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Commodities in Asia | Episode 2
Septian Hario Seto, Deputy Minister of the Coordinating Ministry for Maritime and Investment Affairs of Indonesia

For our second installment of *Commodities in Asia*, we welcome Septian Hario Seto into the SmarterMarkets™ studio. Seto is Deputy Minister of the Coordinating Ministry for Maritime and Investment Affairs of Indonesia.

SmarterMarkets™ host David Greely sits down with Seto to discuss how Indonesia is approaching its role in the energy transition as a major producer of both a commodity we need to use less of, coal, and a commodity we need a whole lot more of, nickel.

Septian Hario Seto (00s):
We need to work together on this, especially on the critical minerals that are required for the energy transition. The country who owns the resources and the reserve, the country who has the technology. I think should work together to create enough supply for these critical minerals. So for Indonesia, we don't want high priced nickel. We want the nickel price just right for everybody, for the producing countries, for the consumer, so that we can do this energy transition properly.

Announcer (29s):
Welcome to SmarterMarkets, a weekly podcast featuring the icons and entrepreneurs of technology, commodities, and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?
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David Greely (01m 10s):
Welcome back to commodities in Asia on smarter Markets. I'm Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Septian Hario Seto, Deputy Minister of the Coordinating Ministry for Maritime and Investment Affairs of Indonesia. We will be discussing how Indonesia is approaching its role in the energy transition as a major producer of both a commodity we need to use less of, coal, and a commodity we need a whole lot more of, nickel. Hello Seto, welcome to SmarterMarkets.

Septian Hario Seto (01m 41s):
Hi David. Thank you so much for inviting me.

David Greely (01m 44s):
Oh, thank you for joining us. You know, I've been looking forward to talking with you about many of the things that are happening in Indonesia right now and as I was thinking about it, it struck me that in some sense Indonesia is at the crossroads of the energy transition to a low carbon economy. Now, on the one hand, Indonesia's a producer of coal, which we'll need to use less of in the future, and it's also a producer of nickel, which we'll need to use a lot more of and something Daniel Yergin said a few weeks ago on this podcast came to my mind, which is that we are not seeing one energy transition, but many energy transitions, plural, happening around the world and so I wanted to start off by asking you, how do you in Indonesia see the energy transition or transitions and what do you see as Indonesia's role in them?

Septian Hario Seto (02m 38s):
Well, yeah, thank you David. I think this is very interesting questions and to be honest, we have been thinking and exercising a lot yeah about this issue. I believe there are two key principle, David, that I think we should emphasize. Yeah in doing this energy transition first, I think there is no cutting corner on this one. Yeah and second is there is no silver bullet, which mean that there is no one single recipe that, you know, for all country can apply it on the, how we should transition our energy gear. So I'll give you an example. Yeah, if you take a look the database on the G20 and you calculate emission per capita, emission per capita, you will be very surprised to know that

Indonesia, actually at the bottom three, our emission per capita is only 2.3 ton compared, you know, US Canada, the numbers is above 15 ton per capita.

Septian Hario Seto (03m 34s):
So it's something that I think we need to mention because I think this is the fact that we cannot deny. So I think for Indonesia, we are putting a very careful equilibrium. We are going to do this energy transition, but at the same time, we cannot sacrifice our economic growth or we cannot put the burden of this energy transition too high to our citizen. So I think this is something that is very important in Indonesia, you mentioned about coal. We are the largest exporter of coal in the world. We also use a lot coal domestically, but I think since last year the government has issued new regulation that forbid our state owned company for the electricity p l n, to build new coal fired power plan for public purposes. So no coal fired power plan for public purposes, but the government still low if this is for captivia, which mean that Indonesia is very wide.

Septian Hario Seto (04m 36s):
Therefore we have 17,500 islands. So on the sum of these islands, you know, remote area, we do not have many option beside using coal for our industry over there. So we are still lowing for them to build the coal fire power plan for industry specific purposes for the industry that we believe it will enhance the economic condition on that area. But there are three requirement that you need to fulfill. So after 10 years of the operation of this coal fire power plan, you have to reduce your emission by 35%. That's number one. Number two, you need to retire this coal fire power plan by 2050. Our net zero emission target is 2060 de and number three, you have to prove that your industry that you will build over there will absorb a lot of employment, will have a significant economic impact to the region. So this is the trick criteria that have to be fulfilled.

Septian Hario Seto (05m 38s):
So I guess with this one, we are trying to manage our energy, energy transition, but at the same time, we don't want to sacrifice as well our, our economic growth. So that's first. The second one, actually, we are working with Jet P right now. Yeah a lot of discussion going on, on how actually we can reduce our coal fired power plan capacity. We are proposing an early retirement on our old coal fired power plan, but the discussion is still, still not really fruitful. The G seven who actually sponsored this G20 doesn't really like, you know, about the idea of this early retirement of the coal fired power plant but one thing that, you know, we proposed to the ma, so if you do don't want to this early retirement, help us to build a smart grid. This smart grid is very important, David, because you know, if you want to absorb the intermittency of this renewable energy from solar, from wind, you need to have advanced grid.

Septian Hario Seto (06m 37s):
Our grid is quite old, so it'll not able to absorb a lot of intermittency, which mean that, you know, if we are not building this new grid, it is going to be quite difficult for us, you know, to add more on the solar, on wind power. But very lucky to fit in Indonesia, especially in the most populated island Jaffa and Sumatra. We have a lot of geothermal. So our idea is we are going to replace, you know, this qualified power with the geothermal because geothermal have capacity to be a base load and this is very important for the industry. We cannot rely on the solar or wind who have a lot of intermittency to supply the electricity for, for, for industry. Then I think this is also part of the plan for us to transitioning especially on the Jaffa and Sumatra our most populated island from coal to Gautama.

David Greely (07m 32s):
And you had brought up the carbon financing that may or may not be available from G7 countries and others, and I was curious, how important is that type of financing to help reduce dependency on coal for domestic use to retire coal-fired plants and do you see if it's related, the turmoil this year in the voluntary carbon markets affecting the availability of finance to countries like Indonesia to move forward on their own energy transition away from coal to other sources of power?

Septian Hario Seto (08m 07s):
Yeah, it's very important, David. I think the basic principle, David, is one ton of carbon emission in Indonesia, in Africa, in Europe, in US, will have the same impact to our climate, right. So why should we differentiate the cost of financing to do like this carbon reduction program in Indonesia, in Africa, in US, you know, in Europe, I think the cost of financing should be the same. The cost of capital should be approximately the same. Otherwise, it's going to be very difficult for reflowing country to do this program. I think international energy urgency has done a very good exercise. Actually, if you want to successful on this early retirement of, the coal fired per unit need to reduce the work by 6% is quite big number deficit. So I don't think only developing country alone can do this one year. So I think the help of the flow country is very important in our view.

Septian Hario Seto (09m 11s):
Okay. If you don't want to finance our early retirement of coal fired port plan, then help us on the grid. Yeah. I think this is, this is something that I think we will have also same impact even though that the impact might be not as fast as early retiring the, the coal fired port plan and I think the second one is if you do, for example, David early retired, 10 years earlier area of the coal fired power plant, then at least on this 10 years period, we can trade the carbon yeah. Reduction that we are getting from this early retirement of the coal fired pork plant. I think that will also help the economics of this early retirement of the coal fired power and so far, you know, internally, based on our discussion, the progress on this carbon trading is not, not progressing as what we expect to be.

David Greely (10m 05s):
Yeah and I imagine that has a spillover effect in other places. You know, we've spoken a lot about Indonesia reducing its own demand for coal, but I'm curious what's happening with the demand for your coal exports. Are you seeing countries, you know, because I would imagine if other countries are reducing their own coal demand as well, you'd see your demand for your exports to go down do you see those going down or going up and what do you see as driving that?

Septian Hario Seto (10m 30s):
Well, unfortunately they fit based on our estimation. Yeah you know, international energy agency mentioned that, you know, the cold demand will be peak in 2025, 2026. Based on our estimation, I don't think this is going to happen here. You know, in China for example, they built around 300 gigawatt hour of new qualified power plan in India they built approximately 60 gigawatt there. So I think, I'm not really sure if you know the demand of the call. We are going to be peak Yeah. In 2025, 2026 based on this data. However, I think for sure our coal reserve deficit will be finished by 2050, 2055. Yeah, so I think it's going to be declining. Yeah, so I don't think, yeah, in the next 10 years, we are going to be the biggest coal exporter anymore. Yeah because I think our reserve also is depleted there. But if you ask me your question, I think it's still going to increase the coal export.

David Greely (11m 35s):
And I wanted to ask you about another commodity that's likely to export, but one that I think the world is counting on, which is turning to nickel. Obviously nickel is critical to the energy transition, key component in lithium ion batteries, other types of batteries that we would need for electric vehicles. Indonesia is a major producer of nickel and the energy transition makes that highly sought after and a highly valuable natural resource and I wanted to ask you a few questions about that because, you know, commodity wealth and natural resource wealth has been a mixed blessing for countries historically and I am curious how Indonesia is approaching managing this resource and its wealth. Maybe to start off for our listeners, can you put the size of Indonesia's nickel reserves in context. I mean, how large are they and how much is there to be mined?

Septian Hario Seto (12m 27s):
Well, thank you very much. I think first of all, I guess, you know, in the common economic textbook Yeah we know that there is a terms of resource course Dutch disease, you know, which, you know, means that the country that have a very huge natural resources usually is not well developed economy. Something like that. So that's, I think this is mainly, you know, because I think previously, you know, we call it, this is a chicken economic deficit, the chicken economic mindset. Why do you know how chicken is getting their foot. Basically, they just dig, dig, dig, and eat right directly, you know, from what they dig right, so I think basically it's quite the same with Indonesia many, many years ago before we start this downstream program by our President Joko Widodo said we just dig, dig, dig our recall our nickel, you know, we just exported to the other country.

Septian Hario Seto (13m 22s):
So we are not getting the value added edit as much as you know, we can. So I think this is first thing that, you know during our President Joko Widodo, we changed the mindset. So we are not allowing to export the nickel or which is the raw material because I think it's not economics, David, you can imagine in the one ton of the nickel or the nickel content is actually only 1.7, 1.8%. So 98.2, 98.3%, you are transporting dirt and water and then it costs us like $14 per ton, you know, to transport the nickel or from Indonesia to China who bought like maybe 96%, 97% of our nickel before we bend the nickel or so it's not economical. So when we do this export ban, we are carefully analyzing the economics. Is it going to be more profitable to build the processing in Indonesia or is it going to be more profitable building the processing in the buyer's country of this nickel area.

Septian Hario Seto (14m 28s):
And then I think our analysis, so that I think it's profitable to build in Indonesia. So I think this is why our downstream program on the nickel is, is very successful. Yes at the first time is mostly a Chinese investor because they have the technology. But right now you can

see David, Ford Motor Company is investing in Indonesia, you know, LG Energy Solution is coming to Indonesia, and then some other investor from Taiwan, from India, you know, BSFA map, you know, is coming to Indonesia. So I think it showed that we are opening our nickel to anybody and then they're investing based on the economic sense, you know, because if it doesn't make sense, it doesn't feasible based on the financial area, the investor will not come and we lose our export revenue from this nickel loss. So I think this is very important understanding.

Septian Hario Seto (15m 18s):
Yeah and then yeah, we are very upset of course when EU bring us to the w t O about this export man. But you know, we, we said to our, our counterpart in the EU, do you know that, you know, your intention is to diversify the supply chain Yeah, out of, you know, concentration in a certain countries. Yeah, but I've said to them, you know, if we are about to open this export of the nickel, or I'm pretty sure yeah, a hundred percent we'll go to China and then you will need to get the nickel coming from China and then I think that's the situation. So I think this is also need to be understand by the developed country, especially the EU here actually this program is benefiting all of us. You know, Indonesia, we can get increased value added, but in EU, in China, in South Korea, they can buy nickel product that is more efficient, you know, with a higher nickel content that can be transported from Indonesia. So I think this is something that should be win-win for everybody.

David Greely (16m 23s):
And has that been the real sticking point as you engage with other countries and companies in your nickel industry that you want to do the refining of the ore in Indonesia and they're objecting to that?

Septian Hario Seto (16m 37s):
No, I think they're very happy to come to Indonesia up until now, David, I think since 2016. Yeah more than our estimation, yeah, more than 25 billion has been invested in Indonesia on this nickel refining melting iron and still, so it showed that, you know, the investor is getting their written or even maybe higher than their expectation. Otherwise the numbers of the investment will not as big as, you know, what I mentioned to you because obviously they don't want to come to Indonesia if they're not making money. Right. If it's, you know, is, is very simple. So I think the, the company is very happy to be honest, because they can get the access of the nickel directly, you know, the European BISF, Eramat, you know, they can come Indonesia build this melting and refining facility in Indonesia. So yeah, I think it should be a win-win for everybody and then we are happy, you know, to provide our nickel to the world, you know, we are not putting any threat restriction beyond the nickel or beyond the nickel and which mean that the first derivative of this processing, you know, which is, you know, nickel pick iron or mixed heat precipitate is free to be exported to any country. We are not putting any threat restriction beyond the nickel or, you know,

David Greely (17m 53s):
And I was curious, you know, when you look at developing nickel and other natural resources, talked a little bit about, you know, the, the mixed historical record of how that's helped or not helped countries. Are there countries you look to as examples or role models for like countries that have developed their natural resources well or, you know, potentially countries that have developed them poorly who you're learning lessons from?

Septian Hario Seto (18m 18s):
Well yeah, we can take a look. I think for nickel we are, we are the first country who are doing this one. I think, you know, New Caledonia have been trying many, many years ago, and it's not really successful. Yeah. But I guess the key in Indonesia is, you know, because I think, you know, the calculation and how actually we approach the investor at the beginning is quite corrected. So when we do this, this ban here on the export of the nickel or deficit, it's actually we are giving them a transition time. So for example, if we announced today we are going to do the export ban, we are giving them five years to actually start implementing that one. So all the nickel mine company can prepare to construct the smelter and everything. So I think that is also very important but to be honest, this is something that we are trying to just. Our policy, you know, base just our estimation and calculation. So I think this is quite unique when we visited many countries in Africa, you know, they are really eager to learn based on our experience, how Indonesia can be successful in creating this downstream project.

David Greely (19m 35s):
And I'm curious, how are you looking at using the wealth developed through the world's increased demand for nickel to develop the rest of the Indonesian economy?

Septian Hario Seto (19m 46s):
Well, I think it's, it has a huge impact. I can give you a number. In 2018, our export of the nickel and it's derivative product is only like US $4 billion of it and last year our export is about US $34 billion. So it's eight times increase and that has a huge impact to our macroeconomic stability because it's generate more dollar revenue to our country and then it also help us to improve our threat, balance our current account and that has an impact to the stability to our currency against US dollar. So it's a huge impact on the macroeconomic stability but if you take a look further to the regional economic impact's, huge. You know we developed this nickel downstream industry using the industrial estate project, which mean that in this one industrial estate, you know, we are putting the smelter, we are putting the downstream company to process further the nickel and everything into one single area, which has their own power plan and everything.

Septian Hario Seto (20m 57s):
So they manage by themself, the government just give the permit. So and they employ a lot of people in that area. So I give you an example. Our first industrial estate in Morowali right now, it employs 100,000 people, direct employment, direct employment, which is, you know, something that I don't think will never be created if we don't have this nickel downstream industry of aria and you can see the impact based on the small medium enterprise, you know, because the multiplier effect is you have this huge employment, a hundred thousand of people, they need the accommodation, they need housing, they need food and everything and then the small medium enterprise is growing further, so it's huge impact.

David Greely (21m 44s):
And I know you were, I believe also at the LME week in London.

Septian Hario Seto (21m 48s):
Yeah.

David Greely (21m 48s):
I was curious, what did you want to communicate to the metals industry there about Indonesia's role in the nickel market?

Septian Hario Seto (21m 55s):
Well, I was attending a mineral security partnership by the US and UK government, and then discussing with the other MSP members such as Japan, South Korea, France, Germany, Canada and as well as other non-MSP member that is invited on the discussion as well, such as, you know, some South Africa, some African countries like Zambia, you know, Kazakhstan. So I guess a very important message is that we, Indonesia as the largest nicker reserve in the world, I think we have the responsibility to supply enough nickel to meet the demand on the electric vehicle, on the stainless steel. Right now, David, our nickel supplying 55% of the global dominion, 55% of the global demand 55. Yeah. I think in the next two years, three years, David, I think the numbers could be increased to more than 60%, 65% of the total dominion.

Septian Hario Seto (22m 56s):
So I think that's, that's first and then I think we do like to diversify the supply chain, but unfortunately I mentioned to them that the western country, you know, to be honest, you know, if you compare the technology, but in Indonesia, we have seen the Chinese technology, we have seen the European technology. We are seeing the Japanese technology, the South Korean technology, and I've said to them in terms of the effectiveness and the efficiency, the western technology is about 10 years behind from the Chinese. So I think if you want to develop the diversifying supply chain, then you need to really work hard to develop your technology and the best chance to do that, in my view is, is working with the South Korean, working with the Japanese. I think that's, that's important but you cannot just ignore, exclude the Chinese. I don't think that is feasible. You still need to work together, but we need to manage, you know, how we can create more, diversify, more balance of the supply of the nickel that we process because I think this is the key bottleneck.

David Greely (24m 04s):
I'd love to dig into that a little bit with you. The technology piece. You know, when you say that the Chinese technology is, you know, probably 10 years ahead of what you're seeing in the west, is there a specific part of the supply chain? Is that the mining part itself, the smelting, the refining?

Septian Hario Seto (24m 22s):
Yeah. I think the very specific, if you talk about the battery for the battery materials, yeah. The smelting and the refining, which is, you know, in Indonesia, we have this high pressure acid leaching. I think this is only the Chinese right now that really providing the technology. I mean, yes, there is some European company, but if you compare the cost, it's really, the difference is really big, which may affect the economics of the project. So I think this is, this is something that is very important. If I said to the to the US if you want to be realistic, then, you know, yeah, we have to work with the Chinese and we need to sort out what kind of arrangement that can be acceptable for everybody. So that's first. The second one is David, after you smelting and refining this, this nickel, then you need to process it into a precursory.

Septian Hario Seto (25m 15s):
And right now in the global precursor market, number one, number two, number three, number four, the biggest precursor company in the world is actually Chinese. They control about my calculation between 65% to 70% of the world precursor market. If Tesla for their nickel battery, the precursor is still supplying by the Chinese. So I think this is the reality that, you know, we have to face, you know, we cannot just exclude the Chinese doesn't want to do the diversification. No, I think we need to do some arrangement that can be acceptable for, for everybody so that, you know, we can create diversifying supply chain. I think this is, to be honest, this is very important. Then after the precursor, you know, you make the Kato you make the anode and everything, then some of the South Korean company, the Japanese company then really start to have create a competition here with the Chinese.

David Greely (26m 08s):
All right. That's very helpful. I am curious, when you were in London, were there any takeaways from the week about how the rest of the world is perceiving Indonesia's approach to the nickel market?

Septian Hario Seto (26m 19s):
Well, I think this is something that, you know, there is a lot of misunderstanding about the Indonesia nickel. Yeah. First of all, you know many NGO international writing about, you know Indonesia is creating a deep sea tailing project which mean that we are dumping our tailing to the deep sea for this H Palinkar project. I said, no this is not the, this is not the case in Indonesia. No, we are not giving any single permit. For a deep sea tailing project in Indonesia for this nickel processing company, not single one. So I think that's first. The second one is, you know, there is a misunderstanding. You know, when you do mining. When you do mining, of course you are going to see like, you know, the surface is, is becoming like a hole, something like that.

Septian Hario Seto (27m 06s):
Yeah. That's is going what you are going to see if you are in a mining active area. But in Indonesia we have the regulation that after you complete your mining activity, you need to do the reclamation, which mean that you need to restore the area that you are opening before you are restored into the original one. So during the meeting there is this minister from UK Minister Nusrat Ghani, Minister of Industry and Economic Security. I mentioned to her that, you know, you are seeing by yourself because she is visiting one of the nickel mine that we have ally Indonesia and I believe she has seen, you know, how this recommendation going on and everything and what is the result. I think that's very important you know, number three, we are saying yes, we have some deficiency, we have some problem here and there, you know, but you know, we are fixing this one.

Septian Hario Seto (27m 59s):
You know, we are pushing all the company to actually participate on the international standard. David, such as Irma, you know, initiative for responsible mining assurance. This is proposed by key automakers such as for Tesla and everything you know, we are doing this ICMM certification. We are talking to the Nickel Institute to ask for a nickel mark certification for some of our companies. So yeah, I think we are working over there. So I think this is a very key message To them that, you know, we understand that the work is relying in Indonesia on the nickel and I think we need to have a better understanding about, you know, how the mining activity, how processing Indonesia is working, how is our regulation framework about this one. So you are not judging us just based on these news NGO reports and everything that is not really verifying to this government policy.

Septian Hario Seto (28m 56s):
So I think this is very important. Definitely and I think that is also very key message. Beside of course, you know, I mentioned we need to work together on this, especially on the critical mineral that is required for the energy, energy transition. The country that who own the resources and the reserve, the country who has the technology, I think it should work together to create enough supply for this critical mineral. Otherwise, David, what you have seen now, you know, because of the expensive price of some of these critical

minerals, you know, the battery price is increasing last year, you know, it is making more expensive for the EV and then we have since in some of the region, the growth of the EFI penetration is actually becoming slowing down. So for Indonesia, we are, we don't want high price nickel, we want the nickel price is just right for everybody, you know, for the producing countries, for the consumer, so that we can do this transition properly.

David Greely (29m 56s):
Well, and thank you so much for sharing so much of your message and what you're doing in Indonesia in regards to both coal and nickel and meeting the needs of the energy transition before I let you go, I was hoping maybe if you, we could look forward 10, 20 years, you know, kind of away from the, all the pressing matters of today, and maybe you could share your vision share for, you know, Indonesia and its mining industry and what does that look like. What is your vision for it over the next 10, 20 years?

Septian Hario Seto (30m 27s):
Well obviously, you know, we want to improve our wealth for the people, the prosperity of the people and then of course, you know, we have to create a value added of our mining resources, our mineral that we have, but I guess two things. We need to do it in a proper way, which mean then, you know, if we want to make a policy, we have to make sure that actually the policy can be implemented effectively. The policy can invite the investor to come. I think that is very important so that it creates a win-win situation, but for the country, for the people and for the investor and that's very basic principle. The second one is, you know, for this type of this, you know, environmental ESG, you know, we understand and I think this is for our interest, definitely.

Septian Hario Seto (31m 17s):
If we are not doing this properly, David, then it'll hurt our next generation. Yeah. It's not the children in EU, it's not the children in US that will be hurt by if we don't, we don't take care of this, our in environment, it'll be our, my children, my grandchildren in Indonesia that will be affected. Yeah. So I think this is very important. We are going to create this, this balance between how we develop, how we industrialize, how we create the value added of our mine resources but at the same time, we want to do it properly manner, you know, of course we are not perfect. We have a lot of problem deficit, but the government is committed to fix this issue you know, make sure that, you know, we are creating a sustainable development for this mining industry because we know this is non-renewable resources deficit, which mean that once we take out, you know, we cannot replace it. So yeah, maybe with recycling we can replace some, but actually it's, it's, it's not going to be the same. So I think we have to optimize, you know, the value added that we can create.

David Greely (32m 28s):
Thanks again Septian Hario Seto, Deputy Minister of the Coordinating Ministry for Maritime and Investment Affairs of Indonesia. We hope you enjoyed the episode. Join us next week as we continue our series Commodities in Asia with our guest, Sunil Kashyap director at Finmet. We hope you'll join us.

Announcer (32m 46s):
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