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Steadfast Commitment to the Green Agenda

Realising Opportunities Whilst Addressing the Challenges

Key Highlights

- **Emphasizing industrial research to drive operational efficiency and value-added activities**
- **High optimism on renewable energy potential**
- **Leveraging technology as a mean towards sustainable development**
- **The need to deepen the opportunities in ESG-related investments**
- **Certification and better framework to further promote Green financing**

IN CONVERSATION WITH MESTECC MINISTER, YB YEO BEE YIN: GREENIFICATION OF MALAYSIA How Do We Restore The Balance?

"In every danger, there lies opportunity". While it is well acknowledged that the CO2 emission issue is something that the country wants to address, the strong push for green initiatives is not just for emission control and meeting the Paris Agreement commitments, but is also seen as a business opportunity. The push is meant to build the green industry as well as capabilities of players and entrepreneurs, which can then be exported to the rest of the region - Malaysian green players could be looking at a potential market of 150m population in South East Asia and not just the 30m population size of Malaysia, provided industry players invest early and stays ahead of the game in order to establish leadership growth and first mover advantage.

Rejigging R&D allocations to create wealth. In the past, almost all allocation for R&D were channelled towards academic research with only a minor 8.9% going towards industry-based research, creating a disconnect between what the industry needs and what the researchers are doing. In a quest to create wealth from technology, the Minister aims to rejig this, targeting more than 50% of R&D allocations in the future to be channelled towards industry-based research so that more productivity and revenue-potential can be churned from such investments. Additionally, the Government also intends to introduce a scheme to place out Government researchers to the industry to support market-driven R&D, whereby the cost of the research will remain with the Government. Currently, only 12% of researchers are involved in market-driven industrial research while the rest are mostly involved in academic research, compared to Singapore and Japan which spent 48% and 64% of their R&D budget on industrial research.

Our own space program? Launching our own satellites into space requires substantial investments and is not practical for Malaysia at this point. MESTECC is currently exploring downstream space technology, e.g. capitalising on 3rd party satellite data/images to improve our industries and the economy, in addition to environmental protection. The ministry has recently merged the National Space Agency (Angkasa) and Malaysian Remote Sensing Agency (MRSA) under an entity called the Malaysian Space Agency to optimise the use of existing resources and facilities.

Energy efficiency retrofitting schemes. As part of decarbonisation initiatives, MESTECC is also prioritising energy efficiency (EE) improvements. MESTECC is looking at introducing EE retrofitting schemes, which will involve the installation of EE equipment in buildings to achieve EE and electricity bill cost savings. The scheme involves, essentially a leasing scheme via an energy performance contract whereby an energy service provider (ESP) will

retrofit a building and essentially own the EE assets. The benefitting building owner can choose to either share the cost savings with the ESP or allow the ESP to keep all the cost savings as payment of the EE retrofitting cost over a specific time period. Once the costs are fully paid off, ownership of the EE assets is transferred to the building owner. The Government is looking to kickstart this program with 2 tenders worth RM200m this year to retrofit 50 Government buildings, as pilot projects.

Rooftop solar. There is actually a huge potential for rooftop solar in Malaysia. To give a picture, Malaysia entails 3.3m landed residential properties, 450K shop houses, 90K terraced factories, 21K standalone factories and 1000 shopping complexes which can be retrofitted with rooftop solar. To give a ballpark figure, a typical residential property rooftop can fit 2kw of solar PV capacity. If the whole 3.3m landed residential property is retrofitted, this alone can potentially entail some 6600MW worth of solar capacity. The Net Energy Metering (NEM) program entails 500MW solar PV allocation for the next 2 years. Since introducing the improvised NEM in Jan19 (which basically levels the cost and price of importing from, and exporting to the grid, respectively) the NEM program has seen some 11MW take up. This compares to just 2% take up of the 500MW NEM allocation between 2016 and 2018. Programs such as NEM essentially give autonomy to the consumers in producing their own electricity and allow them to hedge their electricity bills against fluctuations. MESTECC has requested the Securities Commission (SC) to form a green financing taskforce to evaluate and recommend action plans on financing for RE and EE initiatives. The ministry is looking to include the taskforce's recommendations in the next budget and estimated that there is at least RM1bn worth of business opportunities for the private sector.

Efficient land usage. The next round of the Large Scale Solar (LSS) program will entail incentives for use of "unusable" land, i.e. land that cannot be used for productive purposes, in order to attain efficiency in land usage for RE generation. Beyond solar, MESTECC is also looking to announce new policies on Waste-to-Energy (WTE) technologies within the next 3 months. MESTECC is also looking to grow biomass and small hydros, as part of its drive to hit its 20% RE capacity mix target by 2025.

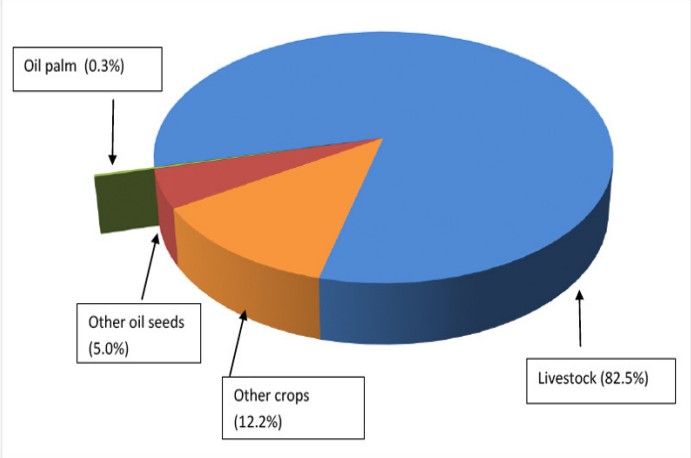
Optimistic on RE potential. The Minister is optimistic on the potential of RE having seen solar panel prices drop by some 80% over 2010-2017 and estimates that based on current cost trends, i.e. the drop in solar installation cost and the rise in gas and coal price, solar technology could potentially hit grid parity by 2030. The Minister emphasized that around two thirds of electricity cost (from conventional sources) comprise of fuel cost, which is exposed to global price volatility and that RE will serve to stabilise electricity cost.

Stringent Law on Environmental Protection. MESTECC will also look at amendments to current laws with the Attorney General's Chambers, to penalise companies who failed to monitor the disposal of scheduled waste, in light of the recent Sungai Kim Kim pollution incident.

KEY TAKEAWAYS FROM PANEL DISCUSSION 1: WHAT'S NEXT IN GREEN FINANCE?
A Discussion on What Comes After Solar and Green Buildings

Cattle-ranching is the main cause of deforestation. As oppose to popular belief, palm oil is not the cause of deforestation. The high productivity of the harvest in oil palm plantations becomes the main factor for the management of a sustainable oil palm plantation. Furthermore, Dr. Simon Lord, Chief Sustainability Officer of Sime Darby Plantation Bhd (SDP), stressed that cattle farming activity instead is the main cause of forest and land deforestation. This view concurs with a research done by the United Nations Development Programme (UNDP). The research also concluded that cattle farming needs land as wide as one hectare for cattle farming cultivation. In addition, cattle farming activity also causes high carbon gas emission that comes from the manure. General speaking, the livestock occupies approximately 83.0% of the total land area used for agriculture as opposed to oil palm which is only about 0.3% *(refer to Diagram 1)*.

Diagram 1: % of total agriculture land in the world used by various farming systems



Source: Yusof & Yew, MPOC

Diagram 2: Sime Darby Plantation Bhd's Sustainability Purpose

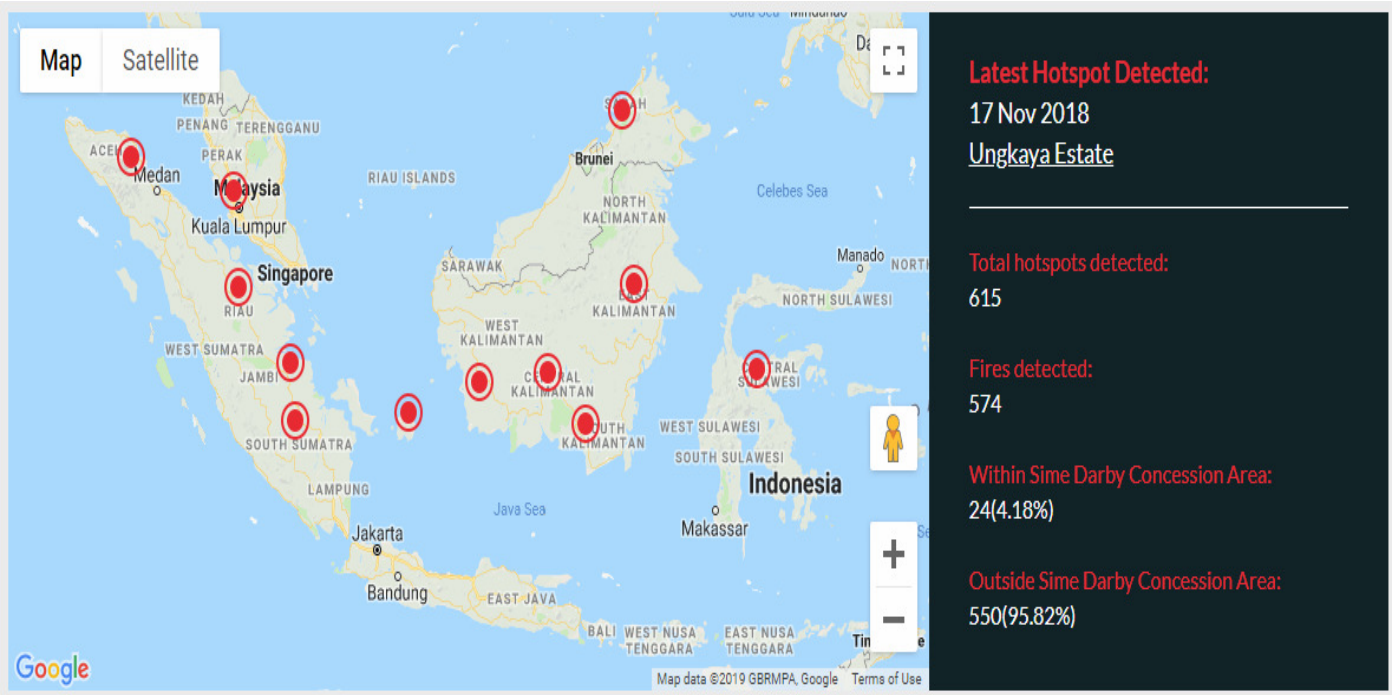
Source: Sime Darby Plantation Bhd

Embedding sustainability practices into organisations. Being a responsible organization involves the integration of sustainability practices into the operations of the business. SDP, being the world's largest producer of certified sustainable palm oil is playing a pivotal role in the development of sustainability practices in the palm oil sector. This is in-line with the group's brand promise of 'Delivering Sustainable Futures'. The group will believe that incorporating such practices will help to create value to the organisation. Being aware that it cannot succeed alone, the group also involves the various stakeholders who are committed to achieve the common goal of sustainable development. Note that SDP's goals are in-line with the global goals set by the United Nations. In this regards, the group has streamlined the sustainability practices into three main pillar which consist of people, pillar and prosperity as shown in *Diagram 2*.

Leveraging technology to achieves the sustainable development goals. Achieving sustainable development goals will involve some changes in industrial practices as well as the type and amount of resources used. This includes the reliance on technology to solve environmental problems. The plantation industry has considered a laggard in adopting digital technology. However, in recent years, more digitally-driven solutions have been adopted by the industry. In this regard SDP has launched a hotspot monitoring dashboard in its bid to be more transparent and help to promote long-term solutions to the recurring haze situation. The dashboard tracks and reports hotspot occurring in the region, especially those areas where there are communities and smallholders, using satellite data. Furthermore, the system also incorporates the actions taken by the respective estates to extinguish fires. Apart from this, we understand that the usage of drone has also been more prevalent by the industry. Drone, apart from the typical usage of search-and-rescue to talking selfies, has been use to bring precision analytics and intelligent automation to the

agriculture industry. The extra precision benefits farmers by allowing them to either save cost, increase yield or speed up productivity.

Diagram 3: Sime Darby Plantation Bhd's Hotspot Monitoring System



Source: Sime Darby Plantation Bhd

Barriers in achieving sustainability. Sustainability projects usually require a substantial amount of funding in order to get it off the ground. In addition, it might take a considerable amount of time period to ascertain the impact resulting from the projects. These have serve as a deterrent in getting access to green financing. Investors are often wary and skeptical of the return on investment as well as the implementation of those sustainability projects. Thus, this leads to lack of project funding and failure of project take-off. There are also concerns on the enforcement of relevant government agencies in carrying out the nation's sustainability initiatives and on whether the current policies are in favour of the pushing sustainability agenda forward. To overcome the challenges, a multi-stakeholder approach is the one of the viable methods. This suggests that governments, industry players and various industry stakeholders will need to collaborate and leverage on one another to achieve sustainability.

KEY TAKEAWAYS FROM PANEL DISCUSSION 2: GREEN INVESTMENT
A Discussion on What Motivates Investors to Go Green

Investors globally are galvanizing a movement towards ESG investing. It is evident from the panel discussion on green investment that there are growing interest globally in investing in Environmental, Social and Governance (ESG) friendly entities and projects in the effort to protect the environment and sustain the natural resources. Some investors globally and locally such as; Kumpulan Wang Persaraan (Diperbadankan) (KWAP) and Khazanah Nasional Berhad are advancing even further in this realm by signing on to United Nations' (UN)-supported Principles of Responsible Investment (PRI) where they commit to sustainable and ethically-impacted investments.

Investors are at a crossroad. While the call for a more sustainable and responsible investing is getting stronger, investors admit that most of them are at a crossroad currently. Investors are generally burden by the need to deliver dividends to its stakeholder while balancing its investment portfolio. Investors are finding it hard to strike the right balance between integrating ESG into the investment process while delivering the expected required return. The question is, will the stakeholders be willing to sacrifice financial dividend for a lower but socially responsible dividend instead? The push, according to the investors will have to come mainly from the stakeholders as it will be treated as a mandate for future investments. Education and awareness on ESG is imperative for this to happen.

Lower returns on ESG investments, truth or myth? Due to the ESG-approved practices, these companies are considered as safe companies and predictable hence, should also possess lower cost of debt and cost of equity to allow these companies more room for their respective sustainable practices which will create a spill over effect into the economy. This is especially true when funds that are invested in ESG-friendly entities are found to be performing well in both the shariah and non-shariah space and in some instances; the funds have even outperformed the benchmark indices it has been put up against.

Diagram 4: ValueCap's ESG fund investment returns in 2017

Performance of selected ESG and non-ESG indices and funds	
Indices and funds	**1-year performance**
VCAP Malaysian ESG Equity Opportunity Fund (Wholesale)	17.96%
Equity Malaysia average return	7.44%
Equity Malaysia (Islamic) average return	3.79%
FTSE4 Good Bursa Malaysia Index	2.03%
Indices and funds	
BIMB-Arabesque iGlobal Dividend Fund 1 (Wholesale)	20.73%
Equity Global average return	18.86%
Equity Global (Islamic) average return	15.00%

Source: ValueCap, MIDFR

What market has yet to price in… When we talk about higher returns from ESG investments, we are talking about long-term investment commitments. As investments in ESG-friendly projects or entities be it solar, biomass, hydro will generally take years to break-even due to the large amount of CAPEX injected, investors usually shy away from investing in these projects or companies due to it being of higher risk (in terms of unproven technology and unconventional implementations) and long-term capital commitment as investors need to realize their profits for dividend payouts annually. However, what market has yet to price in is the fact that as mentioned in an earlier paragraph, the business is safer due to its compliance to the ESG criteria and risks associated with these business would have been lower than what the market has been anticipating. This is especially so if the company is a high-

ranking ESG-compliant company and this is usually not factored in while making investment decisions. This is usually so for fixed income investments due to fixed income investors being less sophisticated when compared against equity investors and the ability of fixed income purchaser to influence the direction of the company is lower compared to equity investors making them indifferent towards the ESG profile of the companies.

…but challenges remain. While it is ideal to be invested in ESG-friendly entities, challenges remain as due to being niche in nature, ESG investing often lacks in depth. It is not deep enough for investors such as Malaysia's Employees Provident Fund (EPF) and KWAP or to be able to invest in – this is despite KWAP allocating about 50% of its asset under management (AUM) to ESG-friendly investments. The lack in depth and green financing tools in general is then further exacerbated by the need to generate actual returns for the funds hence, limiting growth of the smaller investible companies in the ESG space.

KEY TAKEAWAYS FROM PANEL DISCUSSION 3: GREEN FINANCING
Green Sukuk Issuers and the Regulators Share Their Experiences

Certification is one of the key components. In our view, one of the key components towards raising Green financing, either bonds or sukuk, is certification. Firstly, a potential issuer will need to ensure pre-planning process are completed and done thoroughly. This includes the process of appointing an independent reviewer to evaluate and certify an issuer's projects. For example, a Green building developer will not only need to appoint consultants for the design of a Green building, but also an independent reviewer to certify that the building is indeed adhere to the Green principle.

An application of the Green Bond Principles. The independent reviewer of Green projects is part of the process to observe the "Green Bond Principles (GBP)". The GBP emphasize the required transparency, accuracy and integrity of information that will be disclosed and reported by issuers to stakeholders. A recap of the four core components, which are:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Although the GBP are on a voluntary, it is essential for issuer to be able to obtain Green financing especially for Green bonds and sukuks. Investors will require compliance to the GBP in its investment decision process. With this, an issuer will have the ability to attract environmentally-conscious investors. This is especially important due to the fact that there is an ever-growing list of investors demanding for green/sustainable financial instruments and from stakeholders demanding for responsible and sustainable business practices.

Additional cost for Green financing. Nevertheless, the drawback to issuing Green financing is the additional cost. With the requirement of external reviews, we understand the additional cost could vary between circa USD10,000 to USD100,000. This does not include the annual report which the issuer has to submit in order to continue being certified. While the advantage of Green financing may outweigh this cost, it might be a roadblock for smaller issuer due to the initial outlay for an external review.

Governments and regulators can provide assistance. In this regards, governments and regulators could play a role in assisting issuers, especially if it aims to promote Green financing. For example, the Hong Kong Government launched the Green Bond Grant Scheme (GBGS) in June 2018 to subsidise eligible green bond issuers in obtaining certification under the GFCS. Eligibility criteria include a minimum issue size of HKD500m and that the bond is to be issued in Hong Kong and to be listed on the Hong Kong Stock Exchange and/or the Central Money markets. In the case of Malaysia, there is tax incentives under the umbrella of Sustainable and Responsible Investment (SRI) Sukuk Framework which is a framework launched by the Securities Commission of Malaysia (SC) in 2014. This may assist issuers in reducing the cost of debt raising through Green financing.

Regulators set the framework but do not determine what Green is. As we mentioned in our previous report, Green financing are not much different from traditional financing. It has the same structure, risk and return, risk weighted as well as credit rated which is based on the creditworthiness of the issuer and/or project. As such, regulators such as the SC have only constructed a broad framework on the issuance of Green financing. We opine that the rationale is that there is no need to add to the current legislation in regards to Green financing. We understand that the SC does not define whether the project is or is not "Green". This is being left to reviewers and investors given that the financial instruments are promoted to sophisticated investors.

A workaround for obtaining Green financing. We noted that the difficulties in Green financing is the scale of the projects. Large scale Green projects are able to obtain Green financing due to the large funding requirement. However, it is more difficult for smaller projects. Most small Green project will have to be funded via equity. However, one potential method to circumvent this is financing via traditional bank financial product such as bridging loans to start a project. These loans could then be refinanced via Green financing.

How governments and regulators can help. We believe that there is no doubt that there is growing demand for Green bonds and sukuk, whether from issuer or investor point of view. We opine that government policies are attempting to keep pace with this demand. However, there is still much more that governments and regulators can do to further develop Green financing. A more active role will need to be played to encourage the financial markets to allocate more resources towards Green projects. For example, a combination of tax incentives, guarantees, grants, interest subsidies can be accorded to projects that deliver ROEs slightly below market expectations. Another method which involves less cost is on the availability of data. A more robust and comprehensive environmental data should improve assessment of investment opportunities and lending for Green projects. The other area in which governments and regulators can play a strong supporting role is in the development of expertise and capabilities in a nation's human capital in regards to Green financing.

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STOCK RECOMMENDATIONS	
BUY	Total return is expected to be >10% over the next 12 months.
TRADING BUY	Stock price is expected to *rise* by >10% within 3-months after a Trading Buy rating has been assigned due to positive newsflow.
NEUTRAL	Total return is expected to be between -10% and +10% over the next 12 months.
SELL	Total return is expected to be <-10% over the next 12 months.
TRADING SELL	Stock price is expected to *fall* by >10% within 3-months after a Trading Sell rating has been assigned due to negative newsflow.
SECTOR RECOMMENDATIONS	
POSITIVE	The sector is expected to outperform the overall market over the next 12 months.
NEUTRAL	The sector is to perform in line with the overall market over the next 12 months.
NEGATIVE	The sector is expected to underperform the overall market over the next 12 months.