



BY TAN ZHAI YUN

By now, many Malaysian companies would have been warned about the impending impact of carbon taxes on their operations, especially if they are exporters to the European Union (EU).

The EU's Carbon Border Adjustment Mechanism (CBAM), which is expected to kick in gradually from 2023, will impose a carbon price on non-EU producers. Basically, EU importers will buy carbon certificates corresponding to the price they would have paid if the goods were covered under the EU's carbon pricing rules. This cost is then charged to non-EU producers.

But if the non-EU producer can show that it already paid a price for the carbon used in the production of the imported goods — like a carbon tax — in another country, then the corresponding cost for the EU importer can be cancelled.

This is to level the playing field for EU companies, which have to comply with the EU's carbon pricing and prevent "carbon leakage", where companies move their operations to countries that do not have carbon pricing mechanisms.

The EU is Malaysia's third-largest trading partner. In 2020, imports to the EU were at €24.7 billion, according to the delegation of the EU to Malaysia. A 2021 report by the Commonwealth Secretariat highlighted that Malaysia had US\$769 million worth of CBAM-related exports to the EU in 2019.

Obviously, Malaysian businesses will be impacted by the CBAM. This impact could be lessened if Malaysia has its own carbon pricing mechanisms. In fact, carbon taxes have been tabled in the proposal of the 12th Malaysia Plan, and the cabinet has agreed to develop a domestic emissions trading scheme (ETS) in phases.

Either way, Malaysian businesses may have to face a carbon tax or be subject to an ETS, which caps the amount of greenhouse gas (GHG) they can emit, in the future. The question is how these carbon pricing mechanisms will affect businesses and consumers. Some businesses have already begun implementing internal carbon prices (see sidebar) to prepare for this reality.

"Since Malaysia is very connected to other countries by exporting fossil fuels and supplying various goods and products, whatever is happening at the global level will impact the country. The businesses that have started to look at carbon pricing are those that either have international value chains or investors," says Yulia Dobrolyubova, partner of corporate sustainability and climate change at consultancy firm Environmental Resources Management (ERM).

Even though most of the carbon pricing mechanisms imposed by other countries will not impact Malaysian companies directly, like the CBAM, the pressure will be felt throughout the supply chain.

"Companies that are subject to the carbon tax would need to decarbonise their value chains. If their indirect Scope 3 emissions come from a Malaysian supplier, they will look for suppliers in other markets that are less carbon-intensive. That's the indirect impact of carbon taxes," says Dobrolyubova.

Globally, there are 68 carbon pricing instruments in operation, according to the World Bank's State and Trends of Carbon Pricing 2022 report. These cover around 23% of total GHG emissions. This number is likely to increase as

carbon pricing is seen as an important policy tool to encourage businesses to decarbonise and incentivise the adoption of low-carbon technologies.

Under a carbon pricing regime, companies pay a carbon tax or purchase emission allowances from an ETS to continue emitting GHG. Alternatively, they could invest in low-carbon solutions to reduce their emissions. If the carbon price is higher than the cost of acquiring solar power panels or an energy-efficient chiller, for instance, companies would be incentivised to go for the latter solutions.

In contrast, "hydrogen is still quite expensive today. If the carbon price is lower than the cost of switching to hydrogen, companies will still prefer to pay the tax. [A carbon tax] will encourage companies to implement [low-carbon] technologies that are cheaper than paying the tax on carbon", says Darshan Joshi, climate consultant at the Asia Foundation.

Pricing carbon will send a signal to market players that carbon emissions come with a cost, Joshi adds. It results in climate change impacts such

as flooding, lower agriculture yields and spread of communicable diseases. It is also a key policy tool for governments to collect funds and invest in low-carbon solutions.

"Since 2009, we have spent an enormous amount of money [to incentivise the take-up of green solutions]. We have our feed-in-tariff (FiT), net energy metering (NEM), green investment tax allowance and so on to boost RE [renewable energy] take-up. Many are incentive- or subsidy-based. In the end, around 95% of our electricity generation still comes from fossil fuels. The impact hasn't quite been there," says Joshi.

"Carbon pricing is a different avenue to achieve the same goal. It might be even more effective. Once we address the market failure [of failing to consider the negative externalities of carbon emissions], then we can see other policies like the FiT, NEM or even a fuel economy standard for cars [become even more effective]. That's the whole ecosystem needed on the policy side to really drive the sustainability agenda forward."

Joshi published a study, which can be found on the Penang Institute's website, on the possibility of implementing carbon pricing in Malaysia in 2019.

He calculated that implementing a RM35/tCO₂e (tonne of carbon dioxide equivalent) carbon tax — based on the social cost of carbon emissions — in 2020 that peaks at RM150/tCO₂e in 2028 would raise between RM21.8 billion and RM24.6 billion in average annual revenues for Malaysia.

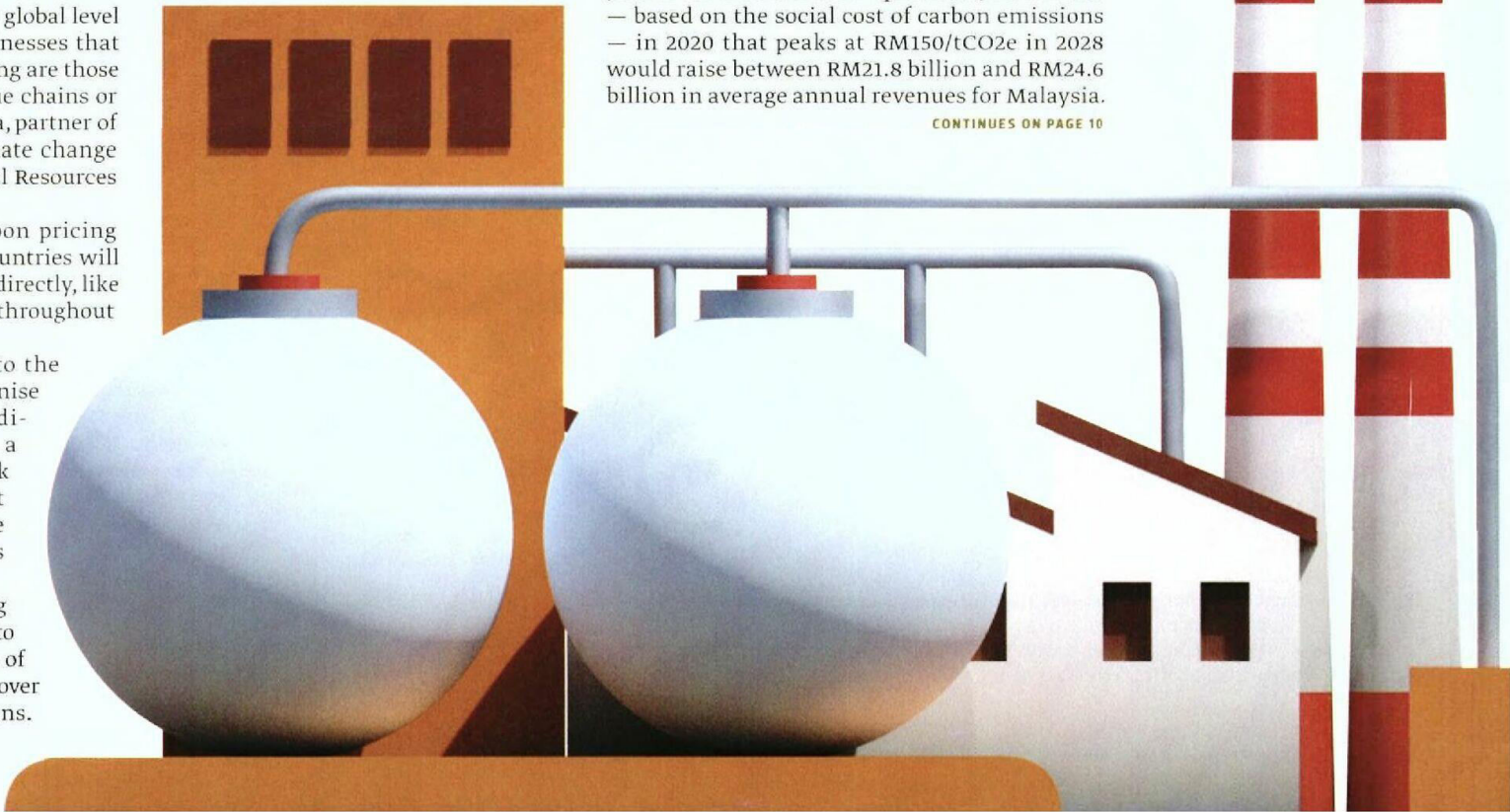
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GETTING READY FOR CARBON PRICING



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Dobrolyubova



COMPANIES TAKING ACTION

► **Internal carbon pricing (ICP)** is increasingly being introduced by forward-looking companies. Three Malaysian-listed companies that have ICP currently are Sunway Group Bhd, CIMB Bank Bhd and Malayan Banking Bhd (Maybank).

These companies have a few things in common. One is that the ICP has been introduced to promote the company's decarbonisation efforts by driving behavioural change internally. Another is the use of ICP to prepare the company for potential carbon pricing mechanisms and give it a competitive advantage.

"The founder and chairman of Sunway, Tan Sri Datuk Seri Dr Jeffrey Cheah, has always said that we should be able to do well by doing good. It's not profit at all costs," says Ong Pang Yen, executive director in the chairman's office at Sunway Group.

The company aims to achieve net zero by 2050.

"To achieve this target, we realised we have two main challenges. One is to get our people to be aware of the gravity and urgency of the situation. The second challenge is to motivate them to take action."

Based on its climate targets and standards set by the likes of the Green Building Index, Sunway fixed a target on energy intensity for each business unit (BU), since energy is its biggest source of emissions. The bonus pool of BUs that exceed the target will be deducted according to the ICP, which is set at RM15 per tonne of carbon dioxide.

"In the future, everything will be measured in terms of carbon. There will be a price to it, whether in the form of a tax or your consumer

rejecting your product because there's too much carbon in it. We have to be prepared and learn how to measure it," says Ong.

He acknowledges that the ICP is much lower than what is recommended by some international organisations. But they have to be pragmatic, he emphasises, and study its impact over time. The point is not to penalise people, but to motivate them. The top management also have environment- and social-related goals tied to their remuneration.

"If a BU missed its target, it means they (the top management) have also failed because it's tied to their key performance indicators," says Ong.

It is hoped that in the early years, the ICP will encourage operational efficiency. This could mean using more LED lights, for instance, or changing behaviours to waste less electricity. To further drive emissions reduction, investments in capital expenditure (capex) are needed.

"The next stage will be investing in the replacement of old plants and machinery to new technology that is more efficient," says Ong.

However, for this to work effectively, the company has to allow BUs to potentially spend more to invest in low-carbon solutions.

"That's why I'm telling the board members of the companies that you have to be prepared to invest. It's not just empty talk. There's only so much we can reduce through operational efficiency. Next is capex. We have to be prepared to commit," says Ong.

The ICP was set in January 2022. Currently, it only covers assets that Sunway manages and its Scope 1 and 2 emissions. Embodied carbon from its property and construction activities will be considered at a later stage.

In the first six months, out of seven BUs, five have met their target, says Ong. "Two are slightly behind, so we are studying why."

Sunway is implementing an ICP ahead of industry players even though the company will not be directly impacted by the CBAM. Again, Ong emphasises that it's part of the company's commitment to sustainability, and if a carbon tax were to be introduced, it could give them a competitive advantage.

"If we start exporting our materials or we tender for projects [in developed countries], we have to speak the same language. Our suppliers have to be educated. You had better ask your cement, steel, sandstone and bitumen suppliers what their embodied carbon is. We have to learn and be prepared, so when all this comes, we are ready," says Ong.

Transparent about escalating prices

CIMB's ICP is set at RM70 per tonne of carbon dioxide equivalent (tCO₂e) emitted in Malaysia and RM69/tCO₂e in Indonesia. This is based on a



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number of external benchmarks, including prices of carbon taxes, renewable energy (RE) credits and carbon offsets. Based on the bank's projections, the ICP might escalate to RM335/tCO₂e by 2028 to 2030.

CIMB's target is to reach net zero by 2030 (only scope 1 and 2 emissions.). It also has annual GHG Scope 1 and 2 emissions reduction targets. From these, each division is allocated a GHG cap. Any country or division that fails to meet this annual cap will be charged an internal fee per tonne of GHG emitted in excess of its cap.

The funds collected will be used to invest in energy efficiency upgrades, purchase carbon offsets or RE certificates, if necessary. Currently, the emissions cap only applies at country level. From 2023, it will be done at the division level.

"The ICP seeks to align CIMB's internal country and division objectives with our climate goals via economic signalling. With a clear potential impact on division-level profit and loss, we hope to drive awareness and action among management and staff towards reducing fuel and electricity consumption," says Gurdip Singh Sidhu, group chief people officer and group chief sustainability officer of CIMB Group.

"With the early visibility of escalating prices, we foresee that countries and divisions will start incorporating carbon reduction plans into their operational business strategies."

The bank will explore the application of ICP on its Scope 3 financed emissions as well, particularly for the nine most carbon-intensive sectors. It recently announced its 2030 sector-level targets for thermal coal and cement.

For instance, it aims to have zero coal exposure by 2040 and achieve a 36% reduction in physical emissions intensity for cement.

"To achieve this, our BUs will need to work very closely with clients and customers, and setting an ICP on financed emissions will further strengthen our internal drive towards meeting our net zero 2050 commitment (overall GHG emissions.)," says Gurdip.

This is an important point. While banks won't be affected by the European Union's carbon border adjustment mechanism (CBAM), many of their clients will.

"This presents an opportunity for us in the nearer term as we help clients transition towards lower carbon practices. We are actively discussing the CBAM and local carbon taxes in Singapore, Malaysia and Indonesia with our clients, focusing on how being more carbon-intensive compared to competitors would put them at an economic disadvantage," says Gurdip.

CIMB's ICP was introduced in Malaysia and Indonesia in 2021. No charges have been

made thus far, Gurdip says, as both countries have managed to reach their targets. This was mainly due to employees working from home.

When asked what he hopes to see from a potential carbon tax in Malaysia, Gurdip mentions four points. One is transparency on the mechanics and timeline for the progressive introduction of the tax. Who will be impacted and what is the future price trajectory?

"Secondly, [there must be] prices that are at levels that make it economically attractive for landowners and other industry players to embark on carbon projects as a viable alternative to other development opportunities," he



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says. Clear guidelines and limits on the use of carbon offsets are needed, he adds.

"Finally, [we need] expanded incentives for low-carbon projects such as RE and energy-efficient technology and equipment to support and encourage businesses in their green transition."

Building awareness

Maybank's ICP was introduced in 2021 as a change management mechanism and to help it achieve its goal to reach carbon neutrality by 2030 and net zero by 2050. The ICP, which Maybank says it is not ready to reveal, is set based on its analysis of the social carbon cost in Malaysia.

"For now, we will keep the current price, given that our primary intention is to educate and drive internal awareness among Maybankers," says Shahril Azuar Jimin, chief sustainability officer of Maybank.

The ICP covers its Scope 1 and 2 emissions and business travel under Scope 3 emissions. The operating units are charged based on current emissions within their control.

"As we are still in the early stages of implementation, our Scope 1 and 2 emissions reduction of 41.1% thus far have been contributed by other strategic initiatives and [are] not directly attributable to the carbon pricing mechanism," says Shahril.

It also does not directly affect employees' bonus pool currently. "However, sustainability key performance indicators reflecting the group's four sustainability commitments are already incorporated into the group and group executive committee members' scorecards, which form part of the overall remuneration considerations," he says.

Maybank has also been engaging its major clients to better understand their decarbonisation plans and financing needs. Shahril says

Maybank aims to support its clients on this journey, especially those in high-emitting sectors.

"In essence, although this has been recommended by some proponents as an emission reduction strategy, a fair climate policy that addresses key issues as a developing nation needs to be in place. Maybank is of the opinion that a just transition is needed for hard-to-abate sectors so that all players can gradually migrate to a low-carbon economy, premised on sustainable operating business models," says Shahril. ■



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Shahril

Channel funds to affected households

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This is assuming that the tax is imposed on the sectors of electricity, transport, and oil and gas production.

Between 29.2% and 44.5% of the total revenue collection in the first four years can be diverted to compensate the B40, or bottom 40% income earners. The rest could be used to reduce the funding gap for climate mitigation and adaptation efforts in Malaysia.

HOW DOES IT WORK?

There are two main types of carbon pricing mechanisms: carbon taxes and the ETS. Carbon taxes define an explicit tax rate on each tonne of GHG emitted, while ETS generally involves a cap on emissions for each sector.

Typically, these mechanisms only cover the carbon-intensive sectors. The CBAM, for instance, will initially only apply to iron and steel, cement, fertiliser, aluminium and electricity generation.

Some believe that the tax rate should be based on the social cost of carbon, which is the present value of estimated environmental damage caused over time by carbon dioxide emitted today, according to the Centre for Climate and Energy Solutions. This number is expected to rise.

However, the Carbon Pricing Leadership Coalition published a report in 2021 that highlighted how current carbon prices are too low to put the world on track for net zero by 2050. Less than 4% of global GHG emissions is covered by a carbon price needed to meet the 2°C goal of the Paris Agreement, which is between US\$40/CO₂ and US\$80/CO₂.

The International Monetary Fund (IMF) suggested in 2021 that a carbon price of US\$75/CO₂ is required by 2030 to keep global warming below 2°C. As at July 2022, the global average carbon price was only US\$6/CO₂, based on the IMF's calculations.

The ETS, meanwhile, does not have a fixed price for carbon. The prices are determined by the market, although price floors are added in some jurisdictions to stabilise the market.

"We should be very clear that if we are going to introduce carbon pricing, every few years, it will increase by 5%, for instance. With this long-term clarity, businesses can make long-term decisions. This is different with the ETS because the prices fluctuate and it's more complicated to do long-term financial planning," says Joshi.

How can one assess if the carbon prices are set at the right level? Dobrolyubova suggests using the marginal abatement cost curve, which compares the cost of different GHG mitigation options.

"It looks like a waterfall chart, where some technologies' [cost] will dip below zero, which means it's already cost-effective now. The most effective ones in removing GHG would not be cost-effective at the moment, such as carbon capture and storage or green hydrogen," says Dobrolyubova. "When you look at carbon pricing from this perspective, [you would know] what is needed in price reduction to make this type of technology commercially attractive in the market."

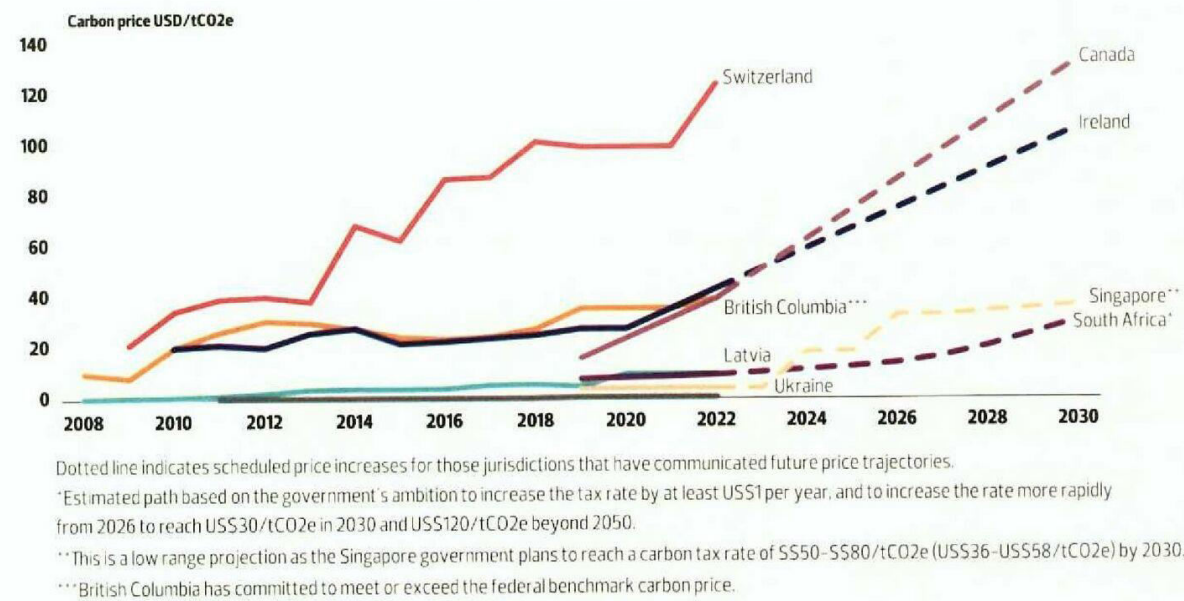
Both interviewees suggest that carbon taxes and the ETS can exist together. Generally, a carbon tax would be suitable for sectors that



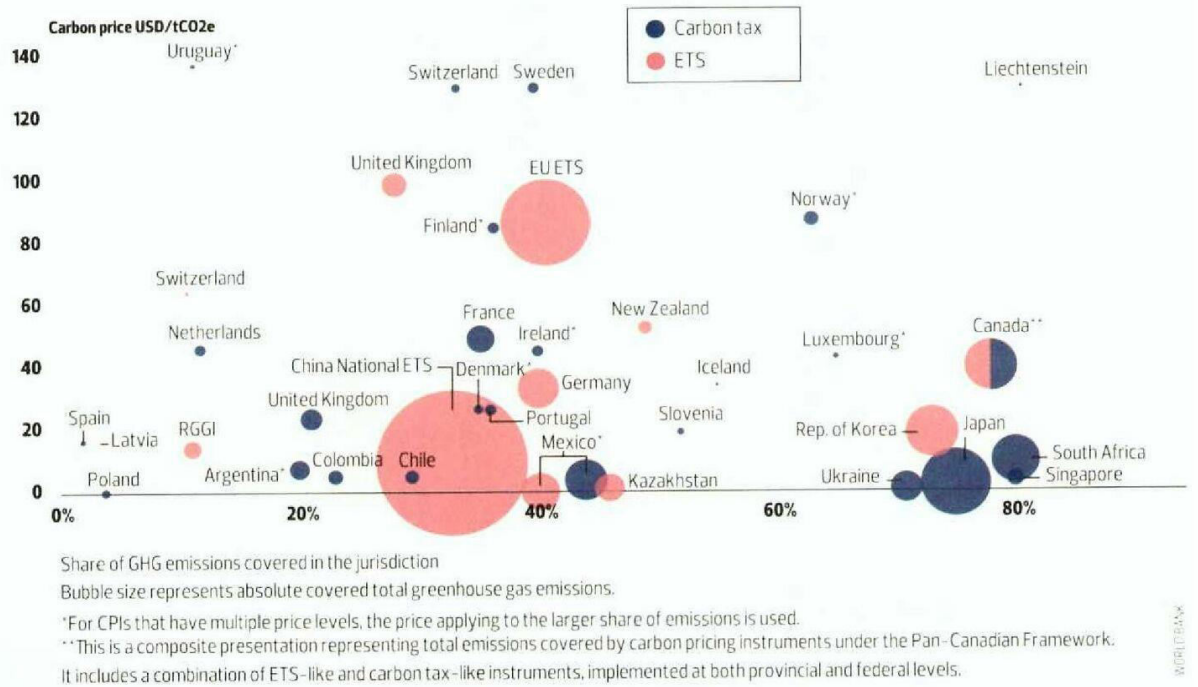
So, it's very important that if the government implements the carbon tax, it takes some of the revenue to compensate low-income households for whatever increase in cost of living that they are going to face.

Joshi

RECORD HIGH CARBON TAX RATES IN SIX JURISDICTIONS



ABSOLUTE EMISSIONS COVERAGE, SHARE OF EMISSIONS COVERED, AND PRICES FOR CARBON PRICING INITIATIVES (CPI) ACROSS JURISDICTIONS



use fossil fuels directly, such as the electricity sector. The ETS could be used for sectors with many players, so they can trade emission units.

A little over half of Malaysia's emissions are from the energy sector, followed by 21% from transport, 8% from industrial process and waste respectively, and 3% from agriculture.

A carbon tax imposed on these sectors would mainly impact the big companies like Petroliaam Nasional Bhd, Tenaga Nasional Bhd and large listed players. It is more difficult to do so in the transport sector, Joshi observes, since it involves individual drivers.

"The way I envision it is that we'll have fuel economy standards to encourage car manufacturers to produce cleaner and more efficient cars. But we also have a tax borne by consumers to encourage them to drive cleaner cars and use public transport," says Joshi. This could be an extra charge imposed at the pump, for instance.

All these, of course, will impact consumers. Joshi suggests channelling funds to compensate households in the lower socioeconomic classes.

"I think there's a very clear awareness that a lot of work has to be done by the big emitters who really profited from the use of fossil fuels.

As long as we have policies in place to compensate households, I think it's a good workaround," says Joshi.

THERE'S NEVER A GOOD TIME FOR TAXES

Already, companies are struggling to cope with rising inflation, geopolitical instability and the post-Covid-19 recovery. Introducing a tax at this time would be unpopular and burdensome.

"But there's always something going on. Five years ago, we had the 1MDB scandal. The government had to scrap the goods and services tax because people were struggling. In 2020, there was Covid-19. Now, there's a war in Russia. If we keep thinking from this perspective, we're never going to do it," says Joshi.

"So, it's very important that if the government implements the carbon tax, it takes some of the revenue to compensate low-income households for whatever increase in cost of living that they are going to face. I think that will largely come in the form of higher transport costs."

This brings to the table the tricky situation of existing subsidies for fossil fuels in Malaysia. Does it make sense if the same resources are taxed and subsidised by the government?

Joshi and Dobrolyubova agree that this has to be reviewed, as it sends confusing signals.

"There's no way we can do both. It sends very conflicting signals. My personal belief is that we need to rationalise the fossil fuel subsidy first. An analogy my colleague used was that you can't press the accelerator and brake at the same time. The car won't move," says Joshi.

Setting the right price is important, so it does not put an excessive burden on businesses but is still able to send the right signals to the market. There must also be transparency as to where the funds will go, adds Joshi.

"I want to see that whatever revenue the government generates from carbon taxes goes into a specific pool. From there, we see a percentage going to rebates, investments and other kinds of sustainability-related measures, like improving our resilience [to climate change]."