producers. You may think of this as subsidy, but every kind of industrial policy is a subsidy. Now you can choose where to subsidise some of these technologies. And why don't we choose these ones. Where we can not only generate profits in the future, but also generate a more sustainable planet. I sound like an activist now. I am not an activist, I can assure you, right? I'm very sceptical about a lot of technologies. And some technology may not deserve this treatment. We need to think hard about which technology deserves treatments that, like you said, could be costly right now. But in the long run, I think these technologies, particularly promising ones, not only will generate a more sustainable planet, but also will generate profitability for the company, for the society, for the country.

<transition for question>

<shorter opening – segment transition>

JUST TRANSITION

19:30 Fang Shihan

Okay, so beyond technology, green finance is also about ensuring a just transition. So this question is for Johan. Help us explain what's a just transition, and how that is related to transition financing.

19:43 Prof Johan Sulaeman

So we talked a bit about, you know, profitability, and balancing profitability and sustainability. A lot of times, we're not balancing profitability with sustainability. What we are balancing is sustainability and economic development. So when we talk about just transition, what we are concerned about is that the transition to a more sustainable world may result in less sustainable communities, in the sense that if we make the poorest of the poor pay for our transition, the global transition, then clearly, we are not doing right by them. Number one is the understanding that transition is difficult and the poorest of society will be likely to pay the cost if we do it and if we don't do it, right? So we need to balance that as well. If we don't do the transition properly, the poorest will also get hurt. So we do need to think about the fact that the poorest will get hurt the most. The second is the need for governments to intervene in this process, because regulations will need to change in order for this to

happen. Policies need to change in order for this to happen. It's not just capital. We need policies, we need regulations. And the last one is, I think we're going to talk a bit about this, is blended financing will be critical as well, because the fact of the matter is some of these just transition initiatives will lose money in the process. We need governments and donors to be able to step in and say, look, we're going to de-risk some of these things so that private capital can flow in to support the process.

<transition for question>

21:40 Fang Shihan

Okay, so this one's for Eloise. The EU is a global leader for green finance and a pioneer of mechanisms to support this just transition. So, tell us a bit more about the EU Green Deal and how it translates this principle into practical support, especially as what Johan mentioned earlier, especially for the communities that depend on fossil-based industries.

21:59 Eloise O'Carroll

Indeed, I think Prof Johan made some really, really good points there on the economics, the case to really diversify from these fossil or carbon intensive industries, but we must not forget the communities. In the 1990s, in Northern France, for example, when there was economic downturn linked to mass coal mine closure, that was not necessarily planned, because France then was attracted more by nuclear energy and developed that instead or coal prices were low. So when there was this downturn that was not planned for in advance, there was a massive loss of jobs and livelihoods, and communities are still facing challenges today in Northern France. And really to add to the economic question is the socio-economic angle of community mobilisation, and diversification and long-term planning. And so for this now in the EU, this is something that in the Green Deal, so which is, as mentioned, a flagship policy, a law to be climate neutral by 2050. We have various mechanisms to plan the just transition adequately over time, and with consistency at a regional level. And for this, there are many, many funds. One is called the Just Transition Fund. Essentially, it aims to support communities, regions, and local governments and national governments with funding from the EU, but also with funding from the member state itself to transition away from either the fossil fuel or the industry that they were dependent on, and to diversify and to find other means of socio-economic diversification. And so this Just Transition Fund, it's nearly 20 billion euros in grants and current prices, with additional financing from member state. So one of these flagship projects that was launched or opened rather just a couple of months ago is in Estonia. It's the Neo Materials Rare Earth Magnet Factory. And magnets, we know, are really important for the green transition and for Europe's energy transition, as these magnets are present in wind turbines and electric vehicles.

We also work on the just transition abroad with partner countries, and Indonesia is a key partner country. I'm based in Jakarta. And I also work on the Just Energy Transition Partnership or JETP with the government of Indonesia and with partners. So there's nine public partners and then a group of commercial banks who together have pledged around 20 billion US dollars in public and in private financing to really accelerate renewables as well as accelerate the supply chains around renewables, transmission lines, skills, all of this, and moving away from coal in Indonesia. And so, for us at the EU, we work in what we call a Team Europe approach. So that means we work really closely with our member states that are present here in Indonesia, and also with banks and financial institutions, in particular here, we have the European Investment Bank, we also have the French Development Bank, AFD, and the German KfW.

<transition for question>

25:31 Fang Shihan

So I'm curious about your thoughts on this, Vincent. Just now Eloise spoke about accelerating renewables in Indonesia. But there's also a lot of anxiety about whether this transition, it could be a

transition towards renewables, it could also be transition towards AI or just automation in general. I guess particularly from the AI point of view, that AI consumes too much energy.

25:55 Dr Vincent Lim

So if we look at the current AI capability, it is being used in many areas that are sustainability-related. The ability for some of us to look at data centre, and when I say some of us, it is beyond A*STAR, it was also with Google and Meta, to use AI in the ability to reduce data centres, electricity usage is very, very crucial. And we are looking at like 50% reduction. So no AI, yeah, continue spending that kind of electricity. With AI, you have a 50% reduction of electricity. So the more we use, the less carbon we have in the atmosphere. And of course, if you look at just one sector in silo, then you say, oh, don't use, then we miss out in many other things. The government has built the latest data centre in Jurong Island, and to hydrogen energy. So we basically term it as sustainable energy, but we are trying hydrogen, and to use hydrogen, I just mentioned we need ammonia. So the ability for the sector to focus on real technology to achieve sustainability is so crucial.

<shorter opening – segment transition>

COP30 – HOPEFUL WITH CUP HALF FULL

27:22 Fang Shihan

So this has been a really valuable discussion guys. So, we have to wrap it up now. Last and final question with COP30 around the corner. What is your ideal outcome from COP30 and would that outcome be likely? All views are welcome, whether they are pessimistic or optimistic.

27:38 Prof Johan Sulaeman

I want to start because I don't want to be the final word on this. I'm quite cautious in terms of what COP30 or any COP can achieve. Our experience, our shared experience so far is that there have always been issues with implementation. It's difficult to agree on things, but even after countries agree, the implementation still lacks urgency, still lacks immediacy. So, my sense is that going forward, we may see countries moving independently, but I hope that they are still moving towards a shared goal, which is that we need to save the planet at some level. This is not going to be efficient because the EU will go in one direction, Asian countries will go in some other direction. There will be duplication of efforts. There will be conflict of efforts. But this may be the only path we have, and the task, I think, at hand is to be able to try to minimise this duplication, making sure that the efforts are compatible with each other. So we end up, I think we're going to have more paperwork, more standards, more verification and hopefully more transparent data as a result.

So that's where I think a lot of our research at SGFIN is going towards this. We want to make sure that once the data is ready, we have the infrastructure to process the data, right? We are able to value impact more succinctly. We need to, we can support blended financing because it's going to be needed anyway. And we can support technology adoption. Like Vincent is saying, there are a lot of technology. How can we facilitate the adoption of the technology? I think this is what we can do. I mean, we cannot hope for COP 30 to make huge progress, but all of us will need to do our share.

29:30 Dr Vincent Lim

So if we look at COP, I always teach my students and the conferences. Some of them are very successful. Anyone remember Kyoto Protocol? Kyoto Protocol saved the entire humanity. It's a foundation for many, many things. (It's a long time ago, Vincent: Prof Johan Sulaeman). This is a long time ago. Long time ago. So, it was very successful. And then we had Paris Agreement, 2015, very, very successful. But somewhere after that, like nothing much, I was a speaker in COP 28, right? I went there with full of excitement. I came back just shopping. And then I drank some coffee, nice Turkish coffee. But basically, that's about all. But I think the key is like this. One of the things I hope to achieve

is related to just transition, for example. So, when I talk about the countries to my students and to my audiences, many people will point out, oh, China is the biggest polluter in the world. And it's true. They are true. But, you know, ladies and gentlemen, many people just jump in and say, oh, this country are no good. But number one, many of the products that we buy came from there. Then they admit we buy. If you want to blame them, don't buy. Number two, per capita, they are actually quite okay now. There are a few countries, they are near to the oil producing area per capita, the highest by a lot in the world. Number three, you know, when we talk about just transition. So, some of these developing countries have been developing for a very, very long period of time. Some of the developed countries have been developed for the recent like 50 years. So, we are kind of enjoyed for a long period of time. We now come back to them and say, hey, you cannot emit carbon. I'm not that sure whether that's just or whether that's reasonable. There are many, many reasons. I really hope that we ignore the border of the nations and able to come and sit in and decide just like Kyoto, just like Paris Agreement. So, I really hope COP30, we have a real, like agreement, real discussion, real sign something and do something. So, you ask for hope. Yeah, that's my hope.

31.48 Eloise O'Carroll

We always have to see things glass half full, otherwise we wouldn't be here. I think we need to recognise 2025, that's 10 years from the Paris Agreement, which as was mentioned, is one of these flagship COPs, because basically nearly all countries in the world, I think 195 of them, minus one more recently, and then a couple, a really small handful that didn't sign up, pledged to join the Paris Agreement to maintain global heating to well below pre-industrial levels. So, 1.5 degrees to maintain a liveable planet. Since then, with the pledges, so with the nationally determined contributions of the countries, we've managed to move to shift the needle from global heating of predicted four degrees by the end of the century to around 2.7 now. So of course, it's not enough and of course we can do more, and of course multilateralism can be reformed so that we can be more effective in our decision making, in our implementation, and in our global alignment. But we must also celebrate what multilateralism has provided for us, also in Kyoto, how we worked together to really raise the ambition, to raise the climate ambition for all countries and to do so in a more just manner, as indeed many states and many small island developing states, for example, face much starker consequences than us in some other countries geographically due to their topography, due to the nature of them being small islands. So as always, we will remain committed in the EU, despite others changing their minds and we stay the course. But of course, we need to act with other countries in the world to really push for more ambition collectively, for more climate ambition.

33.39 Fang Shihan

Okay, so in sum, there's a lot more work to be done at COP 30, but let's also not forget that a lot of work has already been done, there has been impact, the needle has shifted and there is more work to be done. Can we all agree on that?

All panellists: Yes.

33:56 Fang Shihan

Okay, so this has been the Green Finance episode of AIB podcast. Thank you for tuning in and thank you to our panellists. Thank you, everyone.

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